ASYMMETRIC INFORMATION, MORAL HAZARD AND MANAGEMENT BEHAVIOR: A PRELIMINARY LOOK

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Abstract

Societal expectations of corporations have grown exponentially over the last several decades. Increasingly, the public expects corporations to be successful in achieving both financial and social objectives. Investors and other stakeholders consider companies in terms of the "double bottom line," reflecting financial and social objectives. Thus, the corporate/society relationship depends on authenticity, integrity and symmetry of knowledge. The recent scandals in the corporate environment and the subsequent downturn in the stock market have created disillusionment with the investment arena. In other words, the volatility of the market could be a result of fluctuations in symmetric information and a waning belief in corporate integrity. This study is a preliminary exploration of beliefs of managers regarding ethical/unethical expectations in organizations, and the effect of asymmetry of information on managerial confidence.

Introduction

The poor performance of the U.S. Stock market during 1999-2002, the implosion of many dot.com companies, and the debacle created by Enron, Arthur Anderson, WorldCom and other corporations have created a sense of pessimism in, and disillusionment with, the investment arena. For example, Adelphia liabilities now total $l.6 billion; WorldCom owes its bank approximately $4.5 billion; Tyco has lost approximately 83 percent of its value since December, 2001; Enron has lost $63,101 519 in total shareholder value; and perhaps most startling of all, the nation's stock markets have lost around $5.5 billion in value. Citizens are seriously questioning the integrity of Wall Street and its representatives, creating a crisis of faith in corporate governance and the foundation of public trust upon which it rests. The confluence of specific concerns about excessive executive compensation; weak and unethical leadership; corrupt and misleading financial and investment analyses; complacent boards and questionable accounting practices threatens to undermine the core tenets of American capitalism.

This paper will examine theoretical roots of the current disillusionment in the stock market. Is the problem a principal/agent problem, or is it a problem of asymmetric information between company management and stakeholders?

Volatility in the Market

It has been argued that volatility of stock prices in excess of fundamentals could be the result of fluctuations in information. Eden [1] argued that consumption and dividends are constant in the aggregate, and "good" and "bad" firms are unknown to the public. Further it could be shown that valuation of a constant dividend stream depends on the degree of informational asymmetry. Demski and Dye [2] argue that managers in general have a greater degree of information and control over their output. For example, if the principals design a compensation package in such a way that would be restricted to linearity in the sample mean and sample variance of the manager's output, the agency problem may be ameliorated. A recent study [3] showed that when there is asymmetric and incomplete information, agents negotiate the terms of trade, and due to competitive factors, both sides have identical opportunity costs of delay in establishing an agreement. Additionally, another study suggested that the overall risk premium in the United States stock market was perceived to be much lower by investors because they [4] believe that the Fed will intervene to correct the downside slide of stocks, but not the rise. This creates a form of insurance known as the "Greenspan put." This misperception could have led to gross overvaluation of the market.

Agents and Moral Hazard

Moral hazard and investor asymmetric information could be the cause of many of the negative feelings of investors towards companies today. The idea of moral hazard started with insurance. For example, individuals who are insured may care less about guarding their property, or may act in a manner that would be less than fully rational without insurance. In the case of business, when a company's management receives call options to perform in such a manner, its downside risk is zero, absent long-term possible firings that may result in poor performance of the company, since the agent has not been paid the price option premiums. However, this may not affect all levels of management and certainly and will only happen in the long run.

Stock Prices and Asymmetric Information

Investors in the market draw all kinds of information derived from exogenous and endogenous data. The price of a stock, and any private information used, triggers actions by all involved. In the finance literature there is a distinction between various forms of informational efficiency. If the price fully reflects the public, as well as, private information, then it is strong form informationally efficient. If the information only contains the public information, it is semi-strong form efficient, and if it contains only past historical information, then it is weak form efficient. In other words, prices of assets

need to reveal a sufficient level of information that if all private and public information were fully communicated, it would result in the same equilibrium. In the case of symmetric information, when the price of an asset changes in the market, both the buyer and seller of the asset know the true reason for the price change. If one party does not know the reasons for the price change, he/she will try to infer the asymmetric/differential information leading to the change.

A Model for Asymmetric Information

Following O'Hara [5] one can develop a Bayesian model of ethical and unethical behavior for managers. In this model there are uninformed market makers who have lost trust in the announcements made for a company and know that the order flow is correlated with the value of the asset, but do not know the true worth of it. The probability of the value of the asset can be denoted as P which would have a realized value \$. Based on observed data, the investor will calculate a conditional probability that (P= \$) has occurred. The three learning rules will take place as follows:

1) The learning process will assimilate Bayes rule;
2) The process will update information and converge with market prices;
3) Market structure constraints and other factors will affect the
4) decision rule.

Assume that if company agents were disseminating truthful information, the probability of the event would be Pr {data| ethical} and the likelihood of the fact that misinformation has been released, the probability would be Pr {data| not ethical}.

$$\Pr\{data\} = \Pr\{data \mid ethical\} \Pr\{ethical\} + \Pr\{data \mid not\ ethical\} \Pr\{not\ ethical\}. \qquad (1)$$

The probability of the agents being truthful and ethical and being untruthful and unethical has symmetric property and therefore according to Bayes Rule:

$$\frac{\Pr\{data|ethical\}\Pr\{ethical\}}{\Pr\{data|ethical\} \Pr\{ethical\} + \Pr\{ethical\ |not\ ethical\} \Pr\{not\ ethical\}} \qquad (2)$$

In equation 2, based on Bayes Rule the probability that ethical information has been communicated given the observations gives the posterior probability and the denominator in equation 2 gives the marginal likelihood that the event has been truthfully and ethically reported.

One can decide on putting values on the probability of truthfulness versus untruthfulness and see how the market reacts to changes in these values. In some economies the probability could be low as it is in the U.S., and the ethical and legal shocks will push the market to adjust trading to the point that prices will be definitely affected by the news of any unethical behavior.

Survey

The survey was administered to mid-level and executive managers in the Southeastern United States. These companies were all U.S. companies or foreign affiliates with Southeastern U.S. headquarters. A total of 159 surveys were returned and the analysis below is based on the response rate received.

Demographic Information

The survey respondents were almost equally distributed between males and females. This eliminates potential gender bias in the analysis. With regard to age, the respondents were younger than anticipated, with 54 percent under the age of 30 and 45 percent between the ages of 30 and 40. The ethnicity displayed a pattern of 2/3 of the respondents as American with the remainder distributed between 21 other countries. With regard to race, 2/3 of the sample described themselves as Caucasian, with the remainder of the group being African-American or Hispanic.

As far as work and managerial experience were concerned over 10 % of the respondents were very experienced and had over 15 years of work experience. Another 25% had over 11 years of work experience with the largest percentage, 33%, having over 6 years of work experience. The remainder had less than 5 years of work experience.

Organizations and Ethical Behavior

Forty percent of the sample worked for a publicly traded company. The rest worked for either a privately owned or an entrepreneurial organization. In this group over 1/3 of the respondents were executives or mid-management level, with forty percent describing themselves as professional, non-management. The remainder considered themselves to be in entry-level positions. Table One illustrates the responses to questions of ethical or illegal activity. The data show that the degree of unethical activity in the organizations was much higher than illegal activities. Over one fifth of the respondents had committed what they perceived to be unethical activities. Their immediate supervisors had initiated or ordered most of these activities. Interestingly, peers and coworkers were a strong second category to supervisors. When asked why they acquiesced to these requests, 83% answered that they thought it was in the company's best interest or for purposes of self-aggrandizement.

Table 1:
Unethical and Illegal Activity

	Yes, many times	Yes, occasionally	No, never	Immediate Supervisor	Other Company official	Peers	Subordinates
Organization ever ask you to do anything unethical?	4%	21.6%	74.4%	65.0%	9.0%	19.5%	6.5%
Organization ever ask you to do anything illegal?	1.5%	8.5%	90.0%	50.0%	8.3%	33%	8.3%

Knowledge of Unethical Acts or Misinformation

The perception of activities associated with companies in the media was important in understanding the ethical perceptions among managers. Based on what they had heard about certain companies, the group was asked whether they thought it might happen to their companies. Their responses are summarized below in Table Two.

Table 2:
Perception on Downfall of Companies

	Yes, very Likely	Unlikely but possible	Highly unlikely	Greed	Lack of government oversight	Lack of board supervision	Poor internal controls
Events could happen to your company?	8.0%	48%	44%				
What led to legal and ethical problems?	-	-	-	46%	8.0%	11%	35%

The data show that the majority of the respondents (92%) believed this would not happen to their companies. An overwhelming majority of these individuals also believed that greed and poor internal controls were responsible for the downfall of Enron and the other companies mentioned above. The respondents' views on the issue of public information are shown in Table Three.

Table 3:
Responsibility on Dissemination of Information

	Yes, public knew almost nothing	Yes, but, there were warning signs.	No, caveat emptor	Company Executives	Government Agencies	The Media	Market Analysts
Public should have had information prior to media exposure.	51%	36%	13%				
Who should have provided information to stakeholders?	-	-	-	72%	8.0%	7.0%	13%

The results show that the respondents believed that even though there was some information that may have been known, the overall knowledge of the general public was scarce and the events took them by surprise. In addition they believed that company executives were deceitful in not disclosing the appropriate information, and that they should have disseminated the information to the public, rather than the government or the media. When the respondents were asked to indicate who was responsible for their own company communications, 43% responded that it was either conducted by the CEO, COO, or the CFO of their respective companies. The respondents also indicated that television, radio and other media provided very little pertinent information about their company to the public.

Influence of Recent Events on Public Confidence

The research investigated whether the degree of confidence among American managers was reduced due to the negative publicity caused by company scandals. The respondents wee asked several questions concerning their level of confidence in the corporations. The data in Table Four clearly indicate that the degree of confidence for these managers has not been jeopardized by recent scandals. For example, over two-thirds believe that the scandals did not affect their confidence in their companies. Moreover, the respondents (55%) did not think that American managers provided more complete or accurate information than managers in other multinationals outside the United States.

Table 4:
The Degree of Confidence

	Yes	No	Somewhat
Level of confidence in ethical/legal condition of your company negatively affected by recent events?	15.5%	66.5%	18%
Level of confidence in the financial condition of your company negatively affected by recent events?	13.0%	68%	19%
Belief in the accuracy of information communicated by your company negatively affected by recent events?	16%	63%	21%
Information provided by American corporations more complete and accurate than that provided by foreign multinationals?	29%	55%	16%

Conclusion

Throughout the 20th century, debates and disagreements have arisen over the role and influence of the modern corporation in society. The perspective that corporate management is responsible for the social impact of its activities, as well as for its economic and financial results, is well entrenched [6] [7]. Moreover, societal expectations regarding responsible behavior have grown exponentially over the past three decades. Increasingly, the public expects corporations to be successful in achieving both financial and social objectives. More specifically, it is the outcomes and results, as well as policies and intentions, which are the ultimate purpose of business. A complementary trend has been directed toward the relationship between the corporation and its interdependent, multiple stakeholders, who can and often do, affect the ultimate level of success of the organization [8]. Further research indicates that corporate service to the community and implementing good operating stakeholder practices are key strategies, which lead to successful financial performance and to overall organization performance [9].

Therefore, in the global economy citizens have come to expect, and in some cases, to demand, that organizations act in a socially responsible manner. Specifically, stakeholders demand products, which are safe and operational; they rely on honest and complete information; and they assume that full access to relevant information will be available to all stakeholders. In other words, the relationships between and among corporations and multiple stakeholders depend on authenticity, character, integrity and symmetry of knowledge [10]. Conventional wisdom would assert that current scandals, arising from certain unethical and illegal behavior on the part of corporate executives and managers, undermines societal integrity and the foundation of public trust and interdependence upon which a capitalist system is built and maintained.

Nevertheless, the results of this study do indicate that undesirable behavior continues to be a part of the corporate environment. Over 25% of the respondents revealed that they had been asked to engage in unethical behavior. However, the more encouraging result is that almost 75% indicated that they had not been asked to do so. With regard to illegal acts, the results are even more positive. An overwhelming 90% replied that they had never been asked to act in an illegal manner. These results taken together indicate that in this sample, the majority of these corporations have not asked their employees to engage in corrupt activities. This is a mutually advantageous aspect of the organizations' environment. It suggests an environment which not only offers more protection and security for the employees from undesirable corporate expectations, but also, one that also protects the corporation from possible abuse by unethical employees and competitors. Not surprisingly, however, when they were requested to indulge in illegal or unethical behavior, it was at the request of their immediate supervisor with whom they would be in close contact. Moreover, the significance of peer pressure is apparent, particularly with regard to the conduct of illegal activity. A disturbing indication, however, is that the large percentage of respondents, who actually engaged in either unethical or illegal acts, did so because of self-aggrandizement or for the good of the company. These results support other research, which indicates that selfish interests and or competitive pressures are major reasons for ethical and legal problems in business. This study's results would suggest perhaps that for these survey respondents, the presumed rewards outweighed the possible risks. Furthermore, these results also may indicate that in these cases an ethic of individuality trumps the idea of the public good.

Stakeholders expect business to exhibit high levels of ethical performance, and one of the most significant ethical principles is the caveat: do no harm. Being ethical imparts a sense of trust and promotes positive alliances among business partners. Therefore, companies that fail at this public demand are often spotlighted, criticized and penalized. One would naturally assume that the media attention would heighten concern over the ethical and legal lapses of the business community, in general. However, this study did not indicate a transfer of general concern to individual companies. An overwhelming number believed that their own companies would not fall victim to the same fate as those companies currently in the spotlight. These results, perhaps, indicate that the respondents are intensely loyal to their employers and trust in their mechanisms for corporate governance. Since these respondents also believe that the current corporate woes are the result of greed and poor internal controls, the responses indicate faith that their companies will avoid those mistakes.

Symmetry of knowledge is an important tenet in a democratic, capitalistic system. The responses to the survey support the importance of this characteristic. The majority of respondents stated that the public should have been provided with more information regarding the conditions of certain companies prior to media exposure. Only a small percentage believed that it was not necessary. However, the vast majority also believed that information should have been provided to stakeholders by company executives and market analysts. Only a small number of respondents believed that government agencies *or* the media should be responsible for providing the relevant information. Once again, the responses indicate a stronger reliance on the company rather than on outside entities.

Results from the survey also indicated that the level of confidence in the ethical/legal financial conditions of their corporations were unaffected by the scandals. In addition, while the respondents also continue to believe strongly in the veracity of their own corporate communications, they did not believe that the information disseminated by American corporations was any more accurate that that provided by multinationals in other parts of the world. This is interesting because of the reputation for openness and egalitarianism that is usually enjoyed by the American culture. At least at the corporate environment, perhaps cultural and social distances are being abridged.

In summary, the results of this study show that while the abuses conducted by several major American corporations are distressing and unattractive, the perceptions of the respondents have been largely unaffected. They had a strong belief, for the most part, that their organizations were not guilty of unethical or illegal behavior, and they retained their confidence that egregious breaches of such behavior were unlikely to occur in their environments. This lack of effect may indicate desensitization toward the misfortunes of other members of the labor force. Or, perhaps it is an example of a circling the wagons or head in the sand mentality—focusing on individual concerns rather than on concerns of the broader community. This result reinforces responses related to confidence and trust in the organization.

Distrust in the ethical and legal behavior of the corporate community can have a deleterious effect on that community's reputation, financial stability and ultimate survival. If the public no longer believes in a corporation as worthy of investment, then that investment may be withdrawn and ultimately can threaten the market system. Thus, the present study serves as a preliminary look at asymmetric information and potential cascading effects. Obviously, many questions remain to be investigated on the role of asymmetric information and its effect on stakeholder behavior, including compromise of personal ethics, increased tolerance of unethical actions, and increased suspicion and abandonment of financial markets. This study should be viewed as a starting point in that investigation.

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