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Jesus R. Jimenez-Andrade
Texas A&M University-San Antonio, jandrade1@tamusa.edu

Timothy J. Fogarty
Case Western Reserve University

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Jesus R. Jimenez-Andrade [*],
Timothy J. Fogarty [**]

* *Corresponding author*, College of Business, Texas A&M University-San Antonio, the USA
Contact details: College of Business, Texas A&M University-San Antonio, Texas, 78235, the USA
** Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio, the USA

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Abstract

All organizations confront the possibility of scandal; however, the reputational threat caused by scandal is exacerbated when these events are not properly addressed. Since scandals also have the potential to adversely affect organizational personnel, dilemmas arise regarding traditional ideas of employee agency. In this study, we conduct an experiment manipulating the severity of the reputational threat and its financial consequences for decision-makers, using actual corporate officers and internal auditors. One key question is this: "Are corporate decision-makers' responses to potential scandals affected by whether they, as incentivized individuals (via stock options), have "skin in the game?" Findings indicate that corporate personnel believe corporations should respond aggressively to scandals having potential reputational consequences; however, they prefer not to proactively respond to reputational threats when expected personal gains are likely to be jeopardized. Internal auditors, by contrast, are less sensitive to personal gains. An archival supplementary analysis supports these findings by suggesting that equity compensation was 17.7% higher before a severe reputational event.

Keywords: Executives' Attitudes; Executives' Compensations; Reputational Threats; Equity-Based Compensations; Internal Auditors

Authors' individual contribution: Conceptualization – J.R.J.A., T.J.F.; Methodology – J.R.J.A., T.J.F.; Formal Analysis – J.R.J.A., T.J.F.; Investigation – J.R.J.A.; Writing – Original Draft – J.R.J.A., T.J.F.; Writing – Review & Editing – J.R.J.A.; Resources – J.R.J.A.; Visualization – J.R.J.A.; Supervision – T.J.F.; Funding Acquisition – J.R.J.A.

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1. INTRODUCTION

Business history includes a plethora of instances where an organization is confronted with a situation that threatens a severe reputational injury. Often business decision-makers make a potentially dangerous situation worse by failing to address the problem proactively and with the appropriate degree of transparency. The correct response may be difficult to formulate, in part because decision-

makers do not possess all the information about what occurred. They cannot clearly foresee how stakeholders will react to such dynamic situations, and the correct responses can often only be seen in retrospect.

Modern organizations are complex entities, and much of what needs to be done falls on relatively low-level actors (Uhl-Bien & Arena, 2017). Specialized expertise or critical positioning necessitates the exercise of discretion. On some occasions, such judgments are not in the interests of the entire organization, especially as they attempt to navigate in harmony with the public interest. Lower-level agents also possess an idiosyncratic time horizon that favors actions featuring short-term advantages over those with the potential to work to the organization's long-terms advantage (Shaikh, Drira, & Hassine, 2019). Intentionally, our material explores the factors and consequences of such idiosyncratic behavior.

When questionable actions have been taken by and on behalf of an organization, higher-level officers possess a range of possible responses. These options vary in their capacity to correct the situation and its likely consequences; accordingly, the options present a set of potential costs to managers. Typically, more aggressive treatments will involve much more expense than options that implicitly suggest the problem is minor and unlikely to result in serious negative consequences.

For many years, research literature has focused on the fact that executive compensation has been based on the notion of goal congruence: corporate officials are best motivated when they are compensated in alignment with corporate results (Eisenhartd, 1989). When key decision-makers stand to share in the good fortune of the company they manage, they are thought to maximize shareholder interests (Jensen & Meckling, 1976; Jensen & Murphy, 1990). However, these axiomatic assumptions may cloud how officials react to reputationally sensitive events. Choices that are costly in the short run may be less favored if their use has significantly negative personal wealth consequences for decision-makers. In other words, doing the right things may be more difficult when it cannot be done entirely with other people's money.

Because of the tremendous complexity involved in executive compensation and the mechanisms used to maximize investor wealth, this bias may negatively affect the efficacy of equity-based instruments. This is mainly because stock-based compensation creates controversy in the academic arena: for example, offering shares to executives promotes risk-sharing alongside shareholders and helps maximize overall organizational performance. This alleviates some agency problems (Eisenhardt, 1989) and prevents over-focusing on short-term revenue growth. Also, executives are financially stimulated to maximize their own interest and, conversely, investors' interest (Dalton, Hitt, Certo, & Dalton, 2007; Jensen & Meckling, 1976). Besides these two major benefits, a number of scholars have found that such compensation mechanisms yield other benefits, especially for executives working in capital markets (Certo, Daily, Cannella, & Dalton, 2003; Core & Larcker, 2002; Mehran, 1995; Yermack, 1997).

In contrast to all suggested benefits, scholars have also noted negative behavioral consequences associated with using equity-based compensation. Because of the compensation design, executives earn economic benefits when prices increase; however, they do not fully participate in losses when stock prices decrease below a given price threshold. Under these agreements, executives are inclined to take greater risks (with resulting extreme gains or losses) with the anticipation that their losses will be limited (Martin, Wiseman, & Gomez-Mejia, 2019; Sanders, 2001; Sanders & Hambrick, 2007). Another finding suggests that the risk of fraudulent behavior by executives to manipulate unhealthy earnings (Bergstresser & Philippon, 2006) may increase as the end of the stock-option period approaches (O'Connor, Priem, Coombs, & Gilley, 2006).

To address this controversy, the primary goal is to understand the reputational consequences of using equity-based compensation for executives responsible for the risk-decision process. This is achieved by extending the risk-taking behavioral models that arise as a consequence of aligning incentives using stock options (Connelly, Lee, Tihanyi, Certo, & Johnson, 2019; Martin, Wiseman, & Gomez-Mejia, 2019; Lovelace, Bundy, Hambrick, & Pollock, 2018). This research is primarily concerned with the impact of equity-based incentive compensation mechanisms on executives' responses to scandals.

The applied methodology consists of a realistic simulation based on a risk-bearing decision with potential reputational consequences. In addition to possible manipulation of the compensation received, research also focuses on the magnitude of the reputational threat facing the company. This is predicated on the belief that decision-makers are able to calibrate their actions to the demands of the events they face, and that there can indeed be a correlation between total compensation and event severity.

Not all corporate decision-makers are equal. For these purposes, two groups can be distinguished. Most prominently, high-level executives with a great degree of control over corporate direction tend to be directly compensated for corporate performance, but have jobs not limited to risk management (Agle et al., 1999). In contrast to those individuals, internal auditors tend to be more focused on protecting the company, but are less likely to have performance-based compensation (Dezoort et al., 2000). By using both of these groups, the research assesses whether corporate position matters to the decision at hand.

Anticipating the main conclusions to be drawn, the research findings indicate that the equity-based compensation covered in the agency theory literature may not work as expected in the effort to safeguard the reputation of companies. This is a consequence of executives' mindset that expected economic goals should be achieved regardless of the reputational components in the decision-making process. To some extent, stock compensation operates well in aligning incentives to maximizing shareholders' value, but its effects can be restricted in the reputational risk-bearing arena.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Creating a conceptual framework for understanding executive behavior is a complex task (Kole, 1997). To mitigate arguments about the behavioral factors involved, the theoretical background focuses on models of agent-principal conflicts as they pertain to incentives and behavioral decision-making processes which determine how organizations address risk and uncertainty. The agency theory explores the correlation between managers' behavior and the interests of the institution, largely through the prism of organizational incentives. Specifically, this theory evaluates the consequences of incentives/objectives that are not identical or symmetrical (Fama & Jensen, 1983a, 1983b). Essentially, the problem is that managers may not share the owners' desire to maximize returns; therefore, systems must be established to control or monitor agent behavior. Once proper economic motivations are in place, behavioral decision-making models facilitate understanding how corporate personnel react in a prospective money-base environment.

In the agency theoretical realm, stock-based compensation has been a common means of aligning agent incentives with those of shareholders (Jensen & Murphy, 1990). Through share ownership, often made available through stock option arrangements, executives participate in the wealth creation of corporate activities and bear similar risks in its production (Hall & Murphy, 2000; Liljeblom et al., 2011). Unfortunately, agents with company stock are less able to diversify their portfolios and, therefore, are greatly affected by company stock price downturns for shares already held (French & Poterba, 1991; Goetzmann & Kuman, 2008). On the other hand, company executives suffer no actual wealth diminishment for stock price declines on stock options not yet exercised. Consequently, the instrument design imposes intrinsic contractual limitations on managerial personnel participating in the gains as investors.

Restrictions inherent in equity compensation intensify executives' risk tolerance and, conversely, the extent to which their firms are exposed to risk. In agreements designed by the executives, risk exposure is accentuated (Conrad, 2015). This occurs largely because managerial decisions lean toward an "expected profit-protection attitude" intended to improve future stock performance (Shi, Connelly, Mackey, & Gupta, 2019).

In terms of assuring prospective equity performance, executives manifest lower risk-prevention attitudes. For example, share-price contracts discourage whistleblowing (Rose, Brink, & Norman, 2018). Expected profit-protection raises the level of certain risks, including reputational risk. Hence, shares-based mechanisms also encourage unanticipated risk scenarios involving agents who expect future gains.

Companies exist in a world where many things could go wrong and cause them to suffer reputational losses. Most of these events have a low probability of occurrence; in addition, some can be readily mitigated by routine corrective action. Therefore, reputational threats do not always become reputational scandals. If systems are functioning well, threats are contained, allowing higher-level corporate officers to ignore the specifics. At other times, discrete involvement by higher-level agents becomes necessary. Decision-makers' attention can be required even if the outcome they select is to ignore the situation and to take no action at the present time. In this process, they have to deal with the unknown, and probably understated, cost of containment as well as the reaction of external parties. The objective is to prevent a scandal from developing since scandals involve ballooning costs and snowballing reactions by others.

Aside from the profit-protective attitude, it is expected that reputational threats will be evaluated based on severity. There is a tendency to maintain business future stability as part of the expected managers' capabilities (Shaikh et al., 2019). The preventive response should be based on risk categorization. People with experience with corporate risks should be expected to react with more forcefulness to threats that are more likely to happen, are more important to critical stakeholders and the media, and involve possible damage to important areas of ongoing business. This interaction expectation is captured by the following hypothesis.

H1: Corporate personnel will support more proactive scandal responses when the company is confronted with more severe threat situations.

H1 posits a "rational" reaction in which the response matches the stimulus in degree; however, other elements may enter into decision-making. Spending shareholder resources (perhaps extravagantly) in a conservative effort to minimize risk and avoid embarrassing scandals at all costs might be a viable strategy. However, such a posture might be tempered by its projected impact upon an individual's personal wealth. Corporate officers with large holdings of company stock may realize that their personal wealth will be adversely affected by threat reactions that are inordinately expensive. When they realize that they are, at least in part, spending their own money, they may pursue less expensive strategies to deal with reputational threats. In doing so, they essentially exhibit greater willingness to take the risk that their response may not be adequate for the threat involved.

H2: Corporate personnel will support less proactive scandal responses when confronted with potentially greater personal financial losses.

If we believe that corporate officials take their professional duties very seriously, the inter-relationship between *H1* and *H2* becomes apparent. The qualitative difference between severe organization-jeopardizing events and others may be so prominent that they alter how readily decision-makers allow themselves to think about personal wealth consequences. With less at stake, a more balanced set of factors may come into play, allowing methods of compensation to be more salient.

H3: When scandal threats faced by an organization are more severe, the degree of potential personal financial losses will be less consequential in determining the level of corporate response.

Top executives are not the only participants engaged in the risk management process: internal auditors are effectively charged with protecting the organization, often from itself. These individuals are

less likely than top executives to have equity-based compensation, and are perhaps purposefully trained to be very conservative in their orientation toward risk. The relative amount of "skin in the game" can be seen as making it difficult to see the full magnitude of the potential threat. Having two groups in the mix of decision-makers enables empirical questioning based on differences in organizational position. This yields the following two-fold hypothesis.

H4a: High-level corporate executives' support for scandal decisions will be more influenced by potential personal financial losses than will internal auditors' support for those decisions.

H4b: Internal auditors' support for scandal decisions will be more influenced by relative severity than will corporate executives' support for those decisions.

The scope of research into these phenomena is somewhat ambitious. Two factors can be manipulated, one of which is more obviously rational than the other. People should respond in proportion to the scale of threats if they are to do their best to protect their organizations. However, the personal financial consequences of doing so must be considered in the current regime of equity compensation for corporate personnel. How individuals balance these objectives may be related to their current organizational capacity.

3. METHODOLOGY

There is a central challenge embedded in studying individuals' behavior as they weigh the risk of reputational events that have not yet occurred: conceptually modeling uniform settings that a certain person would perform given certain conditions. This study meets that challenge by explaining the research methodology and, in addition, the motivation and details behind simulating a reality-based problem that participants might face. Then, as necessitated by certain observed characteristics, there is a description of the administering process used to collect responses, followed by an analysis of the target group and the differentiating process. Lastly, a supplementary section in the research design, intended to enhance the quality of the findings, is explained. The objective of this addendum is to explain how the challenges of inquiring about individuals' responses to a hypothetical problem are overcome.

Completion of a successful study required thorough control over data regarding corporate practices and reputation-threatening events. Rigorous control over the great variety of corporate practices and threatening events was necessary to achieve. This precluded the use of a survey since the differing relevant environments of practice could never be sufficiently captured. An experimental approach was taken to achieve some degree of homogeneity and simplification, and as a way to reduce the sensitivity and confidentiality problems involved in making inquiries into actual situations (Ashton & Kramer, 1980; Gibbings & Salterio, 1996; Smith, 2014). Given the basic nature of the hypothesis involved, we believed that effective hypothetical manipulations could be designed and administered.

Reputational threats from the revelation of scandalous facts can occur at any point during a product life cycle; however, the introduction of a new product seems to be a uniquely sensitive moment. Despite vigorous pre-testing of new products before their launch, the release of something new into the market can be seen as a much broader challenge for product functionality and safety; therefore, concerns about new products form a large part of the reputational risk faced by a company. This sensitivity is especially pronounced in the pharmaceutical industry because new drugs can sometimes produce unpredictable reactions (Allen, 1984). In this industry, the inadvertent harm done can be enormous in magnitude, and simple recalls of the product are not always very effective. Pharmaceuticals are heavily regulated in most countries, but the burden imposed by such regulation varies by country (Chen, 2015).

Subjects were given a hypothetical scenario involving a hair-growing pill intended to remedy male pattern baldness. Reports of unpleasant side effects were made following the initial sales of the drug in a regulatory market that is more flexible than in the United States. Subjects were asked for their reaction to a Board of Directors' recommendation that one of three levels of action (total recall, partial recall, no recall) be implemented. The health repercussions of the news served as the first manipulated variable. Two levels of severity involving the qualitative degree of unpleasantness and the likelihood of occurrence were applied. The high-severity case involved a combination of reduced sexual performance, nausea, headaches, and somnolence for one of every six users. The low-severity case involved poor drug effectiveness in one of twenty cases.

Participants were asked to indicate a level of support for a decision, rather than to make a decision, in deference to the observation that responses to reputational threats are typically group decisions made at the highest level of corporate governance. In other words, supporting the decision of someone with more responsibility and power within the company is closer to the actual involvement of the participants. This design features also reduces the degree to which the decision might be influenced by espoused ethics or social desirability.

Because subjects were hypothetically vested with wealth positions constituting a large and growing block of company stock, the expected decline in value of the corporate stock was designed as an index to that sensitivity to the potential for personal financial loss. Decreases in stock price of 22.5%, 7.5%, and 0% were used to distinguish levels of financial loss that would accompany a total recall of the product, a partial recall, or no recall respectively. The manipulations of threat severity and expected economic consequences were meant to provide data to test *H1 – H3*.

The test of *H4* is accommodated by the nature of the respondents. Approximately half the respondents were "C-suite" corporate executives; the other half were internal auditors. This made a formal consideration of occupational group differences possible: corporate positions had not been assigned to participants, but instead were stated as attributes they possessed, so it need not be

considered part of the experimental design. Since the distinction involved in *H4* is a partition, the cell array should be considered a 2x3 composed of threat severity (within-subjects) and personal economic loss potential (between-subjects).

Manipulation checks established that subjects understood the undesirability of the early product performance results on human health, and of the lack of desired effectiveness results attributed to the product. They also understood the relative financial costs of the three choices available to the board of directors.

Subjects were recruited for the experiments by one of the authors, aided by contacts made for a previous project involving "C-Suite" executives by that author. Internal auditor participation was facilitated by an endorsement by the Institute of Internal Auditors. We sought a sample as equally divided across the two groups as possible. Obtaining subjects whose work positions did involve responses to reputational threats was typical was critical to the research (Csikszentmihalyi & Larson, 2014).

The instrument was delivered through the internet using Qualtrics to control the order of cues seen by the subjects. Each subject saw two scenarios involving both the low- and the high-severity situations. For both, subjects were asked to assume their current capacity by for a hypothetical pharmaceutical company with a new hair loss product. Subjects were hypothetically vested with a compensation package that included stock options with significant past gains.

Supplementary analysis enriches the research methodology. The central hypothesis refers to the managerial reaction to uncertainty facing unknown reputational consequences and potential personal losses. To validate the findings, an additional segment tests archival data from known events and the differences with a peer group without such data. The collected data contains archives relative to the recall of 164 Class I life-threatening drugs from 2012 to 2017 by the Food and Drug Administration (FDA). This is because life-threatening products have high media coverage and negative financial impact over organizations (Chen, Ganesan, & Liu, 2009; Baucus & Baucus, 2009). From this sample group, we gathered the pre-event stock option CEOs' compensations. Once the gathering process was completed, a similarly sized sample of peer companies (164 cases) compares the executives' compensations of both groups. The comparison is run using a non-parametric ANOVA test. The overall intention pursues not only instrument validity but also the robustness of the theoretical hypothesis. Stock options compensation was obtained from Compustat Execucomp. Consequently, recalling-firms represent the high-risk scenario, the control group, the low reputational risk, and the compensation, the economic component.

4. RESULTS

The 180 participants were composed of 71 females (39%) and 109 males (61%). The average experience of members of the group was more than 16 years of work, and over 62% of the participants held a professional certification. An equal number of participants (90) were in the high-level corporate executive group and in the internal audit group. The internal auditors were more heavily female than the executives (46% compared to 33%), but were almost as experienced (15 years versus 17 years). As expected the executive were less likely to be credentialed (36% compared to 89%).

Overall, the respondents supported (agreed or strongly agreed on a five-point Likert scale) with the decision made by the Board of Directors in 46% of the instances. This varies from 47% regarding the more severe reputational threat case to 44% in the less extreme scenario. The executives tended to agree less often than the internal auditors in both the extreme (38% compared to 57%) and the less extreme instances (33% compared to 54%). For both scenarios, agreement was more common than strong disagreement, but there were no significant differences across these two response categories for either participant group. Along similar lines, strong disagreement was relatively rare, reaching a high of 17% for the executive group in the less extreme case.

H1 studied the main effect of severity. We anticipated that the respondents as a group would more likely fall into line with the board of directors' decision regarding the scenario that presented a greater reputational threat. Table 1 details the results of this main effect. Means of 2.93 for the first scenario (involving serious problems) and 3.00 for the second (involving less serious ones) were produced. These were not significantly different at the $p<.05$ level; thus, no support existed for *H1*.

Table 1. Corporate personnel responses to the severity of the reputational threat (low – high)

Panel A. Descriptive statistics					
	Mean	***SD***	***N***		
Severity – Low	2.30	1.398	164		
Severity – High	1.93	1.364	146		
Panel B. Homogeneity					
	Levene's	***F***			
Based on Mean	0.076	0.783			
Based on Median	0.038	0.843			
Panel C. Main effects					
	df	***MS***	***F***	***P-value***	η_{ω}^2
Intercept	1	1584.2	830.3	**<.001**	0.823
Severity – *H1* (Low – High)	1	0.2	0.105	0.746	0.001
Error	178	1.908			

*Note: * Bold numbers with significant statistical p-values <.001, <.01, and <.05*

Table 2 involved the impact of personal financial losses due to the fall in stock value precipitated by a recall action. *H2* expected that the severity of such losses would be inversely correlated with the magnitude of support for an extreme corporate reaction (that also would be the most expensive option available). The results confirm support for the expected effect. Participants tend to lessen their support for the board of directors' position when they have information about a large reduction of stock value as a result. The difference in means is significant at p<.05.

Table 2. Corporate personnel responses' main effects: personal economic losses

Panel A. Descriptive statistics					
	Mean	***SD***	***N***		
Economic Losses of 22.5%	2.27	1.287	60		
Economic Losses of 7.5%	3.43	1.125	60		
Economic Losses of 0%	3.20	1.436	60		
Panel B. Homogeneity					
	Levene's	***F (2/177)***			
Based on Mean	3.435	**<.05**			
Based on Median	2.742	0.067			
Panel C. Main effects					
	df	***MS***	***F***	***p-value***	η_p^2
Intercept	1	1584.2	953.5	**<.001**	0.843
Economic Losses – *H2*	2	22.9	13.8	**<.001**	0.135
Error	177	1.661			

*Note: * Bold numbers with significant statistical p-values <.001, <.01, and <.05*

H3 is an interaction involving the two main effects of the first two hypotheses. Here the expectation is that the severity of the event will change the impact of the financial loss on support for the board's decision. Table 3 details the tests of this expectation.

Table 3. Main interaction effects of executives' responses

Panel A. Descriptive statistics									
	Severity – Low			***Severity – High***			***Total***		
	Mean	***SD***	***N***	***Mean***	***SD***	***N***	***Mean***	***SD***	***N***
Economic Losses – 22.5%	2.23	1.305	30	2.30	1.291	30	2.27	1.287	60
Economic Losses – 7.5%	2.67	0.884	30	4.20	0.761	30	3.43	1.125	60
Economic Losses – No	4.10	1.242	30	2.30	0.988	30	3.20	1.436	60
Total	3.00	1.398	90	2.93	1.364	90	2.97	1.378	180
Panel B. Homogeneity									
	Levene's	***F (5/174)***							
Based on Mean	2.315	**<.05**							
Based on Median	1.215	0.287							
Panel C. Main interaction effects									
	df	***MS***	***F***	***p-value***	η_p^2				
Intercept	1	1584.2	1312	**<.001**	0.883				
Economic Losses	2	22.9	18.9	**<.001**	0.179				
Severity (Low – High)	1	0.200	0.1656	0.685	0.001				
Economic Losses x Severity – *H3*	2	41.9	34.668	**<.001**	0.285				
Error	174	1.2							

*Note: * Bold numbers with significant statistical p-values <.001, <.01, and <.05*

As anticipated by our interaction hypothesis, the relative severity of the corporate scandal creates a different environment for assessing the impact of personal financial losses incurred by participants. When severity is high, participants are less willing to accept personal losses (M = 2.3, SD = 1.291), even if this means questioning the board's recommendations. This effect is significant at the p<.05 level and provides support for *H3*. Along similar lines, one can say that lower severity allows participants the opportunity to bear their financial losses when given the opportunity to support or question the board.

The final hypotheses pertain to group differences in sensitivity to the two manipulations. We expected that corporate executives would be more influenced by their potential financial losses and less by the severity of the scandal. On the other side of the same coin, we expected that auditors would be less influenced by personal financial losses, and would respond more strongly to the severity of the situation. The results show that occupational group differences are quite salient in the economic perspective. As summarized in Table 4, internal auditors much more readily agree to a full and costly product recall (M = 4.28, SD = 0.976) than did the executives (M = 2.27, SD = 1.287). Less extreme actions recommended by the board did not exhibit such sharp group disagreement. This first difference (significant at p<.01) supports *H4a*. Instead, threat severity was roughly equivalently evaluated as important by both groups (p>.05); thus, *H4b* is not supported.

Table 4. Between corporate roles: responses' main effects

Panel A. Descriptive statistics									
	Executives			*Internal auditors*			*Total*		
	Mean	*SD*	*N*	*Mean*	*SD*	*N*	*Mean*	*SD*	*N*
Economic Losses – 22.5%	2.27	1.287	60	4.28	0.976	60	3.28	1.523	120
Economic Losses – 7.5%	3.43	1.125	60	3.43	1.212	60	3.43	1.165	120
Economic Losses – No	3.20	1.436	60	2.67	1.548	60	2.93	1.510	120
Total	2.97	1.378	180	3.46	1.424	180	3.21	1.421	360
Severity – Low	3.00	1.398	90	3.59	1.253	90	3.29	1.357	180
Severity – High	2.93	1.364	90	3.33	1.572	90	3.13	1.481	180
Total	2.97	1.378	180	3.46	1.424	180	3.21	1.421	360
Panel B. Main interaction effects – Economic losses									
	df	*MS*	*F*	*p-value*	η_p^2				
Intercept	1	3718.5	2276.2	**<.001**	0.865				
Role (Executives – Internal auditors)	1	22.0	13.5	**<.001**	0.037				
Economic Losses	2	7.8	4.8	**<.01**	0.026				
Roles x Economic Losses – *H4a*	2	54.3	33.2	**<.001**	0.158				
Error	354	1.2							
Panel C. Main interaction effects – Severity (Low – High)									
	df	*MS*	*F*	*p-value*	η_p^2				
Intercept	1	3718.5	1892.8	**<.001**	0.842				
Role (Executives – Internal auditors)	1	22.0	11.2	**<.001**	0.031				
Severity (Low – High)	1	2.3	1.2	0.276	0.003				
Roles x Severity (Low – High) – *H4b*	1	0.8	0.4	0.523	0.001				
Error	356	2.0							

*Note: * Bold numbers with significant statistical p-values <.001, <.01, and <.05*

As stated in the methodology, a supplementary analysis enriches the quality of the findings. Because the experimental instrument simulates a reality-based scenario, we test the reliability of the instrument and the findings using feasible data from FDA archives and the executives' compensation. Using an ANOVA test, findings suggest that on average executives whose companies recall their products end up with 17.7% higher values in their stock option compensation before the event ($p<.05$). The mean of executives' compensation before the scandal rose to 2.3 million dollars (SD = .8), while in the control group the mean ascended to $1.9 million on average. Therefore, this information enriches the consistency hypothesis: executives who have higher compensation engage in more risk-taking behaviors which could potentially lead to negative reputational events. Table 5 details these findings.

Table 5. Executives' compensations before recall vs. no recall

Panel A. Descriptive statistics					
	Mean	*SD*	*N*		
Recall	3.00	1.398	90		
No Recall	2.93	1.364	90		
Panel B. Homogeneity					
	Levene's	*F*			
Based on Mean	23.2	<.001			
Based on Median	13.9	<.001			
Panel C. Main effects					
	df	*MS*	*F*	*P-value*	η_p^2
Intercept	1	11229	79.8	<.001	.206
Recall	1	2474	17.6	**<.001**	.054
	308	14062			

*Note: * Bold numbers with significant statistical p-values <.001, <.01, and <.05*

5. CONCLUSION

The findings provide valuable information regarding managerial responses to plausible business problems involving companies' reputations, and these findings are grounded in theoretical paradigms. In particular, the research addresses the unexpected consequences which become possible when equity-based compensation agreements influence risk-management decisions. Only when expected personal losses are low (or absent), the severity of the threat resulted consequential in the preventing efforts. Furthermore, results indicate that such behavior could be attributed to the person's professional role (when an internal auditor faced a similar event, financial personal losses were irrelevant). It can be inferred that, when the main agents' driver is the protection of personal profits, the likelihood of reputational scandals increases, compromising the expected "skin in the game" aspect. As a theoretical inquiry into the factors that promote major reputational events, the research contributes to the academic literature regarding the inherent limitations (such as executives' capital loss exclusions) observed as a result of equity-based contracts. The researchers theorized that managerial responses contain an idiosyncratic element (expected financial gains) likely to increase the potential damage of reputational scandals (ceteris paribus). This last element enriches the body of literature suggesting that equity compensation

packages may increase firms' risk exposure because of the executives' behavioral implications (Martin et al., 2019; Shaikh et al., 2019; Shi et al., 2019).

Agency theory, lightly touched upon by this paper, suggests that reputational threats made known to management can be mitigated by aligning the personal interests of executives with the organizations. Usually, goal alignment, the "skin in the game" mentioned earlier, involves ensuring agent motivation for the pursuit of opportunity. This paper's premise is that this should also be expected to properly create goal congruence in risk management. Our findings, created by stipulating the existence of interests involving equity-based compensation packages, do not suggest that agency theory works as expected. Agents, looking at the prospects of an expensive corporate response that will impose personal equity losses, favor less extreme reactions.

Executives mitigate the likelihood of scandal incidents with corrective actions when the severity of the threat is high but the likely harm is inexpensive. When the threat severity is high but personally "affordable," proper corrective measures are accepted. In these instances, gains are earned by corporate actors by falling into line with actions that respond to the threat. These gains can be thought of as shared with investors, whose best interests are served when a forceful response is made. When the opposite factors coexist, when preventive costs exceed personal expected gains, our research interests are heightened. To some extent, executives prefer the uncertainty of not adequately attending to the threat, raising the prospect of an actual scandal. In fact, the decision cost does not jeopardize the executives' incentives, and both investors and executives seek and earn profits by not responding more forcefully to reputational threats. The side effect of not attending to the expensive threat is to increase the organization's reputational uncertainty. Outside investors are likely unaware that current profits contain a reputational uncertainty component promoted by the incentives mechanism put into place for key agents.

The study evidence also suggests that there is quite a bit of difference between agreement in the abstract and agreement when personal consequences are involved. We show that when the stakes are unclear, or when losses are not quantified, all risks are taken seriously. Stock-option compensation can be a key element in predicting corporate responses prior to the scandal's occurrence. When executives' expected personal losses and their personal wealth are compromised, they prefer the scenario which is less costly to the individuals. This implies that the reputational risk-bearing behavior is consistent with the overall business risk attitude under the equity-based compensation environment (Hoskisson et al., 2017).

We also theorized that the amount of expected personal losses will trigger a behavioral reaction that mitigates the likelihood of reputational events. However, the above-mentioned findings indicate that internal auditors are much less sensitive to expected personal losses. The behavior of those individuals manifested an extremely conservative orientation. Such behavior sought to inhibit the occurrence of scandals with the aid of the strongest corporate response. To say that internal auditors are more ethical might be an overreaching conclusion, yet it might be accepted by those who are not highly risk-averse. Thus, internal auditors serve as monitors who potentially compensate for some of the uncertainty facing corporations in the form of reputational scandals.

One could say that this study fails to indicate a departure from a singular correct strategy. The essence of reputational threats is that decision-makers lack enough information to guide them precisely to a reaction bold enough to suggest concern and accepted responsibility, yet not inordinately costly. Circumstances could develop such that the crisis "blows over" on its own accord, or through the emergence of countervailing facts. Less debatable is the fact that, by taking the least expensive decision, the levels of reputational uncertainty increase. Less proactivity translates into leaving more to chance, and hope being substituted for control. Uncertainty is disliked by markets and, even if things are not as bad as they could be, this illustrates a serious misalignment between the interests of executives and shareholders.

Two major theoretical approaches, behavioral agency theory, and reputational risk management collide in the research underscoring the need for further investigation. The concept that agents who deal with reputational threats to their institutions may have conflicts of interest, which potentially interfere with corrective actions in the best interests of those institutions, opens a plethora of investigative opportunities. One suitable research question is this: "What is the optimal level of reputational risk that promotes a healthy environment without compromising growth?" Here is another: "Is equity-based compensation the modest alternative to aligning executives' and investors' incentives to mitigate reputational exposure, or there are better instruments?" Such questions could be pursued as an extension of our contribution.

Aside from the restrictions mentioned in the manuscript, this paper acknowledges the limitations that exist in experimental research. We ask people to respond to a hypothetical set of facts, and we are forced to believe that people take the events we describe seriously. Our manipulation checks determined that people understood the situation presented to them, but that is a relative matter: people could have misunderstood certain aspects as well. This paper has a major advantage in that it accesses people whose work roles match the ones that we ask them to assume in the study. We also know that there have been many scandals, many of them in the industry we use in our hypothetical scenarios.

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APPENDIX

EXPERIMENTAL INSTRUMENT

The pharmaceutical company PharmaWorld Inc. (PHA), No. 9 in the world (about the same size as Bristol-Myers), is one of the oldest and largest organizations in the world. PHA's latest development is a male hair-growing drug without any negative side effects. The drug tests passed the initial clinical trials and are ready for distribution. The drug requires a special permit to be launched in the market. The U.S. Surgeon General has not yet granted approval. In the past, 95% of the times drugs were approved, occasional further testing was required.

In order to generate early revenue to partially offset the huge R&D investment costs while waiting for the last approval, the drug was pre-launched six months ago in South America, the company's third-largest market region, where such approval is not required. Product sales and purchase orders are exponentially growing.

Your ROLE in this exercise is (CEO/Chief Executive Auditor) of the organization. Your compensation, like other PHA's employees, includes salary, stock options, and other employee benefits. Since last year, your stock options have increased by 20%.

During a recent quality control test of the product, the regional operations manager has reported that a product run did not meet appropriate quality specifications. A key chemical component from one of the main Asian suppliers proved defective. The manager estimated that two-thirds of the shipment to South America, now on the market, is defective.

On a pre-examination, the health-risk department concluded that the defective batch may pose the following SEVERE REPUTATIONAL THREAT: decreased sexual performance, nausea, headaches, somnolence, and reduced drug effectiveness for one out of six (low-severity) to 20 (high-severity) patients.

Coincidentally, at the time of this discovery and subsequent analysis of effects, the Board of Directors was holding a meeting. Out of the available options, ranging all the ways up to a total regional product recall, the course of action selected was a defective shipment batch recall with no product recall until further examination. The Board viewed the options as ranging from a total recall to a defective batch recall to no recall at all. The market risk division estimated that such actions would cause the following financial losses respectively: 22.5%, 7.9%, and 0.0% decrease in PHA's stock prices.

For each of the four statements below, select a response from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

- As (CEO/CEA) of the organization, I agree with the Board of Directors' suggestion.
- Hair loss represents a major concern among males.
- Side effects of drugs are a primary determinant of consumers' preferences.
- Variations in stock prices reflect companies' financial performance.