For a long time, we thought the only possible value configuration for organizations was the value chain developed by Porter (1985). Insights emerged, however, that many organizations have no inbound or outbound logistics of importance, they don’t produce goods in a sequential way and they don’t make money only at the end of their value creation. Therefore, two alternative value configurations have been identified: labeled value shop and value network, respectively (Afuah & Tucci, 2003; Gottschalk, 2005; Stabell & Fjeldstad; 1998).

As we move into the knowledge society, more and more organizations make their living from knowledge creation and knowledge application. The typical value configuration where we find such knowledge work is the value shop. The value shop is a value configuration creating value by applying knowledge to customer problems. A hospital applies medical knowledge to patients’ problems, a law firm applies legal knowledge to clients’ problems and police detectives apply law enforcement knowledge to criminal investigations.

Even where the main value configuration of an organization is the value chain, we find more and more examples of value shop activities within the organization. For example, successful electronic business is dependent on knowledge management organized as problem solving in the value shop. In IT outsourcing relationships, the vendor is a value shop when solving client problems. In IT insourcing, similar knowledge management challenges emerge. In IT governance, knowledge management has to support decision-making through knowledge-based value shop activities to be successful.

This book is titled *Knowledge Management Systems: Value Shop Creation* to present knowledge management systems in the context of organizations as value shops based on knowledge work. A number of topics are introduced and discussed in the book. These topics are of two kinds. The first category of examples is from the informa-
tion technology management field itself, where we look at knowledge management systems in the important IT management areas of e-business, outsourcing, insourcing and governance. The second category of examples is from organizations that have the dominating value configuration of the value shop, such as police investigation units and law firms.

The main objective of knowledge management is to support the creation, transfer and application of knowledge. Researchers and practitioners have emphasized the important role of knowledge management in electronic business and IT outsourcing relationships. By linking IT topics such as knowledge management and e-business, knowledge management becomes a tool and critical success factor for e-business. Similarly, by linking knowledge management to IT outsourcing, knowledge management becomes a tool and critical success factor in outsourcing relationships.

In areas such as knowledge management, e-business and outsourcing, many textbooks can be found. However, it remains for me to discover a book covering links between these areas. The market challenge for this new book will be the extent of awareness of and interest in knowledge management as a tool and critical success factor in other fields, rather than only its own.

Knowledge management success is dependent on appropriate applications. For example, it has been argued that knowledge management is the most important critical success factor in the second e-business wave (El Sawy, 2001; Fahey et al., 2001; Holsapple & Singh, 2000; Malhotra, 2000, 2002; Plessis & Boon, 2004; Singh et al., 2004; Tsai et al., 2005). However, there is a lack of conceptual work to guide knowledge management applications in e-business. In this book, we fill this conceptual gap by discussing knowledge management in e-business models, e-business process redesign, value configurations and stages of knowledge management technology.

Similarly, it has been argued that knowledge management is the most important critical success factor in IT outsourcing relationships. Again, there is a lack of conceptual work to guide knowledge management applications in such client-vendor relationships. In this book, we fill this conceptual gap by discussing strategic intent for IT outsourcing, resource-based theory and knowledge strategy. When two organizations enter a long-term relationship as vendor and customer for IT services, the outsourcing relationship develops over time and can either improve or deteriorate. By exchanging knowledge and establishing mutual systems for knowledge management, the likelihood of a prosperous relationship increases and the likelihood of a deteriorating relationship decreases.

In addition, this book presents research studies of knowledge management in police investigation units and in law firms. Both represent knowledge businesses, one from the public sector and the other from the private sector. Furthermore, they both deal with legal issues. While detectives in police investigation units work on collecting information and knowledge work to identify a pattern of actions so that a criminal can be brought to justice, lawyers work on collecting information for knowledge
work to make it unlikely that their client is a criminal. This book is designed as compulsory literature for courses in management information systems at colleges and universities. It can be considered supplementary literature in marketing courses and organizational behavior courses. In addition, practitioners in business and public organizations as well as the IT industry itself will benefit from insights in this book. This book is based on the premise that it is difficult, if not impossible, to manage an organization without at least some understanding of knowledge management and knowledge management systems.

This book combines knowledge management with other subject areas within the management information systems field. The subject of knowledge management is no longer a separate topic, as research and practice have moved into linking knowledge management to its uses. The scholarly value of this proposed book can be found in insights generated from the contingent approach to linking knowledge management to other IT management topics and its uses. Each chapter in this book is organized in terms of research propositions. The idea is that topics covered are presented and structured in terms of research propositions, enabling readers to think about and discuss whether they believe in the suggested relationship and what it might be dependent upon. Each chapter in this book has a conclusion which presents a causal loop diagram of some of the important concepts discussed in the chapter. The diagram is based on Vensim (www.vensim.com), which is a visual modeling tool to conceptualize, document, simulate, analyze and optimize models of dynamic systems. Causal loop diagrams are called that because each link has a causal interpretation. An arrow going from A to B indicates that A causes B. Causal loop diagrams can be very helpful in conceptualizing and communicating structures and causal relationships for knowledge management in e-business, outsourcing and other application areas.

**Introduction to Chapters**

*Knowledge Management Systems: Value Shop Creation* tries to have a balance between the theoretical and the practical. A literature review concerning the topic of the chapter is followed by cases illustrating or validating the models presented in the theoretical part. By providing a thorough literature review and applying theories and models to the topics discussed in each chapter, this book should clearly illustrate the issues, problems and trends described. By providing a number of research studies and case studies, this book can be used in case study discussions for instructional purposes.

The book discusses theoretical propositions and then uses case studies and research results to substantiate important points. The extension of the value configuration model of value shop across the chapters helps the reader understand the role of
knowledge management systems in knowledge-intensive activities, such as e-business and outsourcing, and in knowledge-intensive organizations, such as police departments and law firms.

Research propositions are presented in each chapter for instructional purposes. The research propositions are not conclusions. Rather, they are for discussion and empirical testing.

The book consists of three sections. The first section (Chapters I-IV) covers introductory material and background topics that are used in the rest of the book. The second section (Chapters V-VIII) is concerned with knowledge-intensive value shop activities, while the third and final section (Chapters IX-X) covers two examples of knowledge-intensive value shop organizations.

Chapter I introduces the important notion of the value shop that is a knowledge-intensive and problem-solving value configuration. Value shops have primary and secondary activities that can be supported by knowledge management systems. Chapter II covers general topics on knowledge management, such as characteristics of knowledge, knowledge value levels, identification of knowledge needs and classification of knowledge categories. For those readers unfamiliar with the topic of knowledge management, this chapter provides important background material.

Similarly, Chapter III provides important background material on the role of information technology in knowledge management. IT in knowledge management is presented in terms of knowledge management processes and knowledge management systems. Knowledge management systems are exemplified by advanced technologies included in expert systems.

Knowledge management technology is simply defined as technology that supports knowledge work in organizations. According to the distinction between information and knowledge, computers handle information while people handle knowledge. Knowledge management technology is technology that supports knowledge workers both at the individual and organizational levels. An important implication of this understanding of knowledge management technology is that word-processing tools, for example, are as much knowledge management technology as case-based reasoning systems. This book focuses on technology that can improve efficiency and effectiveness of knowledge work’s knowledge-intensive activities and knowledge-intensive organizations.

There are several benefits from applying the four-stage model for knowledge management technology. First, it can explain the evolution of knowledge management technology in knowledge intensive organizations. Next, it can predict the direction for future knowledge management projects. Third, it can guide the accumulation of technologies and techniques as well as infrastructures and architectures to support more sophisticated applications of information technology over time.

The stages of growth model consisting of four stages is introduced in Chapter IV. The stages are applied in this book mainly as an organizing framework for systems classification, as it is too early to tell whether stages two, three and four are truly
observed in activities and organizations. Furthermore, what will happen after stage four is not clear — maybe a more cyclical behavior will occur involving some or all of the stages.

The first stage in the growth model, person-to-technology, is concerned with information technology tools available to knowledge workers. The second stage, person-to-person, is concerned with communication between knowledge workers enabled and supported by information and communication technology. The third stage, person-to-information, is concerned with the electronic storage and retrieval of information that is useful to knowledge workers. The fourth, and final, stage in the growth model, person-to-application, is concerned with the applications of artificial intelligence to knowledge work to support knowledge workers in their problem solving.

The extended discussion on knowledge management systems and stages of growth model are included in this book to provide sufficient background for identifying applications. Specifically, the stages of growth model provides a framework for understanding how different and accumulated information technologies can support knowledge work.

Chapter IV is about the stages of growth model for knowledge management technology, and concludes the first part of the book concerned with introductory and background material about value shops and knowledge management systems.

The second part of the book is concerned with knowledge management systems in information technology management. Chapter V is about knowledge management in electronic business, while chapter VI is about knowledge management in IT outsourcing relationships.

Chapter V develops a contingent approach to knowledge management in e-business. Depending on the e-business model, value configuration and other contingent factors, effective approaches to knowledge management will vary. In this chapter, the stages of growth model for knowledge management is applied in this and the following chapters. Similarly, the value configuration of “value shop” is applied in this chapter and reapplied in following chapters.

Chapter VI presents and discusses knowledge transfer in outsourcing relationships, strategic intent in IT outsourcing and intangible assets. The vendor value proposition is discussed in terms of knowledge exchange.

Chapter VII presents the reversal of Chapter VI that some organizations are undertaking: They move from outsourcing to insourcing. It is interesting to see how outsourcing theories and frameworks can be mirrored to discuss the termination strategy of insourcing.

So far, this book focuses on the link between the information technology management topics of knowledge management systems and the topics of e-business and outsourcing. Another interesting link is to the topic of IT governance, which is presented
in Chapter VIII. As examples of knowledge-intensive value-shop organizations from the research of the author, police departments and law firms are presented in Chapters IX and X, respectively.

Knowledge work in police investigations is based on a variety of information sources, such as incident reports, crime scene investigator reports, witness statements, suspect statements, tip lines, crime scene photographs and drawings, fingerprints, DNA, physical evidence (ballistics, tool marks and blood spatters), informants and property tracking.

In larger departments, a division or bureau is responsible for follow-up investigations; the chief of police assigns special investigations. Additionally, this function also covers the recovery of stolen property, the gathering of criminal intelligence and the preparation of cases for trial. Organizationally, this division may be titled Detective, Central Investigation or Criminal Investigation.

The role of the investigator is probably the most glamorous one in the police department. This modern Sherlock Holmes is portrayed in movies, television and novels as a meticulous and tireless gatherer of evidence that miraculously leads to the arrest and conviction of criminals. As shown on several television series, this super police officer is a bit unorthodox, normally at odds with his superiors, and willing to bend the rules, especially if this involves a deliberate violation of departmental directives. Embedded in a web of unsavory informers, the heroic investigator maintains integrity in his unrelenting pursuit of crime and the master criminal.

Law enforcement is of concern to both police departments and law firms. A law firm can be understood as a social community specializing in the expeditious and efficient creation and transfer of legal knowledge. The client is a customer of the firm, rather than a particular lawyer.

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