Board Leadership of Innovation in Contemporary Circumstances^

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Innovation and entrepreneurship involve risk. Their drivers, their requirements for success and the nature of the risks involved can depend upon changing external developments, requirements and trends. New leadership approaches and priorities are needed for challenging and changing times (Coulson-Thomas, 2018b). The uncertainties that characterise contemporary business and market environments complicate the challenge of leading innovation, and responding responsibly to certain external developments can highlight where innovation is required. Internal capabilities, cultural and other factors can constrain and limit effective responses. This article examines certain challenges facing boards and some questions that boards should consider when reviewing their contribution.

In relation to the leadership provided by boards, participant observation in annual international events organised India's Institute of Directors (IOD) suggests that many directors are now more aware of limits of natural capital and issues such as climate change and sustainability. In the face of multiple challenges, more speakers at IOD events now acknowledge that more than incremental change may be required. There appears to be greater recognition of the importance of innovation and the need to re-engage with stakeholders, rethink corporate purpose, priorities, approaches, strategies and business models and seek holistic solutions that embrace supply and value chains.

Particular Challenges Facing Boards

The requirement for innovation might once have been associated with self-contained areas such as new-product development, the search for a technological breakthrough or the re-engineering of an important process. Today boards can face challenges and requirements that affect most if not all areas of corporate operation. They may need to question fundamentals, challenge assumptions and assess alternative approaches and models, in areas in which they and the people for whom they are responsible have little experience. In doing this they may face vested interests in the status-quo. They might need to re-think what is meant by innovation and performance in the face of climate change, environmental, resource and other challenges. New approaches to innovation and the measurement of corporate, social or environmental performance may also be required (Coulson-Thomas, 2018c).

Some issues remain at board level because it is not always clear to whom they should or can be delegated. When confronted with multiple and inter-related challenges and associated opportunities many boards find it difficult to obtain the advice they need concerning how to respond and achieve the adjustment, adaptation or change that is required. Very often they end up with the incremental improvement of particular areas, rather than the more radical transformations and holistic solutions they seek, because those who advise them push what they know and prefer to replicate what they have experience of. Perhaps boards should cast the net wider when looking for new ideas. In the scientific arena it has sometimes been outsiders who have triggered a paradigm shift (Kuhn, 1962).

Major consulting firms are a first port of call for many boards in view of their claims, extensive client lists and a view that their sectoral experience might be relevant. The question has been asked of whether many consultants are facilitators or parasites (Coulson-Thomas, 1992b). Consulting firms may use the rhetoric of innovation to secure assignments from client companies who like to feel they will obtain a tailored response to their particular requirements. However, plagiarising solutions developed for other clients and using standard elements and established approaches can improve consulting assignment margins and ease implementation (Shaw, 2019). Firm structures and areas of

specialisation can also result in advice on certain aspects of particular problems being provided when the boards of client companies might be seeking holistic solutions to a combination of issues.

The Role and Performance of Boards

Corporate responses to contemporary challenges and new possibilities can greatly depend upon the direction and leadership provided by boards. In situations of uncertainty and in a changing context, the continuing relevance of existing organisations and boards may be problematic, unless there is renewal, reinvention and innovation in board as well as corporate practices. Criteria used to assess the performance of a board might need to change as well as criteria relating to monitoring organisational performance. There are many ways of improving the individual and collective performance of directors (Coulson-Thomas, 2007). However, many boards seem reluctant to question their memberships, structures and modus operandi and adopt innovative practices. Should the acid test of board effectiveness be the extent to which companies for which they are responsible are able to re-invent and remain relevant and transition to a more sustainable model of operation?

Where more than incremental change is needed, innovation and transformation may be required. The curiosity of directors and the value of human judgement, especially beyond the limits of big data and current technologies, can be especially important where moral choices, trade-offs and intuition are required (Tenner, 2018). While recognising the challenge of obtaining objective, relevant and holistic advice in certain arenas, some boards need to step up to challenges which have been avoided and tackle issues that have hitherto been deferred. As already alluded to, they may need to reassess how they evaluate their own performance. For example, are high performing boards those that grasp nettles, address wider responsibilities and seek more sustainable and inclusive business models?

Where repurposing, innovation and/or transformation are required for confronting particular challenges, pursuing certain opportunities and ensuring continuing corporate relevance and survival, should a board be judged according to the extent to which it inspires, enables and supports them? The "real work" of adaptation and innovation may be done by the people of an organisation and its collaborators, but a board can create a climate, culture and framework of incentives and policies that can either help or hinder them. A board might be cautious and favour the status-quo, or it could be more confident and open to new possibilities. It could be rigid or flexible in setting ambitious goals and supporting their implementation. A board has a particular role in relation to corporate culture (FRC, 2016). It and corporate culture can liberate or frustrate curiosity and creativity and help or hinder imaginative and inspired investigation.

The methods some boards use to ensure the top down implementation of their strategies, priorities and decisions stifle questioning, discourage debate and prevent the emergence of alternative views and suggestions. Boards should create environments and conditions in which people can feel safe to express concerns, investigate fresh ideas and suggest new approaches, even though these may not be fully formulated (Edmondson, 2018). People may need to be envigourated, enlivened, encouraged and inspired to discover, explore and pioneer. Directors sometimes require humility as well as courage. They should respect the views of others, question and challenge, and recognise that diversity is conducive of creativity. They also need to be realistic in terms of whether the people for whom they are responsible are "alive" in a creative sense and, when and where required, directors should take steps to unleash latent creativity (Cable, 2018).

Innovation and Corporate Transformation

Innovation and transformation both imply change, but unlike innovation which can provide unexpected outcomes and create unimagined possibilities, transformation projects, programmes and journeys often begin with a vision or envisaged desirable destination. On its own, a transformation programme, initiative or drive from one situation, state or business model to another may not always be enough. Boards should recognise that requirements can change and new possibilities might emerge during a process of transformation. Contemporary companies may need to be in a continual state of adaptation and intelligently steered in order to remain relevant and vital. Competitive advantage can be fleeting. It may be eroded while it is being sought. The replication of past corporate success cannot be assumed. It might have to be worked at. What represents excellence and success can also change. When some people and organisations are more concerned than others about an issue such as sustainability, the priorities of different stakeholders may not be the same.

Boards should consider how best to handle their responsibilities. In relation to their practices, might a combination of big data and artificial intelligence (AI) with appropriate algorithms and the ability to quickly learn from experience be better able to adapt to changing market realities and customer and other requirements than current approaches involving key decisions being constrained by the agendas and inflexibilities of monthly board meetings (Araya, 2019)? Quicker, more affordable and less disruptive approaches to change, talent and knowledge management are available (Coulson-Thomas, 2012a & b, 2013). Could more intelligent adaptation to changing circumstances, requirements and priorities obviate the need for costly, problematic and risky periodic restructuring and re-engineering projects?

Transformation and/or restructuring used to be seen as requirements for certain companies that faced severe challenges, while innovation was often linked to sectors involving "high tech companies". Today the imperative for both of them is more widespread. It is generic, embracing opportunities as well as challenges. Both could be on board agendas in almost any sector. Directors and boards need to provide leadership for creativity, innovation and entrepreneurship (Coulson-Thomas, 2017a & b). Just about any business, person or team might be called upon to transform and/or innovate. When required to act, some of them may be surprised by what they can tolerate, initiate and accomplish.

In relation to innovation, tough decisions may be needed. In organisations dedicated to new product development, is there a limit to the number of new initiatives that can be sustained? Glaxo Smith Kline has closed or sold a significant number of drug development programmes and restructured the processes involved (Meddings, 2018). Is limitation, concentration and focus the answer? Do boards also need to ensure that they and the companies for which they are responsible remain open to ideas, including those from "outsiders" (Stevenson, 2017)? In complex environments and situations adaptation often requires collective effort and collaboration (Nowak and Highfield, 2011). Boards may need to be more open to collaborative possibilities. Is there still a role and support for creative pioneers like those who sparked past paradigm shifts and scientific revolutions (Kuhn, 1962)?

Agility, Flexibility and Innovative Leadership

The need for flexibility and rapid adaptation is such that the contemporary era has been termed the "age of agile" and greater strategic as well as management agility may be required (Denning, 2018). In many companies, boards no longer have time to go through a traditional cycle of strategy analysis, formulation and implementation (Zeng, 2018). Are boards and corporate HR teams doing enough to define the competences required by contemporary business leaders (Coulson-Thomas, 2017a & b)? Do requirements relating to innovation feature in search criteria for new board members and directors' job descriptions? In terms of their composition and how their members think and operate, are boards also providing agile, flexible, questioning, empowering and enabling leadership?

The best directors are often those who are prepared to pose questions that others are reluctant to ask. Are some strategic visions a con (Coulson-Thomas, 1992a)? Should more boards confront reality and the prospect that existing preoccupations, priorities, strategies, development paths and business models may no longer be sustainable and that current operations might be harmful (Dauvergne, 2018)? In some cases, the agility required in the boardroom is not so much the ability to quickly change direction, but rather the courage to jump to a different business model and corporate purpose. Corporate aspirations, priorities and strategies may need to evolve or radically change as developments unfold in an uncertain environment and the unexpected and discontinuities occur.

Acute antennae and open and insightful minds are needed to monitor multiple and inter-related issues and assess their implications. Directors need to ensure that they and the people for whom they are responsible are adaptable, resilient and capable of imagining and creating new options and alternative enterprises (Coulson-Thomas, 2001). People should not be allowed to succumb to dull routines, daily grinds and unchanging repetitive tasks if breaks, greater variety, changes and new experiences might stimulate more productive creativity (Bernstein et al, 2018). Directors and boards should reflect on the example and tone they set, review how they communicate, engage and work with others, and consider how they might become more inspirational and transformational leaders.

Building a Questioning Culture of Continuing Improvement

In many companies, much effort is devoted to the incremental improvement of various aspects of current operations and offerings. Will improvement alone enable companies to contribute to tackling global issues and seize related opportunities? Do boards need to speed up the pace of adaptation and increase its scope and scale? Trust in CEOs and other leaders has been identified as an issue (Botsman, 2017; Harrington, 2017; Richer, 2018). Will stakeholders and younger generations whose futures are at stake trust directors and boards to take big steps towards more inclusive, sustainable and less environmentally damaging models of operation? Will directors continue to seek comprehensive "all aspects" quality improvements and unrestrained growth with the claims upon natural capital that this involves at the expense of the interests of their children and grandchildren?

Continuing as at present raises other questions. How many boards will redefine terms such as excellence, quality, performance and productivity in terms of reducing environmental and resource footprints? De-scoping, simplification and different business and distribution models might reduce negative impacts and allow more people to participate. Greater connectivity and a wider range of options could strengthen the position of consumers. Do we require a more receptive, reflective and listening form of leadership (Coulson-Thomas, 2014)? Do boards need to be more alert to broader issues of concern to customers and better attuned to their and other voices? Should directors build more intimate relationships with a wider range of stakeholders (Coulson-Thomas, 2018a)?

If current operations are to be made more sustainable, many boards may need to look beyond a company's own activities, products and services to ensure that its whole supply chain from raw materials to end users acts responsibly and in accordance with a redefined ethos and corporate purpose. Some corporate cultures may need to change to reflect different priorities in terms of new considerations and what is now acceptable in relation to sustainability, impacts and growth. Many boards will need to consider their own role in achieving this (FRC, 2016). How should directors ensure that revised criteria reflect multiple, inter-related and global concerns and are embedded and observed? Could responses be a source of differentiation? Do directors have sufficient experience of various cultures to build the relationships needed to address global issues (Brimm, 2010 & 2018)?

Fostering Creativity and Innovation

Where more than incremental improvement is required to tackle international challenges, creativity and innovation can become strategic imperatives. For many companies they may already be existential requirements. Do more organisations need to become deliberately innovative and developmental (Kegan and Lahey, 2016)? In many companies, should innovation be more explicit? Is it visible in day-to-day operating practices and workplace conversations? Are corporate approaches to innovation aligned with people's desires and motivations to provide solutions to problems as they arise, or do people regard innovation as "someone else's job"?

Criteria for determining if an innovation is strategically significant may need to be reviewed. Strategic innovations can lead to new business models, industries, sectors, platforms and markets (Roth, 2015). They can also have a transformative impact upon people, nations and societies (Tellis and Rosenzweig, 2018). Care needs to be taken to ensure that they are embraced and not met with defensive and negative reactions from self-interested supporters of the status-quo. Are enough boards regularly reviewing what more they could and should do to stimulate creativity and enable innovation at different levels and across an organisation and also support entrepreneurship (Coulson-Thomas, 2017a & b)? Do a corporate culture, climate and ethos encourage them?

Governance arrangements and risk management practices can be conducive of creativity, innovation and entrepreneurship, or they can inhibit them (Coulson-Thomas, 2017c). Boards should review actions to better facilitate them and remove factors which hinder them. The latter can include regulations and requirements that do not keep pace with applications and new possibilities (Tirole, 2017). Directors should be on the alert for what represents best practice in innovation investment, governance and project and risk management. Asking the right questions is often the key to successful innovation. For example, what new platforms might alert different parties of each other and enable them to connect and efficiently interact to develop or commercialise ideas (Tirole, 2017)?

In fast moving contexts in which successive developments have clear advantages over predecessors, creativity and innovation along with the commercialization of their outputs and outcomes, early adoption of better business models and rapid and effective responses to the moves of competitors and new entrants can become sources of competitive advantage. At the same time one cannot be so focused upon competition as to overlook the value of cooperation (Nowak and Highfield, 2011). Both may be required. Innovations can be sustaining or disruptive (Christensen, 2003). It is often applications or the uses to which a new technology is put rather than the technology itself that is disruptive. Maybe a combination of new technologies, greater connectivity and social media and practices such as viral marketing could speed up early adoption.

Disruptive and Enabling Technologies

Technological developments have altered how people and organisations operate, learn, buy and sell. Looking ahead at possible scientific developments, a wide range of different technological applications could emerge (Kaku, 2012). Boards may need to establish criteria for deciding which areas of different technologies and/or applications to monitor, and/or when, how and with whom to engage. A decision tree and/or roadmap for the future adoption of emerging technologies might help. The approach of a board to new and emerging technologies and the related processes it adopts should reflect the context, possibilities, timescales, costs and a company's available capabilities. Are boards being sufficiently ambitious in terms of possibilities explored and the ambitions they set for reinvention and redesign (Preston, 2018)? Do they supplement corporate capabilities with complementary collaborations, involving parties with compatible approaches and aspirations?

Applications of technology have transformed markets and market participation. They have led, are leading, and could lead to profound cultural, economic, political and social changes. In relation to social responsibility, they also raise questions. For example, will automation and developments in AI outperform humans to such an extent that a significant proportion of the work they currently undertake may be replaced (Kaplan, 2015; Harari, 2018; West, 2018)? Alternatively, will increased demand for programmers and new activities made possible by AI and other applications result in an increase in employment for those willing to retrain and remain current (Coats, 2018; Daugherty and Wilson, 2018)? Should leadership no longer be viewed as mainly relating to relationships with people, but regarded as concerned with the combination and interaction of people and technology?

Speakers at IOD international events have posed choices such as "change or be changed", "disrupt or be disrupted" or "replace or be replaced". Could applications of technology and/or other steps disrupt, slow or reverse climate change or the depletion of natural resources, perhaps by providing alternatives (Hawken, 2017)? Should more boards give a lead in applying new technologies to certain existential challenges facing businesses and/or humanity (Keith, 2013)? Do they need to better understand factors that drive resistance to new technologies and be more persistent in seeking to overcome them (Juma, 2016)?

Regulation should be current, enabling, appropriate and proportionate (Tirole, 2017). Some technologies have been adopted faster than any legislation relating to them can be drafted and implemented. We need to transform and speed up regulatory and other public decision making and practices and responses to mutating cyber-security challenges? Can information and data governance arrangements keep pace with developments? Boards need objective advice to distinguish hype from realistic possibilities. They should consider alternative futures and the practicalities of adoption, think through implications and avoid dead ends and excessive crawl out costs. Care must be taken to avoid being so focused upon new technologies that we overlook opportunities to either re-introduce traditional approaches or employ modified forms of them that are energy and resource efficient.

Coping With Multiple Challenges

Boards face multiple and inter-related governance, sustainability and technological challenges. The Future of the Corporation (2018) programme suggests that the emphasis of corporate governance should be switched from alignment with shareholders' interests to the implementation of corporate purpose. When corporations were initially established purpose sometimes embraced public as well as commercial concerns. Should it now include relevant and responsible innovation that creates new options and possibilities? How should boards and corporate governance arrangements embrace new business models and the sharing economy (Sundarajan, 2016)? Board experiences, memberships, structures and practices from a previous era may not necessarily be relevant to today's choices and the resolution of contemporary dilemmas. How should a new generation of directors and other leaders be identified and selected? What can and should be done to prepare them for unknown futures and operation in arenas that are not yet on the radars of their contemporary equivalents?

How many directors are widening their perspectives and visions from corporate transformation to transforming our world? How many boards are committed to supporting the achievement of Paris Agreement (2015) climate change undertakings and/or United Nations (2015) sustainable development goals? How should directors who are thinking longer-term accommodate, communicate and/or negotiate with stakeholders whose concerns and priorities may be more immediate? Is a consensus on innovation and other priorities possible? If further fragmentation or polarization occurs, should companies make choices and focus, or should they develop multiple approaches,

models, offerings and forms of relationships, or even de-merge, to suit different communities and groups that have distinct pre-occupations and make incompatible lifestyle choices?

Innovation can open doors and sustain progress (Christensen and Raynor, 2003). Rather than look for better ways of playing old games, should boards invent new ones that are more affordable and inclusive and less demanding of resources and time? Understanding the root causes and drivers of challenges and their potential consequences can be the keys to envisaging imaginative, relevant and acceptable solutions. Could more open, free and competitive markets liberate the forces needed to address social issues and ensure more inclusive growth (Posner and Weyl, 2018)? Alternatively, if directors and boards fail to respond to challenges and opportunities will Governments intervene?

Where regulators keep their heads down, and Governments procrastinate to avoid alienating sections of their populations, boards can find themselves in the front-line and facing difficult choices. The costs of responding to a challenge such as climate change can rise exponentially with each year of delay. Will boards play it safe or grasp nettles? Will they try alternative ways of discharging their legal duties and responsibilities and new ways of communicating, engaging and providing responsible leadership? Will they explore new strategies and forms of governance for alternative models of operation, organization, funding and exchange? Boards should ensure that frantic hunts for quick fixes to certain symptoms do not preclude the rigorous search for underlying enablers and creative forces that once unleashed could lead to more radical suggestions and holistic solutions.

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Abstract

The uncertainties that characterise contemporary business and market environments complicate the challenge of leading innovation and responding responsibly to external trends and developments. More than incremental change may be required. However, when confronted with multiple and inter-related challenges and associated opportunities many boards find it difficult to obtain the objective and holistic advice they need concerning how best to respond and achieve the adjustments, adaptations or changes that are required. Boards need to re-engage with stakeholders, rethink

corporate purpose, priorities, approaches, strategies and business models and seek holistic solutions that embrace supply and value chains. They should also periodically review their agendas, compositions and practices and rethink their role and contribution and that of disruptive and enabling technologies, governance arrangements, collaborators and external ideas in relation to stimulating creativity, enabling innovation and supporting entrepreneurship.

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