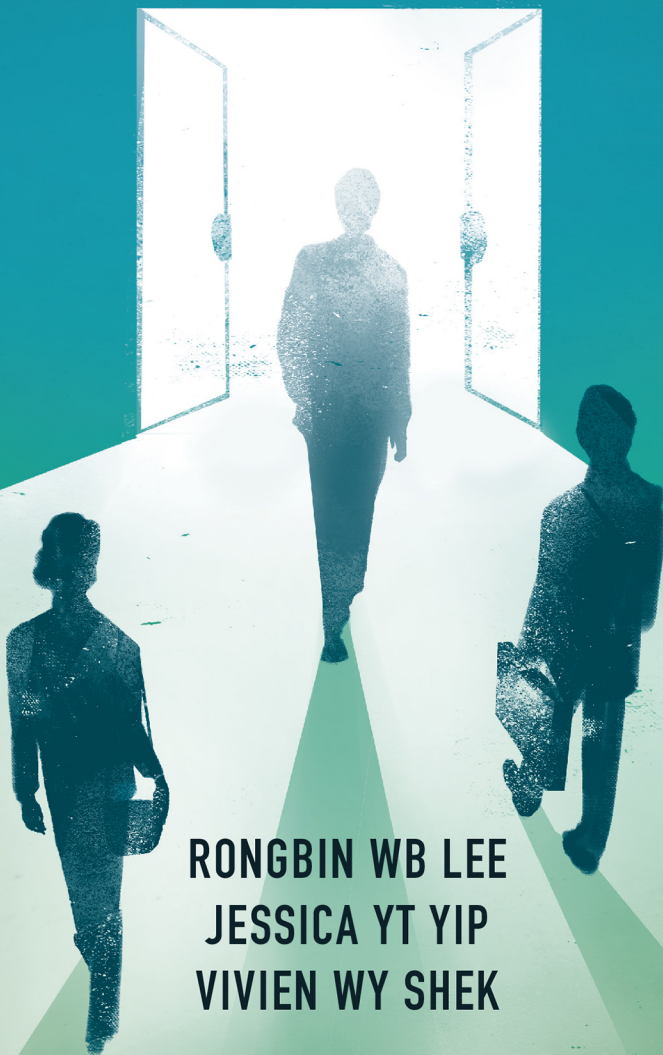


KNOWLEDGE RISK AND ITS MITIGATION

PRACTICES AND CASES



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Knowledge Risk and its Mitigation

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Foreword by Leif Edvinsson

The World's First Professor of Intellectual Capital

Twenty-three years ago, I wrote my first book on intellectual capital, followed by several, and have witnessed how the world has changed and learned from the overdosing of the reengineering and traditional scientific management of the Taylor system of approach to solve productivity and efficiency problems in the industrial, business and government worlds. Attention has thus shifted to the understanding of the vital factors needed for the sustainability of enterprises and organizations in the era of uncertainty and chaos.

The unprecedented advancement in information technology and artificial intelligence has gradually renovated the business landscape on how business should be done in the augmented reality. Nevertheless, most of our business values and practices are still heavily resources based, which has led to the unavoidable financial turmoil worldwide repeated at intervals. Under the COVID-19 pandemic period and its aftermath, the marginal return of physical resource worldwide would diminish significantly, such as oil. Despite these changes, apart from academics and researchers, the attention to the knowledge-based view and intellectual capital has still not attracted the kind of attention of business practitioners should devote, and imprinted seriously in many business practices. The importance of knowledge spiral is of less attention than its visible financial part. The global trade of intangible assets is anyhow now growing twice as rapidly as trade of goods and service. Soft assets like culture and relations are being more and more highlighted. The fact is that though nobody will refute the importance of knowledge asset of corporates, they still remain mostly as a theory on papers and bookshelves by senior leaders. Young entrepreneurs grab the opportunity space, for intangible asset trade, such as gamification, music and culture.

This book looks at the corporate knowledge from another perspective. Do we know what we know and what we do not know in an enterprise? How these risks could be managed and mitigated. Sometimes, it is also referred to as ignorance management.

This book is the first attempt of its kind to provide a pragmatic view to launch knowledge risk management at the grassroot level on what should be the mission and practical skills needed for a knowledge management practitioner. Another surprise of this book is the numerous cases, examples and data that are brought about from the real business world.

I had many occasions working with the authors many years ago while I was attached to The Hong Kong Polytechnic University as a visiting scholar, and

viii *Foreword by Leif Edvinsson*

enjoyed very much the enthusiasm, knowledge exchange and culture of the research center set up by Prof. Lee and his colleagues. This book is a happy memory of many years of their fruitful work, which I hope can stimulate more alike to come in our knowledge repository.

Happy Future, reading and mind exploring!
September 2020, Sweden

Preface

What is the mostly needed resource to create and sustain a company? Most of the answers would posit that financial or human resources are most indispensable. A few would say knowledge. The fact is that most world's successful companies did not start with adequate financial capital at all, such as Microsoft, Apple or Alibaba. They started with their unique knowledge (not necessarily technical knowledge alone) and were able to grow on it.

The function of a firm is to provide products or services to meet the changing market needs at lower transaction costs. As the life cycle of companies and enterprises is getting shorter and shorter, a firm could only survive with the pace of knowledge it can gather, reuse and innovate in the delivery of their services. Organizations that have developed the right knowledge to their advantage would sustain longer. However, in view of the highly turbulent and unpredictable business environment during and after the COVID-19 pandemic era, risk management on both financial and also nonfinancial aspects becomes essential in running a business. According to a study conducted by Ocean Tomo on intangible market value, as for 2020, 90% of the assets of all Standard and Poor 500 companies are intangibles. This trend has been accelerated by the COVID-19 as the return of most firms based on traditional physical resources diminishes rapidly. Organizations need to reconsider their approach in managing their most valuable assets, that is, their corporate knowledge asset especially during rapid social-economic-technological changes.

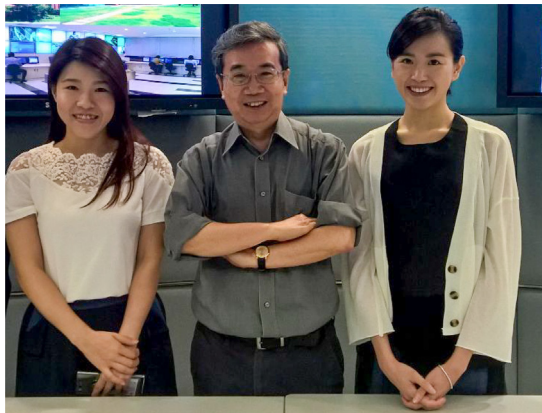
Despite the growing awareness on the importance of knowledge management (KM) among researchers and practitioners over the past decade, it is still not widely practiced among business professionals in industry. What are the underlying reasons? Whereas the exploitation of physical resources bear a diminishing return, the attention is turned on to the most valuable asset of an organization, the intangibles or intellectual asset. However, very often we do not know what we know nor what we do not know. This is where an enterprise risks could arise, not only for individuals, but also for the organization as a whole.

This book provides not only a solid framework of what should constitute the core business value of KM, but also practical methods and tools to assess knowledge risk and its mitigation. Traditional KM programs which emphasize how to capture, organize and share organizational knowledge among its stakeholders often fail to attract the attention of senior management, as the return on investment or any tangible benefits of applying KM could not be felt in a short period of time. To overcome such lack of incentives, we redefine what should be basic

role of a KM practitioner. The book is the first of its kind to present a systematic assessment of knowledge risk and its mitigation, and reify practices with real-life cases and data from a macro down to the micro scale of implementation. These include detailed knowledge elicitation cases, retention strategy as well as the long-term task of fostering a knowledge sharing culture by building a learning organization. Last, but not the least, the yardsticks commonly employed to measure the success of a KM program are highlighted. These form the core skills expected of KM practitioners.

Most books on KM are rather conceptual, building on theoretical framework or grand theories on what KM is and how it should be achieved. Instead, this book summarizes the work conducted by the authors as a result of more than 15 years of research and consultancy conducted at the Knowledge Management and Innovation Research Centre of The Hong Kong Polytechnic University. We avoid making this book as a research monogram, keep the academic referencing to a minimum, but emphasize the practical and real-life cases for readers to experience themselves. In the field of KM, the business world is our real-world laboratory. The content introduced could form a rich base of case repository for use in a business education curriculum and for management consultants and KM practitioners to understand and apply the KM techniques to mitigate knowledge risks in business.

Rongbin W. B. Lee, Jessica Y. T. Yip and Vivien W. Y. Shek



(From left to right Vivien W. Y. Shek, Rongbin W. B. Lee, and Jessica Y. T. Yip)

Acknowledgments

This book although authored by three of us, actually records the knowledge management (KM) journey of The Knowledge Management and Innovation Research Centre (hereinafter referred to as the Centre) of The Hong Kong Polytechnic University since its establishment in 2007. The Centre has made a significant impact in Hong Kong and the neighboring region in the promotion of its education (first MSc in KM), research and practices into KM. Staff of the Centre had been aggressively building a strong KM consulting practice in both private and public sectors – not as sidelines for their professors and teachers, but as a kind of action research learning experience for both the clients and the KM group itself. Through all these efforts and projects, the Centre has truly demonstrated the application of KM tools, techniques and systems in a wide range of industries including engineering, IT, transportation, financial services, healthcare, education, public service, social work, manufacturing and hospitality sectors.

A lot of people have been involved in different aspects behind the work leading to the publication of this book. Such a large pool of projects and data presented here would not have been possible without the contribution of many colleagues, research staff and students, as well as external professionals associated with the Centre. In particular, I would like to thank my colleagues Prof. Eric Tsui, Prof. Benny Cheung, Ms Nicole Sy, Ms Dora Chung, Ms Cherie Lui and Dr W. M. Wong for their professional and technical support of numerous projects, and Dr Tracy Zhou, Dr Irene Fan, Dr Percy Chan, Ms Amy Luk, Ms Lora Liu, Ms Eva Su, Dr Farzad Sabetzadeh, Ms Haley Tsang and Dr Nikolina Dragičević for their contribution at various stages of the development of the Centre from teaching, research to consultancy practice. Behind all these, the dedication from Ms Jenny Chan, Autumn Lin and Trista Lai is indispensable for the smooth running of the Centre including the Global MAKE and MIKE Award schemes. Special mention is made of the following research graduates who brought about the various valuable case studies to Chapter 7 of this book, notably Dr K. C. Ko on centre of excellence, Ms Erin Kwong on reliability management, Mr C. W. Kong on near miss and Dr Wang Yong on dynamic taxonomy, as well as the contribution from Ms Haley Tsang on her research in knowledge risk assessment. We would also express our heartfelt thanks to Dr Wu Qinghai of Pioneers Alliance Technology Co. Ltd. and ex-CKO of Siemens (China) Co., Ltd. for his input on KMMM, Mr Stephen Selby, former Director of Intellectual Property Department of the Government of the Hong Kong Special Administrative Region on intellectual capital risks, and Mr Ludo Pyis, Mr Peter Welch and Mr Brad Meyer from the Areopa Group International on intellectual capital accounting.

xii Acknowledgments

Snapshot of some memorial photos of the Knowledge Management and Innovation Research Centre of The Hong Kong Polytechnic University:



The Third Asia-Pacific International Conference on Knowledge Management 2006. From Left, K.-E. Sveiby, Z. T. Wang, U. M. Fayyad, P. Lambe, L. Edvinsson and D. Snowden.



K.-E. Sveiby lecturing on collaborative culture.



L. Edvinsson mind-storming over a cup of tea.



Conferral of Adjunct Professor to D. Snowden.



Photo with C. Argyris at Action Science Workshop.



Nonaka at the Asian MAKE Award Presentation and Global MIKE Award launching ceremony 2018.



Brown bag lunch meeting at Research Center



MSc in KM, 10th Anniversary Dinner 2014.