Published as: Oliver, J.J. (2023). Determining which CEO candidates will lead growth through innovation, *Strategy & Leadership,* VOL. 51 NO. 4, pp. 27-31.DOI 10.1108/SL-03-2023-0030

Determining which CEO candidates will lead growth through innovation

As board members and executive search agencies undertake the process of identifying and assessing a potential new CEO, it is becoming increasing expected that the candidate will need to be able to drive firm performance by developing long-term, innovation-led, growth strategies. This raises an important question for companies seeking a new CEO hire or evaluating incumbent CEOs: do they have the skills to take advantage of the unique opportunities presented by a profoundly changing competitive landscape? The inherent risk in appointing a new CEO[1] can, however, be minimized by scrutinizing a number of potentially significant candidate characteristics – age, education, career experience and tenure – which can indicate an executive's orientation toward innovation.

The CEOs role in driving an innovation-led growth strategy

While a firm's innovation-led R&D expenditure is primarily determined by its corporate strategy and influenced by issues such as country norms and industry benchmarks, some firms are more "culturally orientated" toward R&D led innovation. These firms consider innovation as the key driver in delivering new products and services and future competitive advantage.[2][3][4] This orientation toward R&D led innovation is largely determined by CEOs who set organizational vision, drive investment decisions and strategic actions toward innovation. A widely held view is that CEOs either lead from the front with a top-down innovation agenda, or, that they create a bottom-up approach by developing an organizational culture that values innovation and embedding it into the DNA of the business through consistent investments in R&D. Either way, to be successful with this approach, a CEO needs to be committed to backing innovation-led growth strategies from both internal sources and external ecosystems.[5][6]

Four CEO characteristics that influence R&D spending and innovation

Though the role of the CEO is of paramount importance in terms of determining organizational vision and direction, some executives are better able to frame market opportunities, evaluate risk and make subsequent investments in resources more effectively than others. As such, certain CEO characteristics are a significant predictor of relative firm R&D spending and innovation. Several studies indicate that specific candidate traits – age, education, career background and tenure – are tested indicators of CEO performance levels[7][8][9] and are particularly important measures of a potential hire's predisposition to explore unique market opportunities through innovation-led strategies. Those four characteristics that have been shown to have a major role in influencing a CEOs ability to influence a firm's R&D investment levels and innovation success are:

1. CEO age is the most significant predictor of firm innovation

CEO age has the most significant influence on R&D spending and driving innovation in organizations. Essentially, younger CEOs are generally better at perceiving and understanding emerging technologies and trends and are more willing to take risks and adopt more aggressive R&D investment policies than their older CEO counterparts. In addition, though older CEOs have a wealth of industry experience, they tend to seek to reduce exposure to firm risk as they get older, and they are less likely to invest significant levels of R&D expenditure in innovation-based activities. Interestingly, the Boston Consulting Group's[10] survey of the world's Most Innovative Companies revealed that the average age of CEOs at the top five most innovative companies – Apple, Alphabet, Amazon, Microsoft and Tesla – was 53.4 years. In comparison, the average age of leading legacy media firms – Walt Disney Co., Paramount, Comcast, News Corp, AT&T – was older at 60.2 years. We also see that the average age of CEOs at social

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media firms – Twitter, Snapchat, Pinterest, LinkedIn and TikTok – is just 32.8 years. Though this evidence is anecdotal, it supports the widely held expectation that the more technologically focused social media firms are and will be led by younger CEOs.

Arguably, older CEOs are less likely to be able to accurately assess the potential of unanticipated market opportunities and emerging technologies. This point is illustrated by a longitudinal study that tracked 4,493 CEOs at U.S. firms between 1992-2010 which indicated that firms led by older CEOs were less likely to drive strategic initiatives like mergers and alliances. Importantly, CEO age correlated with a decrease in R&D expenditure.[9][11] Interestingly, the findings also revealed that firm value and performance with CEOs 49 years and under outperformed those with CEOs 62 years and older. Recent research has also found that the average age of newly appointed CEOs in the S&P500 averaged at 54.7 years, while in the Information Technology sector, which is often portrayed as hiring younger, more technically savvy CEOs, actually had an in-coming age of 56 years, up from 53 years in 2017.[12]

Such research provides an interesting insight into the leadership and performance of firms and raises a number of questions including whether or not older and more experienced leaders can deliver on the current, challenging "CEO playbook." Nowadays the job entails understanding megatrends, anticipating dynamic industry trends, evaluating emerging technology, developing a strategic vision, energizing the organization and driving investment action toward innovation-led competitive advantage.

2. CEO education is an indicator of cognitive ability and futures thinking

The education level of top executives and how it equates to firm performance has been the subject of numerous studies in general management literature for decades. These studies present a range of evidence regarding the effects CEO education on R&D spending, but a number of the studies found that more educated executives demonstrated greater levels of cognitive ability in terms of futures thinking, abstract reasoning, comprehending complex ideas and problem solving, which in turn is likely to produce superior corporate financial returns. CEOs with higher levels of education can more easily make sense of complex information and absorb new ideas, and as a result, they are more receptive and confident in making innovative R&D plans and strategic risk-taking initiatives.[7][13][14]

Furthermore, the "type" of education has an influence on R&D spending and innovation. Indeed, studies have found that CEOs with a science or engineering degree facilitate higher levels of R&D spending in their firms than those with a non-science educational background. Interestingly, those CEOs with an MBA degree have been found to adopt riskier and more aggressive innovation-based strategies that delivered higher levels of firm performance when compared to CEOs with non-MBA degrees.[15]

3. CEO career experience influences adoption of innovation-led growth strategies

A CEO's career experience plays an important role in determining their orientation toward an innovation-led growth strategy. Indeed, CEOs with significant career experience in "output" functions such as sales and marketing, R&D and product development are more market orientated and aim to drive revenue and gain competitive advantage by investing in R&D activities that can deliver new products and services.[13][16] In contrast, CEOs with "throughput" experience in the form of general management, administration or finance are often appointed with the expectation that they will be able to draw on their generalist experience to manage a range of organizational issues and challenges.

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Building on the argument that some CEOs are able to frame new market opportunities better than others, a plausible conclusion is that those with substantive career experience in sales and marketing or R&D are likely to consider innovation as a market gamble worth taking, compared to generalist CEOs who may evaluate innovation through the lens of lower risk exposure and achieving a certain outcome from their R&D investments.

4. The influence of CEO tenure on firm innovation is inconclusive, but provocative

The influence of CEO tenure on the level of firm innovation has been extensively examined and yet this body of knowledge presents an inconclusive picture. However, three themes provide constructive guidance on whether or not a CEO has an orientation toward innovation-led strategies:

First, in the early stages of tenure, CEOs often spend time gaining "firm-specific knowledge" at the expense of a range of other organizational activities including innovation-led strategies delivered through R&D investment decisions. In fact, a principal risk for new CEOs is that they may resist taking action too quickly or hesitate to make changes that are extensive enough. The risk is especially high for insiders who are being promoted to the top spot or are taking the reins alongside a strong chairperson. Yet through quick and decisive actions, new CEOs can seize the opportunity to put their company on the right trajectory for strategic innovation success.

Second, as tenure increases, CEOs tend to exert greater power over decision-making and take strategic investment decisions that are underpinned by higher levels of R&D spending, to drive firm performance. Having said that, insider appointments have been found to be hesitant when it came to taking the types of rapid actions that are often associated with the appointment of an outsider CEO.[8][17]

Third, older CEOs understand that their tenure would come to an end sooner rather than later, and as such, they tend to focus on short-term goals and organizational stability rather than on long-term R&D investments that would drive innovation and firm performance. In a study that sampled 206 S&P500 firms, the relationship between CEO tenure, R&D investment, innovation and firm performance was determined by the degree of "dynamism" in the industries studied.[18] It concluded that longer-tenured CEOs working in less dynamic industries had a positive impact on performance, and a negative influence when operating in highly dynamic industries. To illustrate this point further, the global turbulence caused by COVID-19 resulted in unprecedented levels of uncertainty for many S&P500 and Russell 3000 firms that opted for organizational stability by ensuring that CEOs extended their tenure during the pandemic.

Takeaways for executive search committees

The is no doubt that the knowledge and technical skills required to successfully operate in a post-pandemic and digitally transformative competitive environment, combined with the strategic foresight to identify and take advantage of new market opportunities, means that the bar for a new CEO hire has been significantly raised in recent years.

For CEO candidates, the four characteristics of age, education, career experience and tenure are significant predictors of their commitment to R&D spending and innovation, and executive boards also need to remain vigilant regarding their incumbent CEO's ability to drive innovation-led growth strategies. It's equally important that executive search agencies can draw on these ideas by considering the importance of certain CEO characteristics when asked

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to search for potential candidates with an orientation toward innovation-led growth strategies. Finally, it is important to note that a CEO's demographic characteristics alone cannot guarantee innovation within an organization since culture, corporate strategy and leadership style all also play important roles in driving innovation-led growth.

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