MK838: Behavioral Insights Lab Spring 2019

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May 7, 2019

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Table of Contents

I. Executive Summary

II. Problem Statement

III. Context

  A. Norms for Compensation Structure

  B. Stakeholders and Their Motivations

IV. Literature Review

  A. Defining and Measuring Executive Performance

  B. Intrinsic Motivation and Psychological Ownership

  C. Stock-Based Compensation

  D. Discrepancies Between What People Say and Do Related to Pay

  E. Pay-For-Performance Has Limits

  F. Complex Compensation Agreements Prevent Short-Term Gaming

V. Decision Mapping

VI. Applicable Behavioral Concepts

VII. Proposed Interventions and Recommendations

VIII. Next Steps

I. Executive Summary

This white paper examines how changes to compensation structure can encourage CEOs to behave in a way that supports a firm's long-term performance.

Our literature review revealed two key findings that drove our ongoing analysis: first that high-achievers (such as CEOs) value pay-for-performance plans more than any other group of employees, and employees in pay-for-performance plans tend to only act on the elements of these plans that are rewarded and ignore those elements that are not rewarded. However, the proxies for corporate success on which CEO variable compensation is currently evaluated focus on financial measures of success that are correlated with short-term performance. Instead, compensation agreements must use proxies that represent the underlying actions needed to fulfill a company's long-term goals.

The main behavioral factors encouraging short-term behavior in CEOs are fairness and loss aversion, while the driving factors for boards of directors, compensation committees and compensation consultants are social norms, herd behavior, and status quo bias. The goal of our suggested behavioral interventions is to introduce new metrics that counteract these behavioral factors. A revised set of performance metrics will result in gradual changes to CEO compensation standards that are more likely to have widespread adoption than would more radical changes.

Proxies that represent that 4 main business goals of a business (shareholder return, stakeholder responsibility, social responsibility, and stability) should be measured relative to peers in a specific time period to address the behavioral issue of fairness. Additionally, metrics should be tailored to reflect the specific strategy the CEO is hired to implement.

To overcome the issues of status quo bias in Boards, the collection of data on firms that use these "new" metrics can be used to prove to the Board that they fulfill the appropriate goals. Similarly, it is important to introduce metrics that are currently popular and easy to understand and to do so slowly, such as third-party rankings or customer and employee satisfaction.

II. Problem Statement

Focusing Capital on the Long-Term (FCLT) Global is a non-profit organization whose mission is to "encourage a longer-term focus in businesses and investment decision-making." Working under the direction of FCLT, our team's goal is to examine:

- Behavioral insights that can explain why some CEOs take actions that only benefit their firm in the short-term (for example, financial engineering resulting in stock-price gains that do not add long-term value to the firm);
- How CEO compensation plans may incentivize this behavior, and;
- Changes that can be made to CEO compensation plans that may discourage this behavior, and ideally encourage decision-making that adds long-term value to the firm.

Our team is focusing only on the structure of the compensation plans, and not the time-horizon of the incentives. At the direction of FCLT, we will only examine CEO compensation (not compensation of other executives or directors), and changes to compensation plans that are deemed reasonably likely to be implemented within the scope of currently accepted executive compensation practices.

III. Context

A. Norms for Compensation Structure

Current CEO compensation structure is generally consistent across companies, and consists of three main components, which are both variable and non-variable depending on company performance. This report will focus on the variable portions of CEO compensation.

Non-variable pay:

- Salary: awarded yearly, in cash. Any portion of CEO salary over $1 million is not deductible under current tax regulations, so most salaries are capped at $1 million.

Variable pay:

- Annual Bonus: cash award based on stock price, awarded yearly.
- Long-Term Compensation: usually stock and stock options, with a 3-5 year delayed vesting period

B. Stakeholders and Their Motivations

An overwhelming number of elements around CEO compensation push agreements to a mean common standard that is very risk-averse. This creates an environment where any change to compensation structure faces an uphill battle to common adoption. Of course, these

dimensions do not apply to all firms and agreements, but many show some or all of these common themes.

- **Compensation Consultants** track industry compensation packages and advise board compensation committees. Their primary concern is being re-hired by the company next year, making them risk-averse and conservative in their recommendations. This encourages them to provide agreements similar to the rest of the industry, in their desire to give their clients (the board's compensation committee) something uncontroversial.
- **Board Compensation Committees** set CEO pay levels and structure, and the board rarely questions their decision. The committee is primarily concerned with attracting and retaining the best CEOs, defers heavily to compensation consultant recommendations and competitive analysis. By deferring to the compensation consultants, they can hold someone else accountable if in the future something related to the plan goes wrong.
- **Board of Directors** accept the recommendation of the Compensation Committee without challenge to (a) not give the appearance of showing disrespect to the Compensation Committee, and/or (b) avoid admitting that they may not understand the full details of the agreement. They also need to show their current CEO and all potential future CEOs that they fairly compensate their CEO, to encourage talent to work for their firm.
- **CEOs** have very little influence over the structure of compensation packages, although they can negotiate salaries. They are primarily concerned with making sure their pay is similar to that of their peers.

IV. Literature Review

A. Defining and Measuring Executive Performance

In order to determine how executive compensation design promotes behaviors that support long-term performance, it is important to define performance itself. However, experts do not agree as to a standard set of characteristics that qualify as successful performance, and there is large variation in the variables examined among the literature. In general, studies operate under the assumption that successful executive performance means achieving the specific goals set for an executive. However, these goals vary considerably among corporations.

While a publicly traded company might ultimately view overall performance as an increase in stock price, this does not reflect the varied factors that comprise an individual executive's performance. In their 1995 paper "An Empirical Investigation of the Predictors of

Executive Career Success," Timothy A. Judge *et. al*. viewed performance as a combination of both the objective elements of pay and promotion, and the subjective elements of job satisfaction and career satisfaction. This combination of objective and subjective elements was the most complete definition of performance we found in the relevant literature.

Interestingly, this definition did not vary much from the definition provided in C.L. Hulin's 1962 article "The measurement of executive success," in which Hulin determined three measures of success: absolute salary, salary increase, and levels promoted were developed. This suggests that despite 50 years of dramatic shifts in the corporate environment, the standards for executive success have not changed much.

The definition of long-term performance is similarly vague. In their 2010 article "Paying for Long-Term Performance," Lucian A. Bebchuk and Jesse M. Fried define long-term performance as long-term stock price. However, they recognize that defining long-term success as stock price allows for executives to game the system, and they promote the need for limitations on executive transactions that "weaken the connection between executive payoffs and the long-term stock price that well-designed equity compensation is intended to produce."

Despite the lack of agreement on what exactly constitutes performance, some metrics have more impact on long-term performance than others. A 2014 IRRC report examined the most common tools and metrics in executive performance measurement and found that the design of long-term incentives generally do not align with sustainable long-term company success. They found that more than 85% of the S&P 1500 have no 'line of sight' metrics such as innovation that are related to long-term performance. Only about 17% of companies use return on invested capital as a metric, and less than 50% use capital efficiency metrics.

While finding a uniform definition of performance may be difficult, once companies decide on a standard, they do not often change the standards of performance for their executives. In a 2002 study by Raffi J. Indjejikian and Dhananjay Nanda titled "Executive Target Bonuses and What They Imply about Performance Standards," executives who received their target bonus amount in the previous year had a 72% chance of receiving his target bonus the next year, while executives who did not receive their target bonus in the previous year had only a 42% chance of receiving it the next year. This shows that companies do not adjust their executive's standards based on past performance, but continue to hold them to the same standard even if their executive under- or over-achieves. Although the focus is on bonuses in this study, bonuses are a

consistent source of variable pay among executives, so the research findings can be applied across nearly all executives.

Furthermore, a firm's strategy and values inform which measures they will use to evaluate performance. In a 2011 article titled "The impact of firm strategy on performance measures used in executive compensation," Steven Balsam *et. al.* show that firms pursuing a cost leadership strategy emphasize overall sales in the determination of executive compensation, which firms pursuing a differentiation strategy show little emphasis on financial metrics due to the necessary investments in brand recognition and innovation, which have long-term benefits but may adversely affect the bottom line.

While issues of corporate social responsibility are possible metrics in evaluating executive performance, a 2009 article titled "Environmental Performance and Executive Compensation: An Integrated Agency-Institutional Perspective" by Pascual Berrone and Luis R. Gomez-Mejia reveals that firms with executive compensation that is based on environmental successes do not actually reward environmental strategies more than companies that do not have environment-related incentives in their executive compensation packages. However, similar research is in progress at Boston University under the direction of Professor Caroline Flammer, and initial results suggest that corporate social responsibility-related metrics may in fact encourage long-term behaviors.

In developing their definitions of objective and subjective success, Timothy A. Judge *et. al*. examined demographic information, human capital, and organizational factors. They found that metrics such as educational level, quality, prestige, and degree type predicted objective (financial) success, while only the motivational and organizational variables predicted subjective (satisfaction) success. This suggests that there are two sets of behaviors that an executive must draw upon in order to achieve overall success.

In his 2001 paper "A longitudinal study of top-level executive performance," C. J. Russell analyzed various executive competencies, and found that resource and problem-solving competency ratings predicted initial performance, while people-oriented competency ratings predicted future performance. This suggests that incorporating a people-oriented metric into executive compensation packages may help encourage an executive's long-term success.

B. Intrinsic Motivation and Psychological Ownership

In their 2016 briefing for Mars Catalyst titled "Psychological Ownership: Effects and Applications," Helen Campbell *et. al.* suggest that executives show significant intrinsic motivation for long-term success due to their "psychological ownership" of the company. Executives with psychological ownership have a personal stake in the performance of their "owned" organization, because the success of the organization is tied to the executive's identity. Psychological ownership has been associated with increased motivation, stewardship and loyalty, which are all qualities that positively impact the long-term success of a company. Furthermore, Campbell *et. al.* note that combining psychological ownership with formal ownership has more consistently positive results than formal ownership alone.

When executives have psychological ownership, they are driven by success rather than money. However, most top executives are given very high monetary awards, which can backfire. In their 2005 paper "Large Stakes and Big Mistakes," Dan Ariely *et. al.* explain that excessive rewards can result in a decline in overall performance. While the experiment in the paper was not focused on long-term success, but rather short tasks, its conclusions may still apply in a long-term context.

However, in the 2010 paper "Motivation and Executive Compensation" A. S. Agarwal takes the opposite view and claims that prevailing literature suggests that money is the single most motivating factor for performance. Agarwal argues that compensation should consist of only base pay and short-term cash rewards, and should not include any perquisites or other intrinsic motivators. Long-term rewards should not be given because of the associated uncertainty. This conflicting view may thus contradict Ariely *et. al.*'s excessive rewards experiment, especially since their experiments were not performed in a long-term context.

C. Stock-Based Compensation

Stock option compensation may create more incentive alignment issues than it solves and inadvertently lead to greater agency costs (Sanders 2001). Agency costs are the potential conflict that could arise between principals and agents (Pepper and Gore 2012). In this situation, the board acts as the principal and the CEO acts as the agent. Stock options allow CEOs to avoid the possibility of downside risk because they can decide whether to exercise their stock options after a certain period of time. As they are able to avoid this downside risk, they are motivated to take long-term stock price effects into consideration when making decisions. This can lead to more conflict or "agency costs" between the board and CEO.

This is supported by the research conducted by Wm. Gerard Sanders in "Behavioral Responses of CEOs to Stock Ownership and Stock Option Pay," in which Sanders finds that compensating CEOs with stock options incentivizes risky behaviors. He suggests that stock ownership is a solution to align incentives (Sanders 2001). With stock ownership, CEOs are subject to upside and downside risk associated with the stock price and are more likely to make decisions that align with the board's goals. Additional research shows that stock ownership may be effective in reducing compensation costs but may not necessarily solve the issues of short-term thinking (Dittmann and Maug n.d.). This is because CEOs may be reluctant to make decisions that negatively affect their stock in the short-term but could have long-term positive effects. In this case, stock ownership makes the CEO more invested in their decision and its long-term effect on the stock price.

An MSCi article finds that companies that are awarded lower total pay outperformed companies with higher total awarded pay by nearly 39% on average over a 10-year cumulative period. However, many companies describe "long-term" as three years when establishing equity packages, which assumes that is a sufficient time to drive long-term decision making. There is also an overreliance on performance measures that are overly-sensitive to share price movements (Marshall 2017). Thus a three-year period is not really long-term and is not long enough to motivate true long-term behaviors.

D. Discrepancies Between What People Say and Do Related to Pay

Research indicates that while people may say in surveys that pay is of secondary importance to them, experimental observations and meta-analysis reveal that pay is unequivocally the most important driving factor behind performance. Rynes et al. compiled findings from several research publications, most notably:

- Individual pay incentives increase productivity by 30% (vs. 9-17% for job enrichment efforts) (Locke 1980);
- Pay was four times more effective in increasing productivity than interventions designed to make work more interesting (Guzzo 1985);
- Financial incentives find a significant correlation between increases in quantity of production, but no reliable relationship with quality of production (Jenkins 1998).

It is this final observation that is most prescient, implying that management must be very selective in identifying which actions should be rewarded to produce the desired performance.

E. Pay-For-Performance Has Limits

Review of monetary compensation as it relates to performance is clear on the fact that pay is an important element of motivation for performance. But just as clear is how complex compensation, and in particular variable pay, is in the full equation of performance motivation. Two themes emerge when reading research on performance and compensation: (1) the effectiveness of monetary compensation on performance depends on context, and (2) monetary compensation is only one piece of the motivational puzzle.

First, “Monetary incentives are entangled in an extensive web of psychological contracts, cognitive self-evaluation, and fairness considerations,” (Osterloh 2002) and need to take into account several specific factors when determining which type of compensation is right for which employee, firm and context. Notable contextual elements include:

- High-achievers and individuals with high self-efficacy value pay-for-performance plans more than any other group (Rynes 2004);
- Simple jobs where performance is easy to measure and can be attributed to a particular employee are the only situations where pay-for-performance is truly effective on its own (Osterloh 2002);
- Executives respond to incentive compensation with greater perseverance, competitive strategy focus, ethical behavior and strategic risk taking during organization decline. However, these interaction effects are not present during organizational growth (Han Ming Chng 2012).

Second, variable pay cannot be relied upon as the sole motivator for performance, as it “underestimates the complexity of the human motivation”. (Osterloh 2002) Other critical elements affecting performance include:

- Intrinsic motivation, which is required whenever extrinsic rewards in the form of pay-for-performance lead to undesired consequences (Han Ming Chng 2012);
- Satisfaction with compensation (Ghazanfar 2011);
- Fairness and perceived justice relative to peers are key elements of the effectiveness of gain sharing in terms of performance motivation (Osterloh 2002).

From these studies, we can conclude that monetary compensation can be very effective when deployed appropriately. Here again, we again see the importance of our caveat: this effectiveness can be wasted if deployed in the wrong way. Since employees tend to act on the

rewarded elements of their job and disregard unrewarded elements (Osterloh 2002), managers must be very selective in identifying which actions should be rewarded to produce the desired performance.

F. Complex Compensation Agreements Prevent Short-Term Gaming

We have established that monetary rewards are incentives for performance, but management must carefully choose to incentivize only actions that produce the desired results. Focusing on Osterloh's observation that employees disregard unrewarded actions, we can hypothesize that in the context of CEOs, high-level financial metric incentives are likely to cause CEOs to focus only on actions that directly impact those metrics, and tend to ignore actions that only indirectly affect these metrics. Indeed, research confirms FCLT's hypothesis that executives whose compensation is contingent on a single goal manage to that goal and no further, and "tend to take actions – with possible negative long-term consequences – to push reported performance to (or past) the goal." (Bennett 2017).

This short-term "gaming of the system" is the behavior we seek to discourage, and Gopalan, Horn & Milbourn provide a four-point recommendation on how to structure compensation agreements to accomplish this. Their suggestions include:

- The use of multiple metrics, the effectiveness of which is supported by data that shows executives who have to hit multiple targets were equally likely to miss a target as they were to make it (in contrast to Bennett's observations);
- Increasing payouts at a constant rate and adjusting for risk, in an attempt to avoid bunching performance around goal targets;
- Rewarding performance relative to competition, forcing compensation beyond targets that the CEOs can individually control, and;
- Including non-financial targets, which are inherently more difficult to game.

V. Decision Mapping

Decision maps are a tool used in the behavioral insights field to identify all of the steps in a decision process, examine subject motivations and identify pain points where interventions or nudges can be placed. While the motivations that influence CEO behaviors are too numerous, unique and complex to draw out, we have attempted to capture the spirit of this tool to identify the pain points in the CEO compensation structure (***see Appendix 1***).

Our decision structure includes four key stages: Company Goals, Proxy Measurements for these goals, CEO Incentives, and CEO Behaviors. The map rests on the idea that every company shares four overarching Company Goals: return value to shareholders, return value to stakeholders, be socially responsible, and maintain stability.

The makeup of each phase is defined by the output of stage following it. For example, Company Goals will resemble the output of the Proxy Measurements for those goals. If Total Shareholder Return (TSR) and Stock Price are the only proxies used to evaluate the Company Goals, then Return for Shareholders will be the only company goal fulfilled.

Following lessons from Osterloh's (Osterloh 2002) research that reveals employees act on the elements of their performance that are rewarded and ignore those that are not, the set of proxy measurements must account for each of the Company Goals. Currently, the majority of CEO compensation agreements focus on financial measurements like stock price, TSR and EPS. These financial metrics act as a proxy for only one company goal: Return for Shareholders. Compensation plans that focus on these proxies ignore the other three commonly accepted company goals. A more complete compensation structure would take into account these additional goals, and include proxy measurements that reflect those goals.

Ultimately this decision map reinforces the elements of our literature review that highlight the importance of careful consideration of how CEO's are rewarded in variable compensation plans. It is not enough to use "endgame" metrics as proxies on which compensation is valued – boards must make an extra effort to reward the underlying activities that lead to the desired company goals.

Possible Metrics as Proxies for Long-Term Success

McKinsey's development of the Corporate Horizon Index methodology (Barton 2017) has resulted in a list of metrics that are closely associated with long-term corporate success. Interestingly, most of the McKinsey metrics correspond with actions that would impact a CEO's variable or short-term pay (***see Appendix 2***).

In addition, FCLT Global has performed statistical research revealing several other metrics that predict long-term success (FCLT Global 2019). These metrics are reflective of more traditional long-term compensation plans:

- Existence of a risk management program
- Lack of Environmental, Social or Government Controversy

- Greater board gender diversity
- Employee ownership of the firm

Combining the McKinsey scorecard and the FCLT research results in a robust list of metrics that can be used as proxies for behaviors that support the long-term success of a company.

VI. Applicable Behavioral Concepts

CEOs face the following behavioral factors related to their compensation:

- **Fairness:** Insights from interviews with third-party consultants reveal that CEOs value fairness against peers highly, following behavioral theory. Current compensation structures rely on this to set terms that are similar to peers. If executives feel that their inputs are not rewarded with the proportionate outputs, they will be demotivated. Their satisfaction is tied to benchmarking of their compensation to their peers. If a CEO feels that their actual earnings are less than fair, they will reduce the amount of effort they supply. This can lead to poor decision-making and lack of motivation to improve the overall performance of the firm (Pepper and Gore 2012). This leads to CEOs not considering long-term effects on the firm when making decisions.
- **Loss Aversion:** CEOs are more loss-averse than risk-averse. Each agent calculates gains and losses of their decisions based on a subjectively determined reference point. As described in Prospect Theory, below a certain reference point, agents will be loss averse which leads to an increase in their decision to take short-term risk (Pepper and Gore 2012).
- **Agency Theory:** Basing compensation solely on economic incentives implies executives are self-interested and unaffected by social relations (Harris 2009). Intrinsic motivation is as important as extrinsic motivation for CEO decisions, and these motivations are independent and not necessarily additive. Harris suggests that maximizing overall agent performance should be the key objective rather than maximizing financial outcome of the firm, i.e., aligning the interests of agents and principals.

Boards, Compensation Committee and Compensation Consultants face the following behavioral factors that directly impact the structuring of their CEO's compensation agreements:

- **Social Norms, Herd Behavior:** Parties writing the compensation agreements follow these two behavioral factors for several reasons: first, the want to appeal to the CEO's fairness principal, signaling to them and any future CEOs that they are compensating at

market rate. Secondly, these behavioral factors make them feel more comfortable with their plans, and assist with their desire to mitigate risk in the event that a more unconventional CEO pay agreements leads to poor performance.

- **Status Quo Bias and Anchoring:** Boards are likely to use similar practices to what they have in the past, particularly when structuring compensation agreements with existing CEOs whose plans are up for renegotiation. Similar to Social Norms and Herd Behavior, these drive compensation agreements to an industry-wide mean, which creates incomplete incentives as no two companies are facing the same goals and challenges at the same time.
- **Optimism Bias:** Particularly during initial hiring and negotiation with CEOs, boards are prone to optimism bias, believing that they have made the right hire and the new CEO will accomplish the agreed-upon goals. After spending a lengthy time debating and choosing the next CEO, optimism bias prevents boards from turning around and truly examining a downside risk scenario and how the compensation agreement may fit into that situation.

VII. Opportunities for Change and Intervention

As proposed in our Revised Decision Map (***Appendix 1***), including proxies that impact Return for Stakeholders, Social Responsibility and Stability ultimately creates a holistic motivational structure for the CEO. These are a mix of financial and non-financial metrics, continuing to use some of the current commonly accepted financial metrics. This paper's view is that metrics like these are not inherently malicious or poor motivators. On the contrary, they are powerful tools that should be used as an important part of a more complete and diverse set of measurements of success. Our proposed interventions include the important elements of setting metrics relative to peers to satisfy this behavioral element, while allowing for proxies to change to evaluate the unique context of the business.

The inclusion of non-financial metrics begs the question: how can these metrics be set to ensure that the target metric is relevant, given that they do not have a direct impact on financial performance? Gopalan's recommendation of setting metrics that are judged against those of a peer group answers this question from two perspectives (Gopalan 2017). First, this should appeal to CEOs from a behavioral perspective, leveraging fairness principles and action bias after absolute goals have been achieved. Discussion with compensation consultants revealed that

comparison with peers is a common part of a CEO's own internal motivation, to be expected from such extreme high-achievers. And secondly, "relative" metrics are inherently more difficult to game, which removes temptation of the CEO to engage in short-term "managing to the metric."

Finally, we believe that these proxies should be adapted for each unique situation that the company finds itself in. Metrics that are used for a CEO in times of growth for a business should not be the same metrics that are used in lean times. Not all CEOs are created equal, and each has a different skillset that should be matched for what the company needs at that stage in its lifecycle. Boards hire CEOs to accomplish two things: pick the company strategy for the next business cycle (which, contrary to common belief has very specific attributes and is not an arbitrary term), and execute that strategy. The proxies for the Company Goals chosen for each CEO should match the specific actions that the CEO has outlined to execute that strategy, and should be re-evaluated for relevance as circumstances change. This will undoubtedly require a change of thinking on the part of each party involved in structuring the compensation agreement, but is the only true way to evaluate the performance of the CEO. The rest of the employees of the firm are judged in a similar way, and the CEO should be no different.

VIII. Next Steps

Moving forward, it is important to look at which companies are already using the suggested proxies and what impact this has had on firm performance. This information can be critical in determining which proxies may work for specific industries and companies. After determining which proxies may be effective, experimentation to test how CEOs may react to these proxies is important. Experimentation with CEOs is high stakes and difficult to conduct. It would be difficult to power a study or find a stand-in proxy to simulate CEO behavior in a study. It may be possible to test CEOs in a game setting such as at a conference or to do an online simulation, but it is difficult to determine the validity of data under such conditions.

A more applicable method to determine the effectiveness of these changes to compensation structure would be the use of before-and-after comparative studies of a single company that has adopted suggested proxy metrics. This may yield more concrete results as each company is different and it is difficult to use the same proxies for each or to compare between companies.

Another important step to further delve into CEO compensation structure is to dig deeper

into the behaviors and motivations that drive Executive Board members, as they are the ones who ultimately determine the proxies and compensation packages for CEOs. Similarly, you can also observe what specific proxies are currently important and "image-building" for boards, such as diversity or corporate social responsibility.

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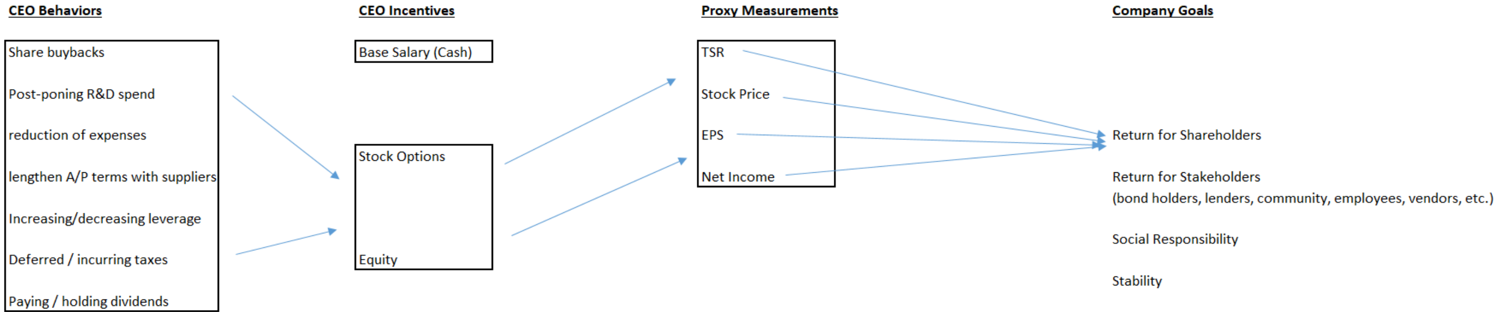
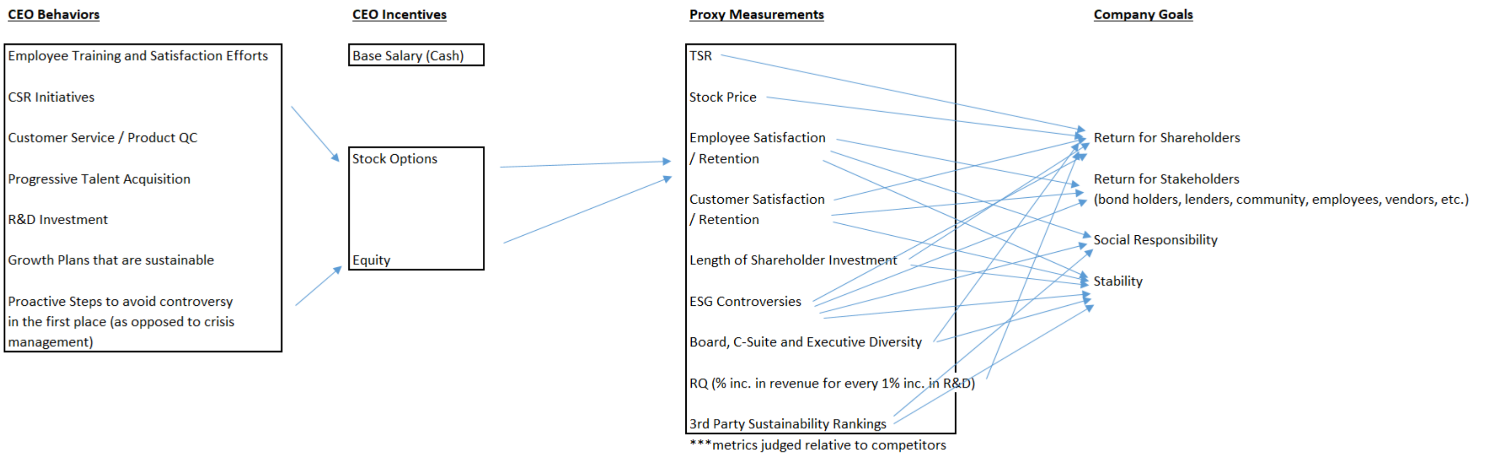
Appendix 1: Decision Mapping

Current Decision Map



Proposed Alternative Decision Map



Appendix 2: McKinsey Corporate Horizon Index Methodology

Corporate Horizon Index methodology

Indicator	Hypothesis	Measurement approach
1 Investment	Long-term firms will invest more and more consistently than short-term firms	Ratio of capital expenditures to depreciation
2 Earnings Quality	Long-term firms will generate earnings that reflect cash flow, not accounting decisions	Accruals as a share of revenue
3 Margin Growth	Short-term firms are more likely to grow margins unsustainably in order to hit near-term targets	Difference between earnings growth and revenue growth
4 Quarterly Management	Short-term firms will do whatever they can to hit short-term targets, whereas long-term firms are willing to miss them if needed	Incidence of beating EPS targets by less than 2 cents and incidence of missing EPS targets by less than 2 cents
5 Earnings-per-share Growth	Long-term firms are less likely to over-index on EPS rather than true earnings and act to boost EPS (e.g., with buy-backs)	Difference between EPS growth and true earnings growth

SOURCE: McKinsey Global institute Analysis