Chapter 17

Stages of Information Systems in E-Government for Knowledge Management: The Case of Police Investigations

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ABSTRACT

A stage model for knowledge management systems in policing financial crime is developed in this chapter. Stages of growth models enable identification of organizational maturity and direction. Information technology to support knowledge work of police officers is improving. For example, new information systems supporting police investigations are evolving. Police investigation is an information-rich and knowledge-intensive practice. Its success depends on turning information into evidence. This chapter presents an organizing framework for knowledge management systems in policing financial crime. Future case studies will empirically have to illustrate and validate the stage hypothesis developed in this paper.

INTRODUCTION

Knowledge management is concerned with simplifying and improving the process of sharing, distributing, creating, capturing, and understanding knowledge. Information and communication technology can play an important role in successful knowledge management initiatives. The extent of information technology can be defined in terms of growth stages for knowledge management systems. In this chapter, a model consisting of four stages is presented: investigator-to-investigator systems, investigator-to-application systems, investigator-to-information systems and investigator-to-application systems respectively.

Collier (2006) argues that technology is clearly a major impediment to progress in the intelligent application of knowledge in policing. Traditionally, inadequacies in computer systems have been evidenced in most countries, in terms of the lack of national police information strategy, the inability of systems in use by different forces to communicate with each other, and the lack of integration between computer systems in any one force. There has also been a lack of confidence held by internal investigators in intelligence systems, suggesting
that tacit rather than explicit knowledge was still fundamental to how many internal police officers work. This is not surprising, as many police officers have considered their work a handicraft job rather than a knowledge job. The only way inexperienced officer could learn a new policing field was to observe and join experienced officer in their work as craftsmen.

**KNOWLEDGE MANAGEMENT SYSTEMS**

The potential of knowledge management systems to enable new organizational forms as well as inter-organizational relationships and partnerships useful in policing will be demonstrated in this chapter. Partnership working is becoming an increasingly common methodology in the public sector for addressing complex social issues such as poverty, economic development and crime. According to Wastell et al. (2004), information systems have a vital role to play in enabling such inter-organizational networks and in facilitating the multi-disciplinary collaboration that is essential to joint working when fighting financial crime.

Knowledge management systems refer to a class of information systems applied to manage organizational knowledge. These systems are IT applications to support and enhance the organizational processes of knowledge creation, storage and retrieval, transfer, and application. Knowledge management and collaboration systems are among the fastest-growing areas of corporate and government software investments (Laudon and Laudon, 2010).

Knowledge management and collaboration are closely related. Laudon and Laudon (2010) argue that knowledge that cannot be communicated and shared with others is nearly useless. Knowledge becomes useful and actionable when shared throughout an organization and between collaborating organizations.

The knowledge management technology stage model presented in this chapter is a multistage model proposed for organizational evolution over time. Stages of knowledge management technology are a relative concept concerned with information and communication technologies (ICT) ability to process information for knowledge work. The knowledge management technology stage model consists of four stages. When applied to law enforcement in this chapter, the stages are labeled investigator-to-technology, investigator-to-investigator, investigator-to-information, and investigator-to-application as illustrated in Figure 1.

Stages of knowledge management technology are such that ICT at later stages is more useful to knowledge work than ICT at earlier stages. The relative concept implies that ICT is more directly involved in knowledge work at higher stages, and that ICT is able to support more advanced knowledge work at higher stages.

**STAGE 1: INVESTIGATOR TO TECHNOLOGY**

Investigator-to-Technology Stage: Tools for end users are made available to knowledge workers. In the simplest stage, this means a capable networked PC on every desk or in every briefcase, with standardized personal productivity tools (word processing, presentation software) so that documents can be exchanged easily throughout a company. More complex and functional desktop infrastructures can also be the basis for the same types of knowledge support. Stage 1 is recognized by widespread dissemination and use of end-user tools among knowledge workers in the company. For example, lawyers in a law firm will in this stage use word processing, spreadsheets, legal databases, presentation software, and scheduling programs.

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