

## Preface

Knowledge and information-intensive work in various industries has increased greatly during the last decade. Tasks are increasingly carried out in networked environments in which a variety of stakeholders are performing organizational activities of all kinds. The development of information and communication technology (ICT) has enabled this change in the economy, and the perspective towards global markets has been widely accepted among economic players. These changes have brought about a variety of new concerns for practitioners and evoked new academic research interests. With the increased speed of economic transactions we are forced to face a new type of uncertainty and complexity related to the operating environment involving a variety of networks. To overcome problems caused by increased ambiguity and equivocality, relevant knowledge and high quality information have become the most valuable resources of every knowledge-based organization.

Managing all these challenges and options demands, in addition to new technological tools and equipment, new “invisible means,” as well. One of these means is trust. The same tools and equipment might lead to very different results in different organizations and networks depending on how invisible means are taken into account in managing and organizing work activities. It is not unusual for an organization to invest substantial financial resources in new ICT to enable better practices in acquiring, collecting, storing, distributing, sharing and utilizing codified knowledge and information resources. However, the real benefit from new technological investments will be achieved only if its use is supported by such invisible managerial means as trust.

Trust has a crucial role to play when organizations aim at innovation and successful operation. Although trust has been studied for decades in various disciplines, the importance of trust has never before been more significant

than it is today both in theory and practice. The significance of trust in various relationships and networks has motivated many researchers to analyze the meaning and impact of trust by applying both theoretical and empirical methods. However, there is still much research work to be done in this area. Our book contributes to the existing literature on trust by providing a collected edition of articles combining fresh insights into related factors and novel empirical findings on trust in the context of the management of knowledge and information as a resource. Most of the authors have carried out research on trust for several years and provide new, original theoretical and also practical views of the phenomena of trust within organizational settings based on their previous empirical research. Our book illustrates the attraction of trust as a research topic.

In this preface our intention is to briefly introduce the content of the book with the aim of making it more reader-friendly. We start by setting the background for the importance of having this edited collection of articles published. After that we will explain how the multidisciplinary nature of the concept of trust is examined by the authors of the chapters. Moreover, we will focus on trust in managing knowledge and information resources and related issues and show how the chapters of the book relate to this multidisciplinary field. Finally, at the end of this preface we will briefly summarize the content of all four sections of the book. This will help the reader to choose the sections of particular interest for him or her. We hope that the book will fulfil its function as a general basic reading for academics, practitioners and students interested in trust and its manifestations in the context of knowledge-based organizations operating in a networked global economy.

The term trust refers to a conceptual tool with which researchers in various fields aim at getting hold of an invisible phenomenon. The phenomenon that we call trust is very complex and multidimensional in nature and, therefore, it is very difficult to conceptualize. The definitions of trust are also many and varied. The concept is defined differently in different fields and even within the same field by different authors.

The variety of definitions of trust is very well illustrated in this book. Some chapters offer a rather wide overview to the definition of trust, while other chapters focus on a certain type of trust as a starting point to the analysis of the relationship between trust and a specific phenomenon, such as e-commerce or online partnership. Maija-Leena Huotari and Mirja Iivonen (Chapter 1) clarify the multidimensional nature of the concept of trust and present the various types of trust. Moreover, they summarize the basic features of trust in relation to organizational behavior. Risto Harisalo and Jari Stenvall (Chapter 3) analyze trust within the context of organizations. They introduce

various ways of defining trust, and also pay attention to the difficulty of separating trust from other closely associated concepts. Therefore, they clarify trust with the concept of motivational mapping in which acceptance, satisfaction, and legitimacy precede trust. Kirsimarja Blomqvist and Pirjo Ståhle (Chapter 8) illustrate the inconsistent and incomplete conceptualization of trust in a review of 30 empirical research chapters on trust in inter-organizational relationships between 1990-1999. They also summarize signs and signals of sources of trust in these studies.

Many authors in this book approach trust mainly from the cognition-based perspective, though, other forms of trust will occur in their texts as well. Mirja Livonen (Chapter 2) presents ideas for understanding trust building as a process from the cognition- and calculative-based perspective. She emphasizes the need to involve trust in the strategic thinking of managers. Apart from the cognitive nature of trust, Diane H. Sonnenwald (Chapter 4) also includes affective trust into her analysis of trust in the context of collaboration and conceptual, online organizations. Elisabeth Davenport and Leo McLaughlin (Chapter 5) investigate interpersonal and situational trust and their role in the online partnership and focus on a recently evoked type of trust called swift trust. Kai Öörni, Saana Kaleva, Soile Hirvasniemi, and Terttu Kortelainen (Chapter 6) approach trust mainly from the cognition-based perspective when exploring trust in the context of e-commerce and information systems, namely in the usability design of websites. Risto Harisalo and Jari Stenvall's second chapter (Chapter 7) is mostly based on the calculative type of trust when investigating citizens' trust in ministries. They define trust as people's calculation based on more or less accurate beliefs, opinions, or considered judgments over policy implications. Andreina Mandelli's (Chapter 9 and Chapter 10) analyses relate to cognition-based trust. In her first chapter the focus is placed on trust within the wider framework of the new, frictionless economy and Internet society and the nature of transaction costs involved (Chapter 9). The cognitive perspective is implied also in Andreina Mandelli's analysis of trust in value networks as a cognitive hierarchy and considered in relation to delegation and legitimacy (Chapter 10). Finally, Rino Falcone and Cristiano Castelfranchi (Chapter 11) analyze in detail cognition-based, or socio-cognitive, trust. They present a belief-based model of trust and outline the advantages of their model.

In this book our view to systems is social. We consider systems in relation to knowledge and information mainly from the social point of view. However, when referring to the use and utilization of ICT, the term system is also used. In these cases the point of view is socio-technological. Organizations and networks are social systems. Most chapters in this book consider trust at

this level. Chapters 1, 2, and 3 pay attention to trust mainly at the organizational level, whereas chapters 4, 5, and 8 consider trust at the level of networks or online communities. Chapters 6 and 7 investigate trust at the individual and organizational levels, more precisely in the intersection of these two levels where an individual person interacts with organizations or institutions. Chapters 9 and 10 examine trust at the wider levels of the global economy and society in general. Chapter 11 focuses on trust at the level of an information system.

Our book aims at tying trust to knowledge management (KM). This is a rather demanding task due to the multidisciplinary nature of both concepts and phenomena. The multidisciplinary nature of the concept of KM is highlighted by the variety of disciplines concerned with issues related to the management of knowledge-based production and information intensive activities. KM draws together theoretical conceptions and more practical issues from various fields of management, such as management of information content, of information and communication technology and systems, as well as management of people. Therefore, issues related to knowledge management have been explored and new theoretical frameworks presented, for example, in such fields as administrative and organization sciences, education, engineering, information studies and computer science. These emergent interests in the concept of KM show that there is a need in society in general and in the global economy in particular to aim towards new conceptions of the primary role of knowledge and information in the information society.

The concept of KM, in relation to the continuously changing operating internal and external environments of organizations, leads us back to consider the value of utilizing information and knowledge. This means that KM as such is not the overall aim of making decisions and taking actions, but the increased use of relevant information and sharing of knowledge for creating new knowledge and developing organizational knowing.

Trust is also a multidisciplinary concept. The multidisciplinary nature of the concept of trust has been very well understood, for an even longer time. This multidisciplinary nature of both knowledge management and trust is also well illustrated in this book. The authors, most of whom are experienced researchers in the topic, represent quite precisely the above mentioned fields of research concerned with the multidimensional, partly invisible phenomenon of trust and the concept of KM. While many authors, namely Davenport and McLaughlin, Sonnenwald, Huotari and Iivonen, Öörni, Kaleva, Hirvasniemi and Kortelainen represent information studies, Blomqvist and Ståhle represent economics, though Ståhle's background is education, Harisalo and Stenvall are administrative scientists, Mandelli's background is in mass communica-

tions, though now active with research on marketing, whereas Falcone is a computer scientist with a background in physics, and Castelfranchi a cognitive scientist with a background in psychology and linguistics.

To combine two multidisciplinary concepts together in our book has been a challenging and inspired task, which has benefited from the authors' different scientific backgrounds. We believe that the chapters complement each other, and thus enrich the content of the book. The richness of the content of the book leads the reader to understand the complexity of the phenomenon of trust at the same time as the chapters provide fresh insights, novel theoretical frameworks as well as empirical results and ideas for future research.

The development towards a global economy challenges trust as an invisible phenomenon that is a crucial ingredient in networked mode of performing. Therefore, it is also very interesting to examine whether trust is more invisible or more visible in networked activities and processes than in the more traditional mode of performing within organizations. Networking makes the collaborative ability vital by providing new possibilities to carry out business activities in private and public enterprises, to distribute work and collaborate, to involve citizens in a civil society, to market products and to provide new services via the use of new information and communication technology and systems. Therefore, it is interesting to see how trust can be conceptualized when both the mode of performing and the environment where this takes place are constantly changing. This definitely also requires novel theoretical approaches and managerial tools far different than the ones presented since the 1950s.

The new demands for defining trust and understanding its crucial role in the networked global environment also are very well presented in this book. The chapters consider trust in various contexts, and define the concept differently by emphasizing a variety of aspects of trust. The common perspective to all chapters in the book is that they apply trust mainly to issues related to the management of knowledge and information and related systems within organizations, and also at the wider levels: networks and society. The chapters of Section I of the book partly reflect previous studies of trust and present an appropriate background to other chapters and also provide new insights on trust as an organizational phenomenon. The chapters link trust clearly to the performance of organizations and networks. The focus is placed on trust when the primary mode of performing is joint or shared knowledge, and information intensive activities and processes in general. In Section II, the focus is on trust in online communities in particular. The fast development of groupware technology, or computer-supported cooperative work (CSCW) technology, offers a good opportunity to the growth of various online organizations and communities. However, they also emphasize the need for trust as one basic

requirement of functioning. The chapters in Section III highlight the citizens' trust on institutions in the context of e-commerce and civil society. The adapted viewpoint of trust is cognition-based, but citizens are perceived also as active actors in society. In Section IV the analysis moves towards trust models. The chapters provide novel research and more comprehensive and deeper views of the impact of trust on information systems, partnership formation, networks, economy and society in general.

## **SECTION I: TRUST IN PERFORMING**

Section I deals with trust in the context of various forms of social capital and intellectual capital, and strategic thinking. In Chapter 1 Maija-Leena Huotari and Mirja Iivonen analyze the concept of trust in general and in the context of KM in particular. They pay attention to managerial means of managing organizations by identifying the factors that can promote trust within organizations and beyond, the network level. Moreover, they define the relation of intellectual capital, social capital and KM and highlight the multidisciplinary nature of trust. They provide an analysis of trust as a component of social capital. The chapter focuses on two important ways of managing knowledge-based organizations through trust: trust as acting through organizational culture, and trust as the basis for collaboration including communities of practice. The view is based on the premise that trust plays a crucial role in turning personal knowledge into organizational knowledge. Therefore, the enhancement of trust in collaboration is crucial for knowledge creation in knowledge-based organizations. Moreover, they provide insights based on an empirical study for elaborating further on these ideas towards a theoretical model of strategic management of information and knowledge. Some of these ideas relate to the theoretical model presented by Andreina Mandelli in Chapter 10 of Section IV of this book.

In Chapter 2 Mirja Iivonen explores trust as a management strategy by applying Henry Mintzberg's idea of strategy thinking as seeing. Management and strategy thinking are very knowledge-intensive activities, where managers' ability to receive, understand, interpret, and share information cannot be underestimated. Iivonen states that trust is a strongly situational phenomenon and related to the organization's past and present. The chapter presents an insight that trust building is not only an informal phenomenon that exists or develops within an organization, but is also something that has to be seen and used as a tool that must be built and utilized to support functioning of the

organization. Moreover, the author points out the other side of the coin of knowledge management, that thus far has gained less emphasis on research of KM, for example such issues as tacit organizational knowledge being a potential hindrance to organizational development. In other words, the impact of tacit knowledge embedded in an organizational culture and everyday routines can also have negative impacts. On one hand, the chapter contributes to the existing literature on strategy development. On the other hand, it should be of interest for practitioners because trust building as a management strategy is also a very practical issue. The importance of trust building is highlighted also by Blomqvist and Ståhle in Chapter 8 of Section IV in this book.

In Chapter 3 Risto Harisalo and Jari Stenvall analyze trust in the framework of organizational behavior and emphasize human interaction as a foundation of trust. They also highlight reasons for the growth of interest in trust. Harisalo and Stenvall argue for perceiving trust as an organizational asset and capital from the perspective of general management. They argue that, as capital, trust is comparable to financial, human, and social capital as a factor of production. Furthermore, Harisalo and Stenvall suggest that it would be worthwhile to see beyond trust building as a management practice towards understanding and accepting its fundamental role as capital in organizations. This is an interesting view in the era of intellectual capital and social capital management. The changing nature of competition and the organizational environment, including less hierarchical structure but also towards more asymmetric information, are highly topical issues explored by the authors. This ties the chapter to the two chapters by Mandelli in Section IV of the book in which these issues are also thoroughly explored.

## **SECTION II: TRUST IN ONLINE COMMUNITIES**

The two chapters of Section II lead readers to the issues related to the fundamental role of trust in online environments and virtual teamwork. In Chapter 4 Diane H. Sonnenwald introduces the concept of conceptual organization. She provides a very timely and thoughtful analysis of how to manage cognitive and affective trust in a geographically distributed conceptual organization aiming at carrying out research and development work. Sonnenwald also discusses the possibilities provided by information and communication technology (ICT) for performing in geographically distributed conceptual organizations. The empirical data analyzed is based on her own involvement

as a participative observer in a recent research project utilizing a new form of organizing based on the use of the latest, advanced ICT.

In Chapter 5 Elisabeth Davenport and Leo McLaughlin explore interpersonal trust in general and swift trust in particular in online partnerships. Their focus on the situational nature of trust is well argued and criticism of the psychological approach is also given. The emphasis is placed on situations where there is little time to establish deep acquaintance and mutual understanding for trust building. These situations call for swift trust when partners do not possess a long common history of working, but have to be able to carry out a joint task within a short period. Moreover, their elaboration of trust also relates the design of e-commerce and links this chapter to the next chapter in the next section of the book.

### **SECTION III: CITIZENS' TRUST ON INSTITUTIONS**

The chapters in Section III reflect conceptualizations of trust from an individual's viewpoint. In Chapter 6 Kai Öörni, Saana Kaleva, Soile Hirvasniemi, and Terttu Kortelainen provide an interesting view of trust in new types of institutions in the new economy and global economy, namely electronic commerce (e-commerce). The authors analyze individuals' trust in information systems, used for selling products via the Internet, enhanced by the usability of websites of vendors. The perspective is mainly based on consumers' cognitions of trust. The authors emphasize that the questions of risk and threats have to be taken into account when trust is considered in e-commerce. Basic literature on how usability of websites can contribute to trust building in e-commerce is thoughtfully analyzed and a pilot study designed for testing the ideas empirically through consumers' perceptions is discussed. It is interesting that some of the reasons the authors found for mistrust are not supported by the previous empirical studies exploring consumers' perceptions of trust in e-commerce. This makes one wonder whether these differences are influenced by the cultural, political and economical system of Finland, whose specific features in the context of a political system were highlighted by the study on citizens' trust in ministries in the next chapter.

In Chapter 7 Risto Harisalo and Jari Stenvall highlight citizens' attitudes and perceptions of trust towards public administration (the Ministries in Finland) based on their empirical study. Government and ministries are organizations which should base their activities and decisions on up-to-date, correct, reliable and verifiable information and knowledge. Further, their functioning

should be transparent and trustworthy. Harisalo and Stenvall state that a certain degree of trust is necessary to make democracy to work. Their empirical study adds to the existing knowledge about Finnish society and about the crucial aspect in the relationship between citizens and their public institutions, i.e., the deficit of trust. The chapter also highlights what is happening to our democratic institutions in the information society. The results of the empirical study are socially important, and raise many interesting questions.

## **SECTION IV: TOWARDS TRUST MODELS**

The four chapters of the final section of the book focus on the development of trust models. In Chapter 9 Kirsimarja Blomqvist and Pirjo Stähle discuss the impact and nature of trust in the context of the formation of technology partnerships. The contribution of the analysis, supported by empirical results of a study in Finnish high-technology partnerships, is based on the authors' previous research in the topical area. Their contribution also relates to providing very appropriate ideas about how to operationalize the very multidimensional and multidisciplinary concept of trust to examine its manifestations in real life settings. The authors aim at modelling trust by bringing together the concepts of capability, goodwill, behavior, and self-reference. While the three first components are mentioned often when illustrating the concept of trust, the concept of self-reference is new, and offers a fresh and insightful addition to the conceptualization of trust and trust models in relation to organizational behavior.

In Chapter 9 Andreina Mandelli provides an appropriate background to almost every chapter of this book. By examining the development of society towards a networked economy, she demonstrates also in a critical manner potential pitfalls of this development and also opportunities that are opening up with this development. Her contribution is even controversial to mainstream academic research and thinking. The focus is placed on the role of trust in new forms of organizing for performing, and on the origins of new transaction costs in connected societies. A very unique and analytical view of the frictionless paradigm is provided with a breadth of theoretical insights combined with a novel analysis. Overall, the chapter provides fresh viewpoints and excellent theoretical discussions with clear practical interests as well.

In Chapter 10 Andreina Mandelli takes some of the ideas presented in Chapter 1 by Huotari and Iivonen further by exploring the complexity of the interplay of trust, self-organization and hierarchies in value networks. She pre-

sents an ambitious and exciting review of trust literature that allows the author to develop novel insights and an innovative framework for investigating organizational trust. Mandelli's approach is energized and original to organizational trust that builds on earlier solid empirical work, such as studies by Castelfranchi. Moreover, a theoretical model of cognitive value networks is presented. The chapter contributes excellently to the content of the book and literature on organizational trust.

In the Chapter 11 Rino Falcone and Cristiano Castelfranchi aim at providing a formal foundation and definition of the concept of trust. They present a socio-cognitive analysis of trust at the system's level. Moreover, they analyze the cognitive ingredients of trust and show how these elements are the basis for various kind of delegation. Furthermore, Falcone and Castelfranchi formalize trust into a mathematical model and argue that their model enables building artificial systems where the ingredients of trust could be presented.

Together these four sections of the book including 11 chapters provide a rather extensive description of trust in relation to knowledge and information-intensive activities and management of knowledge-based production within organizations and even beyond. As the editors of the book we are aware that many aspects will still remain unexplored in this book. Therefore, we also welcome and look forward to further exploration and rigorous academic studies as well as practical applications in this highly topical area of research.

## Acknowledgments

We are grateful for being challenged by Idea Group Publishing to write this book and to Mehdi Khosrow-Pour who invited us to edit this book. The process has been demanding for both of us but we have also been eager to learn more about how to enhance trust and trustworthiness in managing knowledge and information and related systems within organizational contexts. We gauged the relevance of the topic for adding to the knowledge of the role of trust in the highly turbulent and continuously “shrinking” world. The book was inspired by the fact that the editing process was simultaneously a good opportunity to learn about and also to put trust to the test in practice when collaborating across geographical distances and disciplinary boundaries via social and technological information networks. The authors of the book are from various countries — Finland, Great Britain, Italy, and the United States — and there are some whom we have never met face-to-face. Furthermore, during the editing process one of us moved to another university over 500 kilometers away, and we collaborated mainly by using ICT to complete the editorial work. Therefore, we can confess that trust has played a crucial role also in helping the editorial work to go smoothly. It is a well-known fact that interacting without meeting face-to-face is more difficult than when having the possibility to meet in person. Therefore, mutual trust and respect were an essential ingredient in our collaboration. We communicated often just to be able to inform each other about our possibilities to work with the book at that moment. Because the editing process took place at the moment when we both were very involved in many other activities, it was necessary to share schedule information as well as to take into account each other’s situation. It was also useful to understand each other’s feelings during the editing process — pleasure and satisfaction when the process moved on, as well as anxiety from time to time.

During the whole process we have owed our deep gratitude to the authors. They all contributed in an excellent manner to the content of the book.

Special thanks also go to the referees. Many authors of chapters contributed also as referees for chapters written by other authors. These valuable contributions helped other authors to improve their text. Because every chapter was reviewed by two or three referees, we also are indebted to a number of experts and highly recognized researchers in this area of research who did the work with care. Moreover, we owe our warm thanks already in advance to those colleagues who have expressed their interest in reviewing the book when published. We hope that apart from them other readers of the book also find it of interest, providing fresh insights and recent research findings in this highly topical area of research.

Our warm thanks go to the efficient publishing team of IGP, in particular, to Amanda Appicello, who patiently and most kindly replied promptly to all our question during the process, Jan Travers for taking care of the legal issues, and Jennifer Sundstrom for promoting the book. Besides being an inspiring process, the editing of the book has also been an intensive learning process for both of us. When starting the work we were already familiar with the topic of trust in KM. However, each chapter has added to our understanding of certain aspects of the multidimensional phenomenon of trust and its many faces that are highlighted differently when examined from multiple angles and viewpoints. Thus, we warmly welcome further empirical studies on this motivating and challenging research topic.

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