

Preface

Managing innovation will increasingly become a challenge to management, and especially to top management, and a touchstone of its competence.

Peter Drucker (2013). "People and Performance", p.149, Routledge

Peter Drucker's comment is as relevant now as it was then, possibly more so in these volatile, uncertain and complex times. It is increasingly recognized that innovation is vital to the success of organisations and entire economies. However, as a commonly used 'buzzword' it is often misapplied and misunderstood. Originating from the Latin *innovare*, meaning to bring in something new, innovation is essentially about the creation of value, in other words less about the generation of ideas than their translation into commercial or social outcomes. What makes innovation interesting and important is its role not just in shaping historical or contemporary narratives but also in preparing us for a more prosperous, healthy and sustainable future. As Theodore Levitt put it, "Creativity is thinking up new things. Innovation is doing new things". In this context, innovation is the indispensable driver of modernity, underpinning human progress, and now critically the health and prosperity of entire populations as well as the survival of the natural world around us, through changing technologies, business models and modes of social organization. The existential nature and impact of innovation has earned the topic close attention among both researchers and practitioners, and in doing so it has also given rise to the famous aphorism 'innovate or die'.

In recent years, such attention has shifted to the management of innovation as well as its content in firms and organizations, together with supportive public policy which recognizes its inherent complexity and paradoxes. We realise that to innovate we cannot rely purely on luck, which is why the focus of this Handbook is on the 'how' of innovation – how to lead technological change and innovation, how to set strategic innovation goals, how to direct resources to these goals and how to establish effective processes to facilitate implementation. With the proliferation of approaches to innovation management, it is important not to confine ourselves to a narrow perspective on innovation or to a closed and excessively rigid approach, such as those we might find in linear 'lab to market' commercialisation solutions. This would fail to accommodate the multi-layered and interdisciplinary nature of the topic, let alone to recognize the risks and opportunities involved with its practical application. It cannot be emphasized enough that the study of innovation resists categorization as a single overarching framework.

Approaches to innovation encompass economic and management perspectives, an all-important science and technology dimension and inevitably cultural and human-centred approaches. Acknowledging these diverse approaches, we seek to explore the nature and impact of innovation holistically across multiple dimensions and in a broad range of contexts and settings. To this end, we have brought together a distinguished collection of global authors from a mix of industry, public policy and academic backgrounds. Some are seasoned executives and academics, others are emerging researchers or those working in niche industries or start-ups. The nearly 40 authors who have contributed to the Handbook subscribe to the premise that for innovation to happen, and to succeed, it must be proactively managed at the organisational level. Only with the right focus, resourcing and capabilities, as well as a

systematic national policy framework, can firms and organisations consistently innovate at high quality with positive outcomes. Not all innovation meets with success, of course, but the point is to maximise the chances of it doing so.

It would be no exaggeration to say that innovation is the ‘hidden engine’ that powers today’s advanced economies, as it generates new forms of value to challenge traditional industries and occupations and to create new ones, requiring new skills, technologies and infrastructure. While past economic orthodoxy abstracted from the dynamic role of innovation in its static equilibrium modelling, more recent developments in economic theory have begun to recognise and account for its significance in capital accumulation and growth. In addition, both research and experience have now begun to demonstrate some generalizable features of successful innovation, albeit in different regional, industrial and societal contexts. This Handbook will bring to life the contemporary innovation debate in multiple contexts ranging across large and small organisations, developed and developing countries, and across industry sectors from high tech manufacturing to healthcare. It will demonstrate the value of having a flexible set of tools, techniques and perspectives to support innovation management in these contexts and will unpack what the evidence would suggest constitutes success, in five Parts.

Part I ‘[Call to action for innovation management](#)’ outlines the contemporary challenges and key considerations in preparing to manage and promote innovation at the organisational level. This Part comprises two chapters, the first of which by Dodgson in ‘[The changing nature of innovation management: a reflective essay](#)’ provides an overview of the state of play in the academic literature and practice on innovation management. This is followed by Donald’s chapter on ‘[Setting up for innovation management](#)’ which discusses the rapid pace of technological change and innovation in the context of uncertainty and risk.

Part II ‘[Key ingredients for successful innovation Management](#)’ introduces the role of innovation leadership, management control and problem-solving. Sheffield, Kars-Unluoglu and Jarvis in ‘[Climate for Innovation: A Critical Lever in the Leadership of Innovation](#)’ assess how leadership influences the climate that may in turn support or hinder innovation. Saunila’s chapter ‘[Mobilizing management controls in innovation projects](#)’ investigates the characteristics and potential of management controls in innovation projects. Lastly, Ogutu and Levi in ‘[Innovation Management Tools - The Innovation Algorithm](#)’ examine the mechanism that enables problem-based bottom-up innovation.

Part III ‘[What innovation leaders are doing](#)’ emphasizes the importance of bringing an organizational mindset to the innovation challenge and investigates the role of specific management approaches, tools and market engagement strategies in embedding the process of innovation. Dadich in ‘[Brilliant positive deviance: Innovation beyond disconnected and disciplined domains](#)’ shows how innovation may be sourced internally to support improvements in healthcare. Joshi and Soni in ‘[How managers shape innovation culture: Role of Talent, Routines, and Incentives](#)’ identifies the routines, incentives and talent that are required for middle managers in transforming the organizational culture. Munir, Bengtsson, and Åkesson in ‘[Management tools for business model innovation - a review](#)’ scan the literature on mechanisms to target and facilitate business model innovation. Thongpravati in ‘[Origins of Innovation: Market-Driving Innovation vs Market-Driven Innovation](#)’ considers the balance

between demand and supply driven innovation with a focus on market dynamics. Finally, Nikina-Ruohonen in '[Leading and Managing Areas of Innovation: The Multi-Stakeholder Perspective](#)' explores ways of navigating complex stakeholder environments to secure innovation goals. This Part highlights the need for an innovative mindset internally at all levels within organizations and in relation to the external environment, with a focus on the active inclusion of stakeholders, especially through 'co-creation' with employees and customers.

Then Part IV '[The trend towards boundaryless innovation](#)' indicates the importance of capitalizing on innovation opportunities outside and across organisational boundaries, sometimes depicted as 'open innovation'. This approach has changed the world of business and indeed the public sector by consciously blurring traditional boundaries and expanding the scope and prospects of innovation, particularly for small and medium size enterprises (SMEs) in innovation networks and ecosystems. Albats and Podmetina in '[Houston, we have a problem: ambiguity in perceiving 'open innovation' by academia, business and policy-makers](#)' introduces the concept of open innovation as a domain of productive ambiguity. Hadjimanolis in '[Innovation Management in Small and Medium Size Enterprises \(SMEs\): New perspectives and directions](#)' extends the concept to the role of SMEs, often perceived as innovation laggards, and their current and prospective contribution to broader industrial transformation. Of course, innovation is not confined to the private sector, and Katsigiannis closes this Part with a chapter on '[Public and Private Sector Innovation Management](#)', which reviews and challenges the compartmentalization of the public sector in the innovation literature and practice.

Lastly, Part V '[New standards for managing innovation effectively](#)' returns to the role of leadership in the design and delivery of innovation outcomes. Clearly, leaders are critical to contemporary innovation success in a volatile, complex and fast-changing environment. Killen in '[Effectuation: a decision logic for innovation in dynamic environments](#)' begins this Part with a fresh look at innovation management, and Yang, in '[Benefiting from Innovation – Playing the Appropriability Cards](#)' shows how innovation can be targeted in different contextual circumstances to optimise execution and impact. Jaiswal, Tiwari, Gupta and Agarwal in '[Frugal Innovation: A structured literature review of antecedents, enablers, implications and directions for future research](#)' consider the new opportunities and options available for driving innovation in the context of 'new geographies'. Ahmadi and Arndt in '[Dynamic Capabilities and Innovation](#)' take this further as a strategy for building dynamic capabilities for innovation at the organizational level. Finally, Patterson, Pugalia and Agarwal in '[Innovation in a volatile, uncertain, complex and ambiguous world with dynamic capabilities](#)' summarize the prospects for innovation in conditions of constant and unrelenting disruption, exacerbated most recently by the Covid-19 pandemic. This concluding Part emphasizes the need for practical approaches suited not only to prevailing circumstances but also to those we have hardly begun to anticipate, again reinforcing the importance of positioning innovation as a dynamic capability that can shape as well as adapt to the external environment.

Our hope is that the great value of this Handbook will be seen in the unique perspectives that individual contributors have brought to the study of innovation and its management in firms, organizations and the wider community. These have important implications not just for the robustness of post-Covid economic recovery but also for the *quality* of this recovery,

particularly with the new and growing longer term challenges we face in public health, social inequality and climate change. We would like to sincerely thank all the authors for persisting with their contributions in the face of a global pandemic, and the publishers for their patience. It has not been an easy time for anyone. More than ever, the world will need resilient and innovative organizations to chart a way forward, together with governments that can provide well targeted, system-wide policy support. We are confident that this Handbook, drawing on relevant lessons of the past, will convey a broad and comprehensive understanding of what is required for success in the future.

Renu Agarwal, Eric Patterson, Sancheeta Pugalia, Roy Green