Managing Successful E-Government Implementation: Case of E-Syariah in Malaysia

by

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Abstract

Studies of e-government have shown how strategic use of e-government systems helps government agencies to improve public service delivery and gain more efficient governance. The success of this initiative is seen to be dependent upon the role of government's key implementation tasks in managing alignment between the organizational, technological and human-related factors; which ultimately leading to improved delivery of public service. However, very little work has been carried out to understand the issue. This study helps to fill this gap in the important research area by investigating the role of government's key implementation tasks in managing alignment for improved delivery of judicial service. This exploratory qualitative research carried out an in-depth case study of the implementation of E-Syariah system within different Syariah Court Offices in a state in Malaysia namely Kelantan. By analyzing the collected data from the case, findings were drawn up in which it confirms the existing literature that government's key implementation tasks play a significant role in the successful implementation of E-Syariah. New government's key task emerged from the case data – (i) informing values of ICT, (ii) inculcating inner-connection to Islamic values and (iii) establishing collaborative relationships between government agencies through central coordination approach. An insight into the case uncovers enabling roles of these key implementation tasks for organization – human dimension, human – technology dimension and technology – organization dimension. This study also discusses the implication of improved delivery of judicial service to good governance in light of the following identified attributes; efficiency and effectiveness, transparency and empowerment. In summary, this research extends our theoretical underpinning of the role of government's key implementation tasks in managing alignment for improved delivery of public service; and provides useful insights for public officials (e.g. top management, policy-makers) in managing e-government implementation.

CHAPTER 1

INTRODUCTION

1.1 RESEARCH MOTIVATION

Information and communication technology (ICT) as an enabling tool for organizational success has become a recurrent theme in literature over the last few decades. ICT is considered as the most powerful competitive weapon in which its strategic exploitation can result in enhanced organizational performance (Sabherwal and Chan, 2001, Chen et al., 2007). As a result, organizations both – private and public – have embarked on the strategic ICT initiatives.

It is observed that the use of ICT by public sector has increased over the last decade (Löfstedt, 2005). In general, the strategic use of ICT in order to transform outdated workflows within the public sector is coined as electronic government (Joia, 2004). In view of this definition, electronic government (e-government) is perceived as tool for more efficient and effective public administration. The most commonly cited reason for the deployment of ICT in public sector is the promise to change structures and processes of public organizations with noble objective to improve transparency, efficiency and effectiveness of services delivered by the public sector (Kraemer and King,

2003, Bourquard, 2003, Beynon-Davies and Martin, 2004, Garson, 2004, West, 2004, Beynon-Davies, 2005, Kim et al., 2007, Naz, 2009). Such potential benefits have led many countries – developed and developing – to embark on the e-government initiatives in recent years (Heeks, 2002b, Gupta and Jana, 2003, Jaeger and Thompson, 2003, Ndou, 2004, Flak et al., 2005, Asgarkhani, 2005, Dada, 2006, Stemberger and Jaklic, 2007, Siddiquee, 2008, Schuppan, 2009). Governments have been playing their roles and responsibilities in order to support the smooth development and implementation of the initiatives. In relation, some literature has also highlighted different aspects of the role of state so that nations could successfully deploy the potentials of e-government (OECD, 2003, Sharifi and Zarei, 2004, Chatfield and Al Hujran, 2007, Zarei et al., 2008, Mofleh et al., 2009).

Despite potentials of e-government systems, scholars and practitioners continue to argue that e-government has not yet accomplished the promise of a more transparent, efficient and effective public administration (Cook et al., 2002, Moon, 2002, Garson, 2004, Beynon-Davies and Martin, 2004, Beynon-Davies, 2005, Andersen, 2006). This is reflected from the studies that majority of e-government initiatives carry considerable risks of implementation failure (Heeks, 2002b, Heeks, 2003b, Bhatnagar, 2004, Ndou, 2004, Nauman et al., 2005, Dada, 2006, Hwang and Syamsuddin, 2008). These studies show that governments, particularly in developing

countries, are struggling to fully realize the potential benefits of e-government. A seminal work carried out by Heeks (2003b) indicates that 35% of the implementations of e-government initiatives in developing countries can be categorized as total failures (e-government systems were not implemented or were implemented but immediately abandoned), and 50% as partial failures (major goals were not gained and/or there were undesirable outcomes).

Many studies have associated success and failure of the e-government initiatives with various factors that can be generally grouped into technology, organization and people (Aichholzer and Schmutzer, 2000a, Heeks, 2002b, Gilbert et al., 2004, Gil-Garcia and Pardo, 2005, Al-Sebie and Irani, 2005, Kumar and Best, 2006, Hussein et al., 2007a, Furuholt and Wahid, 2008). However, very little were found to shed light on the interaction and inter-dependent relationship between these three categorical factors. On the same vein, Crittenden et al. (2004) claimed that government agencies will continue to struggle in order to generate appropriate actions and desired outcomes from the strategic use of ICT to support governmental processes until they are able to establish fit between core components of the government which include managerial decisions, technology opportunities, stakeholder interests and others.

This implies that achieving fit is an important starting point in ICT implementation as the establishment of optimal alignment between organization, technology and people-related issues is considered as one of the strategies determining the amount of benefits that can be reaped from the ICT investment in organizations (Willcocks, 2003). Furthermore, literatures have also indicated that alignment between these factors enables the organizations to gain a more focused use of ICT which in turn, contributes to the improved organizational performance (Ciborra, 1997, Chan et al., 1997a, Henderson and Venkatraman, 1999, Luftman and Brier, 1999, Hirschheim and Sabherwal, 2001, Sabherwal and Chan, 2001, Cragg et al., 2002, Hussin et al., 2002, Sledgianowski and Luftman, 2005, Kearns and Sabherwal, 2006, Byrd et al., 2006b, Chan et al., 2006, Silva et al., 2007, Rusu et al., 2008, Xiaoying et al., 2008).

Hence, studies on e-government need to consider the concept of alignment as it is not only able to enrich the scarcity of knowledge in this nascent area of research (Andersen and Henriksen, 2005), but also able to provide a better understanding of the role of state pertaining to the implementation e-government for improved public service delivery. Conducting IS researches within the setting of public sector is important as it constitutes the second largest market of the ICT applications after business and financial institutions (Shutter and de Graffenreid, 2000).

1.2 RESEARCH PROBLEM

Governments around the globe are witnessing a new revolution in their public sector management brought about by their deployment of e-government initiatives (Jaeger and Thompson, 2003). E-government is increasingly adopted for a wide range of reasons and motives. The most commonly cited reason for the adoption of e-government systems is to improve the management and administration of government agencies; leading to the delivery of more efficient, more effective and better quality of services to the society.

Despite a number of successful stories about e-government initiatives, many studies have also reported that the initiatives facing a high risk of implementation failure, particularly in developing countries (Heeks, 1999b, Heeks, 2002b, Nauman et al., 2005, Dada, 2006). Being the fact that e-government systems are normally implemented at public departments operating across states or regions in a country, understanding of the issue is getting more complex and difficult (Kim et al., 2007). Zhang et al. (2005) emphasizes on the importance of knowing the needs and roles of stakeholders in order to implement e-government initiatives; and central government is argued as major stakeholder for e-government initiatives in a country. Li (2005) states that solution for the improved performance of e-government in China is that its central government executes major duties. As

majority of e-government initiatives around the world are initiated by government, it is essential to look into the roles and responsibilities of central government agencies in managing successful implementation of e-government initiatives.

While substantial amount of studies has been focusing on the impacts of the organizational, human and technological-related factors towards the success of e-government implementation, less attention is paid to facilitate understanding on the nature of inter-connectedness between these three categorical factors. Lacking such element is a serious threat for e-government initiatives as it may contribute to the problematic implementation of e-government. It is claimed that successful implementation of technological systems in organization is in reliance on their ability to manage the inter-dependent relationship between technological, organizational and people-related issues in the organizations (Willcocks, 2003). The need is also stressed by Crittenden et al. (2004) that government agencies will continue to struggle in order to achieve desired outcomes from the strategic use of ICT until they are able to align core components of the government which include managerial decisions, technology opportunities, stakeholder interests and others. Therefore, understanding the inter-dependent relationships between the factors is important because it can facilitate government agencies to understand the difficulties in achieving and sustaining the strategic use of e-government in order to improve the overall

government performance. Considering the fact that governments all around the world are increasingly engaged in the e-government initiatives, shortage of such studies presents a knowledge gap that need to be explored.

This implies that for e-government initiatives to realize improved public service delivery, an understanding of the role of state needs to be taken into consideration. In addition, the inclusion of the concept of alignment in order to explain the inter-dependent relationship between the categorical factors warrants further attentions to study. Therefore, this research attempts to fill the gap by investigating the roles of central government in enabling alignment between the three categorical factors in order to improve the delivery of public services in the context of developing countries.

1.3 RESEARCH OBJECTIVES AND QUESTIONS

This research aims to explore role of the government's key implementation tasks in enabling alignment for the improvement of administration and management of public offices, which subsequently leading to improved delivery of services. The main research question is: *how government manages alignment in the implementation of e-government (i.e. E-Syariah) for improved delivery of judicial service?* While addressing this primary question, this study attempts to provide answers the following sub-questions:

i. What are the government's key tasks in the implementation of E-Syariah for improved judicial services delivery at the Syariah court offices in Malaysia?
ii. What are the enablers shaping alignment between the organization, technology and human factors for E-Syariah implementation?
iii. How E-Syariah influences good governance in the delivery of judicial services at Syariah court offices?

In an attempt to explore these questions, case study on the implementation of E-Syariah at Syariah court offices was carried out as a basis of providing empirical data to answer the research questions and subsequently achieving better theoretical specification in the context of e-government implementation, particularly in understanding of the role of central government in managing the inter-dependent relationships between technological, organizational and human-related factors, leading to the improved judicial service delivery at the court offices. Based on the results of the empirical investigation, a framework illuminating factors and dimensions of fit in e-government is proposed at the end of this research.

1.4 SIGNIFICANCE AND CONTRIBUTIONS OF RESEARCH

As indicated earlier, this exploratory research attempts to provide a greater clarification of the implementation of e-government by exploring the enabling

role of government's key implementation tasks towards alignment in order to achieve good governance in the delivery of public service. Therefore, it is of relevance to IS research and to management practices. It provides the following theoretical and practical contributions:

Theoretical Contributions:

The research presented in this thesis will supplement our theoretical understanding for e-government as it offers a theoretical framework that identifies government's key implementation tasks for establishing alignment in the implementation of e-government systems in the context of Malaysia as a developing country. Sahay and Walsham (1995) point out that there has been inadequate theoretical development of our understanding of IT implementation and its effects in developing countries, and have made a strong call for further research in this area. This study answers the call as it contributes to the development of a theoretical framework through the study of e-government implementation in the context of developing country (i.e.: Malaysia). Moreover, the research adopts the concept of alignment in order to explain the inter-dependency between technological, organizational and people-related factors, and its' impacts towards a better delivery of public service in the context of developing country. In addition, as an exploratory study, this research will identify appropriate research questions for future studies to address in this incipient but important arena.

Practical Contributions:

This research is of much relevance to management practices, particularly for public sector. The managerial practices through which the government executes its roles and duties are of high relevance to government officials. Any action that is taken by the governments in this study on any of the factors in order to establish optimal level of alignment between the three categorical factors can be useful to the government. This may help the government officials and other relevant stakeholders to properly plan the e-government projects and initiatives.

1.5 ORGANIZATION OF THESIS

Following this chapter (Chapter 1), a review of the existing literature related to the implementation of nationwide e-government systems is presented in Chapter 2. The studies that are particularly relevant to this research are those concerning the models of e-government development, roles of the government, the success and failure factors, organizational – IT alignment models, and IT development in developing countries. Based on this literature, a research framework is developed and presented in Chapter 3, in which it suggests the key implementation tasks of the government to establish alignment among various technological, organizational and people-related factors shaping the implementation of nationwide e-government

systems. Chapter 4 explains the main alternatives underlying the methodological design of this study. It elaborates several alternatives research methods in IS studies and provides the main justifications for selecting the interpretive case study in this research. This chapter also describes the research process and specific techniques utilized for data collection and analysis. Background of the E-Syariah system and the lead government agency – Department of Syariah Judiciary Malaysia (JKSM) – that is responsible to administer and manage the E-Syariah implementation at Syariah court offices across the country is presented in Chapter 5. This is followed by descriptions and empirical findings of the case on the implementation of E-Syariah at Syariah court offices in Kelantan (Chapter 6). Roles of the government's key implementation tasks towards successful implementation of E-Syariah are analysed, and how the key tasks help to establish alignment between the organizational, technological and human factors are incorporated in the chapter. Further, implications of E-Syariah for good governance in the delivery of judicial service are also presented. Chapter 7 provides discussion for the empirical findings from the case study. Lastly, Chapter 8 summarizes the results and concludes the thesis by revisiting the proposed theoretical framework. This concluding chapter also outlines the contributions of the study to the body of knowledge both at the theoretical and practical levels, identifies possible limitations of the research and provides suggestions for future research. Summary of the thesis structure is illustrated as shown Figure 1.1.

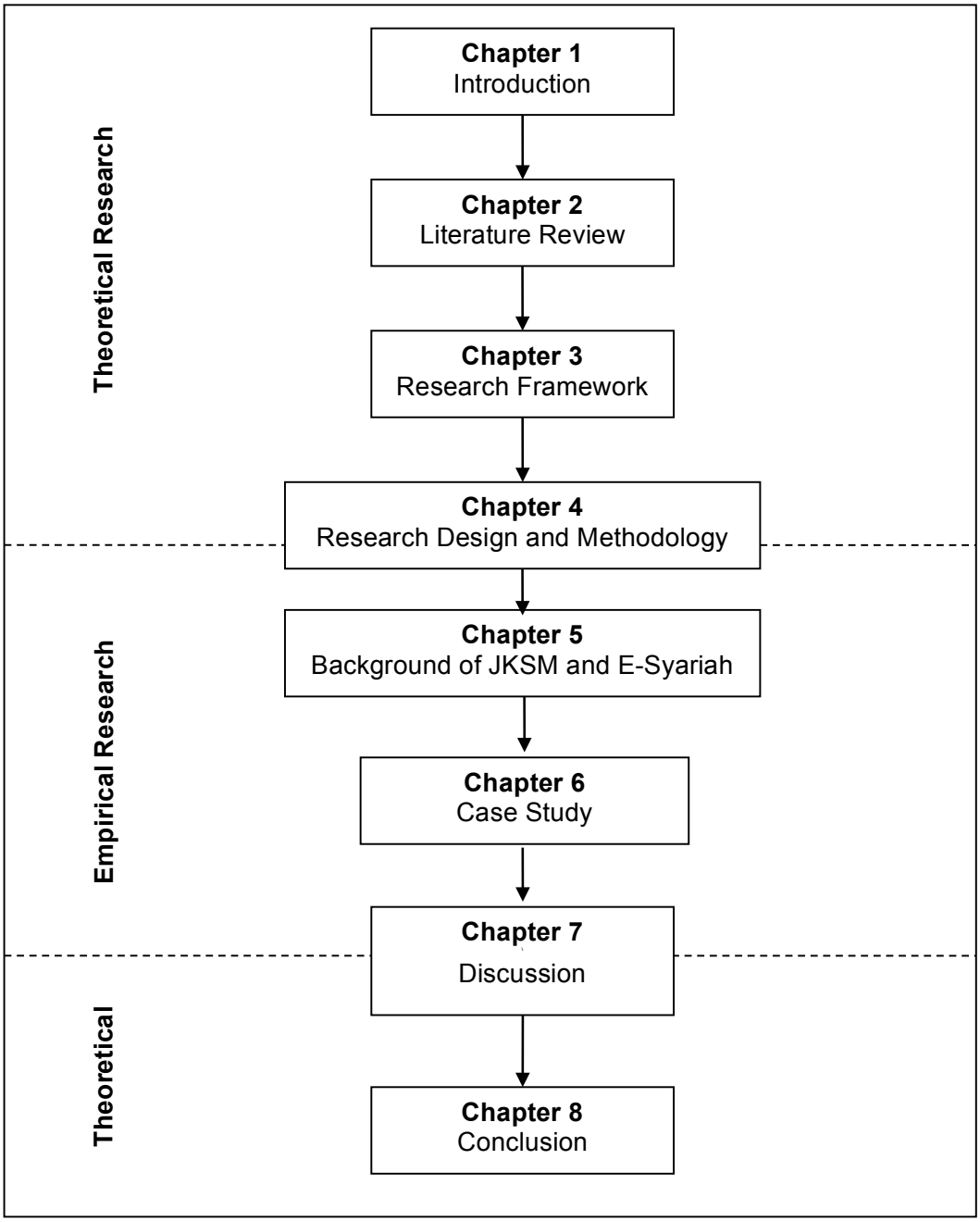

Figure 1.1: Thesis Structure

CHAPTER 2

LITERATURE REVIEW

2. INTRODUCTION

Information systems (IS) researchers have been advised repeatedly to ground their research in relevant reference disciplines. Since the focus of this study is to explore the issue of fit between technological, organizational and people-related factors; and its' impacts towards the successful implementation of nationwide e-government system in the context of Malaysian public sector, the most closely relevant research domains are literature on (i) *e-government*; (ii) *IT alignment* and (iii) *IT development in developing countries (IT4D)*.

Online databases such as *ABI/INFORM*, *EBSCOhost*, *ScienceDirect*, the *ACM digital library* and *ProQuest* were used to find relevant literature for this study. Major journals on IS were studied, which include *MIS Quarterly, Communications of ACM, Journal of Management Information Systems, Government Information Quarterly, Journal of Strategic Information Systems, Journal of Information Technology, European Journal of Information Systems, International Journal of Information Management, Information Systems Management, Information Systems Research, Information*

Technology for Development, Organization Studies and Organization Science.

The review also includes the top journals in public administration, which are *Public Administration Review, Journal of Public Administration Research and Theory, American Review of Public Administration, Australian Journal of Public Administration, Public Performance and Management, Administration and Society,* and *International Journal of Public Administration*. Articles with a focus on the use of IT to strategically support government processes and services were reviewed. The literature review also includes selected journal article and book chapters that specifically address factors leading to success or failure of e-government initiatives in public sector.

As the main objective of searching for relevant literature is to find theoretical and empirical papers that support discussion on issues surrounding the main topic, literatures on change management and strategic IT alignment in organizations are also found to be relevant and discussed in this chapter.

The literature review is structured in the following way. Firstly, IS literature describing the overview of e-government research, the extent of e-government initiatives, as well as success and failure of e-government initiatives are presented. This is followed by critical review of the literature on change management and IT alignment-related research. Next, the issue of

IT development in developing countries will be discussed. The last part of this chapter highlights the gaps in the literature which present potential area of further research.

2.1 LITERATURE RELATED TO E-GOVERNMENT

2.1.1 An Overview of Research on E-Government

The recent interest in the research on e-government stems from the belief that the use of IT in public sector can strategically assist government agencies and departments to improve their administrative and managerial effectiveness, as well as, be more effective and efficient in communicating and delivering services to public (2003, Kraemer and King, 2003, Jaeger, 2003, Jaeger and Thompson, 2003).

Large number of studies found in the literature have been conducted in economically developed countries and regions such as USA (Fedorowicz et al., 2004, Carter and Belanger, 2004, 2005, Reddick, 2005, Koh et al., 2006, Zhang et al., 2006, Belanger and Carter, 2008); United Kingdom (Beynon-Davies and Williams, 2003, 2005, Kuk, 2003, Gilbert et al., 2004, Weerakkody and Choudrie, 2005, King, 2007); European Union (Hahamis et al., 2005, Flak et al., 2005, Flak and Nordheim, 2006, Cegarra Navarro et al.,

2007, Korteland and Bekkers, 2007, Groznik and Trkman, 2009) and China (Hung et al., 2006, Fu et al., 2006, Hsu et al., 2007, Tseng et al., 2008).

At the meantime, an increasing number of studies have also been conducted in developing countries, mainly among the countries in Middle East (Al-Wohaibi et al., 2002, Sharifi and Zarei, 2004, Chatfield and Al Hujran, 2007, Al-Shafi and Weerakkody, 2007, Al-Fakhri et al., 2008, Hamner and Al-Qahtani, 2009), Asean (Sohaimi, 2003, Tan and Pan, 2003, Bhatnagar, 2004, Ke and Kee Wei, 2004, Santoso and Hee-Wong, 2004, Lam, 2005, Tung and Rieck, 2005, Tan et al., 2005, Kumar and Best, 2006, Hussein et al., 2007a, Siddiquee, 2008) and Africa (Heeks, 2002a, Braa and Hedberg, 2002, Schuppan, 2009)

In general, e-government is reported to be on the rise with 19% of worldwide government organizations are offering online public services (West, 2005). Literature suggests that e-government promises to deliver a number of benefits not only to the government itself, but also to citizens and businesses. Among other perceived benefits of e-government are delivering electronic and integrated public services through a single point of access (Reffat, 2003, Eyob, 2004), improving the quality of government services, generating financial savings, and enhancing the effectiveness of government policies and programmes (Landsbergen Jr. and Wolken Jr., 2001, Garson, 2004, Löfstedt, 2005), bridging the digital divide where members of the

society will be able to gain access to the same type of information and services from government (Basu, 2004), rebuilding customer relationships by providing value-added and personalized services to citizens (Davison et al., 2005), fostering economic development and helping local businesses to expand globally, reducing the opportunities for corruption in governments (Hazlett and Hill, 2003) and creating a more participative form of government by encouraging online debating, voting and exchange of information (Bonham et al., 2001, InfoDev, 2002, Davison et al., 2005, Nevo and Kim, 2006, Parvez and Ahmed, 2006, Magkos et al., 2007). In this sense, Gil-Garcia and Pardo (2005) stress that researchers, practitioners and governments themselves need to understand the complexity of this new and dynamic domain in their efforts to realize these potential benefits.

The potentials of IT to transform government in general, and to improve the quality of public services has attracted great attention of scholars, technology providers and governments since the last several years (Curtin et al., 2004, Gil-Garcia and Pardo, 2005). It is notable in the literature that a significant number of studies on the use of IT by governments and public organizations have been conducted in both developed and developing countries (Chen and Gant, 2001, Layne and Lee, 2001, Ho, 2002, Jorgensen and Cable, 2002, Moon, 2002, Heeks, 2003a, Reddick, 2004, Basu, 2004, Al-Sebie and Irani, 2005, Gil-Garcia and Pardo, 2005, Kamal, 2006, Luna-Reyes et al., 2007, Gupta et al., 2008, Luna-Reyes et al., 2008,

Zarei et al., 2008).It is expected that this field of study will constitute as one of the most important domains of research in the literature in the next decades (Warkentin et al., 2002, Marche and McNiven, 2003). A review of the literature shows that various issues and streams of research have been discussed by both academia and practitioners. Table 2.1 presents an overview of the major research streams found in the e-government literature.

	Key Issues	Authors
1	Defining the concept of e-government	Lenk and Traunmuller 2000; Wimmer and Traunmuller 2000; Bonham et al. 2001; Stowers 2001; Seifert and Petersen 2002; Schelin 2003; Gupta and Jana 2003; Carter and Belanger 2003; Holden et al. 2003; Bhatnagar 2004; Basu 2004; Tung and Reick 2005; Lee et al. 2005
2	Developing e-government growth models and frameworks in order to delineate e-government development	Baum and Di Maio 2000; Hiller and Belanger 2001; Layne and Lee 2001; Howard 2001; Ronaghan 2001; Wescott 2001; Moon 2002; United Nations 2003; Reddick 2004; West 2005; Siau and Long 2005; Andersen and Henriksen 2006; Irani et al. 2007; Zarei et al. 2008
3	Exploring the impacts, benefits, challenges and complexities of e-government	Kubicek and Hagen 2000; Reynolds and Regio 2001; Bonham 2001; Reffat 2003; Hazlett 2003; Palanisamy 2004; Gil-Garcia and Pardo 2005; Al-Sebie and Irani 2005; Carter and Belanger 2005; Ying Ho and Ho 2006; Al-Shafi and Weerakkody 2007; Navarro et al. 2007

4	Success and failure of e-government projects and initiatives	Avgerou and Walsham 2000; Dawes and Pardo 2002; Heeks 2002; 2003; 2006; Ho and Pardo 2004; Hahamis and Healy 2005; Al-Sebie and Irani 2005; Nauman et al. 2005; Dada 2006; Furuholt and Ørvik 2006; Al-Tameem et al. 2006; Al-Saber et al. 2007; Kumar et al. 2007; Melin and Axelsson 2008
5	The issue of trust, privacy and security.	Milner 2000; Joshi et al. 2002; Moon 2002; Holden et al. 2003; Luna-Reyes and Gil-Garcia 2003; Yousafzai et al. 2003; Reddick 2005; Carter and Belanger 2005; Parent et al. 2005; Hung et al. 2006; Kefallinos et al. 2006; Horst et al. 2007; Belanger and Carter 2008
6	Organizational and managerial related issues such as manager's attitudes and behavior, conflicting goals, organizational diversity and change management	Gagnon 2001; Dawes and Pardo 2002; Burbridge 2002; Stewart and Kringas 2003; Kim and Kim 2003; Edmiston 2003; Kudo 2004; Frey and Holden 2005; Gil-Garcia and Moyano 2007; Tseng et al. 2007; Stewart and O'Donnell 2007

Table 2.1: Overview of Major Research Issues in E-Government Literature

This overview indicates that research on e-government has developed to cover many pertinent areas and it is becoming a recognized area of knowledge with rich research opportunities (Siau and Long, 2005). Despite numerous studies on e-government, this field of research remains at an infancy stage and yet to reach its maturity in many senses (Gronlund, 2004, Titah and Barki, 2006). In relation, e-government projects and initiatives face high risk of implementation failures (Heeks, 2002b, 2003a, 2003b, Nauman

et al., 2005, Dada, 2006). Therefore, more rigorous e-government-related studies are needed as e-government initiatives still facing a greater number of challenges that require considerable understanding on diverse organizational, technological, social, cultural and political aspects. These studies will provide a better understanding of the implementation and institutionalization of e-government; which consequently can enrich this immature research domain

2.1.2 E-Government as Socio-Technical Systems

The term "*e-government*" has been variously defined using different perspectives in the literature and research. Lenk and Traunmuller (2000) and Tung and Rieck (2005) define e-government as the utilization of ICT in public administration to change structures and enhance processes of government organizations. Further, Bhatnagar (2004) describes e-government by focusing on the use of Internet technology to deliver information and services which enables greater interaction between government organizations and its citizens. While Lee et al. (2005) refer e-government to mainly building better government-to-consumer (G2C) interactions, Carter and Belanger (2003) on the other hand, stress on the use of ICT by government organizations in order to improve efficiency and access to their services across all stakeholders (employees, citizens, businesses and other governments). In general, e-government covers all key

aspects of governance – better delivery of public services to citizens, improved communication with business and industry, employee and citizen empowerment through access to information and more efficient management.

As mentioned in the earlier section, public organizations are still struggling to fully realize the potential benefits of e-government mainly due to various organizational, technological and people-related factors. From this point of context, it is clear that the success or failure of e-government initiatives can be studied on the basis of exploring the technical characteristics as well as social and organizational features. This is due to the fact that e-government comprises of a mutual interaction between IT infrastructures, organizational reforms, business processes and service contents towards provision of high quality and value-added e-services to citizens and businesses (Bhatnagar, 2004). Similarly, Löfstedt (2005) claim that the potential of e-government can be fully realized only if it harnessed to the existing social, organizational and technical context of government.

In relation, Bostrom and Heinen (1977) argue that IS is made up of jointly independent but correlative interacting systems namely the social and technical systems. The technical system is concerned with the processes, tasks and technology in order to transform inputs into outputs. Meanwhile, the social system focuses on the attributes of people and relationships

among them, reward systems as well as organizational structures. The authors propose that any study on IS must deal with both dimensions in an integrated form as it is suggested the outputs of the IS are the result of joint interactions between these two dimensions of system.

Moreover, Davis et al. (1992) explain the need for adopting this socio-technical perspective in which neither an exclusive focus on the social systems nor the technical systems will satisfactorily explain what actually happened in the implementation of IS in organizations. Indeed, they argue that such study must encompass and integrate both aspects (social and technical) because the ignorance of either one of these two aspects will in all probability never uncover the problem. Therefore, IS researchers must see beyond any technology if they are ever to understand what happens when IS are built or implemented in any organization. Cornford and Smithson (1996) avow that it is only when we have identified and analyzed the people, people-structures and people-processes involved, that we can truthfully say that we are taking an IS perspective or considering an IS issue. Inability to properly harness these social, organizational and technological dimensions of an IS might demarcate our understanding the e-government research domain.

In the context of e-government research, several recent studies have adopted the socio-technical perspective in their attempts to explore and

understand this immature research area (Al-Wohaibi et al., 2002, Wimmer and Tambouris, 2002, Sorrentino and Virili, 2003, Sorrentino, 2004, Ciborra, 2005, Damodaran et al., 2005, Luna-Reyes et al., 2005, Maniatopoulos, 2005, Wimmer et al., 2007). Given the complex nature of e-government (Gil-Garcia and Pardo, 2005), it is interesting to recognize that the same e-government system can be seen as successful by one department or group of users but as a failure or at least problematic by another department or group of users. The scenario is more pertinent in the context of nationwide implementation of an e-government system. This is not surprising if we understand e-government as technical systems embedded in a social-organizational environment. The system is introduced and implemented in different government settings can be largely equal (e.g. the same E-Syariah system implemented in different Syariah Court Offices). However, the socio-organizational setting may be quite different (e.g. different organization of workflow, different motivation of staff, different management support, different IT skills etc.), leading to different implementation process of the same IS and thus to different effects (e.g. increased efficiency on only a few court offices). These may explain the reason why a given type of e-government will result in different effects and outcomes when it is implemented in different organizational environments. This scenario might illustrate the claim made by Sorrentino and Virili (2003) in which IS outcomes are the results of more complex interaction between organizational, technical and societal factors.

Furthermore, Kling and Lamb (1999) contend that ICT-related innovation should be seen as an on-going process that unfolds in the context of complex and negotiated relationships. A socio-technical approach seems to conceptualize the role of IS in the current dynamic electonic environment as it takes into consideration important factors such as the social and organizational context of the technologies and people who use them. Considering the fact that the implementation of e-government systems in public organizations involves various factors related to organization, technology and people (Heeks, 2003a, 2003b, Al-Sebie and Irani, 2005, Nauman et al., 2005, Al-Tameem et al., 2006, Dada, 2006, Kumar et al., 2007, Al-Saber et al., 2007, Al-Shafi and Weerakkody, 2007), it is more appropriate to view the systems from a socio-technical perspective. This enables us to know more about the interaction and interdependent nature of the factors as well as its' impacts towards the success or failure of nationwide e-government initiatives.

2.1.3 Growth Models of E-Government

The development of e-government growth models has become one of the main research streams in this research domain as shown in Table 2.1. Being one of the primary research streams in e-government literature, substantial attention has been devoted by scholars and practitioners in explaining the nature and process of e-government growth. These models are viewed as

parts of the efforts to extend the understanding on this nascent research domain (Gronlund, 2004, Löfstedt, 2005, Titah and Barki, 2006). The models are proposed by either individual researchers (Layne and Lee, 2001, Siau and Long, 2005, Andersen and Henriksen, 2006) or institutions through studies and reports such as Baum and Di Maio (2000), Deloitte and Touche (2001) and United Nations (2001). In general, these growth models promote the idea that for e-government to succeed; it has to undergo various sequential stages of technological sophistication and advancement. In general, the models explicitly state that the development of e-government is progressive (each following stage of e-government is better than the previous one) and stepwise in nature (governments have to progress through each step in sequence). Table 2.2 compares the stages of the selected growth models which predict the development or evolution of e-government. Even though these growth models are different in their categorization, they are highly similar in predicting the progressive development of e-government from a basic presence of the Web to a stage that can be considered quite impressive – transformation, full integration, seamlessness and joined-up government.

Baum and Di Maio (2000) is the first one who published the growth model of e-government in the literature. According to this model, governments start their e-government development by initially creating a web in which governments provide basic information and downloadable forms on the web.

Later, it moves to the next stage which provides the ability for citizens to contact governmental organizations and interact with officials through websites. Further development directs to a transactional stage in which citizens will be able to entirely perform online transactions with governments. The final stage in this proposed model is transformation where at this stage; governments completely transform the current operational processes in order to provide more efficient, integrated, unified and personalized services to citizens and businesses. At this point, e-government will cause the relationship between citizens and governments to drastically change in positive ways, generally producing much more citizen-centric and responsive government.

Growth Models	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Baum & Di Maio (2000)	Web Presence	Interaction	Transaction	Transformation	-
Layne & Lee (2001)	Catalogue	Transaction	Vertical Integration	Horizontal Integration	-
Siau & Long (2005)	Web Presence	Interaction	Transaction	Transformation	E-Democracy
Andersen & Henriksen (2006)	Cultivation	Extension	Maturity	Revolution	-

Table 2.2: Growth Models of E-Governmen

Furthermore, Layne and Lee's (2001) e-government growth model is the most referred model in e-government literature. The nature of this model is slightly different as they regard e-government as an evolutionary

phenomenon which is placed upon two dimensions; (i) the technological and organizational complexity, a scale from simple to complex and (ii) the level of integration ranging from sparse to complete. In this four-stage model, e-government is illustrated to begin with initial efforts of establishing an online presence for the government or the basic provision of mostly static information online. It will then move forward to transactional stage where the main focus is to connect internal government systems to online interfaces and to allow citizens to transact with government electronically. Further, they predict that citizens' demands and changes in society will push government to move forward as the critical benefits of implementing e-government are actually derived from the integration of underlying processes not only across different levels of government but also different functions of government. By having similar governmental agencies across different levels of governments, as well as by having different agencies with different functionality talk to each other, societies will look at the government as an integrated information base.

Next, Siau and Long (2005) present five-stage growth model that consists of web presence, interaction, transaction, transformation and e-democracy. Although the terms used for the first four stages in the model are similar to that proposed by Baum and Di Maio (2000), they claim that contents of their model are much more comprehensive. Besides highlighting only on an integrated and personalized service, Siau and Long's growth model also

emphasizes political participation and encourages democracy which is characterized in the last stage of the model – e-democracy. At this stage, citizens and businesses are encouraged to change the way they interact with governments where they can conveniently express their opinions and actively participate in political activities, such as online polls, surveys, conversation forums and e-meetings.

Another leading growth model of e-government is the Public Sector Process Rebuilding (PPR) model which is proposed by Andersen and Henriksen (2006). The model proposes a re-orientation towards the e-government strategic thinking by focusing on IT applications to improve core activities and put end-users as key stakeholders. The model focuses on activity and customer centric approach rather than the technological capability as promoted by Layne and Lee (2001). The cultivation phase shelters horizontal and vertical integration within government, limited use of front-end systems for customer services, and adoption and use of intranet within governments. Next, the extension phase focuses on the extensive use of intranet and adoption of personalized web user interface for customer processes. Once the IT applications becoming more widely applied, Andersen and Henriksen (2006) predicts maturity phase where the organization matures and abandons the use of the intranet, has transparent processes and offers personalized web interface for processing customer requests. The revolutionary phase is characterized by data mobility across

organizations, application mobility across vendors and ownership to data transferred to customers. They, however, admit there is indeed a long push to reach up to this final phase.

These growth models tend to illustrate that the growth of e-government need to be viewed mostly from the technical aspect; by which it is measured by the increase of features and functionality of the IT system. Being implemented in organizations whose operations and strategic focus could be greatly enhanced by a well-focused application of socio-technical IS, researchers need to consider various societal, technological and organizational factors in order to better understand the success or failure of e-government initiatives. In this context, Kunstelj and Vintar (2004) indicate that the growth of e-government initiatives begin to significantly slow down when they are about to progress to the real transaction services. They emphasize that the growth of e-government is not only about enabling all phases of back-office processes to function electronically, but it also requires greater effort and intervention to the current government practices from various aspects. The finding implies the significance need to consider various relevant technological, organizational and people-related factors influencing the successful growth of e-government initiatives. In this respect, researchers must not disregard the significant impacts of various organizational, technological and people-related factors in e-government studies.

As e-government systems are inherently socio-technical in nature, studies on e-government should consider the dynamic interactions between these factors as they are found to complement each other in shaping the organizational change process (MacDonalds, 1991, Henderson and Venkatraman, 1992, Baets, 1992b, Luftman et al., 1993, Pettigrew et al., 2001). The complementary nature of these categorical factors implies that the establishment of optimal fit between the factors may significantly influence the outcomes of the e-government implementation in public organizations.

Hence, the inclusion of the concept fit could be useful in an attempt to conduct more rigorous studies on e-government. It may highlight the interaction between enablers of fit, and thus pointing to the impacts of the establishment of fit toward the changes that may happened from the implementation of e-government. This may fill the gap left in the current studies as most of the existing staged-models do not explain on how the progression or evolution will occur, or how e-government creates changes to the processes and tasks at public offices. Given the domain of e-government is still at infancy stage, the above mentioned limitations and opportunities clearly warrant further attention.

2.1.4 Roles of Government in Supporting E-Government Initiatives

E-government is one of the main initiatives employed by the governments worldwide in order to improve the delivery of public services. This can be seen from their efforts in making this noble initiative as main national agenda. Considering the socio-technical nature of e-government system, it requires structured tasks, efforts and plans that cover issues across the organizational, technological and social perspectives. Therefore, any task or strategic action undertaken by the governments is crucial towards the success of e-government, particularly in the context of nationwide e-government initiatives (Moon and Bretschneider, 1997). Incapability of the government to play an active role in these initiatives would lead to the failure of e-government systems (Jaeger and Thompson, 2003). Table 2.3 presents literature on the tasks and roles of government in order to provide support for the successful implementation of e-government.

It is indicated in the literature that having an appropriate IT infrastructure is important for the successful implementation of e-government systems. Thus, it is pertinent for the government to establish adequate access to IT infrastructure in order to facilitate the deployment of e-government systems. The supply of a communication network between government agencies and bringing electronic communication closer to citizens (Bhatnagar, 2004) is a considerable challenge that a government needs to consider when

embarking on nationwide e-government initiatives. Literature shows that capability of IT infrastructure in developed and developing countries differs significantly. While most of the population in developed countries is supported by fast internet connection, the scenario in developing countries is reported to be in contrast whereby they generally lack of IT expertise, low level of IT competency and slow internet connectivity (Chen et al., 2006). The developing countries are facing additional challenges as they have to invest more in the required infrastructure which means, government needs to manage bigger and more complex projects (Ebrahim and Irani, 2005).

Next, government must be able to allocate a considerable amount of its financial budget for IT expenditure in order to provide funding for their e-government projects. In the context of nationwide e-government initiative, financial assistance granted by the central government is important in order to assist state or local government agencies to successfully implement e-government systems (Moon and Bretschneider, 1997). Developing countries, in particular, require additional funds to be invested especially in the establishment of their telecommunication infrastructure (Basu, 2004, Chen et al., 2006, 2007). This adds to the implementation costs of e-government initiatives in such countries.

Roles and Tasks of Government	(Gupta et al., 2008)	(Zarei and Ghapanchi, 2008)	(Zarei et al., 2008)	(Kim et al., 2007)	(Imran and Gregor, 2007)	(Kamal, 2006)	(Chen et al., 2006)	(Zhang et al., 2005)	(Lee et al., 2005)	(Lam, 2005)	(Ni and Ho, 2005)	(Gil-Garcia and Pardo, 2005)	(Choudrie et al., 2005)	(Davison et al., 2005)	(Mohan and Raja Yaacob, 2004)	(Basu, 2004)	(Bhatnagar, 2004)	(Wood-Harper et al., 2004b)	(Gupta and Jana, 2003)	(Pradhan and Metcalfe, 2002)	(Heeks, 2002a)
Providing funds for e-government						✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				✓	
Forming strategies and planning		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
Monitoring and measuring progress of e-government				✓							✓	✓			✓				✓		
Building ICT infrastructure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓
Legislating laws and policies for e-government					✓	✓						✓			✓	✓	✓				✓
Developing IT skills and knowledge personnel	✓	✓	✓		✓		✓		✓							✓				✓	

Table 2.3: Roles and Tasks of Governments

Lack of strategy can negatively impact the effectiveness and usefulness of e-government (Choudrie et al., 2005). Chen et al. (2006, 2007) assert that ICT strategy must be implemented to serve each country's needs and capabilities. Therefore, many governments run an e-readiness assessment in order to help them in forming strategies that are aligned to their own unique economic, political and cultural criteria (Koh et al., 2006).

Irani et al (2005) highlight the need for governments to monitor the progress of e-government across the country and evaluate its performance because little agreement exists in literature on a uniform set of measures to evaluate the benefits of its deployment. Nevertheless, recent studies suggested a few measures that can be used to evaluate the performance of e-government initiatives. Heeks and Bailur (2007) suggest that it could be performed through conducting website content analysis to determine the government websites' level of maturity and usability. The sociological aspect is also important since e-government will eventually serve citizens (OECD, 2005). Also, governments can establish benchmarks for the performance of e-government projects in order to identify best practices and compare their projects with other countries (Gupta and Jana, 2003).

Another challenging task for the government is to regulate laws and introduce policies that would enable a supportive environment for the implementation of e-government systems. It is argued that the success of e-

government initiatives is highly reliant on government's role in ensuring a proper legal framework for the online transactions (Gil-Garcia and Pardo, 2005). Thus, efforts to develop appropriate government-wide IT policies and standards can provide an adequate framework for e-government initiatives to be successful (Andersen and Dawes, 1991). In this regard, Gil-Garcia (2004) highlights the need for governments to properly develop the IT policies and laws and communicate them through their official websites. Furthermore, Lee et al. (2005) also argue that the practices, scopes and directions of e-government initiatives in the leading countries such United States of America, are supported by the evolving framework of laws and policies. This literature clearly indicates the significant role of governments in ensuring the establishment of policies and laws in order to provide support for the successful implementation of e-government.

In addition, another primary role of the government is to support operations of e-government systems. Support from the relevant authorities plays a significant role in whether IT innovation efforts are frustrated or successfully completed (Kim and Bretschneider, 2004). Mundy et al. (1999) highlight that the need for new knowledge, skills and attitudes in public sector is particularly driven by the spread use of IT in the public sector organizations. A common route or method for government workforce who want to gain necessary skills and knowledge in order to support the use of IT is through comprehensive, structured and technically-oriented training. Such efforts are

argued to not only improve their skill and knowledge, but also to encourage users to support and trust e-government (Bhatnagar, 2004, Gupta et al., 2008).

The above discussion indicates the tasks and actions undertaken by governments in order to ensure the successful implementation of e-government systems. While a number of research have been done in this context, it is not sufficient to facilitate the understanding of this e-government research domain. This study argues that further attention is needed in order to extend our understanding on how these tasks shape the establishment of optimal fit between organizational, technological and people-related factors in the implementation of nationwide e-government systems.

2.1.5 Success and Failure of E-Government Initiatives: A Review of Factors

The IT implementation literature strand is mainly concerned with understanding factors that either facilitate or inhibit the process, which consequently leading to either success or failure of such implementation. There are numerous studies identifying the factors that influence the end result - success or failure – of e-government implementation (Aichholzer and Schmutzer, 2000b, Aldrich et al., 2002, Heeks, 2003a, Jaeger and Thompson, 2003, Al-Sebie and Irani, 2005, Gichoya, 2005, Gil-Garcia and

Pardo, 2005, Al-Tameem et al., 2006, Bouaziz, 2006, Dada, 2006, Hossan et al., 2006, Klamo et al., 2006, Al-Saber et al., 2007, Cegarra Navarro et al., 2007, Kumar et al., 2007, Wang and Liao, 2008, Al-Moalla and Li, 2010, Shareef et al., 2010). This section discusses about literature on the factors leading towards success and failure of e-government implementation.

In reviewing this research stream, various factors have been identified and described to be influential towards the end result of the e-government implementation. Generally, it must be noted that implementation success is based on neither technical merits alone; nor on the organizational aspects and user acceptance alone (De, 2005). Such systems are embedded in a web of relations or in a web or interactions within a particular socio-economic context and their design and implementation requires a good understanding of the dynamic relationship between government and stakeholders as well as addressing how various environmental factors such as politics, bureaucracy, technology and culture may contribute to the success of e-government (Harindranath and Sein, 2007, Al-Saber et al., 2007).

Broadly speaking, the factors can be primarily categorized into three main categories namely: (i) *organization* (ii) *technology* and (iii) *people*. These factors are argued to influence the success or failure of e-government initiatives. Sub-factors for each one of these three categories are discussed in this section.

2.1.5.1 Organizational Factors

Organizational factors are issues that are internal to a typical public sector organization and they influence the adoption and implementation of e-government in those organization. *Strong political leadership* is claimed to play a significant role in putting e-government onto the agenda and making it a success (Gil-Garcia and Pardo, 2005, Al-Tameem et al., 2006, Furuholt and Wahid, 2008, Prybutok et al., 2008). On the same vein, shortage of qualified personnel with vision and leadership is identified as among core failure factors for e-government initiatives, particularly in developing countries (Heeks, 2001, Ronaghan, 2002). The case of rural Internet village initiative in India provides an example where the reason associated with the failure of the initiative is lack of sustained commitment and effective leadership (Kumar and Best, 2006).

In the context of inter-organizational IS, Garfield (2000) argue that the presence of *internal leadership* in each participating organization is very important as the existence of system-wide leadership is not always sufficient to provide the necessary strategic direction for the initiative. This finding is supported by Shin et al. (2008) who opine that internal leadership may positively shape the outcome of e-government. Further, strong leadership is not only crucial for the success of e-government implementation, but also a

factor that determines the sustainability of e-government systems (Rose, 2004).

Moreover, the role of leadership has also been argued to be critical to implement transformational potentials of e-government (Bonham et al., 2001); as well as to lead the successful development and implementation of e-government for reducing corruption in transitional democracies (Seifert and Bonham, 2003). For examples, the success of e-stamping service in Hong Kong (Luk, 2009) and e-government initiatives in Singapore (Ke and Kee Wei, 2004) are closely linked to the strong leadership, in which, leaders are able to articulate and promote a shared understanding on *e-government vision* among agencies, as well as to *formulate a strategic action plan* that provides clear guidelines for agencies to follow in implementing the initiatives.

In their study at four Arab states in the Middle East (Egypt, Jordan, Labenon, Syria), Chatfield and Al-Hujran (2007) affirm that the realization of the transformative potential of e-government is viable when the government reform is driven by *effective leadership*. Besides, they view effective strategic leadership as moderating the espoused relationship between organizational resources investment and transformative e-government development. Governments require committed and knowledgeable leaders who will enable the governments to carry out their strategic roles and tasks (*as discussed in*

2.1.4). These public officials are able to build support within governments, secure funding, formulate policies and rules, and manage the progress of the projects in order to ensure the success of e-government initiatives.

Top management leadership exhibiting forward looking vision is essential for efficient *change management* in public organization (Conklin, 2007, Furuholt and Wahid, 2008). Change management has been linked to success of many organizations, including public sector (Seneviratne, 1999, Thong et al., 2000, Williams and Hardy, 2005, Teo and Wong, 2005, Markus, 2005, Vaidya et al., 2006, Prananto and McKemmish, 2007, Sutanto et al., 2008, Furuholt and Wahid, 2008). In temporal fit and systemic view of technology (Figure 2.1), Heeks (2002b) illustrates the need to manage changes of various socio-technical elements of an organization in order to facilitate the process of innovation. Through his Factor Model, Heeks also (2003a) indicates that effective change management is one of the reasons behind a success or failure of e-government initiatives.

The issue of change management is more challenging in the context of nationwide implementation of IS as managing resistance to change involves both internal and external resistance – change from the affected organizations and from the public (Markus, 2005, Sutanto et al., 2008). Without a properly planned and managed change process, there can be a significant waste of time, resources and accompanying loss of employee

morale and motivation. In relation to this point, Thong et al. (2000) suggest the use of pilot site in order to successfully manage organizational change in the implementation of e-government.

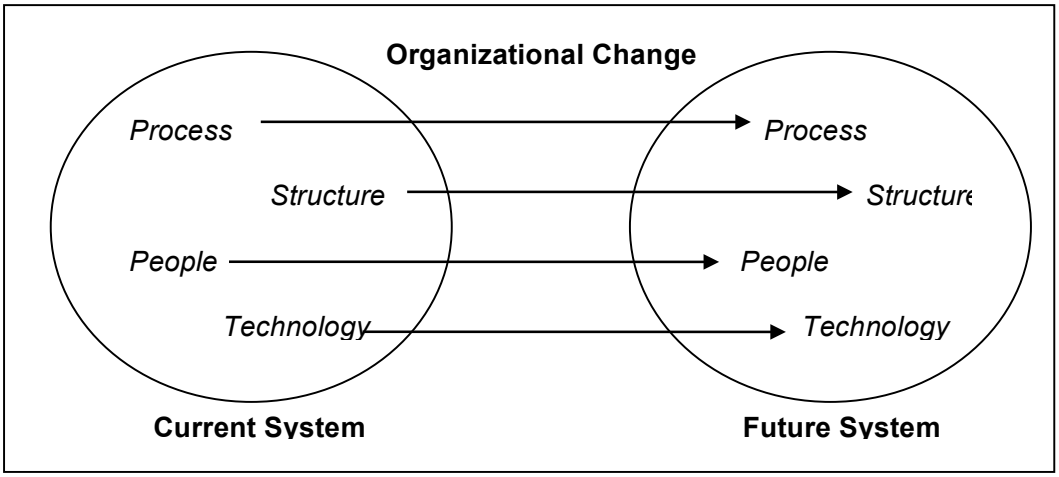

Figure 2.1: Temporal Fit and Systemic View of Technology (Heeks, 2002b)

In explaining the significance of managing changes caused by the interplay between technology, organization and political attributes, Schildt et al. (2005) stress on the keen understanding of how these three factors forces each originate from a different core set of values, foci and activities. Thus, carefully managing change process can result in significant benefits (Archer, 2005).

Al-Moalla and Li (2010) avow that change management programme has a significant positive relationship with e-procurement implementation in UAE. Lack of proper change management is identified to the underlying cause for the slow and inefficient adoption of e-procurement system in the public

sector in the UAE. Rather than considered as a new component which requires the re-design of the organization, the e-procurement system has been perceived as a technological add-on to the existing complex environment. This resulted in the view that implementation of e-procurement system is just a replication of the traditional operational structure.

As e-government entails high acquisition and maintenance cost (Zimmermann and Finger, 2005, Falabi, 2007), pursuing e-government initiatives often hoists the issue of economic viability. In this regard, availability of *sufficient funding* is critical for starting e-government initiatives (Bhatnagar, 2004, Basu, 2004, Lam, 2005, Kamal, 2006, Gil-Garcia et al., 2007, Hussein et al., 2007a, Shin et al., 2008), and a requirement for the continuation and sustainability of e-government implementation (Rose, 2004, Al-Tameem et al., 2006). In addition, financial support is found to be a dominant success factor for e-government initiatives amongst the developing countries (Shin et al., 2008); as well as in developed regions like European countries (Millard, 2002). Ndou (2004) offers an example of efficiency in Chile's e-government initiative, which partly due to the availability of sufficient financial support to develop its infrastructures including networks and training programmes for public officers. Such example evidence that financial support is one of the determinants behind efficient e-government initiatives.

It is noted that most e-government initiatives need for structured and recurring funding arrangement; and if this specific requirement is not taken into consideration, it may lead to negative outcome of the implementation (Schware and Deane, 2003, Basu, 2004, Dada, 2006). As an example, Sharifi and Zarei (2004) highlight that even with significant budgets allocated for the implementation of e-government in I. R. Iran, the realization of funds has been a problem partly due to the shortcomings in the state's general financial management systems. Therefore, financial-related issues must be properly addressed in order to maximize the benefits of e-government initiatives.

Next, *collaboration and coordination* is another important requirement for accomplishing e-government initiatives. Studies argue that collaboration amongst public agencies, departments and policy makers, as well as coordination efforts between these entities has a significant impact on the successful implementation of e-government (Aichholzer and Schmutzer, 2000b, Jaeger and Thompson, 2003, Lam, 2005, Heeks, 2006, Prananto and McKemmish, 2007, Al-Tameem et al., 2006, Furuholt and Wahid, 2008). A high level of collaboration can positively impact the implementation of IT innovation in government organizations (Kamal, 2006). Kuk (2003) demonstrates that lack of coordination would cause conflicting goals for e-government initiatives, which can further complicate the overall efforts. An example is provided by the case of the city of Corpus Christi Texas

(Jorgensen and Cable, 2002), where the major problem from this initiative is lack of coordination and control. Thus, understanding of how the collaboration can be established is crucial as it could help in managing e-government initiatives and achieving maximum fulfillment of their potential advantages. In response, *effective communication* between the agencies and departments is argued to be important for the establishment of collaboration and coordination in public organizations (Al-Tameem et al., 2006).

2.1.5.2 Technological Factors

E-government initiatives require a considerable degree of technical competence through maintaining infrastructure, integrating distributed systems and providing necessary applications to ensure efficient implementation. Literature indicates that *technological infrastructure* is a significant determinant factor that shapes the success or failure of worldwide e-government initiatives (Backus, 2001, Layne and Lee, 2001, Al-Wohaibi et al., 2002, Jorgensen and Cable, 2002, Basu, 2004, Bhatnagar, 2004, Reddick, 2004, Ebrahim and Irani, 2005, Siau and Long, 2005, Chen et al., 2006, Hossan et al., 2006, Kumar and Best, 2006, Hussein et al., 2007b, Shin et al., 2008, Gupta et al., 2008, Siddiquee, 2008). On the other hand, failures of e-government initiatives around the world have been linked to poor technological infrastructure (Heeks and Bhatnagar, 1999, Heeks,

2002b, Dada, 2006). Bonham et al. (2001), in their research, agree that governments view a lack of technical infrastructure as a significant barrier to the development of public sector's capabilities to provide online services and transactions. They also are of the opinion that unreliable IT infrastructure in public sector organizations will degrade e-government performance. Inadequate IT infrastructure is mainly due to the lack of consistent and reliable electricity, telecommunications, Internet connectivity and low access to the necessary applications (Jaeger and Thompson, 2003, Basu, 2004). Understandably, without sufficient technological infrastructure, governments will be struggling to realize the potential benefits of e-government to citizen throughout the countries. Simply said, the absence of adequate infrastructure would decelerate, if not inhibit, the implementation of e-government system.

In this context, Heeks (2003a) also addresses the important role of *technological compatibility*. Lack of compatibility or *standard* is not only caused the hardware and software in different government agencies refuse to work together, but also appears to be an obstacle in the collaboration between the agencies which leading to e-government failure (Ke and Kee Wei, 2004, Lam, 2005, Al-Tameem et al., 2006). Zulfiqar et al. (2001) indicate that compatibility issues contribute to the problematic implementation of online e-procurement (GeBIZ) in Singapore. Similarly, the UK's 'Coordination of Computerisation in the Criminal Justice System'

initiative ran into difficulties as a result of incompatibilities between the IT systems of the different public agencies (Bellamy and Taylor, 1998).

Moreover, the implementation of e-government requires *support from technical staff*, which is among the problems suffered by government around the world (Moon, 2002, Al-Tameem et al., 2006, Kamal, 2006, Chen et al., 2006). According to Ebrahim and Irani (2005), qualified IT staff who can support users and ensure easy access to government information and services is the key for e-government success in public sector. Moon (2002) concludes that public sector organizations need highly trained technical staff in order to enhance the effectiveness of e-government practices, as well as to move towards a higher level of e-government development. In their study on e-government in Malaysia, Hussein et al. (2007b) find that technical support is instrumental in ensuring the successful implementation of e-government systems. Prior studies have also indicated that an innovation with substantial complexity entails more technical expertise and needs greater implementation and operational efforts in order to increase its chances of adoption (Cooper and Zmud, 1990, Ventura, 1995). Lack of consistent technical support is cited to be a negative factor contributing to the failure of SARI project in rural India (Best and Kumar, 2008)

2.1.5.3 People Factors

People-related factors are considered as an important part in determining the end result of any IT implementation initiative (Heeks and Bhatnagar, 1999, Bhatnagar, 2004, Madon, 2004). One of the factors is *technical competence*, which is referred as the degree to which staff possesses the required skills and knowledge to perform service (Whyte and Bytheway, 1996). Carr and Gannon-Leary (2007) argue that staff with insufficient IT knowledge and skills may be associated with the failure of IT projects in an organization. For this reason, governments all around the world need for competent and knowledgeable staff to be ready for e-government implementation (Chen et al., 2006). Organization whose IT department possesses a highly technical staff which includes staff *IT competency*, had an influence on the successful achievement of IT implementation (Byrd and Davidson, 2003). It can be inferred that e-government would possibly fail if the staff did not have the ability to use the technology in enabling them to access useful information and deliver better services. Moon (2002) affirm that without staff capability, public sector organizations stand to miss out on the potential service benefits presented by technology.

In addition, staff may not understand the whole idea of how the application of new technologies affects the redefinition of organizational structures and power distribution as a result of a lack of technological skills (Wargin and

Dobiéy, 2001). In this context, *IT sophistication* is crucial as it marks the level of management understanding of and support for using IT to accomplish organizational goals and objectives (Chwelos et al., 2001). Tseng et al. (2008) opine that the management of public organizations also needs to consider the issue of *technological understanding* and *acceptance* of employees in order to strengthen the desire and reputation of the e-government initiatives.

Linked to this is the *lack of training* which are necessary to effectively use available e-government systems in the public sector. This implies that if staff at public organizations are not adequately trained in IT, which may result in the resistance to change, resistance to use and under utilization of computers. This problem has been discussed by many academics in the literature (Mundy et al., 1999, Heeks and Bhatnagar, 1999, Heeks, 2002b, Moon, 2002, Ho, 2002, Dada, 2006, Furuholt and Orvik, 2006, Grönlund et al., 2006, Furuholt and Wahid, 2008, Tseng et al., 2008). Stoops et al. (2003) regard training as cornerstone for the success of e-government initiatives. Further, Heeks (1999a) indicates that systematic IT training provided for senior judges has resulted in the development of their competence and confidence, which positively contributed towards the reform of legal system in the Ugandan government. In relation to this, inability to provide consistent and proper training leads to the failure of e-government as reflected in the problematic implementation of the SARI project in India

(Kumar and Best, 2006). This issue is more pertinent in the context of developing countries (Ndou, 2004, Chen et al., 2006, Dada, 2006). Basu (2004) is of the same stance as he opines "*there are insufficient number of people in developing countries trained in appropriate technologies….training opportunities are also straining to meet needs*".

Stanforth (2006) states that a number of heterogeneous socio-technical elements must be considered and managed in order to ensure the successful implementation of IS initiatives. Socio-technical theorists contend that "…..*if systems are regarded in purely technical terms, the result may be sub-optimised, organizationally and socially deficient systems*" (Poulymenakou and Holmes, 1996). Likewise in the context of e-government implementation, organizational and people-related factors are as important as technological issues which need to treated equally. Ebrahim and Irani (2005) affirm that technology alone would not guarantee success with e-government initiatives but, it is necessary that any e-government initiative must ensure that it has sufficient resources, adequate infrastructure, management support, capable IT staff, and effective IT training and support. In the following Table 2.4, the factors are classified accordingly into three major categories: *organization*, *technology* and *people*, in order to provide an insight to those factors shaping the success or failure of e-government. The table concludes the factors and previous studies that influence successful e-government implementation.

Category	Factors	Previous Studies
Organization	• Leadership • Vision and strategy • Funding • Change management • Collaboration and coordination • Effective communication	Thong et al. (2000); Garfield (2000); Aichholzer and Schmutzer (2000); Bonham et al. (2001); Heeks (2001, 2002b, 2003a); Ronaghan (2002); Millard (2002); Jorgensen and Cable (2002); Jaeger and Thompson (2003); Kuk (2003); Seifert and Bonham (2003); Schware and Deane (2003); Basu (2004); Bhatnagar (2004); Ndou (2004); Rose (2004); Sharifi and Zarei (2004); Archer (2005); Gil-Garcia and Pardo (2005); Lam (2005); Markus (2005); Williams and Hardy (2005); Teo and Wong (2005); Schildt et al. (2005); Zimmermann and Finger (2005); Al-Tameem et al. (2006); Kamal (2006); Kumar and Best (2006); Vaidya et al. (2006); Chatfield and Al-Hujran (2007); Conklin (2007); Hussein et al. (2007a); Prananto and McKemmish (2007); Falabi (2007); Furuholt and Wahid (2008); Prybutok et al. (2008); Sutanto et al. (2008); Luk (2009); Al-Moalla and Li (2010)
Technology	• IT infrastructure • IT compatibility • Technical support	Heeks and Bhatnagar (1999); Backus (2001); Bonham et al. (2001); Layne and Lee (2001); Zulfiqar et al. (2001); Al-Wohaibi et al. (2002); Heeks (2002b); Jorgensen and Cable (2002); Jaeger and Thompson (2003); Heeks (2003a); Basu (2004); Bhatnagar (2004); Ke and Kee Wei (2004); Reddick (2004); Ebrahim and Irani (2005); Lam (2005); Siau and Long (2005); Al-Tameem et al. (2006); Chen et al. (2006); Dada (2006); Hossan et al. (2006); Kumar and Best (2006); Hussein et al. (2007b); Best and Kumar (2008); Shin et al. (2008); Gupta et al. (2008); Siddiquee (2008)

People	• IT competency • IT skills • Training • IT sophistication • IT understanding • IT acceptance	Whyte and Bytheway (1996); Mundy et al. (1999); Heeks and Bhatnagar (1999); Chwelos et al. (2001); Wargin and Dobiey (2001); Heeks (2002b); Moon (2002); Ho (2002); Byrd and Davidson (2003); Basu (2004); Bhatnagar (2004); Madon (2004); Ndou (2004); Chen et al. (2006); Dada (2006); Furuholt and Orvik (2006); Grönlund et al. (2006); Kumar and Best (2006); Stoop et al. (2006); Carr and Gannon-Leary (2007); Furuholt and Wahid (2008); Tseng et al. (2008)

Table 2.4: Success Factors of E-Government Implementation

A number of studies such as Wood-Harper et al. (2004c), Titah and Barki (2006), and Kim et al. (2007), have highlighted the interplay between these categorical factors, in which success or failure of e-government implementation is dependent upon the dynamic fit between these various factors . For any e-government system to succeed, it is important to consider the element of inter-connectedness between the technological, organizational and people-related factors. Therefore, the concept of fit or alignment seems to be the most appropriate and useful concept to consider in order to explain the inter-dependent relationship between these factors. This argument warrants further attention to study.

2.2 LITERATURE RELATED TO ORGANIZATIONAL – IT ALIGNMENT

2.2.1 Definition of Organizational – IT Alignment

The revolution and advancement of IT has revealed its' potentials to perform more strategic functionalities in organizations. Not only that IT can support and shape organization's competitive strategy, it can also significantly impact organizational performance through attaining strategic goals or fundamentally change the way in which an organization competes and operates (Keen, 1981). While the strategic use of IT provides sustainable competitive advantage, King et al. (1989) argue that it can also create a reverse – negative – impact if it is not properly implemented. Furthermore, Lai and Mahapatra (1997) contend that strategic IT implementation is a major factor that shapes the industry characteristics within which the organizations operate.

This strategic use of IT in organization, also known as organizational – IT alignment, has increased its significance as a result of the increasing strong reliance of organizational activities on IS and their related technologies. As a result, organizational – IT alignment is considered as one of the main challenges that an organization has to face (Luftman, 2000, 2003, Tallon, 2007). However, organizational – IT alignment has been subjected to different conceptualizations in both theoretical and practical studies. The

difficulty to find a common agreement on its definition is reflected on the variety of interpretations found in the literature.

More deliberately, Henderson and Venkatraman (1999) define organizational – IT alignment as the degree of fit and integration among four domains of strategic options which are business strategy, IT strategy, business infrastructure and IT infrastructure. The concept of alignment is described based on two notions: strategic fit and functional integration. Luftman and Brier (1999) suggest that in essence, business and IT strategies are considered in the state of alignment when business objectives are enabled, supported and stimulated by IT strategies. Reich and Benbasat (1996) define alignment as the degree to which the mission, objectives and plans contained in the business strategy are shared and supported by the IT strategy. Moreover, organizational – IT alignment is argued to be in existence when organizational goals and activities are “harmoniously” supported by the information systems (McKeen and Smith, 2003)

Furthermore, the term organizational – IT alignment has also adopted and sometimes used inter-changeably with different pseudonyms such as integration (Broadbent and Weill, 1993, Henderson and Venkatraman, 1999), fit (Chan et al., 1997b, Henderson and Venkatraman, 1999), linkage (Reich and Benbasat, 1996), harmony (Luftman and Brier, 1999) and fusion (Smaczny, 2001). The concept of fit is defined by Chan et al. (1997b) as the

degree of coherence between realized business strategy and realized IT strategy. Henderson and Venkatraman (1999) define fit in terms of the relationship between external business strategy and internal infrastructure and processes. On the other hand, linkage is defined as the relationship between the business domain and IT domain (Reich and Benbasat, 1996). All these definitions, however, focus on how to improve organizational capability and performance through the strategic use technologies.

It has been widely accepted in the literature that the positive influence of organizational – IT alignment towards IT effectiveness in organizations will consequently result in a greater business profitability (Ciborra, 1997, Kearns and Lederer, 2000, Sabherwal and Chan, 2001, Chan, 2001, Cragg et al., 2002, Hussin et al., 2002, Chan et al., 2006, Kearns and Sabherwal, 2006, Chan and Reich, 2007). These studies have demonstrated that organizations which are able to successfully align their business and IT-related elements will outperform those that do not (Byrd et al., 2006a, Chan et al., 2006, Chen et al., 2008, Xiaoying et al., 2008). On the contrary, failure to leverage IT is found to seriously affect organizational performance, viability and competency (Sabherwal and Chan, 2001). Therefore, careful management of IT alignment is required in order to avoid undesired business and IT costs (Sauer and Burn, 1997). Further, it has become commonly assumed that IT has the potential to transform organizations and provides new opportunities for the organizations to survive in the challenging

environments of today (Seneviratne, 1999). In short, it is apparent from these studies that organizational performance is significantly affected by the impact of IT.

2.2.2 Organizational – IT Alignment Models

Literature suggests the significant need to establish alignment between various components of an organization in order to secure a competitive position of the organization within its environment. Indeed, the idea of organizational – IT alignment, fit, match, integration or congruence has been largely accepted in IS-related literature. The concept contends that success is derived from the congruence between business and IT strategy, and failure is from the lack of fit between them. Drawing upon this theme, models on IT implementation have involved fit between technology and task (Goodhue and Thompson, 1995), and also between multiple structural elements of organizations (Scott-Morton, 1990, Southon et al., 1997).

According to Whittington (2001), the alignment between business and IT strategy can be viewed in two perspectives namely classic and processual approach. Classical approach is based on a model of rational adaptation where organizations constantly adapt to the changes and contingencies of the external environment. On the other hand, processual approach regards alignment as a process rather than an end state. It promotes the focus on

internal and power issues, which perceive the role of IT as a resource and an instrument for gaining power – not achieving adaptation. Many studies (MacDonalds, 1991, Baets, 1992a, 1996, Broadbent and Weill, 1993, Henderson and Venkatraman, 1993, Papp and Luftman, 1995, Rondinelli et al., 2001) are of the process view of alignment, and they suggest that structures, processes and relationships need continual adjustment and constant calibration (Galliers, 2004).

A fundamental base for the alignment models is Leavitt's diamond model (1965) as illustrated in Figure 2.2. The model depicts the inter-dependent relationship between main structural components of an organization namely task, technology, people and structure. These components are inter-related and mutually adjusting in order to damp out the impacts of IT innovation. This concept of dimensional fit explains the need for one or more different dimensions or elements of an organization to be brought into the state of congruence at the same time.

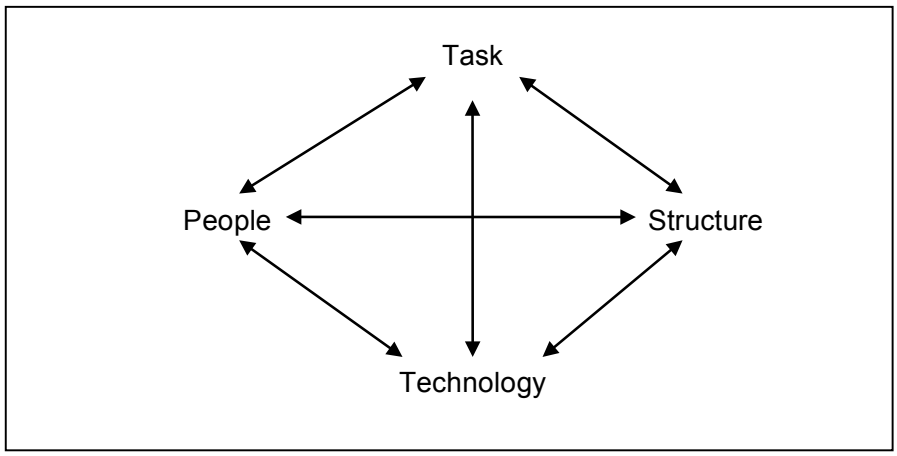

Figure 2.2: Leavitt's Diamond Model (Leavitt, 1965)

Several other different perspectives on alignment or fit exist in the literature, in which the focus can be either on factors external to the organization, or internal to the organization, or both. Research conducted in the 1990s at MIT (MIT90s) is a well-known organizational – IT fit model that serves as an initial attempt to harness the strategic power of IT in an organization. The MIT90s (Scott-Morton, 1990) model as illustrated in the following Figure 2.3, explains the concept of alignment or fit between main organizational elements – strategy, information technology, structure, management process, and individuals and roles. It argues that revolutionary change involving IT investment can bring about substantial rewards as long as these key elements of organization are kept in alignment. Furthermore, it explains the significance of having internal and external fit in an organization. The internal fit is accomplished by a dynamic equilibrium of the organizational elements including business strategy, organizational structure, management process and individuals and roles. Meanwhile, external fit is obtained by formulating organizational strategy based on environmental trends and changes such as market, industry and technology. Within this internal and external fit as its enabler, IT is expected to affect the management process, thus, impacting on organizational performance and to some degree, its strategy.

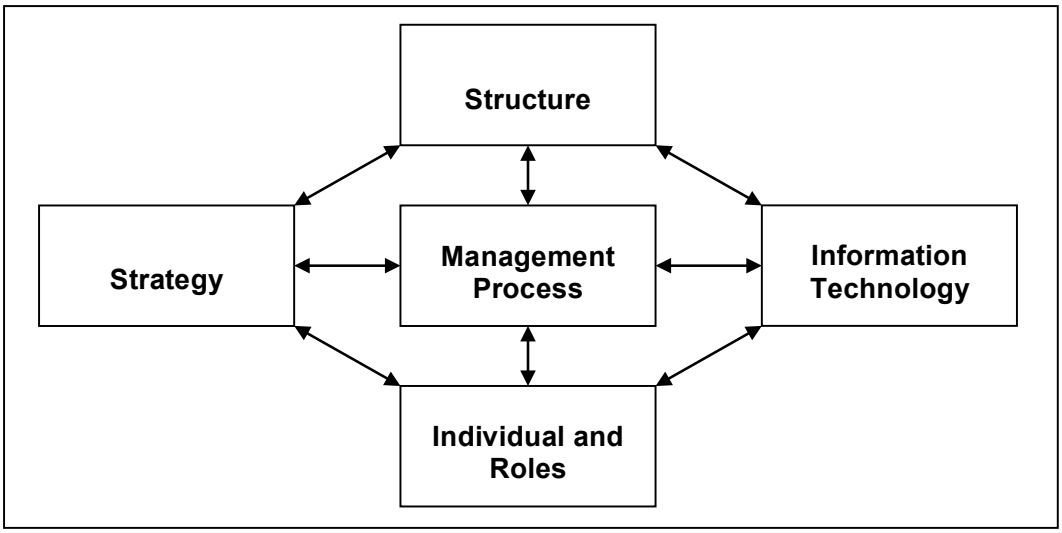

Figure 2.3: The MIT90s Model (Organizational – IT Fit Model) (Scott-Morton, 1990)

Building on the MIT90s model, Henderson and Venkatraman (1992, 1993) propose the idea of Strategic Alignment Model (SAM). The model intends to support the integration of IT into business strategy by advocating alignment or fit between and within the four key domains of strategic choice – business strategy, organizational infrastructure and processes, IT strategy, and IT infrastructure and processes as illustrated in Figure 2.4. In the SAM model, the concept of strategic alignment is distinct from bivariate fit and cross-domain alignment. Henderson and Venkatraman (1992) argue that IT planning to enhance bivariate fit involves seeking congruence between two domains of strategic choice (e.g. IT strategy and IT infrastructure and processes). IT planning to establish cross-domain alignment involves seeking congruence across multiple domains sequentially.

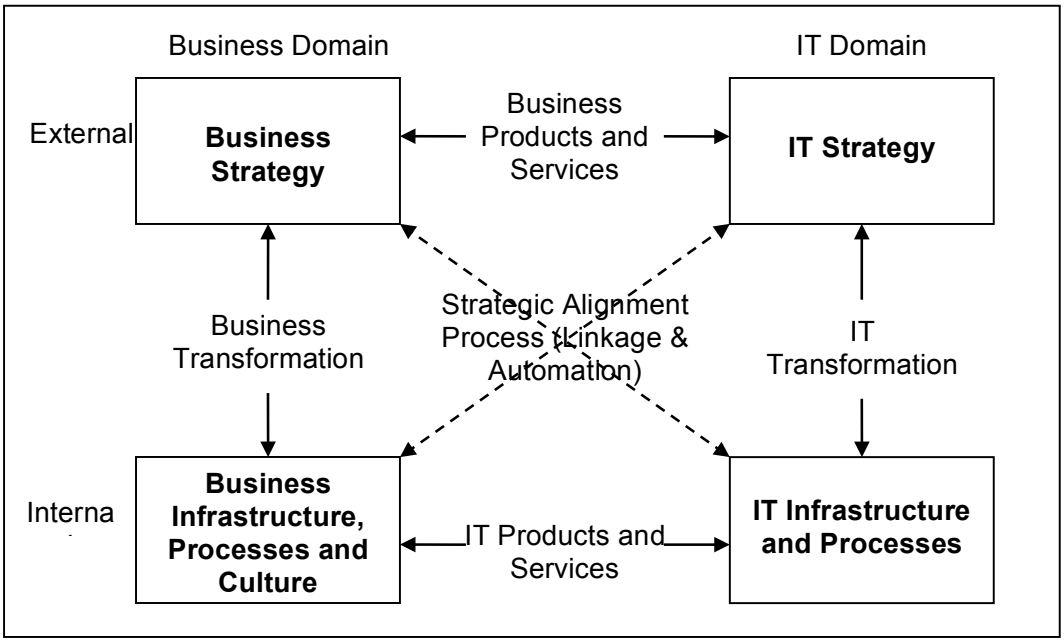

Figure 2.4: Strategic Alignment Model (Henderson and Venkatraman, 1992)

Strategic alignment involves organizational transformation and is achieved through seeking congruence across multiple domains concurrently via single and double loop processes. Another distinction is also drawn from their claim that organizational – IT alignment happens at both internal and external to the organization. Internally, organization must align its organizational and IT infrastructure and processes while the external alignment reflects the fit between organizational and IT strategy with industry and technology forces. Despite of receiving large empirical support and has conceptual and practical value (Avison et al., 2004), the model has its own limitations. For instance, depending on how IT-intensive an industry is, the model's applicability may vary, as the assumptions of the SAM model may not hold (Burn and Szeto, 2000).

Several other scholars have built on, and extended the SAM model, for example MacDonalds (1991), Baets (1992a), Luftman et al. (1993), Maes (1999), Maes et al. (2000) and Avison (2004). MacDonalds' (1991) Strategic Alignment Process model also considers interactions between four activities – business strategy, organizational infrastructure and processes, IT strategy, and IT infrastructure and processes. In a broader context, the model also reflects on the roles of competition, organizational change and human resource issues, IS implementation processes and tools, and global IT platform. This alignment process pre-supposes the participants' awareness of the economic environment and its relevant information. Furthermore it assumes that all participants know the corporate strategy and, of course, it pre-supposes this corporate strategy to be clear and agreed by all.

Likewise SAM model, Baets' (1992a) model depicts the interaction of business strategy, organizational infrastructure and processes, IS infrastructure and processes, and IT strategy. As this model was adapted from MacDonald's model, it also recognizes that process of alignment takes place in a broader context and incorporates factors such as competition, organizational change, human resource issues, the global IT platform, and IS implementation processes. Baets (1992a), however, argues that corporate strategy is not widely accepted in most organizations, and that most of the managers who are charged with carrying out the corporate strategy do not even have a clear understanding about the strategy.

Maes (1999) and Maes et al. (2000) also extend the SAM model, developing a framework that incorporates additional functional and strategic layers. They separate information providers from the systems that provide information. A new information domain represents the knowledge, communication and coordination of information were introduced. They also add a third dimension that contains specific sub-architecture areas.

In conclusion, the above discussion highlights the models of organizational – IT alignment by exploring the nature of strategic organizational change. As the roots of these models lie on the MIT90s model, therefore, they carry main message that the alignment or fit between various technological, organizational and human-related elements is a critical starting point towards a successful IT implementation. This implies that understanding the concept of organizational – IT alignment or fit is significant in order to study the nature of inter-dependent relationship between factors influencing the implementation of e-government systems.

2.2.3 IT-Enabled Organizational Change

The implementation of IT in organizations is regarded as a catalyst for organizational change (Seneviratne, 1999). In addition, Huang and Hu (2007) suggest that IT has become the essential infrastructure of any organization, the backbone for corporate information flow and the enabler of

business processes. Seneviratne (1999) classifies research relating to IT-enabled organizational change into three areas namely (i) impacts on organizational structures and processes; (ii) impacts on individual attitudes and behavior; and (iii) impacts on workflows and works. Given these facts, the impact of IT is often felt across the entire organization.

Despite stories of how IT can positively transform organization, the difficulty in getting value and managing of IT grew so intense that it ignites a heated debate on whether “IT matters” to organizations or not (Carr, 2003). Huge IT investment does not necessarily create positive change in organization as it may also result in ineffective operations, work disruptions, or even lost revenues (Davenport, 1998). Huang and Hu (2007) state that whether or not IT transforms an organization has less to do with the technology itself, and much more with how IT is used and managed. The effectiveness of IT goes well beyond software and hardware; even the best IT cannot work efficaciously for an organization unless it is put to proper use in the right context at the appropriate time. This implies that organizational change is not accomplished through the installation of IT alone. Instead, the success of IT-enabled organizational change is in reliance upon a combination of technical and social elements (Robey and Holmstrom, 2001). In relation, Avgerou (2001) states that IT and its social context are so intertwined, hence, the understanding of the notion of change in IS studies should not be technology

innovation but the change of heterogeneous networks of institutions and people within which IT is called to play a role.

Barua et al. (1996) suggest that theory of complementarities can also be useful in the study of complex IT-enabled organizational change. Complementarities are described as the synergistic effect of a number of variables influencing the process of organizational change. Whittington and Pettigrew state that principle of synergy involves investing in a variable increases the profitability of an investment in a complementary variable. In this context, a factor that influences an implementation process should be considered as part of an integrated system of factors which are mutually reinforced (Whittington and Pettigrew, 2003, Massini and Pettigrew, 2003). Moreover, the theory of complementarities espouses a holistic vision of change and conceives that change and stability are better explained through the congruence of the structural characteristics of an organization (Greenwood and Hinings, 1988) and their adequacy with the constraints of the environment (Meyer et al., 1990).

Duality of technology (Orlikowski, 1992, DeSanctis and Poole, 1994), actor networks (Latour, 1991, Callon, 1991), social constructionism (Bijker and Law, 1992, Grint and Woolgar, 1997) and structuration theory (Giddens, 1984, Walsham, 1993) are among other theoretical ideas that have contributed to conceptual perspective for considering IT innovation in

interplay with the changes simultaneously being undergone or pursued by people, institutions and other socio-technical hybrids in an attempted organizational change (in Avgerou, 2001). Therefore, managing the IT-enabled organizational change process needs to be concerned with not only that a new system creates significant changes to the way in which people are expected to work and communicate, but also this change process takes place within the evolving subtleties of the organizational context and often cut across a number of different groups or subcultures (Walsham, 1993). Further, Walsham (1993) views organizational change and its implementation as a complex and messy process which cannot be separated from its intra-organizational and broader context.

The study of context and process in organizational change spin-off from the research carried out by Pettigrew (1985, 1987, 1990, 1992, 1997). The primary conception of these works is that any research related to organizational change should engage the continuous interplay between ideas about the context of change, the process of change and the content of change. Pettigrew's contextualist analysis focuses on "subject matters in its setting", as well as studies the emergent changes in organizations through time.

Therefore, such a contextual study of a phenomenon involves the inter-connection of two directions of analysis; (i) a vertical level analysis which

traces the inter-dependencies between higher or lower levels of context; for instance, the level of the organizational context and the level of the national context (ii) a horizontal analysis which involves the connection between phenomena in past, present and future time. Thus, researcher should delineate a set of levels of context and strive to understand the way these levels are connected, using an appropriate theory of the process of change concerned, capable to explain how this process is constrained by its context and also shapes its context (Avgerou, 2001). The emphasis on multi-level contexts, on process and on the linkage between context and process provide strength for the contextualist approach in understanding the impacts of IT towards organizational change (Walsham, 1993).

Another stream of research that provides a valuable approach to the study of context in IS is web model analysis (Kling and Scacchi, 1982, Kling, 1987). The model illustrates broad boundaries around the focal computer system and examines how use of the system is relied upon a social context of complex social actions. Further, the social context is defined by taking into account the *social relations* between the set of participants (e.g. users, developers, senior management etc.) concerned with the IS, the *infrastructure* available for its support, and the *history* within the organization of commitments made in developing and using related computer-based technologies (in Walsham, 1993).

Moreover, structurational model of analysis (Orlikowski, 1992, Walsham, 1993) is another approach that introduces new insights of the organizational context by elaborating on the processes through which IT is shaped under the influence and at the same time contribute to the shaping of the social relations of the organizations within which they are implemented. Drawing on Pettigrew's contextualist approach, Walsham (1993) suggests that the domain of IT-enabled organizational change must be analysed based on:

(i) the *content* of organizational change initiative which primarily involves organization (e.g. changes to products, processes and systems);

(ii) the *social context* which is mainly drawn from the concept of web models (Kling and Scacchi, 1982). In addition, the importance of broader social context (multi-level contexts) is also considered;

(iii) the *social process* which concerns taking both a cultural and a political perspective on the organizational change associated with IS;

(iv) the *linkage between social context and social process* in which structuration theory has been put forward as a conceptual approach in this area. Further, IS are deeply involved in the modalities which link social context and social process in contemporary organizations.

Walsham (1993) designs an analytical framework as a basis for an understanding of organizational change associated with IS (see Table 2.5).

Key Components of Change Framework	Associated Conceptual Elements
Content	Organization – products/processes/systems Information Systems – hardware/software/systems
Social Context	Web Models – social relations/infrastructure/history Multi-level contexts
Social Process	Culture – subcultures/multiple meanings Politics – control and autonomy/morality
Context/Process Linkage	Structuration Theory – action and structure duality IS and modalities: - embody interpretative schemes - provide co-ordination and control facilities - encapsulate norms

Table 2.5: Organizational Change and IS: Synthesized Analytical Framework (Walsham, 1993)

In short, the contextual approach is deemed to be highly relevant in the domain of IS research where the process of IT implementation taking shape in an interaction with social and cultural aspects of both the organizational and broader national setting. Several scholars such as Madon (1993) Walsham (1993), Avgerou (2001) and Avgerou and Walsham (2001) have adopted this approach in their studies on complex IT-enabled organizational change.

2.3 LITERATURE RELATED TO IT FOR DEVELOPMENT (IT4D)

2.3.1 E-Government in Developed and Developing Countries

The advancement of IT carries the assumptions on the nature of IT innovation and on the way such innovation contributes to the development

(Avgerou, 2010). This can be linked to the initiatives of worldwide governments to harness IT in order to enhance the delivery of information and services, as well as, to transform relations with citizens, businesses and other arms of government. Madon (2004) notes that today's drive towards the use of IT to reform government administration is part of this wider development goal. These reform process results in a variety of ends such as more efficient government management, better delivery of government services, improved interactions with business and industry, or citizen empowerment through access to information – known as good governance (Bhatnagar, 2004). Considering these potential resulting benefits, e-government has become the main agenda for development in both developed and developing countries.

While the developed countries (e.g. USA, Canada, U.K.) are found to be able to successfully grasp the huge majority of initial gains from e-government implementation (Reddick, 2004, Metaxiotis and Psarras, 2004, Flak et al., 2005, Lee et al., 2005, Raymond et al., 2006, Klamo et al., 2006), most of the e-government initiatives in the developing countries end up with failure (Heeks, 2003b, Ndou, 2004, Dada, 2006, Hwang and Syamsuddin, 2008). In his seminal work, Heeks (2003a, 2003b) reports that 35% of the implementation of e-government systems in developing countries are either never implemented or abandoned immediately after implementation (total failure), and 50% of them fail partially in term of falling short of major goals

causing significant undesirable outcomes. This is a disturbing fact as e-government is seen to have a potential to improve the socio-economic condition of 80% of the world population residing in the developing countries (Backus, 2001).

Many social factors are also claimed to influence the e-government implementation. Among other suggested driving factors history and citizens (Huang et al., 2002), government staff and governance (Wimmer et al., 2001, Wimmer and Tambouris, 2002), organizational structure (Baligh, 1994, Dufner et al., 2002), and cultural factors like national culture (Hofstede, 1980, 1991), organizational culture (Hofstede, 1991) and social norms (Ajzen, 1992). The variations between these factors can differently influence the differences in terms of challenges of e-government initiatives between economically developed and developing countries.

In his comparative study on e-government, Heeks (2003a) recognizes several factors perceived to influence the state of success or failure of the e-government implementation in developing country namely internal political desire, overall vision and strategy, dominance of politics, strong change management, competencies among officials, adequate technological infrastructure and system design. In meeting the expectations of these factors, developing countries are found to be more struggling compared to the developed countries. This may explain the reason for the existence of

gap between the developed and developing countries which is argued to have been wider rather than narrower over recent years (Chen et al., 2006). In addition, Chen et al. (2006) highlight several key factors contributing to the difference between these two groups of countries in the context of e-government implementation (Table 2.6).

Key Factors	Developed Countries	Developing Countries
History and Culture	• Government and economy developed early, immediately after independence • Economy growing at a constant rate, productivity increasing, high standard of living • Relatively long history of democracy and more transparent government policy and rule	• Government usually not specifically defined; economy not increasing in productivity • Economy not growing or increasing productivity; low standard of living • Relatively short history of democracy and less transparent government policy and rule
Technical Staff	• Has a current staff, needs to increase technical abilities and hire younger professionals • Has outsourcing abilities and financial resources to outsource; current staff would be able to define requirements for development	• Does not have a staff, or has very limited in-house staff • Does not have local outsourcing abilities and rarely has the financial ability to outsource; current staff may be unable to define specific requirements
Infrastructure	• Superior current infrastructure • High internet access for employees	• Inferior current infrastructure • Low Internet access for employees and citizens
Citizens	• High Internet access and computer literacy; still has digital divide and privacy issues • Relatively more experienced in democratic system and more actively participate in	• Low Internet access and citizens are reluctant to trust online services; few citizens know how to operate computers • Relatively less experienced in democratic system and less actively

	governmental policy-making process	participate in governmental policy making process
Government Officers	• Decent computer literacy and dedication of resources; many do not place electronic government at a high priority	• Low computer literacy and dedication of resources; many do not place electronic government at a high priority due to lack of knowledge on the issue

Table 2.6: Main Differences between Developed and Developing Countries (Chen et al., 2006)

In another work that follows, Chen et al. (2007) develop a conceptual framework to analyze different e-government implementation strategies adopted in developed and developing countries. Using USA and China as case studies to represent the developed and developing countries respectively, they conclude that the e-government implementation strategies adopted in developed countries could not be directly transpose to developing countries due to substantial differences in many key elements of e-government-related technological and social conditions between them.

These factors are considered sensitive to the local context; typically the organizational setting and its national environment (Pettigrew, 1985, Walsham, 1993). In addition, several researchers also argue that the relationship between the implementation of e-government and its consequences is very complex, and should be understood as context-dependent (Robey and Sahay, 1996, Robey and Holmstrom, 2001, Waddell and Borning, 2004)

Due to the fact that IT innovation in public sector offers increased opportunity for economic development and plays a critical role in rapid economic changes, productive capacity improvements and international competitiveness enhancement (Ndou, 2004), e-government for developing countries raises some hopes and demonstrates opportunities that warrant an interesting area of knowledge with rich research opportunities. Different technological, organizational and human factors are critical in these countries, thus require more focused and localized studies. Zarei et al. (2008) highlight that localized e-government studies, particularly in the context of developing countries is significant in order to exploit more strategic advantages from IT implementation in the government sector. Hence, shortage of such studies creates a gap in the literature that needs further attention.

2.3.2 Challenges of E-Government Initiatives in Developing Countries

Numerous scenarios and results can be found from the implementation of e-government systems in developing countries, some of them are successful and some are not. Many studies have described that developing countries are lagging behind in e-government initiatives compared to developed countries because they face serious issues and challenges (Heeks and Bhatnagar, 1999, Heeks, 2002a, Heeks, 2003b, Bhatnagar, 2004, Ndou, 2004, Kumar and Best, 2006). In his study on the challenges facing e-

government initiatives in Africa, Heeks (2002a) considers e-readiness as the main key challenge to the implementation of e-government. The e-readiness factors include:

i. *Data system infrastructure* (i.e. issues related to the management systems, data standards, records and work processes in order to provide the quantity and quality of data to support the progress of e-government);
ii. *Legal infrastructure* (i.e. laws and regulations required to permit and to support the move to e-government in place);
iii. *Institutional infrastructure* (i.e. progress and growth of e-government depends on the existence of institutions to act as a focus for awareness and to act as a means for facilitation of e-government);
iv. *Human infrastructure* (i.e. the attitudes, knowledge and skills are in place to initiate, implement and sustain e-government initiatives);
v. *Technological infrastructure* (issues related to computing, networking and telecommunications infrastructure); and
vi. *Leadership and strategic thinking* (leadership issues such as need for leaders with vision who put e-government onto the agenda and who set e-government within a broader reform agenda and who make it happen).

Among these factors, technological infrastructure is perceived to be the most fundamental constraint for most e-government implementation and

development in developing countries (Ang et al., 2001, Ndou, 2004, Dada, 2006, Furuholt and Wahid, 2008, Shin et al., 2008). Poor technological infrastructure is generally due to the lack of consistent and reliable electricity, telecommunications, Internet connectivity and low access to the necessary applications (Jaeger and Thompson, 2003, Basu, 2004). Developing countries are found to be struggling to develop a basic infrastructure in order to deploy e-government services throughout the countries (InfoDev, 2002). This would decelerate, if not inhibit, the process of adoption and implementation of e-government system in the countries.

Moreover, the issue of collaboration and coordination is another challenge for e-government development in the developing countries. Kuk (2003) demonstrates that the lack of coordination between different levels of government would cause conflicting goals for e-government initiatives which can further complicate the overall efforts. This can have a significant impact on the success of e-government efforts as it requires many agencies, departments and policy makers to coordinate their efforts, in addition to preparing the technology and support infrastructure .

Financial constraint is another challenging issue that may suppress the efforts to implement e-government in developing countries (Kamal, 2006). As a result, several e-government projects in developing countries are usually driven by an individual government department that frequently depends upon

on aid from donors. Once this financing stops, there is often inadequate funding to continue the project (Schware and Deane, 2003, Dada, 2006), which consequently result in the failure to the implementation.

In addition, the issue of disparity in accessing to IT, often referred to as the digital divide, has always been the most dominant challenge for the successful deployment of e-government in developing countries (Bertot, 2003, Mariscal, 2005, Fuchs and Horak, 2008). The issues of the digital divide pertain both to the ability to access services and the ability to access content (Bertot et al., 1999). According to Brooks et al. (2005), lack of necessary funding for infrastructural development, lack of IT knowledge and skills, and lack of necessary English language proficiency are the main contributors to the inability of developing nations to access content and services offered by IT.

These challenges provide an answer to the poor performance of e-government implementation in the developing countries compared to the developed countries. Referring to the IT innovation in developing countries, Avgerou and Walsham (2001) state that "*successful examples of computerization can be found….but frustrating stories of systems which failed….are more frequent*". This entails that only with appropriate strategies and necessary actions undertaken by the e-government stakeholders, the effects of these challenges can be minimized. Government has significant

roles and duties to ensure the successful deployment of e-government initiatives (Li, 2005, Zhang et al., 2005). As the factors and challenges of e-government are argued to have “interaction effects” (Titah and Barki, 2006), it is therefore pertinent to look into the key implementation tasks of the government in managing these factors during the e-government implementation process. This could provide a better understanding and possible solutions for struggling e-government initiatives around the world, particularly in the developing countries.

2.3.3 Impacts of E-Government on Good Governance

This section presents a review on literature related to the impacts of e-government systems towards achieving good governance in public sector. Several impacts are repeatedly mentioned in the literature; where it commonly revolves around the capability of e-government systems to improve the whole process of government. Ndou (Ndou, 2004) states that the impacts and advantages of e-government are similar for both developed and developing countries. Given this immense impact, e-government can be considered as a revolution that was waiting to happen and has the potential to radically change public sector agencies, particularly in a context of developing country (Irani et al., 2005, 2007, 2008). Further, it has been a driving force for the implementation of e-government at local, state, national, regional and worldwide levels (Madon, 1993, 2005, Cain, 1999, Heeks,

2002a, Gupta and Jana, 2003, Hazlett and Hill, 2003, Sharifi and Zarei, 2004, Ciborra, 2005, Andersen and Henriksen, 2006, Chatfield and Al Hujran, 2007, Irani et al., 2007, Siddiquee, 2008, Schuppan, 2009, Al-Busaidy and Weerakkody, 2009). Foley (2005) argues that the impact of e-government will continually increase as related technologies and implementation methods improve.

According to InfoDev (2009), the benefits expected from the impact of e-government initiatives can be put into three major categories namely (i) improved achievement of economic and social policy outcomes (e.g. health, industry, development, education, welfare, justice, agriculture); (ii) improved transparency, accountability, and democracy with reduced levels of corruption; and (iii) improved delivery of public services in terms of availability, ease of use and cost savings to citizens, businesses and government agencies. In another word, e-government is a tool for the realization of good governance because it creates changes to the whole processes of government agencies in a way that makes the different attributes of good governance a reality (Hackney et al., 2008).

Literatures highlight that the use and implementation of e-government systems facilitate in disseminating information, improving customer service, centralizing decision-making and reducing costs (Layne and Lee, 2001, Goings et al., 2003, Reffat, 2003, Basu, 2004, Bhatnagar, 2004, Ndou, 2004,

Reddick, 2004, 2005, West, 2004). It also increases accountability of government agencies to the citizens as well as enhances access to all of their information (Edmiston, 2003, West, 2004, Reddick, 2005, *info*Dev/World Bank, 2009). Moreover, e-government is also credited for increased transparency, revenue growth and a lower incidence of corruption among government agencies (Bhatnagar, 2000, Goings et al., 2003, Basu, 2004, Hackney et al., 2007). In addition, some researchers in the field such as Heeks (Heeks, 2001), Bhatnagar (2004), Beynon-Davies (2007) and Irani et al. (2008) have suggested that successful implementation of e-government will ensure improvement in processes within government agencies, which results in good governance through increased efficiency and transparency, better management and better delivery of public services.

Many e-government initiatives have widely been used by government agencies as an enabling tool to help achieving good governance. This can reflected from many available case studies such as eFez in Morocco (Kettani et al., 2008), SARI project in Tamil Nadu (Kumar and Best, 2006), Akshaya project in Kerala (Madon, 2005) SmartGov in Andhra Pradesh (Bhatnagar, 2004), HISP in South Africa (Braa and Hedberg, 2002) and CRISP in India (Madon, 1993); where these cases illustrate how the implementation of e-government manifests good governance in public sector.

Referring to the number of available case studies, Bhatnagar (2004) argues that e-government can reform public sector in many ways namely; increasing transparency, reducing administrative corruption, improving service delivery, improving civil service performance, improving government finances and empowerment. The following Table 2.7 outlines the attributes of good governance, how e-government manifests good governance and related-studies from the literature.

Attributes of Good Governance	How e-government can manifest good governance?	Relevant Studies
Increasing transparency	• Dissemination of government rules and procedures; citizen's charters; government performance data to wider audience • Disclosure of public assets; government budgets; procurement information • Making decision of civil servants available to public	(Bhatnagar, 2000, Heeks, 2001, Cecchini and Scott, 2003, Goings et al., 2003, Basu, 2004, Hackney et al., 2007, Prakash and De', 2007, Walsham, 2010)
Reducing administrative corruption	• Putting procedures online so that transactions can be easily monitored • Reducing the gatekeeper role of civil servants through automated procedures that limit discretionary powers • Eliminating the need for intermediaries	(Bhatnagar, 2000, Heeks, 2001, Cecchini and Scott, 2003, Bhatnagar, 2004, Prakash and De', 2007, Walsham, 2010)
Improving service delivery	• Less time in completing transactions • Reduction of costs associated with travel for citizens to interact with government • Improving government's ability to deliver service to larger segment of population	(Layne and Lee, 2001, Heeks, 2001, Cecchini and Scott, 2003, Goings et al., 2003, Reffat, 2003, Basu, 2004, Bhatnagar, 2004, Madon, 2004, Ndou, 2004, Reddick, 2004, 2005, West, 2004, Walsham, 2010)

Improving civil service performance	• Increased ability to managers to monitor task completion rates of civil servants • Improved efficiency of civil servants by automating tedious work • Increased speed and efficiency of inter- and intra-agency workflow and data exchange	(Bhatnagar, 2000, Heeks, 2001, Bhatnagar, 2004, Krishna and Walsham, 2005, Prakash and De', 2007, Walsham, 2010)
Empowering	• Providing communities with limited or no access to government with a new channel to receive government services and information • Reducing the brokerage power of intermediaries	(Bhatnagar, 2000, Heeks, 2001, Bhatnagar, 2004, Prakash and De', 2007, Walsham, 2010)
Improving government finances	• Reducing cost of transactions for government processes • Increasing revenue by improving audit functions to better track defaulters and plug leakages by reducing corruption • Providing better control of expenditure	(Bhatnagar, 2000, Heeks, 2001, Bhatnagar, 2004, Walsham, 2010)

Table 2.7: How Can E-Government Impact Good Governance (Adapted from Bhatnagar, 2004)

The rationale for the inclusion of this sub-domain of IT4D in this research is pertinent as the literature provides a strong underlying assumption that e-government implementation could contribute to an overall achievement of good governance practices in the Malaysian context.

2.4 GAPS IN THE LITERATURE

E-government has been on the international research agenda for many years, and attracts a great attention from governments, technology providers

and researchers. In many ways, nevertheless, it is still in its infancy and thus warrants further attention and research. Being an emerging area of knowledge, there is a lack of understanding on the approaches for managing successful implementation of e-government systems, particularly in the context of developing countries. It is argued that a way to increase understanding of the management of successful e-government implementation is to consider stakeholders' roles and responsibilities (Zhang et al., 2005). In this context, several studies have highlighted the role of state in e-government implementation. While they are argued to be generally similar between countries, the need for contextualized perspective cannot be ignored due to differences that may exist, for example, in the organizational settings and national environment (Pettigrew, 1985, Walsham, 1993, Avgerou and Walsham, 2001, Avgerou, 2001, 2008, 2010). In addition, localized studies of e-government that consider the unique social, political and cultural characteristics of a country are required before more strategic advantages from IT capabilities in the government sector can be realized (Zarei et al., 2008).

In relation, many authors have been researching about issues of e-government in the context of Malaysia (Karim, 2003, Wood-Harper et al., 2004a, Hussein et al., 2007a, Hussein et al., 2007c, Kaliannan et al., 2007, Kaur and Noor Rashid, 2008, Mohamed, 2008, Kaliannan and Awang, 2008a, Kaliannan and Awang, 2008b, Selamat et al., 2008, Kaliannan et al.,

2009), none of them – as to the best of the researcher's knowledge – has focused their studies on the role of ICT to support judicial reform in the public sector. Therefore, exploring this issue in the context of E-Syariah implementation at the court offices in Malaysia may enrich the overall spectrum of literature on e-government in developing countries.

While the literature advocates the important of numerous technological, organizational and human factors for the successful development and smooth implementation of e-government, minimal attention has been paid to examine the inter-dependent nature of relationship between these factors. This may be taken to suggest the importance of considering the inter-dependency between technology, organization and human-related factors from the perspective of alignment as it is regarded as an important starting point for the success of IT implementation (Willcocks, 2003). In addition, studies indicate that the concept of alignment seems to be useful in explaining the inter-dependent nature of relationship between these factors.

Moreover, literature provides a strong underlying assumption that e-government implementation could contribute to an overall achievement of good governance in public sector. However, a small number of studies are conducted in the context of judiciary sector of the government. Thus, it is argued that study on the impacts of ICT towards judiciary is pertinent because it is found that judiciary system is continuously plagued with a few

common problems in the form of delays, backlogs of cases, accusations of lack of openness, transparency and predictability in court decisions, limited access to justice and shortage of staff (Kiskis and Petrauskas, 2004, Oskamp et al., 2004, Bhatt, 2005, Reiling, 2006). Furthermore, ICT may introduce more efficiency and effective into judicial processes by increasing, for example, trial speed without sacrificing thoroughness of investigation. It may also facilitate improvement of trial quality by ensuring efficient allocation of judicial resources, facilitate access and exchange of judicial information, increase uniformity of judicial practice and minimize malpractice and occurrence of judicial errors (Kiskis and Petrauskas, 2004).

In sum, this study serves as an exploratory work to bridge the gaps left in the literature in order to further enhance the understanding on this area of knowledge.

CHAPTER 3

RESEARCH FRAMEWORK

3. INTRODUCTION

Previous chapter has thoroughly reviewed the literature related to the subject of this inquiry. This chapter presents a research framework on the tasks of governments in facilitating the establishment of alignment in the complex inter-relationships between technological, organizational and human-related factors that influence good governance in the delivery of government services (i.e. E-Syariah) in Malaysia.

3.1 RESEARCH FRAMEWORK

This research attempts not only to provide an understanding on the inter-dependent relationships between technological, organizational and human-related factors, but also aims at investigating how government manages the establishment of alignment between the factors in order to improve the management of judicial services delivery at the Syariah court offices in Malaysia. Uncovering these inquiries may provide a response to the need for investigating the complex inter-relationships between variables included in

the factors (i.e. technology, organization, human) in shaping the successful implementation of e-government (Titah and Barki, 2006).

Review of the literature presents that the successful implementation of e-government systems are shaped by various factors, which primarily related to technology, organization and people (*see Table 2.4*). Studies have largely argued on the pertinent role of these factors as a requirement for determining the success and failure of worldwide e-government initiatives. Ability of the government to meet the requirement facilitates the success of the initiatives and vice versa. The determinative nature of these factors has also been highlighted in the existing e-government growth models (*Section 2.1.3*). The literature, however, falls short to specifically elucidate the inter-dependent nature of these factors in shaping the successful implementation of e-government systems in public sector. It is important to understanding the inter-dependent relationship between the factors as e-government success depends not only on being able to harness the right system technology to meet e-government initiatives, but also on harmonizing the technology with other factors such as people and organizational processes (Wood-Harper et al., 2004c). This suggestion is congruent with Willcocks' (2003), who argues that successful implementation of information systems is dependent upon the alignment between technology, organization and human issues. Thus, it is not enough to only understand the factors involved in the

process of e-government implementation; one must also understand the inter-relationships among these factors.

In order to complement the understanding of the inter-dependent nature of the success factors, it is useful to consider the concept of alignment or fit in this inquiry. IT alignment is a management concern primarily due to its' potential impact on the improvement of organizational performance (Chan and Reich, 2007). The concept of alignment has been widely discussed and elaborated in the literature (*Section 2.2*). Discussion on IT alignment generally explains that perceived business performance is significantly correlated to the establishment of alignment between major organizational elements with technology and human. The absence of this alignment may bring up the risk of pathological or damaging outcomes to the businesses (Sauer et al., 1997). In addition, Donaldson (2001, 2006) suggests that a more dynamic approach is needed to describe continuous sequences of incremental adjustment from clear mismatch towards improving levels of alignment. Whittington and Pettigrew (2003) coin that investing in a factor increases the profitability of an investment in a complementary factor. In this perspective, the factors shaping an implementation process should be considered as part of an integrated system of factors which are mutually reinforced (Massini and Pettigrew, 2003, Whittington and Pettigrew, 2003).

In the context of this inquiry, the degree of alignment between the factors is dependent on the managing role of government's key tasks that support the implementation of E-Syariah, which eventually manifests good governance in the delivery of judicial services to the public. For example, officers must sufficiently possess required skills and knowledge in order to effectively use e-government systems. The technology must offer sufficient functionality in order to support the organizational objectives and vision. At the same time, the officers must receive a proper training for them to efficiently use the systems.

Yong and Koon (2003) argue that governments need to work very hard in order to create comprehensive frameworks and effective strategies to ensure successful implementation of e-governments. In the context of this study, it is argued that government plays an essential role in the establishment of alignment. Literature reveals a number of government's roles in supporting the implementation of e-government, as discussed in Section 2.2.4 and presented in Table 2.3. As fit is advocated as a process rather than an end state (Henderson and Venkatraman, 1993, Baets, 1992a, 1996, Luftman and Brier, 1999, Luftman et al., 1999, Rondinelli et al., 2001, Sabherwal et al., 2001, Sledgianowski and Luftman, 2005), it is essential to understand the managing roles of government in facilitating the establishment of sufficient alignment between the success factors.

It is further argued that sufficient alignment between these inter-dependent success factors enables government to improve the delivery of public services in term of efficiency (speedy delivery, cost reduction), transparency (provision of information and simplification of procedures and actions) and empowerment (participation and accessibility of service) (Karim, 2003, West, 2004, Bhatnagar, 2004, Kaliannan and Awang, 2008b, Kaliannan et al., 2009, Naz, 2009). Therefore, the e-government public service delivery is included in the research framework as good governance for public service delivery is one of the factors that determines the success and failure of electronic-based transactions (Santos, 2003, Madon, 2004, 2005, Kettani et al., 2008). Its inclusion is pertinent as one of the main aims of this study is to examine the impact of e-government implementation towards the improvement of public service delivery. The following Table 3.1 indicates all factors considered in this study and their literature supports.

Key implementation tasks of government	Providing funding for e-government	(Kamal, 2006, Chen et al., 2006, Zhang et al., 2005, Lam, 2005, Gil-Garcia and Pardo, 2005, Choudrie et al., 2005, Basu, 2004, Pradhan and Metcalfe, 2002)
	Forming strategy and planning	(Zarei et al., 2008, Kim et al., 2007, Kamal, 2006, Imran and Gregor, 2007, Lee et al., 2005, Mohan and Raja Yaacob, 2004, Wood-Harper et al., 2004b)
	Building ICT infrastructure	(Gupta et al., 2008, Zarei et al., 2008, Chen et al., 2006, Zhang et al., 2006, Davison et al., 2005, Basu, 2004, Gupta and Jana, 2003)
	Monitoring and measuring progress of e-government initiatives	(Kim et al., 2007, Ni and Ho, 2005, Gil-Garcia and Pardo, 2005, Mohan and Raja Yaacob, 2004, Gupta and Jana, 2003)

	Legislating laws and regulations to encourage e-government transactions	(Gil-Garcia and Pardo, 2005, Basu, 2004, Schware and Deane, 2003, Siddiquee, 2008)
	Developing ICT skills and knowledge	(Gupta et al., 2008, Heeks, 2003b, Siddiquee, 2008, Imran and Gregor, 2007, Lee et al., 2005, Basu, 2004)
Technology	• IT infrastructure • IT compatibility • Technical support	(Tseng et al., 2008, Shin et al., 2008, Furuholt and Wahid, 2008, Siddiquee, 2008, Hussein et al., 2007c, Ke and Kee Wei, 2004, Ang et al., 2001)
Organization	• Leadership • Vision and strategy • Funding • Change management • Collaboration and coordination • Effective communication	(Shin et al., 2008, Siddiquee, 2008, Al-Fakhri et al., 2008, Hussein et al., 2007a, Ndou, 2004, Al-Wohaibi et al., 2002, Heeks, 2002b, Backus, 2001, Papantoniou et al., 2001, Hwang et al., 2004)
Human	• IT competency • IT skills • Training • IT understanding • IT acceptance	(Furuholt and Wahid, 2008, Gupta et al., 2008, Zarei and Ghapanchi, 2008, Zarei et al., 2008, Kim et al., 2007, Kumar et al., 2007, Dada, 2006, Kumar and Best, 2006, Ang et al., 2001, Backus, 2001)
E-Government Service Delivery for Good Governance	• Efficiency • Transparency • Empowerment	(Ho, 2002, McIvor et al., 2002, Santos, 2003, Karim, 2003, West, 2004, Bhatnagar, 2004, Madon, 2004, 2005, Reiling, 2006, Kaliannan and Awang, 2008a, Kettani et al., 2008, Kaliannan et al., 2009, Naz, 2009)

Table 3.1: Themes Identified from Literature Review

The empirical investigation undertaken in this study is exploratory to a great extent whereby it is designed to meet the following three objectives:

i. It aims to identify government's key implementation tasks supporting the successful implementation of e-government system (i.e. E-Syariah).
ii. It intends to know how key implementation tasks enable alignment for the organization – technology – human dimensions.

iii. It seeks to understand the implications of e-government service delivery (i.e. judicial services) for good governance in the light of efficiency and effectiveness, transparency and empowerment.

Based on the above arguments, a conceptual framework for this study is proposed (Figure 3.1).

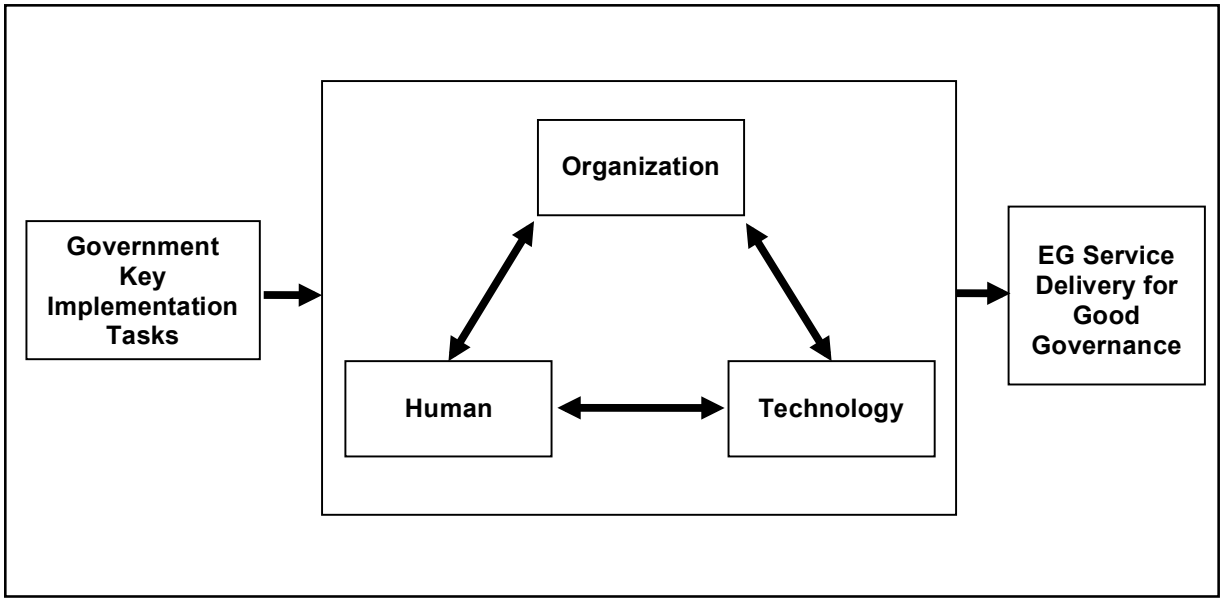

Figure 3.1: Proposed Research Framework

3.2 SUMMARY

This chapter discusses the proposed research framework in the context of existing literature. The next chapter presents the details related to the design for this research, in which it describes the research methods applied in this research, and explains the research process.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4. INTRODUCTION

This chapter sheds light on the methodology developed to study the nature of fit or alignment in the context of e-government implementation for improving the public service delivery. An interpretive research approach was undertaken within the context of a case study focusing on the government's key implementation tasks that shaping alignment at Syariah Court Offices in Malaysia.

In this chapter, the researcher explains the the methodological design of this research. Section 4.1 explores three major philosophical assumptions underlying the research approaches that are commonly used in the IS field and clarifies this study's research approach. Cavaye (1996) distinguishes the idea of research approach from the notion of research method in IS studies by explaining that the former refers to "*a way of going about one's research*", whereas the latter delineates "*a way to systemize observation, describing ways of collecting evidence and indicating the type of tools and techniques to be used during data collection*". Section 4.2 elaborates several research methods used in IS studies and provides the main justifications for choosing

the interpretive case study in this research. Section 4.3 therefore, focuses on the elaboration of this method, the interpretive case study, in terms of the research design and process, data-gathering techniques and data analysis process used in this study. Lastly, section 4.4 explains the test undertaken for assessing the quality of the empirical research.

4.1 RESEARCH APPROACH

A research approach refers to the set of philosophical assumptions that informs a researcher the nature of the phenomena being investigated and the nature of valid evidence. In the IS field, there are three broad research approaches namely the positivist, interpretive and critical traditions (Orlikowski and Baroudi, 1991). As Creswell (2003) states that “researchers make claims about what is knowledge (ontology), how we know it (epistemology), what values go into it (axiology), how we write about it (rhetoric) and the process for studying it (methodology)”, Orlikowski and Baroudi (1991), thus, discuss these approaches based on three sets of assumptions and beliefs as follows:

(i) beliefs about the phenomenon or the object of study (i.e. ontology);

(ii) beliefs about the notion and conception of knowledge (i.e. epistemology);

(iii) beliefs about the relationship between knowledge and the empirical world (how the researcher engages to the subject under investigation).

This section will therefore review these three principal IS research approaches based on the ontological and epistemological dimensions, in order to better understand the underlying philosophical assumption which leading to the selection of the interpretive approach for this study.

The positivist approach that reflects the precepts of natural sciences has been the dominant perspective in IS studies (Orlikowski and Baroudi, 1991). Healy and Perry (2000) view positivism as a scientifically-based approach that quantitatively examines individual facts concerning a single apprehensible reality. Ontologically, the positivist assumes that a physical and social world exists independently of humans, and that the nature of this world can be apprehended, described and measured objectively. This enables the knowledge to be created through systematic, comparative, replicative, scientific study of the empirical world, consisting of generalisable propositions that give insight and/or have predictive capability when applied to phenomenon other than those on which they are based (Navarra, 2006). In epistemological dimension, this approach is concerned with the empirical testability of theories (Orlikowski and Baroudi, 1991). The epistemological assumptions of the positivist can be described in the following criteria

(Orlikowski and Baroudi, 1991, Walsham, 1995a): inquiry is value-neutral; scientific knowledge consists of facts and rules, which are independent of a social or historical context; the interactions between the various elements that constitute the world can be identified through hypothetic-deductive logic, and expressed in the form of causal relationships.

Nevertheless, positivism is argued to be inappropriate for research that engages people and their real-life experiences (Healy and Perry, 2000). Positivists believe that there is a single reality. This can be ineffective at understanding social factors whereby different people come from different cultures, environments and backgrounds, which resulted in different opinions (Corbitt et al., 2004-07). Monteiro et al. (2003) note that abandoning the social context in research leads to the failure of capturing the complexity of reality. Therefore, positivism is not suitable for this research as the essence of the process was complex and it deals with people in their social context and their influence to create change in organization.

The interpretive approach has emerged in response to the assumptions held by the positivists. A distinctive feature between these two approaches lies on the interpretive view of social construction where neither reality nor knowledge is capable of being comprehended independently of the social actors, including the researchers (Orlikowski and Baroudi, 1991). Due to its' focus on the understanding of reality (Walsham, 1995b), interpretive

approach is more suitable for exploring complex social phenomenon that requires investigating the real-life experiences of individual people (Christie et al., 2000).

Ontologically, the interpretive approach holds that physical and social reality is not objectively known (subjective); rather it is constructed by the social actors and the researcher who are trying to make sense of it. This construction of reality can be of two forms (Walsham, 1995a, 2006): (i) the internal realism; where the nature of reality is regarded as a shared, inter-subjective construction of the various actors and the researcher involved, and (ii) the subjective idealism; where reality is regarded as a subjective construction of the individual person. Epistemologically, it is therefore characterized by a denial of the possibility of full, objective and factual knowledge of phenomena and reality. All knowledge of social phenomena can only be accessed by getting inside the subjective viewpoint of organizational members, and understanding the language and tacit norms that they use (Klein and Myers, 1999, Orlikowski and Baroudi, 1991).

It is evident from the above discussion that the interpretive approach rejects the positivist view of objective evaluations or predictive generalization in the social sciences. Interpretivism allows theory to be developed via an inductive process that concentrates on the details of the data in order to gain important factors, categories and inter-relationships revealed by the open

questions rather than by testing the theoretically deductive hypotheses. Interpretive researches emphasize more on eliciting the accounts by which people (i.e. social actors) make sense of their world, and understanding the social phenomena based on those accounts. It allows researchers to make sense of the people and the organization under study (Bode and Burn, 2001). Similarly, Orlikowski and Baroudi (1991) argue that the intent of the interpretive approach is to comprehend the deeper structures of the phenomena under investigation. Thus, studies within the interpretive approach are geared towards understanding the complexity of human sense-making regarding phenomenon of interest within a particular socio-cultural context. Therefore, it is claimed that context-specific understanding that is gained is not used to generate cause-effect rules and law-like generalizations such as in the positivist approach, instead, it is used towards building a deeper and richer understanding of IS phenomenon, and the process whereby the IS influences and is influenced by the context (Walsham, 2006).

The third main research approach is known as critical approach. This approach attempts to critically evaluate and transform the social reality that is studied. The ontological and epistemological dimensions of this approach are generally similar to that of the interpretive, with one distinctive feature which emphasizes on critiquing social systems and revealing any contradictions and conflicts that may exist within their structure (Orlikowski

and Baroudi, 1991). The general objective of critical studies is to expose orthodox or conventional assumptions regarding organisations and information systems, so as to challenge unfair or oppressive ideological positions and distributions of power, and thereby improve the capacity for a greater attainment of human potential.

Since e-government systems and their implementation are related to particular institutional and social settings, it is important to note that these bring about a complex network of social, technical and organizational elements. For this purpose, the interpretive approach is useful as it provides thorough explanation of the phenomenon under study (Walsham, 1995b) and concentrates on “human ideas and actions in the social and organizational situation” (Klein and Myers, 1999). In order to fulfill the primary objective of this inquiry – understanding the inter-dependent relationship between organizational, technological and human-related success factors leading to successful implementation of e-government in the case of E-Syariah in Malaysia, the underlying philosophical assumption of interpretivism is deemed to be the most suitable approach. Hence, the interpretive, qualitative approach is considered for this study.

4.2 RESEARCH METHOD

This section justifies the selection of the interpretive case study method employed in this research, through a consideration of alternative research methods that are used in IS studies, and an explanation of the reasons for choosing the case study method in this academic inquiry. The general features of the case study method are explained in order to provide a background for the elaboration of the specific details regarding the conduct of the case study undertaken in this study.

4.2.1 Alternative Research Methods in IS Studies

Romano (1989) claims that the question of research method cannot be answered without careful consideration of the nature of the objects under study. Furthermore, '*no single approach is always or necessarily superior; it all depends on what we need to find out and on the type of question to which we seek and answer*' (Oppenheim, 1992). Choosing the best research method to be adopted is a matter of appropriateness and suitability for achieving a particular objective of a study. Ritchie (2003) asserts that the use of research methods is significantly determined by the goals of the research and the specific questions that need to be answered. In this study, a number of methods were considered as possible alternatives for investigating the research questions. The selection criterions used to choose the most suitable method among these options was primarily justified by the

degree of compatibility between the method and: (i) the requirements set by the objectives of this study; and (ii) the philosophical assumptions of the interpretive research approach undertaken in this research. Hence, this research considers four types of research methods namely *action research*, *grounded theory, ethnography* and *case study* (Myers, 2009).

First, action research is a form of social investigation into real-life circumstances, which is collaborative in its' nature of undertaking (Baskerville and Wood-Harper, 2002). They describe it as an interventionist approach to the acquisition of scientific knowledge as researcher is not merely a neutral investigator but one who is actively involved in organisational improvement efforts. Hence, researchers work closely with practitioners in providing knowledge and insight necessary to understand the anomalies being studied (Baskerville and Wood-Harper, 2002). Considering the nature of government agencies in Malaysia that limits the participation and involvement of external participants (i.e. researchers) in the setting, the action research method is excluded from use in this study.

Second, grounded theory is an inductive theory discovery methodology that allows the researcher to develop a theoretical account of the common features of a topic or phenomenon under study, while simultaneously grounding the account of the common features or data (Martin and Turner, 1986). In relation, Baskerville and Wood-Harper (2002) describe it as a

method for theory development whereby it enables a researcher to develop theory that is grounded in data which has been systematically collected and analysed. Further, it is suggested that there should be a continuous interplay between data collection and analysis (Baskerville and Wood-Harper, 2002). As this study is not specifically deliberated to develop theory and does not have a closely inter-related relationship between data collection and analysis, a grounded theory method is deemed to be inappropriate for this inquiry.

Third, Creswell (2003) states that ethnography research is the product and process of explaining and understanding cultural behaviour. Under this approach, the entire cultural group is studied within its natural setting where an ethnographer spends a significant amount of time to gather observational data. During the process, the ethnographer “immerse himself in the life of the people he studies” and “seeks to place the phenomena studied in their social and cultural context” (Baskerville and Wood-Harper, 2002) For ethnographers, culture does not imply a set of characteristics of a group, instead, it refers to a pattern or form identified and drawn from the subject being studied (Schwandt, 1997). In the context of this study, the researcher is not a member of staff at the Syariah court offices, and therefore, is not able to investigate and monitor the use and process e-government (i.e. E-Syariah) over a period of time. For this reason, an ethnographic method could not be adopted for this research.

Fourth, case study research is described by Zikmund et al (2009) as an exploratory research technique that rigorously examines one or a number of circumstances related to the research problem. This method entails an investigation of an occurrence in its natural setting using various techniques (e.g. interviews, direct observation, participant observation, documents and archival records), in order to collect information from one or a small number of entities (Benbasat et al., 1987). However, interviews are argued to be the primary data source as it is through this method that the researchers can best access the interpretations that participants have regarding the actions and events which have or taking place, and the views and aspirations of themselves and other participants (Walsham, 1995b). In addition, Yin (2003b) proposes three criteria that should determine the choice of this method which are (i) the nature of the research questions; (ii) the degree of control over observed events and; (iii) whether the focus is on contemporary of historical events. All of these three conditions are met in the context of this study since its' main objective is to explore and gain understanding on the nature of alignment between the inter-connected factors influencing e-government in the real life context by addressing the question of *how alignment between technology, organization and people is enabled and its' impacts towards the success of e-government implementation?* Hence, the case study is considered as the most appropriate method to be adopted for this research.

4.2.2 The Chosen Research Method: Case Study

Case study is known to be the most commonly used research method especially in the study of less understood issues, and is considered as the most appropriate research approach when researcher is interested in the relation between the context and the phenomenon of interest (Yin, 2003b). Palvia et al. (2003) examine the usage of thirteen different methodologies in seven leading MIS journal during the five years period of 1993-1997. The finding indicates that the use of case study and other qualitative techniques has become one of the current trends in this field of research.

Benbasat et al. (1987) affirms that case study method is particularly well-suited to IS research. It is indeed the most commonly used qualitative method in this area of research (Orlikowski and Baroudi, 1991, Alavi and Carlson, 1992, Klein and Myers, 1999). This is due to several reasons which are; firstly, it enables researcher to study IS in a natural setting, learn about the state of the art and generate theories from practice. Secondly, case study allows the researcher to understand the nature and the complexity of the process taking place. Thirdly, it provides insights with regard to the rapid development of the IS domain of study. The major strength of the case study research is that seen to be the ability to investigate a contemporary phenomenon within its real life context particularly when the researcher has little control over the events, and to answer what, how and why questions

(Walsham, 1995b, Yin, 2003b). As a result, it enables researcher to capture the reality in considerably greater details than is possible with other methods as discussed earlier.

In the case study method, the researcher goes about gathering, in a systematic way, in-depth information about certain aspects of occurrences within a particular social situation. Meredith (1998) explains that case study method allows a more in-depth exploration of the field under study, and enables the researcher to inquire more detailed questions of the participants and to collect information from a variety of sources. In relation, it is suggested that the primary benefit of case study is that a whole organisation or entity can be investigated rigorously (Zikmund et al., 2009), and gain a better understanding of why an occurrence happened as it did as well as what might be important to look at in future research (Hair Jr. et al., 2003). These arguments further deliberate the appropriateness of case study method for this research as it allows the investigation to develop a meaningful explanation of complex government organisational structures and e-government phenomena. Furthermore, it would facilitate better understanding of the development of integrated ICT infrastructures in the public sector, which is the focus of this research.

Yin (2003b) explains that there is no specific data collection or analysis methods in case study which can be used in combination with one another to

provide rigour and triangulation to the research. Thus, it is beneficial for the researcher to employ numerous data collection technique and a careful analysis of the evidence – as adopted by this research. Case studies may access evidence from a variety of different sources in order to build up a description of the case such as documentation, archival records, interviews and participant and non-participant observations (Eisenhardt, 1989, Yin, 2003b). The data from distinct sources can be cross-investigated in order to observe any consistency of the outcomes when verifying the analysis (Denscombe, 2007). Triangulation of data gathered from these multiple sources permits an in-depth study of a phenomenon from different viewpoints, which indirectly increase the validity of the research findings.

Adopting case study method may involve undertaking single or multiple case design at numerous levels of analysis (Walsham, 1993, Darke et al., 1998, Yin, 2003b). Single case study is used to obtain a detailed contextual understanding of, and in-depth insights into a phenomenon. Whereas, multiple case studies (i.e. involving two or more cases) can help researchers to gain expanded insights into phenomenon under investigation through the understanding of variations across different settings or contexts (Yin, 2003b). In order to be able to compare findings from multiple cases, the selection of the case studies should follow replication logic rather than sampling logic (Yin, 2003b). Replication logic implies treating a series of cases as a series of experiments with each case serving to confirm or disconfirm the

hypothesis. Moreover, it aims to exhibit or predict similar results and explain contrasting results which is claimed to be essential for multiple case analysis as it increases the external validity of a research (Eisenhardt, 1989, Yin, 2003b).

For this study, case study method selected is that of interpretive type due to some reasons as follows. Firstly, the use of interpretive case study method fits to the exploratory form of research required by this study, which primarily aims at exploring the nature of alignment that shapes the successful implementation of e-government system in Malaysian public sector. Moreover, the method conforms to the "how" type orientation of the research question set in this study. Secondly, the use of the interpretive case study method is in harmony with the contextual focus of this research – to understand the way e-government success is shaped by human, technological and organizational-related factors in the context of which it is implemented. Thirdly, the use of the interpretive case study method accorded with the researcher's philosophical assumption as described in section 4.1.

4.3 RESEARCH DESIGN AND PROCESS

This section describes the procedures that were used and explains the main choices that were made in collecting and analyzing the case study data in

this inquiry. This data was primarily collected from the study carried out at syariah court offices in Malaysia. Data collection was carried out via the use of semi-structured interviews (face-to-face and phone interviews), non-participant observation and an examination of organizational-related documents. Further, hermeneutics method (Butler, 1998, Klein and Myers, 1999, Myers, 2004) was adopted as the mode of analysis for engaging analytically with the collected data of this research.

4.3.1 Research Design

The first step in the research process was conducting literature review and analysis related to the area of this inquiry. Reviewing of the relevant literature enabled the researcher to understand the background and concepts related to the domain of e-government and to set up the direction of this research. Further, it permitted the researcher to recognize the issues documented in the academic literature on e-government, management and information systems, inspired new ideas and clarified the research problem.

The next step (Step 2) was related to the development of research framework. The empirical investigation of the research was conducted after all necessary preparation were arranged, which included selecting the cases, contacting the government offices and designing the data collection protocol (Step 3). This is followed by data analysis, data interpretation and

summary of conclusion from the findings. Finally, the findings addressing the research question of "*how alignment between technology, organization and people is enabled and its' impacts towards the success of e-government implementation?*" were presented and discussed (Step 4). It also involved tasks of validating and confirming the theoretical framework, as well as e-government literatures that led towards finalizing the conclusions and formulating suggestions for further inquiry. Figure 4.1 illustrates the research design and corresponding research process.

The following sections discuss in more detail on the process of this empirical investigation and elaborate on the techniques employed for data collection, and data analysis.

4.3.2 Site Selection

An interpretive case study method was adopted by this research as it is congruent with the contextual focus of this research – understanding alignment between organizational, technological and people-related factors that shape the success of e-government implementation, specifically in the E-Syariah project. Thus, ability to gain necessary access into the government offices is the main issue for the researcher. Through the use of formal letter, phone calls, e-mails and informal contacts, approaches were

made to the officers at the Department of Syariah Judiciary Malaysia (JKSM) at the beginning of the year 2007. JKSM is the leading government agency

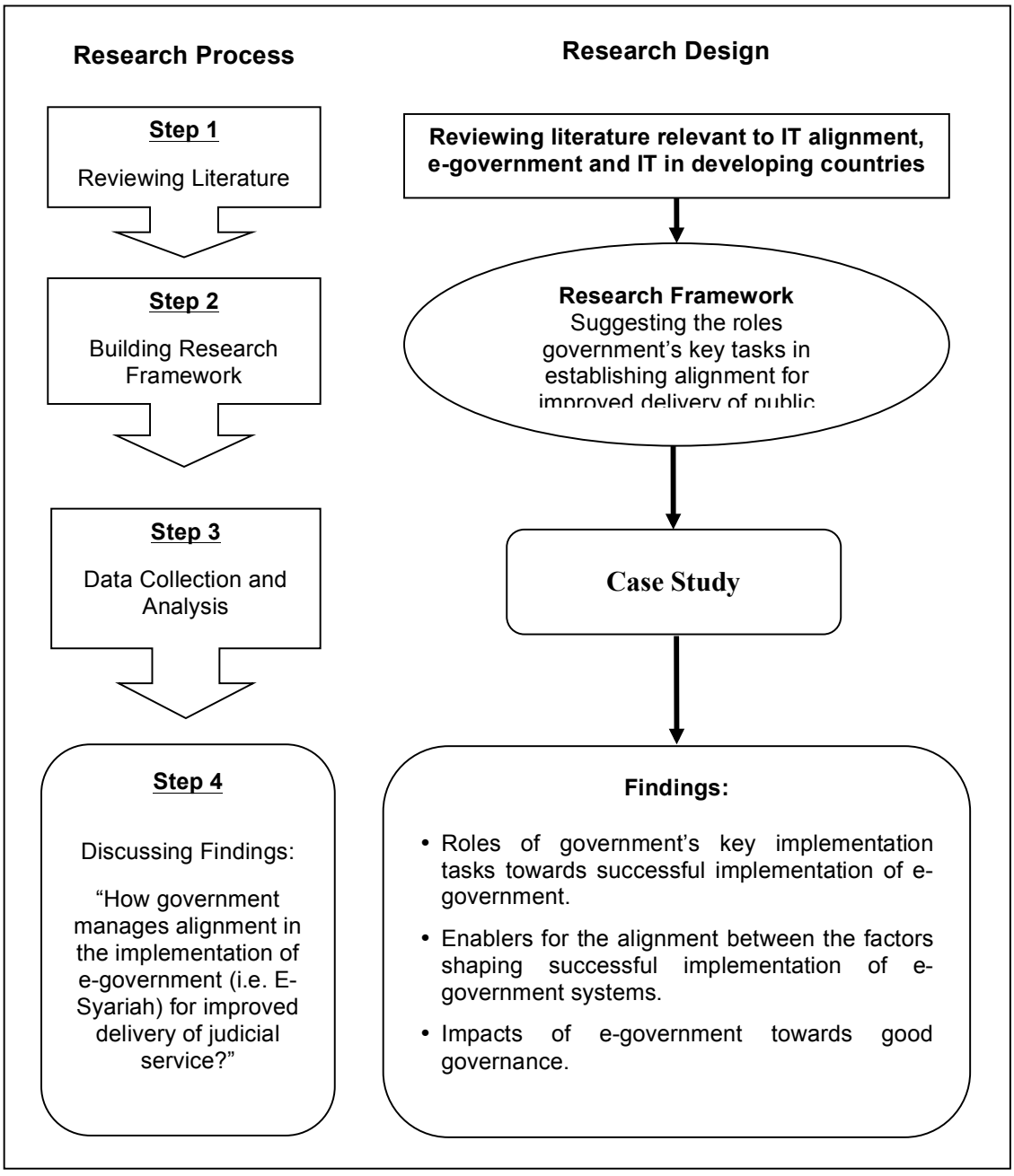

Figure 4.1: Research Process and Research Design

which is responsible towards the management of E-Syariah implementation at Syariah court offices throughout Malaysia. Having this responsibility, the officers at JKSM is regarded as the best and “rich” informants who are more likely to provide insight and understanding on the subject of study, particularly in explaining about the tasks of JKSM in managing the implementation of E-Syariah in Malaysia.

After having access to JKSM, a network was later built by asking these key informants to suggest and recommend additional potential informants from the sites – Syariah court offices. Using this snowball sampling method (Marshall, 1996, Patton, 2002), the researcher managed to obtain access to the Syariah court offices in Kelantan. The state of Kelantan was recommended by the JKSM because of two reasons:

- It is among the earliest state-level government offices that involved in the implementation of E-Syariah from the beginning of this project.
- Syariah court offices in Kelantan were considered to have been able to strategically use E-Syariah in supporting works related to Islamic judicial processes.

4.3.3 Data Collection

The empirical investigation was conducted through visit to government offices in Malaysia that primarily use *E-Syariah* in order to support improved Syariah judicial processes in their organizational environment. In congruent to the interpretive case study method of this research, the primary source of data was heavily relied on 14 informal, semi-structured interviews with management and judicial staff of court offices in Kelantan, as well as management at JKSM (*note: as indicated earlier that interviews with directors and managers at JKSM aimed at obtaining empirical data for the key implementation tasks of central government agency in managing the implementation of E-Syariah*). Identifying the right stakeholders is important to obtain an in-depth understanding of the participants' experiences (Greenhalgh and Taylor, 1997). In light of this sampling size, Mintzberg (1979) recommends that in certain circumstances a small sample size can generate more useful research outcomes than a larger sample. Further, limited numbers of observations do not necessarily obstruct generalization of the outcomes (Walsham, 1995b). Thus, a large degree of generalization does not necessarily produce more meaningful generalization. For this reason, the researcher was aware that if new information came into sight after these 14 interviews, then the inquiry would have continued. However, a high degree of saturation was achieved from the interviews as they were detailed and, thus the selection of respondents was considered appropriate.

The informal, semi-structured interview is a better way of catching the point of view of the people and it is flexible in the sense that allowing the researcher to raise and revise questions throughout the process of interviews (Yin, 2003b). In addition, Kumar (2005) claims this style of interview requires less developed interviewing skills of the interviewer/researcher. The researcher can prepare a set of question in advance but conduct the interview in a conversational and open manner (Kvale and Brinkmann, 2008). Hence, the researcher can get the interviewees to talk frankly and generously, which ensuring the research to obtain in-depth information on the issues under investigation. Furthermore, semi-structured interview puts the interviewer in control of the process of getting information from the interviewee, and is able to pursue new clues as they arise during the interview process (Bernard, 1988). Hair Jr. et al. (2003) add that it may result in unexpected and insightful information coming to light, thus enhancing the findings.

Furthermore, this research employed face-to-face and phone interviews. Face-to-face interview is known as the best medium for allowing the researcher to adapt the questions asked as necessary, enabling them to pick up a range of expressions, voice tones and non-verbal cues from the interviewees, and facilitating instantaneous feedback, thus enhancing interpretation (Daft and Lengel, 1986). The interviews were carried out in Malaysia between June – August 2007. Each interview has an average

duration of 1 to 1.5 hours. The interviews were tape recorded in order to ensure accuracy of data analysis. However, some of the interviews were not taped on the request of the interviewees. Even though this procedure has the disadvantage of not being completely faithful to the exact words used by the informants (Walsham, 1995b), it provided the researcher with an opportunity to create a more comfortable environment for the interviewees during the interviews. In these occasions, written notes were taken and transcribed immediately after the interview. This is important as precious data may be lost when entrusted to memory or not organized as soon after collection as possible (Benbasat et al., 1987). A list of officers interviewed at the Syariah court offices is shown in Appendix A.

Guideline for interview which outlines key questions (i.e. topics and issues) to be asked during the course of the interview was prepared in advance as suggested by Kvale and Brinkmann (2008). The key questions in the guidelines were used to loosely structure the interviews. The format of interview items was tailored to the roles and positions of three categories of officers at the court offices namely top management (*i.e. Chief Registrar, Syarie' Judges and Head of IT*), administrative (*i.e. Court Registrars, Court Administrators and Clerks*) and technical (*i.e. officers who are directly responsible for IT-related tasks and services at the court offices*).

Key Questions	Relevant Staff [1]
Demographic information: position, years at the post, job scope	TM, A, IT
Description of the workflow of Syariah judicial system in Malaysia	TM, A, IT
Description of E-Syariah, including functionalities and services to support the workflow of Syariah judicial tasks at the court offices	TM, IT
Factors that support the strategic implementation of Syariah court cases (relate to the government's key implementation tasks)	TM, A, IT
Structure of IT governance and its' impacts on the E-Syariah implementation	TM
Significance of E-Syariah in improving the judicial system	TM, A, IT
Challenges faced in using E-Syariah at the court offices	TM, A, IT
Factors contributing to the success of the E-Syariah implementation	TM, A, IT
Impacts of E-Syariah towards the improvement of judicial operations at the court offices	TM, A
Support and services provided by the IT support team	TM, IT
Description of training courses for E-Syariah community (i.e. staff at the court offices)	IT
Key tasks that enable alignment between technology, organization and human dimensions	TM, A, IT
Changes to the Syariah judicial practices and effects of these changes to the performance of Syariah court offices – relate to the efficiency, transparency and empowerment.	TM, A, IT

Table 4.1: Interview Guidelines

These different groups of officers might be able to offer different perspectives on e-government implementation throughout the organization (Leitner, 2006). For example, the operational management group might offer some hints or insights as to the actual e-government processes and uses to the top management group which they might not have considered previously. The aggregated interview questions and particular group of officers that they pertained to is presented in Table 4.1.

[1] The abbreviations are: 'TM' for top management staff, 'A' for administrative staff and 'IT' for technical staff.

These interview guidelines were supplemented by the technique of probing (Easterby-Smith et al., 2002, Rubin and Rubin, 2004), which is useful to expand and elucidate interviewees' responses to the questions set by the guidelines into the depth of detail sought after. Probing is asking follow-up questions when interviewer does not fully understand a response, or when answers are vague or ambiguous, or when more specific or in-depth information need to collected from the interviewees (Easterby-Smith et al., 2002). Further, it can also indicate that the interviewer is paying attention to issues and responses given by the interviewees (Rubin and Rubin, 2004). Easterby-Smith et al. (2002) suggest seven forms of probing techniques for semi-structured interviews (see Table 4.2), in which explanatory, focused and drawing out probes were frequently applied during the course of interviews.

Form of Probing Techniques	Descriptions
Basic probe	Repeat a question to get interviewee back on track; frequently used when the interviewee is going off-tangent.
Explanatory probe	Used to get clearer understanding by completing the incomplete statements of the interviewee. The interviewer asks question such as "*Can you give an example?*" or "*Can you explain that?*". This technique also may encourage further elaboration or clarification on topic being discussed.
Focused probe	Used to get a particular understanding about a topic. For instance "*What type of problem did you encounter?*"
Silent probe	The interviewer maintains silent and waits for the interviewee to break the silent. This types of technique is generally used when the interviewee is taking a lot of time to respond or is hesitant to respond.
Drawing out	Used when the interviewee is not and has stopped responding. Typically, the interviewer re-states or re-phrases the last question or topic (e.g. "*So, the last question was….what else can you tell me about that?*"), which not only helps the interviewee to start talking again but also allows to extend the range of the topic being discussed.

Giving ideas or suggestions	The interviewer gives suggestions or ideas to think about such as "*Have you thought about…..?*"
Mirroring or reflecting	The interviewer says what the interviewee has just said in his own words. This helps the interviewee to think what he/she has just said. This techniques may induce elaboration on the topic.

Table 4.2: Types of Probing Techniques

In addition, phone interviews were also carried out (between April – May 2009) for further clarification and exploration on some issues. It is best suited in a situation where researcher need to quickly reach the respondent and obtained responses in a geographically separated research setting (Sekaran, 2003). This is applicable in the context of this inquiry as researcher is located the United Kingdom and the respondents are in Malaysia.

In addition, the data gathered from these semi-structured interviews were supplemented by observational data, informal conversations and review of related documentation. This is typical in case study research as evidence from two or more sources of data will converge to support the research findings (Benbasat et al., 1987). The researcher was given permission to observe the use of E-Syariah amongst the officers at the court offices, as well as the conduct of IT training sessions. Moreover, the researcher was also invited by an Assistant Director from JKSM to be (an observer) in the annual meeting on E-Syariah which was attended by top management, Syarie' judges, court administrators and operational members of Syariah court offices throughout Malaysia. In these occurrences, the researcher was

able to collect observational data from the respondents (e.g. officers' attitudes in the trainings, officers' perceptions towards E-Syariah) without them being aware of their participation in a research project. This unobtrusive approach of observational data collection avoids interview bias since there is no interaction (e.g. no instruction are given and no question asked) between the respondents and researcher (Hair Jr. et al., 2003). Further, the researcher was also engaged in informal conversations with these groups of respondents by spending several hours in social occasions (e.g. lunch, tea time, and dinner) after office hours, trainings and meeting. The E-Syariah-related documents that were reviewed to obtain additional understanding on some issues related to the implementation of E-Syariah in Malaysia consisted of synopsis of E-Syariah implementation, annual report for Syariah court offices (2005 and 2006) and guidelines for strategic ICT planning in Malaysian public sector. These multiple data sources not only enable the researcher to obtain a rich set of data surrounding the research issue, as well as capturing the contextual complexity, but also offer the opportunity for triangulation which lends greater support to the researcher's conclusions (Benbasat et al., 1987).

4.3.4 Data Analysis Process

This section elucidates how the collected data was analyzed and used in support of the objective of this inquiry. This research adopted an iterative

analytical technique of taking the literature review and applying it to the data collection method. Judgments were made on the data with reference to the literature review to verify the researcher‘s personal judgments – a mode of analysis known as hermeneutics. Hermeneutics is the study of text interpretation (Boland, 2002), which enables the researcher to make sense of the texts (Myers, 2004), and draw meanings from them (Lee, 1994). Engaging hermeneutics as the mode of analysis for IS study has been promoted by prominent IS researchers such as Lee (1994), Butler (1998), Myers (1995, 2004) and Boland (2002). This is due to its’ capability to understand differences (e.g. contradictory views of different stakeholders on many issues) exist within an organization as a whole story, and make sense of the relationship between people, the organization and information technology (Myers, 2004).

The hermeneutic facilitates understanding of a transcript as an entire story and interpretation that is directed by anticipated explanations (Myers, 2004). The interview transcripts were iteratively clarified by visiting the researcher‘s individual experiences and existing literature reviews. These interpretations were then used to make judgments about the transcripts, creating additional reiterations and interpretations of those transcripts until the theoretical suggestions were reinterpreted, and conclusions were reformulated (Creswell, 2003). This mode of analysis requires the researcher to involve in a substantial process “interrogation” with the empirical data, seeking to

develop a framework that elucidates the particular “structure” of the phenomenon evident in the text-analogue (Corea, 2003). He further explains that the researcher “*will need repeatedly to closely examine the acquired empirical data, teasing out potential layers of signification and integrative themes, which then, along with their implicit assumptions, become the object of subsequent critical questioning and revision, within an evolutionary, iterative process of engagement*” (p. 121). This hermeneutic cycle was carried out until relatively stable understanding on the phenomenon (i.e. text-analogue) as a whole and its various parts were built up (Butler, 1998).

Task for the case analysis proceeded in several steps. First, the researcher iteratively read through the entire transcripts in order to identify issues, and satisfied that no issue appeared during the interviews was omitted. It thus allowed the researcher to look for and confirm themes arising from the transcripts. Second, case data was coded and cross-referenced to the factors identified in the research framework. This was done using the open-coding technique (Strauss and Corbin, 1998) where particular chunks of text that are paragraphs or sentences were coded for later retrieval and categorizing (Miles and Huberman, 1994). Open-coding is defined as a process when “the investigator identifies potential themes by pulling together real examples from the text” (Ryan and Bernard, 2000). It enables the researcher to simplify and focus on meaningful characteristics of the data (Hair Jr. et al., 2003). Further, the coding data were put into meaningful

categories which enabled the identification and explanation of themes, concepts and patterns, and then organized them into expressive categories that described these themes, concepts and patterns within the layout of meaning context (Miles and Huberman, 1994, Strauss and Corbin, 1998, Creswell, 2003). Following this task, findings were generated in order to develop an understanding on the successful implementation of E-Syariah.

The next section will discuss the criterions that are commonly used to assess the quality of empirical research and will explain how this research satisfies those criterions.

4.4 QUALITY OF THE EMPIRICAL RESEARCH

According to Yin (2003b), the quality of any empirical social research and case study in particular can be established through construct validity test, internal and external validity tests and reliability test. The next four sections will elaborate on the four tests associated to establish the quality of this empirical research.

4.4.1 Reliability:

Reliability test aims to demonstrate that the processes and operations of a research – such as data collection procedures can be repeated, and it

produces the same findings (Yin, 2003b, Hair Jr. et al., 2003). This denotes that if another researcher follows the same procedures as applied by a previous researcher for the conducting the same case study, he/she will arrive at the same results and conclusions (Yin, 2003b). In short, reliability test intends to minimize the errors and biases in the study.

For this research study, a number of techniques were used in order to ensure consistency in applying procedures for data collection and analysis. Firstly, in order to minimize the possibility of forgetting or misunderstanding the data, interviews – where possible – were recorded and transcribed. Next, data collection processes were guided by an interview protocol which is designed to capture factors identified in the research framework. This ensures consistency in the areas covered in the cases. Moreover, the techniques incorporated in this research fulfill the requirements of research reliability as suggested by Silverman (2006)

4.4.2 Validity

The validity of interpretive, qualitative studies is accepted as valid within the IS field of research (Klein and Myers, 1999), and grounded in the credibility of explanation and the rigour of depictions (Boje, 2000). In case study research, there are three main types of validity namely: *construct validity*, *internal validity* and *external validity*.

4.4.2.1 Construct Validity:

Yin (2003b) refers construct validity as an establishment of correct measures for the concepts being studied. This implies that the selected concepts are measured correctly. The potential problem of construct validity can be addressed by data triangulation. Data triangulation is when data or evidence is collected from multiple different sources at different time, and aiming at corroborating the same fact or phenomenon (Hair Jr. et al., 2003). Gathering evidence from a variety of sources essentially provides 'multiple measures of the same phenomenon' (Yin, 2003b) and ensures 'stronger substantiation of constructs and hypotheses' (Eisenhardt, 1989, Eisenhardt, 1991). In order to meet the test of the construct validity, the empirical data was gathered through multiple techniques. Moreover, key informants were asked to review the reports of the case study and feedbacks were then incorporated into the final reports as suggested by Yin (2003b).

4.4.2.2 Internal Validity:

Internal validity implies the need to ensure that research is free from any bias in the form of inferences and conclusions (Leedy, 1997). Yin (2003b) refers internal validity to 'establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships'. Thus, two common problems associated with internal validity are (i) making inferences (as case study involves inferences every

time even cannot be directly observed), and (ii) spurious effects when there are other determinative factors than those identified in the research model**.** In order to address these problems and improve internal validity of this research, key participants were invited to review and give comment on case reports. Moreover, the interviews were conducted in an environment that was familiar to the interviewees (i.e. offices). This approach ensured the interviewees felt relaxed and thus facilitated open discussion of their functions, their perceptions and their experiences with e-government.

4.4.2.3 External Validity:

External validity implies 'establishing the domain to which a study's finding can be generalized' (Yin, 2003b). According to Lincoln and Guba (1986), external validity is often inter-changed with the concept of transferability, which refers to the capacity for research findings to be transferred to other circumstances which have related parameters, characteristics and populations. This condition was achieved through systematic analysis of the interviews with relevant officers who directly involved in the implementation of E-Syariah. It is also worthy to highlight that this research may not be generalisable for all possible future e-government implementations or situations, depending on specific condition and context.

4.5 CONCLUSIONS

This chapter elucidates various aspects of the research methodology adopted by this research. It has provided an explanation of the choice of case study methodology, explained the criterions for case selection, elaborated on the research design and processes, described the techniques used for data collection and analysis, and highlighted the problems and issues associated with the quality of empirical research.

Next chapter (Chapter 5) will present the background of E-Syariah system as well as the Department of Syariah Judiciary Malaysia (JKSM) in order to give a general overview of the subject of study. This is followed by the discussion of the case analyses at the Syariah Court Offices in the state of Kelantan (Chapter 6).

CHAPTER 5

OVERVIEW: E-SYARIAH SYSTEM AND THE DEPARTMENT OF SYARIAH JUDICIARY MALAYSIA (JKSM)

5. INTRODUCTION

This chapter is structured into two main parts. The first part of this chapter draws information about E-Syariah in which, Section 5.1 generally presents an overview of e-government initiatives in Malaysia. This is followed by the background of E-Syariah (Section 5.2) which discusses particularly about its development (Section 5.2.1), modules and applications (Section 5.2.2) and networking (Section 5.2.3). The second part provides the background of the Department of Syariah Judiciary Malaysia (JKSM) which focuses on the background, objectives and responsibilities of the JKSM as a central government agency in managing the implementation of E-Syariah at the Syariah Court Offices in Malaysia (Section 5.3). In relation, the structure of ICT governance in Malaysia is also presented, which provides an overview of the functions and responsibilities of a few government agencies involved in the implementation of e-government systems in the country (Section 5.3.1).

1.1. AN OVERVIEW OF E-GOVERNMENT INITIATIVES IN MALAYSIA

The Government of Malaysia established a well-known mega project of Multimedia Super Corridor (MSC) in 1996. This mega project is considered as a long-term ICT strategic initiative (1996-2020) which houses seven flagships of high-technology projects in order to spur the growth of ICT in Malaysia, as well as to ensure that the country is moving in tandem with the rest of the world in embracing the ICT revolution. These flagship applications are Electronic Government, Smart School, Telemedicine, Multipurpose Smart Card System, Research and Development Cluster, e-Business and Technopreneur Development.

Notably, e-government is one of these seven flagship applications, which basically aims to create a virtually paperless administration with a primary objective of shifting towards widespread use of electronic and multimedia networks in the government sector. This e-government initiative heralds the beginning of a journey of reinventing the government by transforming the way it operates, modernizes and enhances its service delivery. Furthermore, e-government seeks to enhance the convenience, accessibility and quality of interactions with the public and businesses at large. Simultaneously, it will improve the flow of information and processes within the government, accelerate the speed and quality of policy development, coordination and enforcement. Therefore, the vision of e-government initiatives in Malaysia

focuses on effectively and efficiently delivering services from the government to the people of Malaysia, enabling the government to become more responsive to the needs of its citizens. Under this e-government flagship, seven main high-technology projects are identified to be the core applications for e-government initiatives in Malaysia. The Government entrusted certain agencies to lead the implementation of each of these e-government applications as indicated in the following table. These e-government flagship applications are meant to transform the fundamental relationship between government and public, as well as to reinvent government service delivery through the use of technology.

Malaysia's EG Applications	Purpose	Lead Implementation Agencies
Human Resource Management Information Systems (HRMIS)	Provides a single interface for government employees to effectively and efficiently perform human resource functions in an integrated environment	Public Service Department (PSD)
Electronic Procurement (e-Procurement)	Links government and suppliers in an online environment whereby government agencies as buyers procure goods and services by browsing catalogues advertised by suppliers. It is a one-stop portal for public sector procurement in Malaysia	Ministry of Finance (MoF)
Generic Office Environment (GOE)	Provides a new paradigm of working in a collaborative environment where government agencies communicate, interact and share information.	Prime Minister's Office (PMO); Malaysian Administration Modernisation and Management Planning Unit (MAMPU)
Project Monitoring System (PMS)	Provides a new mechanism for monitoring implementation of development projects, incorporating operational and managerial functions and knowledge repository in support of various ICT projects	Implementation Coordination Unit (ICU) at the Prime Minister's Department

Electronic Services (e-Services)	Enables direct online transaction between the public, the government and large service providers via electronic means. Examples of the e-services provided are e-tax and e-summons.	Road Transport Department (RTD)
Electronic Labour Exchange (ELX)	A one stop-centre for labour market information which is accessible for government agencies, business sector and the public.	Ministry of Human Resources (MoHR)
E-Syariah	Introduces administrative reforms that upgrade the quality of judicial services delivered by Syariah Courts. It enables the JKSM to enhance its efficiencies by providing better monitoring and coordination of Syariah judicial practices at Syariah Courts throughout the country	Department of Syariah Judiciary Malaysia (JKSM) at the Prime Minister's Department

Table 5.1: Lead Agencies for Malaysia's E-Government Flagship Applications

Due to the fact that the role of ICT within the judicial system is indeed vital yet challenging in its implementation and use, this study focuses on the implementation of E-Syariah – the e-government system used to enhance the administration and management of Syariah Judicial System in Malaysia.

The next section presents an overview of the E-Syariah system, which focuses particularly on its development, modules and applications, and networking architecture.

1.2. E-SYARIAH: AN ISLAMIC JUDICIAL MANAGEMENT SYSTEM FOR SYARIAH COURT OFFICES

Parallel to the government's inspirations and expectations to upgrade the delivery of Syariah judicial services to public, E-Syariah was introduced and implemented at Syariah court offices throughout Malaysia. It is a nationwide Islamic Judicial Management System that basically enables syarie' judges, syarie' lawyers, registrars, court administrators as well as the public to enhance the internal administration and management of judicial processes at the court offices in order to ultimately realize good governance in the delivery of judicial services. This RM36 million project is acknowledged by United Nation, particularly among the members of the Organization of Islamic Countries (OIC) as an example of a structured and comprehensive Judicial Management System (SAINS, 2007).

1.2.1. Background of the E-Syariah System

The historical development of E-Syariah began when an IT company known as Sarawak Information Systems Sdn Bhd (SAINS) developed a core engine of Court Management Systems in 1997, known as eCourtMas. The eCourtMas was further enhanced and later known as the Electronic System of Islamic Court (SEMak) which was adopted by the State Government of Sarawak with a purpose to improve the administration and management of the operations of Syariah Courts in Sarawak (SAINS, 2007). SEMak is a

web-based integrated system with a vision of sharing vital case information between all divisional Syariah courts in Sarawak. This enables easier reference to past cases and uniformity of judgments for similar cases. SEMak's ability to reinvent the Syariah judicial processes in Sarawak has encouraged a few other states to follow suit the effort. This "state-independent" effort puts up the signal of the potential use of ICT to strategically improve the Syariah Judicial System in the Malaysia. As a result, the Malaysian Government has put up an effort to further develop the system into a complete Syariah Judicial Management System to be adopted and used by all Syariah court offices throughout the country.

This seventh e-government flagship application under the Malaysian mega project of Multimedia Super Corridor (MSC) took three years before it was fully implemented at the Syariah court offices. Historical milestones and deliverables of the E-Syariah project can be summarized as illustrated in the following Figure 5.1. E-Syariah v1 focused on the provision of automated functionalities supporting judicial tasks and facilitating processes carried out by the judicial staff at the back office of court offices. Continuous enhancement of the system (E-Syariah v2) provided functionalities to facilitate front office tasks and services offered to external stakeholders such as Syarie' lawyers, litigants and general public.

E-Syariah is currently implemented at 111 Syariah court offices, and operated by approximately over 600 syariah personnel including judges, lawyers, court administrators and court users. The system provides a case management structure that integrates the processes related to the management and administration of cases for the Syariah Court Offices. With

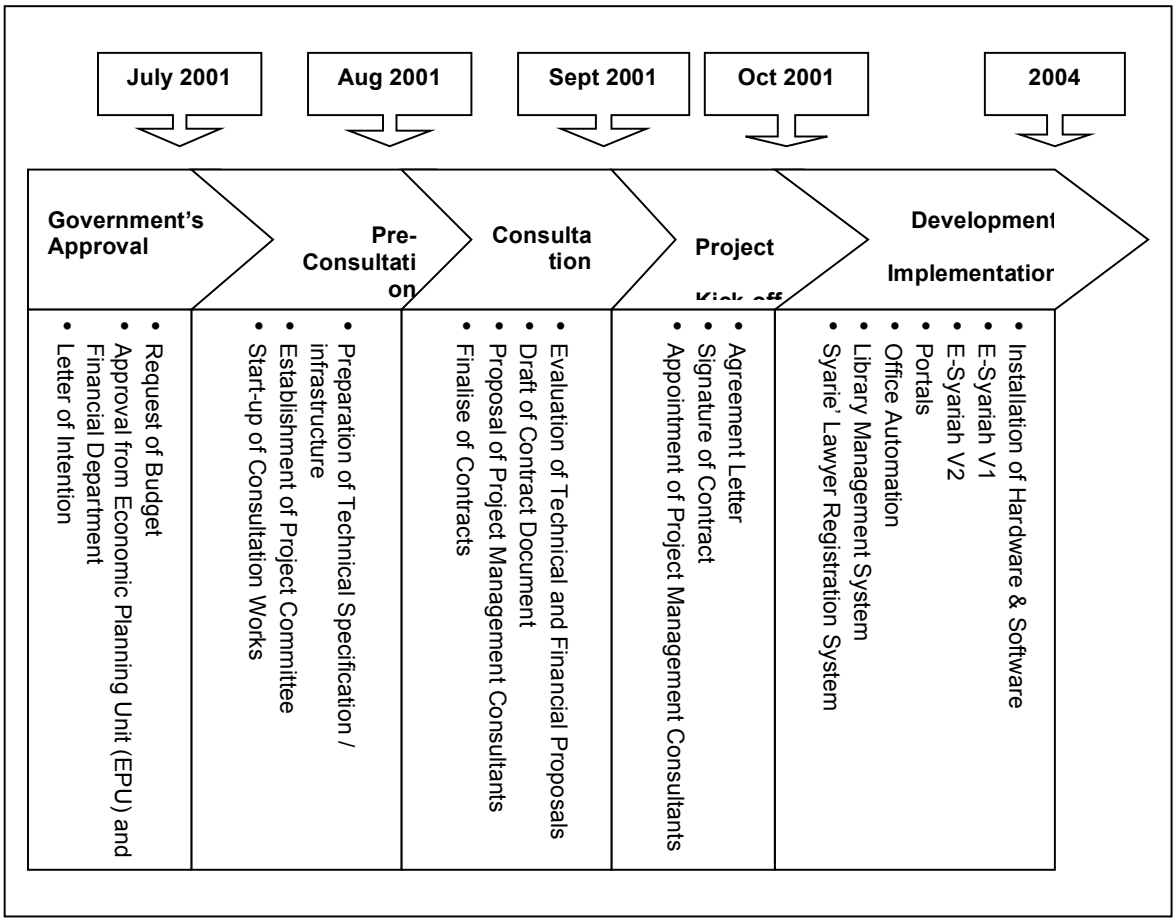

Figure 5.1: Milestones and Deliverables of E-Syariah Project

the conceptualization of E-Syariah, the link between the State Syariah Court Offices with JKSM and related government agencies is electronically enabled via electronic government network in order to facilitate access, coordination and sharing of files (SAINS, 2007).

1.2.2. E-Syariah: Modules and Applications

E-Syariah comprises of seven modules which are Syariah Case Management System, Management of Inheritance Cases, Syarie Lawyers Registration System, E-Syariah Portal, Library Management System, Office Automation System and Communication Links to Related Agencies. Brief descriptions of these modules are:

i. *Syariah Case Management Application:* The web-based application provides an integrated system for various tasks such as registration of cases, scheduling of hearings, producing receipts for payments, tracking case, recording of judgments, reports and statistics, enquiries and system maintenance.

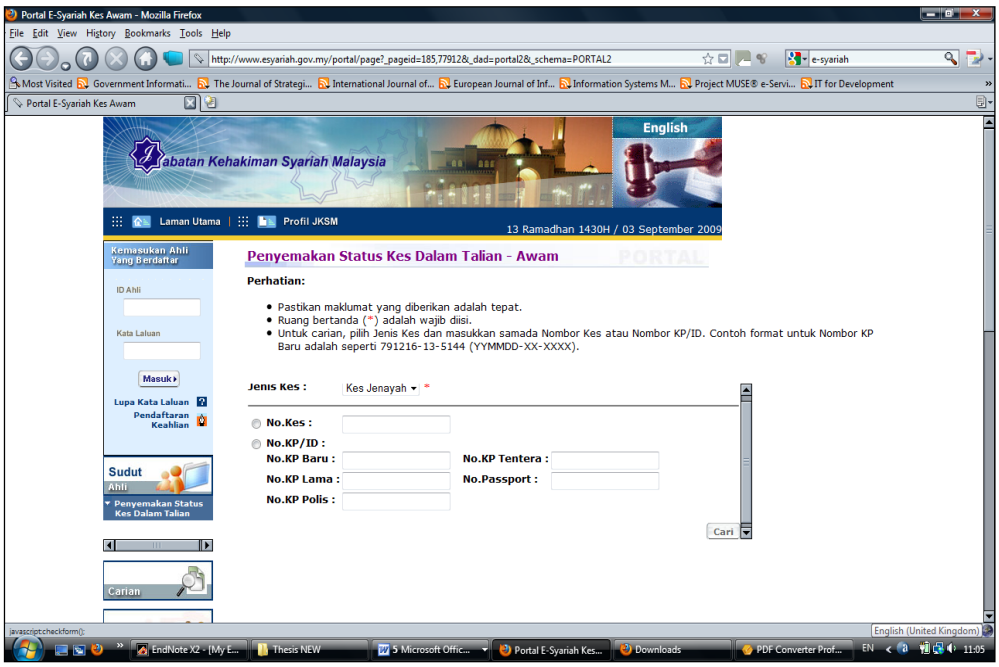

Figure 5.2: Snapshot of Tracking Case Application in E-Syariah

These applications would essentially improve the process of registration and scheduling of cases, issuance of electronic receipts, tracking of cases by syar'ie lawyers and judges, on-line reports of judgments, statistics and data of cases filed, as well as answering general enquiries from the public to find out the status of their pending cases. The database containing records of all cases filed with the courts are maintained for the purpose of references and double-checking to avoid duplication of cases in other states. These applications not only help to expedite the processing of court cases, but also coordinate the court events in a more precise and efficient manner. Figure 5.2 shows the snapshot of "Tracking Case" for E-Syariah system.

ii. *Calculator for Islamic Inheritance Application:* E-Syariah provides more efficient management of inheritance cases. The systematic management of the cases allows equal sharing and distribution of wealth among orphans, beneficiaries and related inheritor/heir. This significantly minimizes human errors in inheritance manual computation and speed up the processing time of the cases.

iii. *Syar'ie Lawyer Registration Application:* This registration application benefits the syar'ie' lawyers who regularly deal with the courts for case filing, trials or status checking. It enables the lawyers to register themselves with the courts or renew their practicing certificates. A database containing details of registered practicing syar'ie lawyers are maintained in order to facilitate the process of monitoring and

coordinating syar'ie lawyers. This has cut down the time spent in the manual processes tremendously.

iv. *E-Syariah Portal:* The portal serves as an information gateway to provide the public, various government agencies and staff of the Syariah Courts themselves with the latest news on court procedures and regulations. The portal improves the communication, which indirectly reduces the gap between Syariah Court Offices and the public. The public can ubiquitously access information and utilize online services offered by the system at their convenience, which help the Syariah Court Offices to improve and enhance their customer services.

v. *Library Management System:* A web-based library offering resources, materials and information for research purposes. It allows users to conduct electronic searches, borrow, return books and other library materials through the Ziauddin Sardar Islamic Cataloging System. The catalogue of library materials is available at the Department of Syariah Judiciary Malaysia library and the State Syariah libraries are accessible for bookings and loans to judges, court registrars and other staff members. (Figure 5.3)

vi. *Office Automation System:* It provides facilities such as word processing, spreadsheets and graphic presentations to improve services and boost productivity in the office operations of the syariah courts. E-mail application for example, is provided to the judges, registrars and other staff in order to support a more efficient intra and

inter-court communication, as well as communication among the courts, legal fraternity and the public. A discussion forum is also provided as a virtual meeting point for all court officers to discuss judicial and administrative matters.

Figure 5.3: Snapshot of Library Management System

vii. *E-Syariah System Links:* The system also incorporates communication links with selected government agencies in order to promote better inter-agency communication that ensures timely information dissemination and streamline flow process. This will indirectly help the Syariah Courts Offices to enhance their administration and enforcement of syariah court judgments. The linkages include the Legal Affairs Division of the Prime Minister's Department, Department of Islamic Development of Malaysia, National Registration Department as well as

the enforcement agencies such as the Royal Malaysian Police Department and the Immigration Department.

These modules and applications have significantly advanced the management of Syariah court cases through which the enhanced management and improved communication benefit the large community of E-Syariah. For example, the consolidated database derived from District Court Offices across the country supplies court officers with a rich source of data or related cases for timely decisions. Moreover, modules like Library Management System enables judges to greatly improve their access to resources which consequently assist them to make good decisions, thus eliminating ignorance and enhancing the quality of court decisions. As for the public, they are able to pre-submit required information for registration purposes via the internet using the automated registration module. In addition, they can also check their respective case status, trial date and time, and receive automated notifications as reminders via their registered e-mails.

This E-Syariah system encompasses the entire spectrum of Syariah court operations whereby it comprehensively addresses all issues related to the administration and management of Syariah court offices. This enables E-Syariah to meet the national e-government objectives which are; *(i)* to improve internal administration and management of government agencies;

(ii) to enhance the communication between government agencies in the country; and *(iii)* to offer better quality of services delivered to the citizens. Meeting these objectives will realize the vision of e-government in Malaysia which is to transform administrative process and services through the use of ICT and multimedia.

1.2.3. Network of E-Syariah

This web-based E-Syariah system basically links the leading agency (i.e. JKSM) and Syariah court offices throughout Malaysia. While the implementation of this system promotes collaboration and sharing of vital information, it also increases productivity and efficiency in the administration and management sectors of the court cases. In order to achieve these objectives, it is pertinent for the Government to ensure that adequate ICT infrastructure is developed in order to provide a strong technical foundation which can positively support the implementation and use of the e-government systems. This is critical in order to ensure network stability and high system performance, which results in enhanced accessibility and connectivity. Failure to ensure good accessibility and clear connectivity can seriously affect the reputation and capability of the Government to effectively deliver better Syariah judicial services to the public.

For E-Syariah, the Government set up initiatives to improve the connectivity by upgrading the capabilities of Local Area Network (LAN), Wide Area Network (WAN), application software and hardware at JKSM as well as Syariah Court Offices throughout the country.

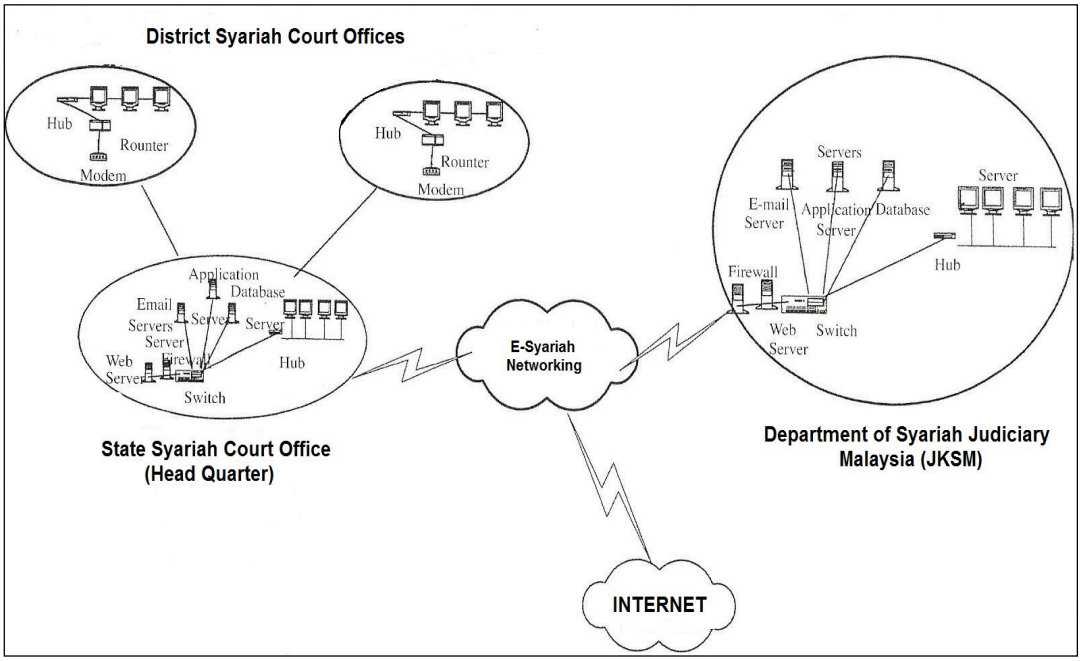

Figure 5.4: Networking Architecture of E-Syariah

Figure 5.4 illustrates the networking architecture of E-Syariah which forms an electronic government network between State Syariah court offices and various related governmental departments throughout Malaysia. E-Syariah is considered as a laudable effort initiated by the Government of Malaysia in order to improve the management and administration of Syariah court offices particularly, and to enhance the standard of the Syariah judicial system in general through an innovative use of communication channels and facilities.

The following section briefs about the leading central agency – Department of Syariah Judiciary Malaysia (JKSM) – which is entrusted to manage and coordinate the implementation of E-Syariah at Syariah court offices throughout the country.

1.3. BACKGROUND OF THE DEPARTMENT OF SYARIAH JUDICIARY MALAYSIA (JKSM)

The department of Syariah Judiciary Malaysia (JKSM) which is under the Prime Minister's Department was established in December 1998. The primary objective for the establishment of this JKSM is to improve the administration and management of Syariah court offices in Malaysia. JKSM is envisioned to initiate a standardized and systematic implementation of Syariah judicial system in Malaysia. The major functions of the JKSM are:

i. To develop and to facilitate the uniformity of the administration system of justice in Syariah courts.
ii. To transform and to modernize the existing administration of Syariah Courts into efficient agencies through the use of ICT applications.
iii. To produce well-trained Syariah officers.
iv. To recommend a standard implementation of laws in all states.
v. To reduce and to solve backlog cases by improving the management of Syariah Court Offices

The functions and roles of JKSM reflect the serious effort of the Malaysian Government to improve the image of the Syariah judicial system in the country as Syariah courts offices are often blamed for the ineffectiveness and inefficiencies in their administration and management of the Syariah judicial processes. Reasons for this problem are due to several technological (e.g. non-availability of judicial management systems), organizational (e.g. non-uniformity or non-standardizations of legal practices between states) and human-related factors (e.g. lack of IT competencies among staff). Therefore, JKSM was set up in order to initiate certain measures such as training, practice direction, circulars and other directives to achieve efficiencies and effectiveness of court management and administration. The schematic diagram presented in Figure 5.5 illustrates the organizational structure of the JKSM.

5.3.1 Structure of ICT Governance in Malaysia

In managing the implementation of E-Syariah, JKSM has closely worked with several other government agencies such as Malaysian Administrative Modernization and Management Planning Unit (MAMPU), Malaysian Communications and Multimedia Commission (MCMC), Multimedia Development Corporation (MDC), Economic Planning Unit (EPU), National Institute of Public Administration Malaysia (INTAN) and Legal Affairs Division. The cooperation and collaboration between these agencies form a

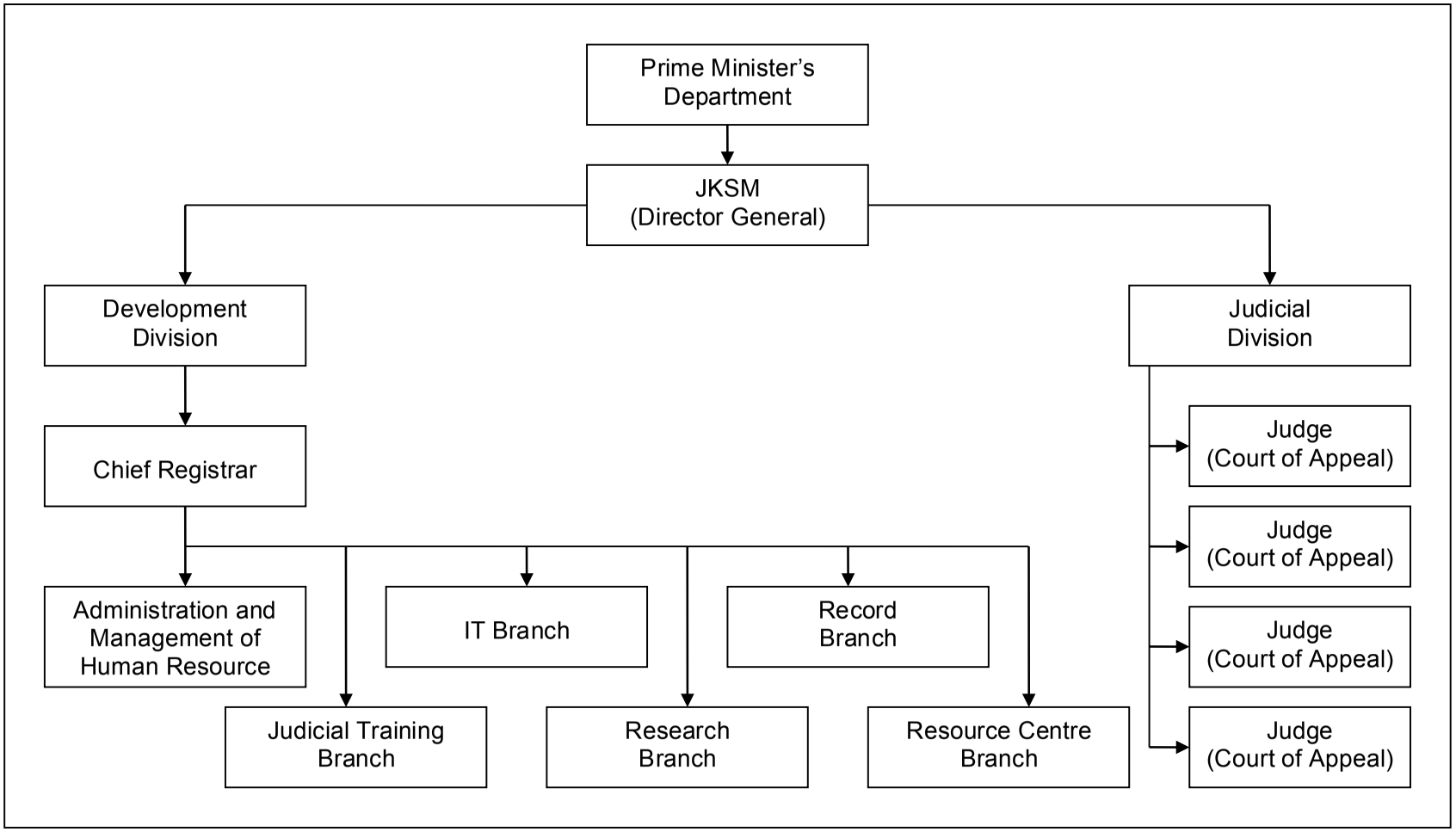

Figure 5.5: Organizational Structure of the Department of Syariah Judiciary Malaysia (JKSM)

well-structured ICT governance spearheading the e-government initiative in Malaysia.

i. E-Government Steering Committee (EGSC)

This is the highest level of the e-government implementation structure in the country. This EGSC is chaired by the Chief Secretary to the Government. Members of this EGSC include representatives from various government agencies particularly Malaysian Administrative Modernization and Management Planning Unit (MAMPU), Economic Planning Unit (EPU), Implementation Coordination Unit (ICU), Public Service Department (PSD), Multimedia Development Corporation (MDC) and National Institute of Public Administration Malaysia (INTAN). The key role of this committee is to provide the policy direction and approve the e-government programmes and activities. In addition, it also monitors the implementation progress of each e-government pilot project under the responsibility of the lead agencies.

In the case of the E-Syariah system, EGSC is responsible to monitor and coordinate the implementation of this web-based system at Syariah Court Offices throughout the country. MAMPU acts as the Secretariat which provides advices in few aspects related to organizational management such as change management. As the leading agency, JKSM was appointed to lead the E-Syariah Project Steering Committee which was entrusted to

supervise and coordinate all activities and issues related to the development and implementation of the E-Syariah. Through consultation and expert advice from MAMPU, JKSM has the authority to appoint the project manager, and eventually establish the project implementation and support teams.

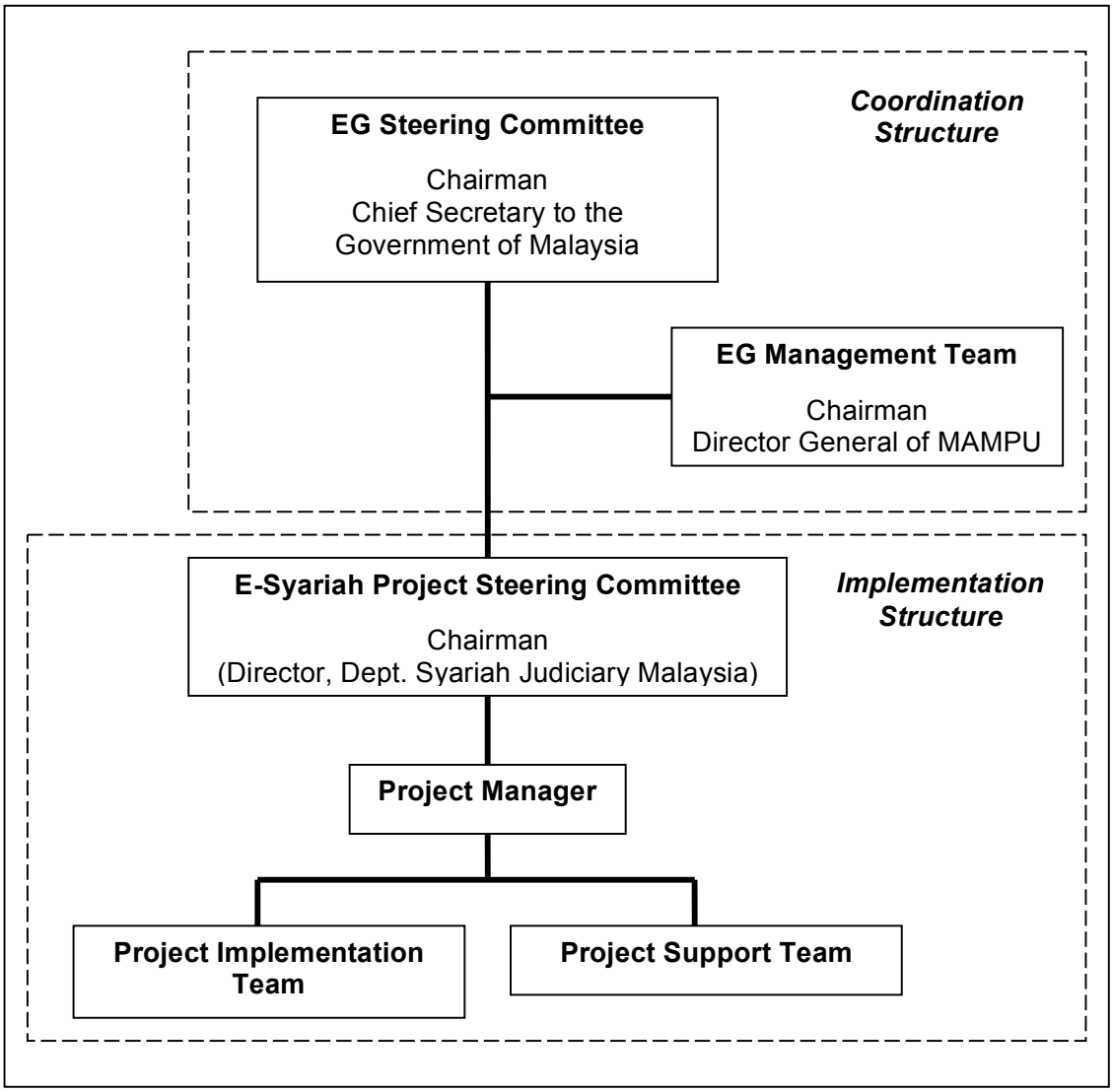

Figure 5.6: Organizational Structure of ICT Governance for E-Government Initiatives in Malaysia

This structure of ICT governance has played a very significant role in ensuring the successful development as well as implementation of e-government initiatives in the Malaysian public sector. Figure 5.6 illustrates the structure of ICT governance in Malaysia – with reference to the case of E-Syariah.

ii. Malaysian Administrative Modernization and Management Planning (MAMPU)

MAMPU was set up in 1977 as a central government agency within the Department of the Prime Minister. It was entrusted with the task of introducing administrative reforms to the public sector in order to upgrade the quality, efficiency and effectiveness of the Malaysian public sector in accordance with national goals. In relation to its role as the Secretariat to the EGSC, this central agency is also given the responsibility to strategically plan, coordinate and evaluate the implementation of ICT initiatives in the public sector. MAMPU basically advises the Government in aspects related to organizational management and acts as consultant to various government agencies for organizational development. In addition, it also provides technical and management expertise as the central agency for ICT strategic development planning and office automation projects in the public sector. MAMPU has been intimately involved in programmes and activities

supporting the development of e-government initiatives in Malaysia, including the implementation of E-Syariah at the Syariah Court Offices.

iii. Malaysian Communications and Multimedia Commission (MCMC)

MCMC is entrusted with the role of promoting and regulating the communications and multimedia industry, and to enforce the communications and multimedia laws in Malaysia. This agency was established in November 1998 pursuant to the provisions of the Malaysian Communications and Multimedia Commission Act 1998 (MCMCA).

As the regulator for the ICT initiatives in Malaysia, MCMC's primary role is to implement and promote the Government's national policy objectives for the communications and multimedia sector. In addition, it also oversees the new regulatory framework for the converging industries of telecommunications, broadcasting and on-line activities, in accordance with the national policy objectives set out in the Communications and Multimedia Act 1998 (CMA). The role of MCMC in effectively improving the regulatory framework and process which aims to produce an effective regulatory framework is important in order to support and nurture a successful implementation of e-government initiatives in Malaysia.

iv. National Institute of Public Administration (INTAN)

The realization to provide formal training to government officers has led to the official setting up of INTAN June 1972. Being the training centre for the Government of Malaysia, it is responsible to develop human resource in the public sector through quality and structured training. To accommodate the needs of nearly 1 million civil servants all over Malaysia, INTAN has experienced rapid expansion which resulted in the establishment of six regional campuses throughout the country which are Eastern Regional Campus, Northern Regional Campus, Southern Regional Campus, Central Regional Campus, INTAN Sabah Campus and INTAN Sarawak Campus. Furthermore, in order to provide excellent training programmes for the civil servants at these campuses, four centres or units are set up namely Leadership and Management Centre, Policy Studies Centre, ICT Centre, and Research and Consultancy Centre. These centres offer related courses and services that cater to the specific needs of the government agencies and departments at the state and district levels.

v. Multimedia Development Corporation (MDC)

MDC which was established in 1996 is responsible for leading the development and implementation of MSC. This government-backed organization acts as a champion and international promoter of the MSC. As e-government is one of the primary flagship applications under MSC, MDC is

indirectly involved in managing the implementation of ICT initiatives in government sectors by shaping MSC-specific laws, policies and practices related to e-government flagship application.

In summary, each agency has its unique and specific functions to perform which generally help to provide a conducive environment which supports the successful implementation of e-government initiatives in the Malaysian public sector. Therefore, the establishment of well-structured ICT governance plays a very critical role in spearheading the e-government initiatives in Malaysia.

1.4. CONCLUSIONS

This chapter presents an overview of E-Syariah and its implementation at Syariah court offices in Malaysia, which indirectly provides a basis to understand the roles of JKSM and other relevant central government agencies in managing the implementation of E-Syariah. The following chapter will present empirical findings of the data collected from case study conducted at Syariah court offices in Kelantan. It explains how the government manages the implementation of E-Syariah, and its roles in enabling alignment between organizational, technological and human-related factors, which influences the implementation of E-Syariah system in the country. Also, it describes the implications of E-Syariah implementation for good governance at the court offices.

CHAPTER 6

CASE STUDY: THE IMPLEMENTATION OF E-SYARIAH AT SYARIAH COURT OFFICES IN KELANTAN

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6. INTRODUCTION

This chapter describes the empirical data from case study at the Department of Syariah Judiciary in Kelantan. Section 6.1 provides an organizational background of the Department of Syariah Judiciary Kelantan. Next, key implementation tasks of the government are described and illustrated using quotations made by the interviewees (Section 6.2). In addition, roles of these key implementation tasks in enabling alignment between technology, organization and people-related factors are also described (Section 6.3). Lastly, section 6.4 presents the implications of judicial services delivered by E-Syariah for good governance at the court offices in terms of efficiency and effectiveness, transparency and empowerment.

6.1 BACKGROUND OF THE DEPARTMENT OF SYARIAH JUDICIARY IN KELANTAN

The Syariah courts in Kelantan were established in 1650 in order to regulate all aspects of Islamic laws. The offices were initially administered by the

Office of *Mufti*. Later, in 1966 the Syariah courts, except for the Syariah court of Appeal, were separated from the Office of *Mufti* and managed by the Court of *Qadhi*. Apparently, on 1st July 1988, the Kelantan State Government formed the Department of Syariah Judiciary of Kelantan, whereby the Syariah courts were organized into three different courts:

i. Syariah Court of Appeal, headed by the Head of Syari'e judge
ii. Syariah High Court headed by the High Court judge
iii. Syariah Subordinate Court headed by the Subordinate Court judge

This restructuring aims at upgrading the status of syariah court offices in the state and ensuring the effective enforcement of Islamic law. The following Figure 6.1 summarizes the organizational structure of the Department of Syariah Judiciary of Kelantan.

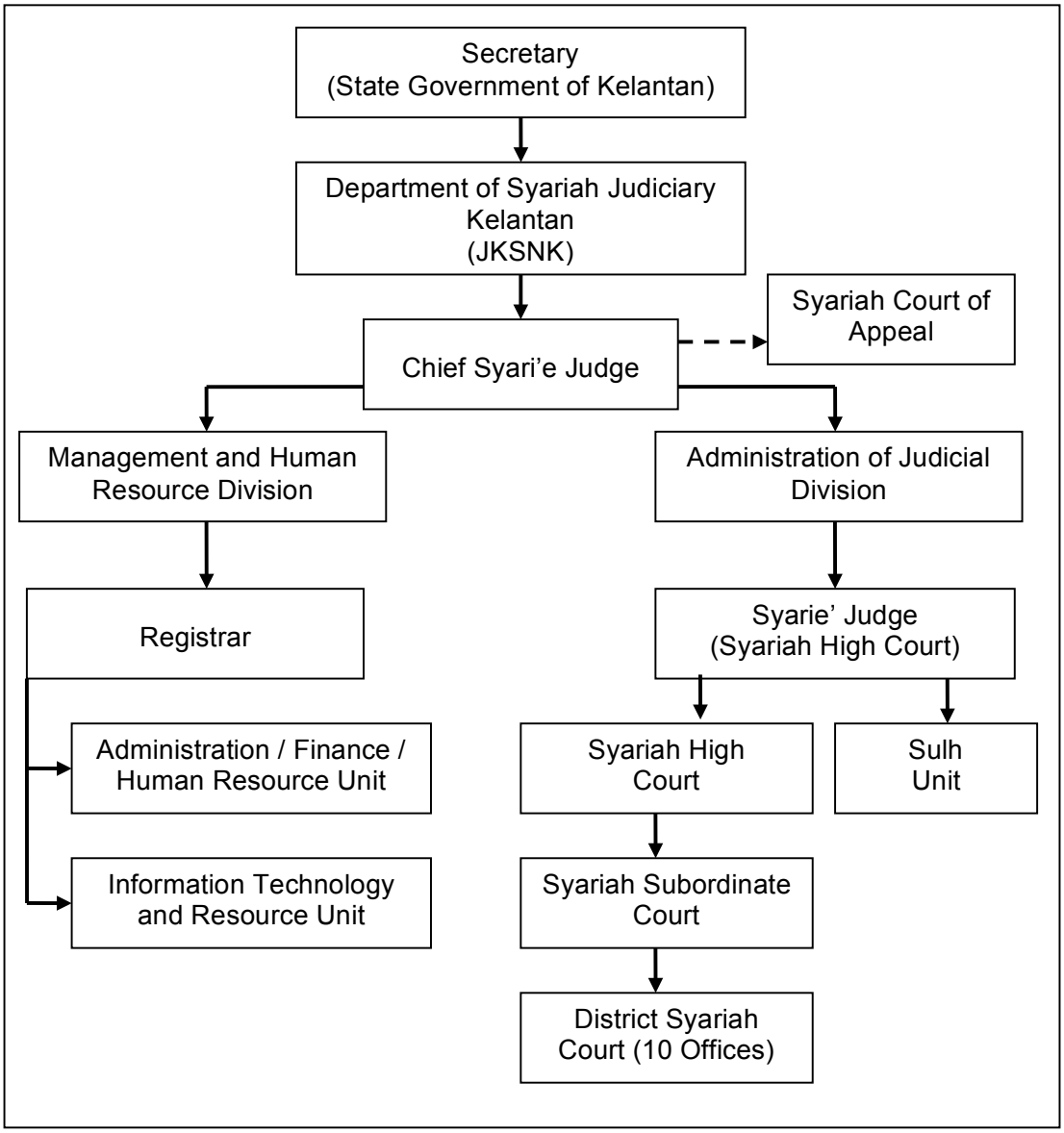

Figure 6.1: Organizational Structure of the Department of Syariah Judiciary Kelantan

6.2 GOVERNMENT'S KEY TASKS FOR THE IMPLEMENTATION OF E-SYARIAH AT SYARIAH COURT OFFICES IN KELANTAN

This section describes the roles key implementation tasks of the Department of Syariah Judiciary Malaysia (JKSM) as a leading government agency to

support the implementation of E-Syariah at Syariah Court Offices in the state of Kelantan. Section 6.2.1 – 6.2.6 present result of case analysis of the key implementation tasks of JKSM, in accordance with six tasks discussed in literature review (Section 2.1.4). Furthermore, three more tasks emerged from the empirical data; *instilling value of ICT among staff* (Section 6.2.7)*; inculcating sacred values and awareness* (Section 6.2.8) and *establishing collaborative relationships between government agencies through central coordination practice* (Section 6.2.9)

6.2.1 Providing sufficient funding to support E-Syariah implementation

The interviewees indicated that adequate financial support is important as it could either enable or delay the implementation of E-Syariah. Indeed, seeking budget approval for the E-Syariah project was among the earliest tasks carried out by JKSM in order to support "kick-off" of the project (see Figure 5.1). Referring to this, Head of IT Division (JKSM) mentioned that "*some government agencies were facing a limited or shortfall of funding, had inadequate ICT infrastructure to support networks and applications in their e-government projects…and as a result, their [e-government] systems were more likely to be poorly implemented throughout the development stages* ". Further, it was informed that the government has been very supportive in providing funds in order to stimulate the adoption and implementation of E-

Syariah at the court offices; where RM40 million has been allocated E-Syariah implementation. Head of IT Division (JKSM) explained that there were two main initiatives carried out from this budget; IT infrastructure and IT training. The biggest expenditure was for IT infrastructure, the physical hardware used to interconnect users and the computer systems. It also included the software used to support the judicial tasks at the court offices. This is evident from the interview that "*to support the implementation of E-Syariah in Kelantan, we mainly used the allocated budget for the upgrading of technological [ICT] infrastructure.*" (Head of IT Division: JKSM). Moreover, the Head of IT Division (JKSM) realized that E-Syariah required good ICT capability and an efficient ICT infrastructure to be set up at the court offices. He said "*ICT capability was about technological ability of the Syariah Court Offices to operate and maintain an effective and secured E-Syariah system. Thus, it was critical for us to establish an effective ICT infrastructure for use in the [court] offices' operations"*.

More structured and focused training programmes were also initiated in order to improve the level of IT skills and knowledge among different groups of users (i.e. judge, registrar, administrative and technical support staff). This enables them to operate individual tasks with high quality and effectiveness. Head of IT Division (JKSM) indicated that user-centric training is important in order to "*better elaborate on the different features, functions and tasks performed by different groups of users [at the court offices]"*. This is

important because staff at the court offices were reported to be have minimal level of ICT skills and knowledge as evident from the interview: "*Our main challenge was to provide the staff with appropriate ICT skills and knowledge as most of them were found to have least exposure to new technology [ICT]*" (Registrar: Kelantan).

In addition, the State Government of Kelantan has also allocated fund to support the implementation of e-government systems at various state-level government departments, particularly the Syariah Court Offices. In its strategic move to improve the ICT infrastructure in the state, two state government agencies namely Permodalan Kelantan Berhad (PKB) and Perbadanan Menteri Besar Kelantan (PMBK) have been assigned to carry out the project of upgrading the ICT infrastructure within the state (The Nut Graph, 2009). According to the Court Registrar, "*the state government has given out RM450,000….for us to develop a better ICT infrastructure at our court offices*". The availability of financial resources provides support for the positive implementation of E-Syariah at the court offices in Kelantan.

Moreover, the Registrar added that having sufficient financial support was indispensible for procuring and developing adequate levels of hardware and software, upgrading network infrastructure, as well as training and providing technical supports needed by the users. When the Syariah Court Office lacked computer equipments at the beginning phase of the implementation,

the IT Unit was not able to immediately supply the court offices with the equipments as the allocated budget was not available at the time – due to the one-year cycle budget practice in Malaysian public sectors. As a result, Syariah Court Offices had to wait for several months until a new budget was announced and their IT requirements were fulfilled. As the period was critical, it significantly contributed to the low level of user satisfaction towards E-Syariah which gave negative impacts on the overall implementation of E-Syariah. It was evident from interview: "*There was once when we requested from IT Unit for an adequate supply of computer….and they [IT Unit] held the request for several months due to the unavailability of the IT budget. That was really a frustrating period for most of us*" (Court Administrator: Kota Bharu)

The case also indicated that staff at the court offices usually looked for leadership support to allocate funds and resources to E-Syariah, particularly when they required technological tools or applications. Director of JKSM tried to closely support court registrars at the court offices in order to guarantee sufficient funding for the tasks. He said that he also directed the court registrars to maintain management focus on financial issues in implementing E-Syariah. The Director of JKSM explained to them that if any court office does not have sufficient financial support, "*their implementation of E-Syariah might take longer to complete*". Further, Court Registrar stated that he had received requests for a larger budget in order to replace ICT

equipments, to improve ICT infrastructure, to employ technical support and to conduct more trainings for the staff. He said: "*Having a limited budget for ICT was one of the barriers to success in implementing the E-Syariah. Hence, I decided to reallocate existing internal budget to the ICT Unit*".

Through the provision of funding and financial supports, ICT infrastructure at the court offices has been improved. This was evident from the interview: "*Today, things have been improved a lot. With good financial support from the government, we have enough number of equipments, connectivity is better….in short, thing [ICT infrastructure] is improving.....".* Further, it was indicated that staff at the court offices were reported to "*have improved their ICT skills and knowledge through continuous effort in providing structured [ICT] training programmes to the staff*" (Registrar: Kelantan). The important of this key implementation task in supporting these two initiatives was evident from the opinion of the interviewee: "*Without financial support from the government, we [at the court offices in Kelantan] would not be able to improve our ICT infrastructure and provide continuous training programmes for the staff*" (Registrar: Kelantan).

In summary, the financial support was found to be primarily used for – (i) upgrading the standard of the ICT infrastructure which is important to support the implementation and operation of E-Syariah; and (ii) providing

financial support for structuring effective training programme for staff at the court offices.

6.2.2 Building appropriate ICT infrastructure

Interviewees at the Syariah court offices recognized the importance of having an adequate level of ICT infrastructure in order to support Web-based application of E-Syariah as the users were drawn from offices and agencies at different work locations. The Head of IT Division (JKSM) claimed that "*…….the need to establish appropriate ICT infrastructure is actually our top priority as we know that the benefits of [E-Syariah] system cannot be realized without a good and reliable technological infrastructure*". Further, the Head of IT Unit (Kelantan) made clear that *"…without the right and proper [ICT] infrastructure, no Syariah court office can really grasp the potential benefits of this web-based E-Syariah system*". The importance of this task could be seen when it was among the first works carried out after getting the financial approval for E-Syariah project from the Ministry of Finance.

The interviewees also indicated that ICT infrastructure at the court offices was poor and associated it with the lack of ICT equipments as evident from the interview: "*……We didn't have enough computers in this office. For example, three computers were broken, two needed to be upgraded …..this left us with only two computers and there are 5 of us at the counter. Can you*

imagine how busy we were especially when we have queues of public at the front desk?" (Asst. Registrar: Kelantan). In addition, poor ICT infrastructure was also attributed with the slow response time of E-Syariah as claimed by interviewees that "*accessing to the database system [of E-Syariah] and getting feedbacks were very slow…and a very frustrating experience*" (Court Administrator: Kelantan). Low capability of ICT equipments (e.g. PCs) was also an issue: "*Not only accessing the system [E-Syariah], but doing normal typing activities on the computer was frustrating. The computer was very very old….hence, very slow in processing even a simple daily application*" (Asst. Registrar: Kelantan)

Responding to these problems, central government agencies (i.e. JKSM and MAMPU) closely worked with the management of court offices at the state-level to provide and develop a better ICT infrastructure. The task of building the ICT infrastructure involved:

- Improving networking capability at the court offices; which allowed more reliable and better communication for staff from different court offices: "*information can now be efficiently communicated and shared among staff across departments*" (Court Administrator: Kelantan)
- Improving bandwidth connection: the effort was concentrated on leveraging wired and wireless technologies at the court offices. The Registrar remarked that "*having a better and faster Internet*

connection has significantly improved our access and use of E-Syariah to support the judicial tasks in the court offices".

- Upgrading the ICT equipments: To ensure the efficient use of E-Syariah, it is important to have adequate ICT equipments at the court offices; "*We make sure that all Syariah Court Offices are adequately supplied with necessary ICT equipment such as computers, printers*" (Head of IT Division: JKSM)

Critical requirement of a widespread ICT infrastructure was also highlighted by Chief Registrar (JKSM) as he mentioned: "*E-Syariah is a system restricted to a boundary of a court. It is indeed a system that allows for the interchange of data and document among different judicial staff and different court offices, it is a shared resource for the exchange of information within the Syariah judicial community*". Moreover, the task of developing and improving a reliable ICT infrastructure that contributed to the positive uptake of E-Syariah among the staff at the court offices. This is evident from the responses of interviewees such as "*We are happy to use E-Syariah now because it is fast [response time] and information about court cases can be easily retrieved, shared and communicated. Thanks to the effort of improving the state of our ICT infrastructure*" (Asst. Registrar: Kelantan). Another interviewee added that "w*ith good [ICT] infrastructure…I mean sufficient number of PCs, better Internet connection..working with E-Syariah was not*

like before...it is a better experience of working now for us." (Court Administrator: Kelantan).

In short, the case presented that concerted effort of the central government agencies and state-level agencies in the development of technological infrastructure at Syariah Court Offices in Kelantan has not only resulted in the improvement of ICT infrastructure at the court offices; but also influenced the uptake and willingness of the staff to work with E-Syariah.

6.2.3 Monitoring and evaluating the implementation of E-Syariah

As the leading agency, JKSM is responsible for monitoring the progress and evaluating the impacts of the implementation of E-Syariah towards the performance of the Syariah Court Offices. The case study informed that continuous process of monitoring and evaluating of E-Syariah was essential in order to make sure the positive impacts from its implementation. Chief Registrar (JKSM) said that: "*We are not only monitoring the development of E-Syariah…but also evaluate how E-Syariah helps our officers at the court offices in terms of how much the system offers in facilitating the staff with their works ….and we look into the ability or performance of the court offices…for example have they [court offices] improved after the implementation of E-Syariah?*". In relation, there was improvement with the performance of judicial service delivery as reported that "*the number of*

backlogged cases has been reduced after 6 months of using E-Syariah" (Registrar: Kota Bharu)

Further, the case indicated that the task of monitoring the implementation of E-Syariah has enabled JKSM to ensure *"the smooth running of E-Syariah…and objectives from the implementation can be achieved. At the same time, it will also enable us to minimize the risks by identifying if there is any problem and difficulty [in advance]. This helps us to initiate and propose relevant strategies to overcome any problems*" (Chief Registrar: JKSM). For instance, this monitoring task has enabled effective maintenance of technological infrastructure supporting E-Syariah (e.g. networks, hardware, software and equipments). This was important in order to ensure reliable working environment that support judicial work practices can be provided to the staff. Head of IT Division (JKSM) noted: "*I always directed the technical team to monitor operations of E-Syariah and I discovered that good maintenance of the system in particular…and the infrastructure in general, created an organizational ICT culture and supportive working environment…which encouraged staff to use E-syariah in accomplishing their daily judicial tasks.*" This practice was highly appreciated by the staff as evident from the interview: "*we knew that the IT team continuously monitored the performance of E-Syariah…and [we] really happy with their effortlessly support as it created a good and reliable [technological]*

environment for us to work with the system in accomplishing out tasks in a more efficient manner" (Court Administrator: Kota Bharu)

Moreover, the Head of IT Division (JKSM) said that "*through the monitoring task….if we found about any new technology feature was launched, we would try to see how well it worked with the current operational systems in order to ensure optimal fulfillment of user requirements such as fast response, reliable data and good service of E-Syariah*". He further said that: "*the task could also help to ensure the ability of the system to fully support judicial processes at the court offices*". One of the court administrator said that "*close and continuous monitoring task is one of the key factors that ensure E-Syariah [functionalities] is able to support the chain of judicial processes at the court offices"*. For example, it was found at the beginning that the system was not able to provide sufficient support for timely and better documentation processing of the court offices. The problem was "*due to the incompatibility between functionalities offered by E-Syariah and judicial tasks carried out at the court offices*". It was immediately resolved by the IT team. Responding to this problem, Assistant Registrar noted that "*at the beginning, the system was not working as it is supposed to be….for example, there was a problem in filing court cases through the system. Through the monitoring task of JKSM, the problem was resolved*".

The Head of IT Division (JKSM) further mentioned that his technical team continuously monitored and observed the E-Syariah system by looking at each application of the system. They examined the E-Syariah in terms of its effectiveness in providing data and operational processes. Whenever technical problems were detected, the team immediately attended to them. This was to ensure full ICT reliability to drive the successful implementation of E-Syariah. He said: "*I directed my technical team to monitor the E-Syariah system. If they detected any unexpected results, or unauthorized access…they have to report to me immediately for necessary actions to be taken. I wanted the users to feel secured with the operations of E-Syariah*".

It was also evident from the case that this key implementation task has provided JKSM with an opportunity to initiate relevant strategy to solve any issue related to E-Syariah. At the beginning phase of its implementation, for example, most of staff at the court offices were reluctant to use E-Syariah. Their response was – "*the system was complicated…and I hated to operate it*". At first, the IT team thought that the problem was related to E-Syariah itself, however, through close monitoring, it was due the lack of ICT skills and knowledge among the judicial staff. Therefore, structured ICT training and technical supports were provided to the staff. Later, staff were found to be able to operate and use E-Syariah. Head of IT Division at JKSM commented that "*we received quite a lot of comments from the staff [at the beginning]. They said that E-Syariah was complicated, hard to work with,*

design was poor and so on. However, through close and continuous monitoring, we were able to find out that the actual problem, it was not E-Syariah, the problem was our staff at the court offices, their lack of ICT knowledge. For me, it shows the importance of having this task of monitoring and evaluating the implementation process of E-Syariah…it helps us to know the real problem and hence, provide us with the best option to continuously improve E-Syariah". The importance of this task was further stressed by the court administrator: "*we have experienced the situation whereby E-Syariah could not effectively support the judicial tasks and that caused the low uptake of system amongst the staff. Thank God as JKSM did their job. Without close monitoring process on the implementation of E-Syariah, the system would go nowhere".* Through monitoring the implementation of E-Syariah, Chief Registrar (JKSM) realized that problems or opportunities of the system can be closely identified leading to successfully putting the implementation of E-Syariah system in place.

6.2.4 Forming ICT strategies and planning for the implementation of E-Syariah

The case informed that JKSM and MAMPU collaboratively worked with the state government in order to create good planning and develop strategies to support the implementation of E-Syariah. Registrar at the court office (Kelantan) said that he closely worked with the central government agencies

to understand the details of National ICT Strategic Plan – "*After we had received the National ICT Strategic Plan from the Government, we then identified its objectives and summarized its details. As a Registrar, I have to think of the right institutional ICT strategies [for state level] in order to improve the performance of court offices through the use of E-Syariah*" (Registar: Kelantan).

The Registrar (Kelantan) explained that the National ICT Strategic Plan was designed to guide public sector as to how to build knowledge-based human capital, to promote innovation in social systems and to strengthen ICT infrastructure within an organization. Further, he indicated that the institutional ICT strategies must be in-line with the National ICT Strategic Plan – "…*as institutional ICT strategies [at state level] had to be corresponding to the National ICT Strategic Plan, we ensured that our institutional ICT strategies also focused on the need to increase interoperability between court offices and improve the capability of ICT infrastructure to support on-going and further development of E-Syariah. Moreover, continuous upgrading of ICT skills amongst the government workforce also a major element in our planning*"

In addition, MAMPU produced Malaysian Public Sector ICT Strategic Plan Guide aiming at assisting state-level government departments to develop their institutional ICT strategic plan. The document has a detailed guideline

represented by activities and tasks involved in establishing the plan. This helped the departments to come up with effective strategies that were aligned with the prioritized management and operational needs of the Malaysian public sector. Registrar at court office (Kelantan) said that: "*the guideline provided by MAMPU helped us to produce our institutional ICT strategic plan that enabled us to prepare ourselves to effectively deploy ICT…and E-Syariah in particular in order to realize the strategic objective of the government*".

The focus of this institutional ICT strategic plan was materialized in two major initiatives undertaken by the management of court offices:

- Enhancing the ICT infrastructure to support on-going and future ICT initiatives:
    - "*We work with MAMPU to establish an appropriate ICT infrastructure in Kelantan as it is vital in order to support the future enhancement of E-Syariah which involves recording of all court proceedings and uploading these video clips online so that lawyers, plaintiffs and members of the public will be able to view them online…..and also to allow teleconferencing and mediation via Internet*" (Registrar: Kelantan)
    - "*The current capability of ICT infrastructure that supports the implementation of E-Syariah at the court offices need to be further improved and enhanced*" (Director: JKSM)

- Providing continuous training to improve ICT skills and knowledge among the staff at court offices:
    - "*The major problem facing the Malaysian public sector in general is the lack of necessary IT knowledge and skills. We cannot solve this problem in one or two days. The effort needs to be carried out continuously…..providing constant technical training and assistance is essential*" (Director: JKSM)
    - "*Our main barrier to the implementation of E-Syariah is human-related which is the low level of ICT competency. It is not a problem for one or two states….but it is a nation-wide problem. So, providing continuous support and training to enhance their ICT skills is a critical part of our main agenda [planning]* " (Registrar: Kelantan)

In summary, the case presented that concerted effort of the central government agencies and state-level agencies in the establishment of strategic planning to support the implementation of E-Syariah.

6.2.5 Legislating laws and policies to encourage the use of E-Syariah

The case informed that e-government initiatives in Malaysia are supported by a legal and regulatory framework that, in particular, helps to create right environment for the development and implementation of E-Syariah at the

court offices. The case informed that the implementation of E-Syariah was supported by a few high-impact cyber laws that have been endorsed by the Government of Malaysia such as Digital Signature Act (1997), Computer Crime Act (1997), Personal Data Protection (2004), Electronic Government Activities Act (2008) and Electronic Transactions Act (2007). Referring to these laws in the context of E-Syariah implementation, Head of IT Division (JKSM) generally stated that: "*These [e-government-related] laws have provided a solid foundation for the implementation of e-government systems in this country*".

Further, the enforcement of ICT-related policies such as National ICT Policy, E-Government Implementation Blueprint and E-Government Security Policy has deliberated the mission of the Government to embark on this initiative. The Director of JKSM noted: "*through these policies, the Government indicated their noble mission to transform the delivery of public services which made it compulsory for all public servants to adopt and use e-government systems…..leaves us in a situation where we have no other option unless to accept and adapt themselves to this new e-government environment*". The enforcement was regarded as important in order to ensure that all staff deployed E-Syariah to support their daily judicial tasks at the court office. This is evident from the interview: "*if not because of the policy asking the staff to use E-Syariah, many of us are still relying on the paper-based processes…*" (Court Administrator: Kelantan).

Moreover, establishing these ICT policies was perceived as an important task because "*they help in promoting and gaining widespread acceptance among the users [government workforce] as they have clear guidelines on the operations of the system and what they can and cannot do with the system…..*" (Head of IT Division: JKSM). In particular, it was evident from the interview that it was vital to have ICT policy in place for the implementation of E-Syariah as "*it supported and encouraged the staff at the court offices to use the E-Syariah as the main system in the delivery of Syariah judicial services to the public…and to compel everyone to change their customs and become familiar with these electronic processes*" (Director: JKSM).

Further, enforcement of these laws and policies were informed to have positively contributed to the acceptance of E-Syariah among staff at the court offices as evident from the interview: "*the need to use E-Syariah in order to improve judicial service delivery has been clearly regulated by the Government. As government officers, we need to abide to these regulations [policies] and prepare ourselves in order to embrace to this new working environment. Otherwise, we won't be able to realize the vision of the Government in uplifting the image as well as the performance of the Syariah court offices*" (Court Administrator: Kelantan).

6.2.6 Developing ICT skills and knowledge among staff

The case informed that "*ICT and e-government implementation is most effective if public servants are equipped with appropriate [ICT] skills and knowledge*" (**Director: JKSM**). Therefore, it was vital to provide structured and adequate ICT training programmes for the staff at court offices in order to develop ICT-qualified staff and to fulfill their understanding and perception of E-Syariah. The Head of IT Division noted: "*Staffing was important to the implementation of E-Syariah because their ICT abilities could help the Syariah court offices to properly deploy the [E-Syariah] system. Every year, ICT Division at JKSM arranged quite a number of seminars and workshops for the staff. We tried our best to motivate our staff to continuously improve their ICT knowledge.*"

It was mentioned that many initial mistakes (e.g. data entry) happened at the beginning phase of E-Syariah implementation. These mistakes not only derived from misunderstandings about the use of E-Syariah, but also from the lack of ICT skills and knowledge. Head of IT Division (JKSM) admitted the issue of limited ICT skills and knowledge was very significant during the early stages of the E-Syariah implementation as evident from the interview: "*our main challenge is to provide the staff with appropriate ICT skills and knowledge because most of them have a very minimal exposure to this [ICT skills and knowledge], and it resulted in their inability and reluctance to*

operate E-Syariah". It was also noted that some staff had no ICT skills or experience at all, and they had no idea at all about E-Syariah. The Head of IT Division (JKSM) and IT Unit (Kelantan) realized that these judicial staff needed ICT training for them to be able to correctly and efficiently operate E-Syariah. The staff were encouraged to attend series of ICT training programme organized either by the IT Unit (Kelantan) or IT Division (JKSM) in order to update their technical skills and knowledge. Registrar of court office (Kelantan) said: "*I always encourage my staff to go for [ICT] training. Sometimes I called the Head of IT Unit to ask for particular ICT training workshops or courses. If they could not provide it, I would ask the staff to find out any such training organized by the central agencies such as JKSM or INTAN, and requested them to attend*".

It was also reported that in this shifting IT work environment, "*staff at the court offices faced internal resistance…some staff did not want to use E-Syariah because they viewed this as a big challenge and a threat to their jobs. Thus, we needed to make them understand and believe in this change*" (Head of IT Unit: Kelantan). In response to the ICT strategic plans, the IT Division at JKSM aimed at providing sufficient ICT training for all staff at the court offices which involved the improvement of staff's ICT skills in order to enhance the effectiveness of the implementation of E-Syariah. Moreover, he planned to maximize the functions of IT Division through "*collaboration with relevant agency like INTAN in order to provide fundamental ICT training*

sessions through to professional IT courses for staff of the Syariah court offices".

In addition, JKSM as the lead agency for E-Syariah implementation was welcomed to organize centralized training programmes for all judicial staff at the court offices. Providing well-structured training programme at the central level was significant because "*not all court offices in all states able to provide the training. Some offices may have limited manpower, funding and facilities*". In this regard, the IT Division at JKSM has organized centralized training programmes in order to explain to all judicial staff on the operations of E-Syariah in supporting their daily judicial tasks at the court offices.

In addition, the IT Division worked together the management of court offices to customize the training content and methods according to the requirements and nature of tasks carried out by different categories of judicial staff. Head of IT Division (JKSM) realized that he had to customize ICT training suitable for particular category of staff, saying "*I arranged training programme for three days to help all managerial staff understand the scope of their jobs in the context of E-Syariah. It also allowed them to discuss and share their ideas during the session*". Further, specialized ICT training was tailored for the needs of technical staff which focused more on the technical and maintenance of E-Syariah system at the court office. He believed that

providing good technological training directly had effect on the success on the success of the E-Syariah implementation.

6.2.7 Informing and instilling the value of ICT among staff at the court offices

In addition to the six government's key implementation tasks suggested in the literature, instilling the value of ICT emerged from the case data as a new key implementation task supporting the implementation of E-Syariah. The case informed that the traditional work culture at the Syariah court offices in Malaysia was a paper-based system. It consumed a lot of paper with multiple copies kept for processing and archiving after the completion of each activity. Director of JKSM said that difficulties in initiating reform in judicial work processes involved the transformation of staff perceptions of the new technology. He explained that the resistance of staff appeared in the form of not using or not taking any responsibility for the E-Syariah implementation. He noted: "*Some staff who had worked in the Syariah court offices for a long time, did not want their work processes to change. This resistance depended on the nature of each personality…some staff thought that they would lose their jobs if E-Syariah was adopted in the court offices, some staff who were very familiar and used to work with paper-based system felt afraid to use the [E-Syariah] system*". In relation, Registrar (Kelantan) paid serious attention to changing the mindset of the judicial staff

to be more ICT-oriented in the service delivery as he said: "*I spent about six months, day in day out, to do brain washing of the judicial staff. The aim was to increase their awareness in improving service delivery through the use of ICT*"

Then, he suggested his subordinates at the state-level (i.e. court registrars) to tell all staff about the success stories of using e-government systems in other public departments. He considered this could make individual staff to better understand how the use of E-Syariah could help to improve their performance and accomplish their works more rapidly. The Director of JKSM further informed that staff acceptance of new technology was absolutely important when Syariah court offices began adopting the use of ICT, operating with new processes and finally offering E-Syariah to the public. He concluded that: "*all staff at the Syariah court offices have to accept the adoption of new technology in order to continuously implement E-Syariah without any resistance*". Later, he noted that the staff "*became more receptive and indicated their willingness to uptake E-Syariah in their daily activities at the court offices*"

Further, the Registrar stated that each staff was essential to boosting E-Syariah to achieve the desired objective of the ICT policy. Thus, he tried to instill an understanding of the intrinsic value of ICT at the court offices by referring to the stories of technological advantages in the successful

implementation of court management system in other countries. He said: "*the successful implementation of ICT to support judicial processes has been enormous stories in Singapore, Australia, Italy and Norway*". With these stories, he aimed to ensure that management of Syariah court offices and its staff perceived the increase value of E-Syariah in judicial service provision and the value of adopting the system in their daily operations. He considered that the perceived value of ICT from the management of Syariah court offices and its staff assisted the court offices to affect long term changes in the E-Syariah system with little resistance.

Every time the Registrar has a meeting with his staff, he tried to instill into each staff that his/her value to the Syariah court offices was measured by their individual contribution to E-Syariah. He encouraged them to put more effort into completing their judicial tsks through the use of E-Syariah. The Registrar said in the meeting that: "*everyone is important to the Syariah court offices in particular…and Syariah judicial system in general. If we did not have you all, E-Syariah could not achieve its objectives. We have to work hard for our aim to improve the administration and management of Syariah judicial system through the use of E-Syariah*". After sometimes, he saw his staff were more active and enthusiastic to use E-Syariah in accomplishing their judicial tasks at the court offices. In summary, instilling the value of ICT among the staff could positively create a better perception towards role of E-

Syariah in improving the delivery of judicial services to the public, leading to the successful implementation of the system at Syariah court offices.

6.2.8 Inculcating inner-connection to Islamic values among staff at the court offices

Another government's key implementation task drawn from the case was *inculcating inner-connection to Islamic values among staff at the court offices*. The case indicated that staff's self-connection to Islamic values and awareness is vital in facilitating the implementation of E-Syariah. It was mentioned that: "*The individual has an important role [in the implementation of E-Syariah]. If they don't have the spirit…thinking of what they are doing is part of their responsibility to Islam, we won't get the utmost results. Yes…we are working towards fulfilling the objectives of E-Syariah implementation, but, in the context of Syariah, we need to have such awareness or feeling that we…even cannot see it, we always under God's monitoring system…this will motivate us to a good…in fact, a better output from the [E-Syariah] implementation*" (Registrar: Kelantan). This view was supported by a court administrator: "*if a person has a strong connection to Islam…he will have a better understanding on the concept of work in the religion, then he will surely try to carry out his responsibility as staff [at the court office] in the best possible manner* " (Court Administrator: Kelantan).

The seriousness of the government to carry out this key task could be seen through its Islamic-related initiatives such as the Incorporation of Islamic Value in Administration and Islam Hadhari approaches. These two initiatives provide emphasis on the developmental aspects of government sectors and creation of a society and civilization that is entrenched in Islamic values. Director of JKSM mentioned that "*Islamic values and awareness are important in shaping the success of government. In our context, it may create awareness and shape the attitude of our judicial staff towards improving the quality and image of Syariah judicial delivery system in the country*".

Related to this, the case informed that the government took efforts to instill Islamic values and awareness among staff at the court offices. Relating the importance of this key task to the successful implementation of E-Syariah, Director of JKSM said: "*Yes, we have good policies and laws to support E-Syariah implementation. But, as we are aware that not everything can be done in accordance to what has been outlined by policies or regulated by laws. We need something extra. So we actually, by inculcating the right values to our staff, which are Islamic values, we can actually create self-regulation, self-awareness among staff, so whatever they do…they are bound to these [Islamic] values*".

The task of instilling this inner-connection to Islam was also stressed by Head of IT Division at JKSM: "*I have instilled into my staff, there is a reason why we are here, it could be another person…but God has placed you here…at this court office, because there is something that He [God] wants to us…the opportunity for us to contribute to the improvement of Syariah judicial processes, to uplift the image of Syariah judicial institution and to help our people…*" Head of IT Unit (Kelantan) added: "*E-Syariah was developed with an aim to improve the administration of Syariah judicial tasks. Thus, we as staff at the court offices have the responsibility to materialize this noble aim, we have to go for it, we have to do it. It is a trust that cannot be ignored, and we will be questioned [by God] about this later [Day of Judgment]*".

In addition, the Islamic-based agendas have never been ignored in every meeting attended by the court administrators. Through the meeting, for instance, registrars kept advising and mentioning about Islamic-related knowledge to the judicial staff. Sometimes, religious talks and seminars were also organized with an objective to create Islamic awareness among the staff. This was noted in the interview that: "*This Islamic agenda has been continuously stressed and explained in the meetings. And once a while, for example, last month we organized religious talk on Professionalism in Islam. The aim was surely to increase staff's understanding towards the notion of professionalism from Islamic lens. I can say that, for sure, this task is going*

to be one of our main tasks…" (Registrar: Kelantan). Further, court administrator said: "*ability to efficiently perform my tasks at the court office is critical, if not, I will be held responsible and be questioned by Him [God], why couldn't I do the task as requested. In short, accepting to be here is not only that, I must be professional at my job, but also be professional in the eye of Islam*".

Through this key implementation task, it was interesting to note that staff have explained their roles towards the strategic use of E-Syariah at the court offices by relating them to Islamic concept of working. Registrar (Kelantan) highlighted that: "*We are paid to do our jobs at this office. It is an amanah (trust) which we have to look after…doesn't matter in whatever situations. With this [awareness] in mind, we have to ensure that we will, and can adapt ourselves to this new way of working [using E-Syariah]. And this can be a critical motivating factor that pushed us to contribute towards the effective and strategic use of E-Syariah in accomplishing the tasks entrusted to us*". In relation, the court administrator claimed that "*having awareness about the concept of work in Islam has not only able to develop a good degree of work commitment among the staff, but also increase acceptance towards the strategic use of the [E-Syariah] system at court offices*".

To summarize, inculcating inner-connection with Islam values is acknowledged as an important government's key implementation task for the

successful implementation of E-Syariah. It was seen as a strong and unique task undertaken by the government in order to ensure the successful implementation of E-Syariah at the court offices in the country.

6.2.9 Establishing collaborative relationships between government agencies through central coordination practice

Another new key implementation task appeared from the case was the *establishment of collaborative relationships across government agencies through the central coordination practice.* The task is very much facilitated by the appointment of JKSM as the lead agency for E-Syariah implementation at the court offices. As the lead agency, JKSM is centrally coordinating all tasks and activities related to the implementation of E-Syariah. Through this central-coordination practice, JKSM has been able to establish collaborative relationships with other relevant government agencies at both central (e.g. MAMPU, INTAN, MCMC) and state-levels (e.g. state governments, management at court offices). These collaborative relationships positively contributed and facilitated the implementation of E-Syariah at the court offices. It was evident from the case that: "*Collaboration between various related agencies such as JKSM, MAMPU, INTAN and management of court offices at states was vital for the implementation of E-Syariah*" (Director: JKSM). He further added that without the collaborative relationship, "*it was difficult to implement E-Syariah at court offices because it was a nationwide*

e-government initiative…where the system [E-Syariah] was implemented at different court offices which have different kinds of organizational culture, supports and capabilities….such as technological facilities, funding and manpower".

The centralized role of JKSM in coordinating implementation related tasks was highly regarded by staff at the court offices as evident from the interview: "*JKSM has been appointed as the lead agency for E-Syariah implementation, with the main purpose of improving the image of Syariah judicial institutions in this country….and this central agency is fully responsible in coordinating all activities related to the implementation of E-Syariah* (Director: JKSM). Relating to this central coordination approach, Registrar of a court office (Kelantan) mentioned: "*As the lead agency, JKSM has been collaboratively working with other agencies to develop standard practice for E-Syariah, for example, standard technological infrastructure throughout the court offices, coordinate a structured delivery of training for all staff, be responsible for financial supports and outline strategies and future planning for overall development of the court offices*" (Registrar: Kelantan).

At the central level, JKSM collaborated with INTAN to structure a standard approach and customize contents of ICT training programmes for judicial staff. This was important to ensure that all staff of the court offices equipped with standard requirements of ICT competency enabling them to efficiently

work with E-Syariah. This was evident in the interview: "*through this [centralized] training programme, we could ensure that all staff at the court offices have at least a standard level of ICT knowledge and skills*" (Head of IT Division: JKSM). For example, INTAN introduced IT Skill Assessment and Certification (ISAC) through which, staff at the court offices would be equipped with (**i**) *ICT-related knowledge that covers issues like e-government vision, Multimedia Super Corridor (MSC), basic computer knowledge and trends in ICT, common productivity packages and tools, and Internet and e-mail;* and (**ii**) *ICT skill that covers techniques for basic search and retrieval using Internet and electronic communication*. At the end of the training, the staff sat for an exam in which they would be "ISAC certified" if they passed the course in one sitting. It was noted later by the Head of IT Unit (Kelantan) that "*the confidence level of our staff to operate E-Syariah increased…they were happy to use the system in accomplishing their daily tasks at the offices*".

As the administration and management of Syariah judicial system was under the jurisdiction of each individual state in this country, centralized coordinating effort was essential in order to accommodate differences between the states in terms of technological infrastructure, financial support, leaderships and organizational cultures. It was evident from the case that JKSM would be able to "balance-up" the financial provision between states as noted: "*At the state level, the State Government of Kelantan never*

missed allocating budget for the [ICT] infrastructural development, however, the allocation was less compared to other more economically developed states likes Selangor, Johor, Perak, and Penang. In this situation, we may allocate a larger proportion of budget to the state in order to balance-up the total amount of budget allocated for E-Syariah. This will give [court offices in] Kelantan a fair opportunity to support E-Syariah implementation" (Director: JKSM).

As mentioned in Section 6.2.4, JKSM and MAMPU collaboratively worked with the management of court offices in order to develop strategies that could really support the E-Syariah implementation. This could ensure that the institutional strategies of the court offices were aligned to the National ICT Strategic Plan. Director of JKSM said that: "*we [JKSM and MAMPU] wanted to make sure that the strategies formulated at the state-level corresponded to the national strategic planning for the implementation of E-Syariah*". In relation to this, Registrar of court office in Kelantan stated: "*we were well-informed that any strategy for E-Syariah implementation had to be aligned to the National ICT Strategic Plan. This task [of formulating the institutional strategies] was facilitated through our close communication with the central agencies….in particular JKSM and MAMPU*". In addition, Head of IT Unit claimed: "*we were able to align our institutional strategies with the central strategies due to the help and collaborative works that we have with the central agencies*".

In short, the appointment of JKSM as the lead agency for coordinating collaborative relationships with other relevant government agencies has facilitated the implementation of E-Syariah at the court offices.

6.3 GOVERNMENT'S KEY IMPLEMENTATION TASKS AS ENABLERS FOR ALIGNMENT BETWEEN ORGANIZATIONAL, TECHNOLOGICAL AND HUMAN FACTORS

This section provides an insight into the role of government's key implementation tasks in enabling alignment between organizational, technological and human-related factors in the implementation of E-Syariah. It is presented in three different dimensions namely *organization – human*, *human – technology* and *technology – organization*.

6.3.1 Organization – Human Dimension:

Two government's key implementation tasks were found to enable alignment for this organization – human dimension which are *inculcating inner-connection to Islam among staff* and *legislating laws and policies.* Enablers for this dimension can be illustrated as shown in the following Figure 6.2:

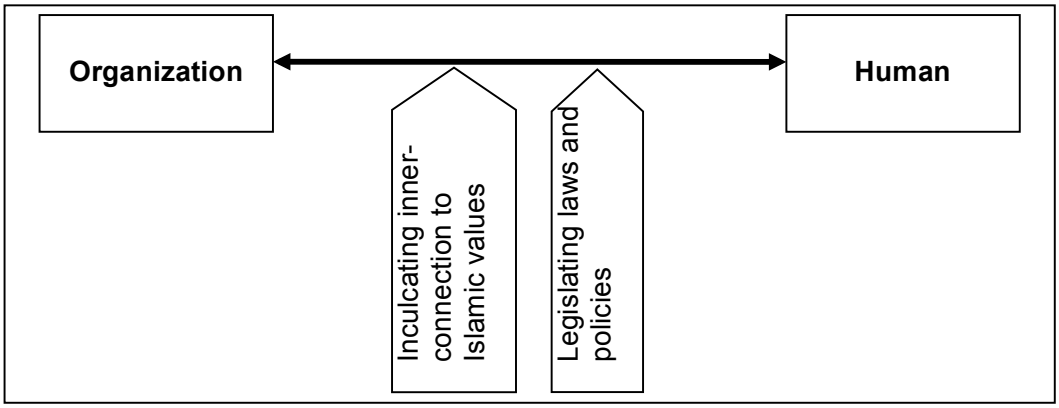

Figure 6.2: Enablers of Alignment for Organization – Human Dimension

6.3.1.1 Inculcating inner-connection to Islamic values among judicial staff at the court offices

The task of the government in inculcating the inner-connection to Islamic values was found to facilitate alignment for this dimension as it helped to create "religious" awareness among staff at the court offices towards their roles in supporting the institutional objectives of Syariah court offices. The Director of JKSM said that: "*staff were made known about the institutional objectives from the implementation of E-Syariah at the court offices, and how they as Muslims, need to materialize these objectives because it is not only their organisational duty…but also their religious duties to do so*". The Registrar of court office (Kelantan) added: "*…we got the idea that we are entrusted to do this job. Thus, we have to do our best to support and fulfill the noble objectives of this [Syariah] judicial institution, which is to uplift the image of Syariah judicial system through the strategic use of E-Syariah*".

As a result of this task, staff's commitment towards the strategic use of E-Syariah in realizing the objectives of court offices has increased as evident from the interview: "*we used to have a thought that it was fine whether E-Syariah can support the objectives of [Syariah] judicial institution or not. If we cannot do it, other staff will do it. No need to be that serious about it! But, having an idea that what are doing now is a responsibility to Islam, we are obliged and we are working hard to ensure that the objectives can be fulfilled through the strategic use of E-Syariah. We cannot take it for granted, as we will be questioned about it in the Hereafter*" (Court Administrator: Kelantan). This view was further supported by the claim that: "*through this divine approach, staff's support towards the institutional objectives of the court offices through the strategic use of E-Syariah was further enhanced. It could be seen from their commitment to the strategic use of E-Syariah in accomplishing judicial tasks at the offices*" (Registrar: Kelantan).

6.3.1.2 Legislating laws and policies for E-Syariah implementation

The case informed that E-Syariah implementation at the court office was supported by a legal and regulatory framework that, in particular, helped to create supportive environment for the implementation of E-Syariah. These laws and policies also signaled the concerted effort of the government to improve the performance of Syariah court offices through the strategic use E-Syariah as indicated in interview: "*regulation of these policies informed us*

[staff] on the serious effort of the government to provide regulatory support for the implementation of E-Syariah in the country" (Administrator: JKSM).

The enforcement of these laws and policies has increased awareness among staff on the mission of the government to strategically exploit the potential benefit of E-Syariah in order to improve the administration of judicial processes at the court offices. The Registrar (Kelantan) said: "*The regulation and enforcement of laws and policies informed us about the strategic mission of the government to use [E-Syariah] at the court offices. And it motivates us [staff] to use E-Syariah in order to support the [government's] mission*".

In addition, Chief Registrar (JKSM) mentioned that laws and policies were deliberately communicated to all staff at the court offices in order to provide a clear understanding of the strategic use of E-Syariah implementation to improve the delivery of judicial services. This was evident from interview: "*…we organized series of workshops and seminars in order to provide a platform for us [the management] to deliberately explain the strategic objectives from the implementation of E-Syariah*". This resulted in "…*clear guidelines and information on the strategic operations of E-Syariah and it helped the staff to understand and support the strategic objective of E-Syariah implementation*" (Court Administrator: Kelantan).

Thus, regulation and enforcement of ICT-related laws and policies contributed to a better understanding about the objective of E-Syariah among judicial staff, in which enabled the alignment between organizational and human-related factors.

6.3.2 Human – Technology Dimension

Five government's key implementation tasks were identified to be enablers for human – technology dimension. They are *providing funding to support E-Syariah implementation, building appropriate ICT infrastructure, inculcating inner-connection to Islamic values among staff, instilling ICT value among staff,* and *developing ICT skills and knowledge among staff*. Figure 6.3 illustrates the enablers for this human – technology dimension.

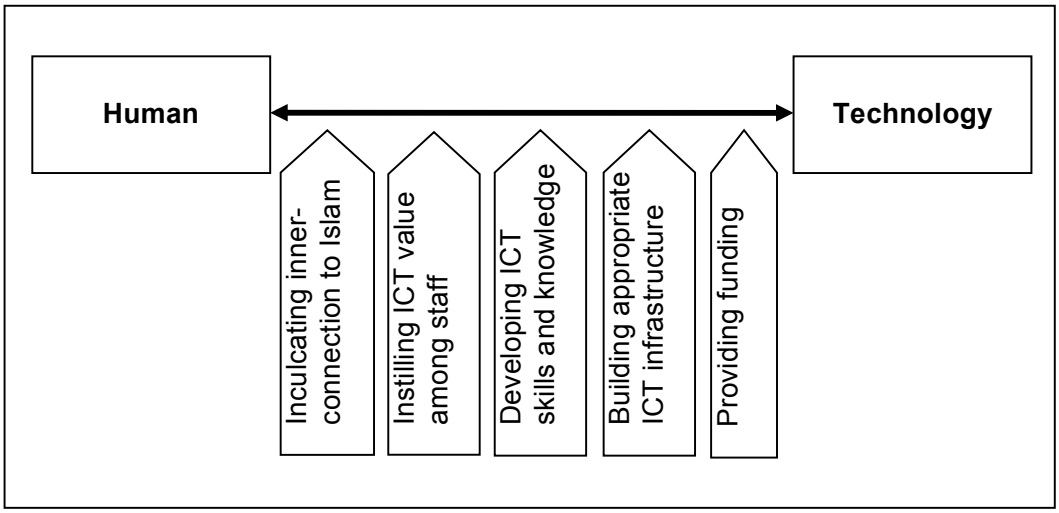

Figure 6.3: Enablers of Alignment for Human – Technology Dimension

6.3.2.1 Providing sufficient funding to support E-Syariah implementation

One of the important government's key implementation tasks that enabled alignment for human – technology dimension is the provision of adequate funding for E-Syariah implementation. Registrar (Kelantan) noted that "*without sufficient financial allocation from the government, it is impossible to carry out various initiatives to support the implementation of E-Syariah*". As described in section 6.2.1, financial support from the government was primarily allocated for the improvement of technological infrastructure and development of human resources at the Syariah court offices. It was evident in the interview: "*The funding enabled us address two fundamental issues that are vital for E-Syariah implementation, first is to establish top-class ICT infrastructure and second, is to make sure that we have skilled users who know how to strategically use ICT*" (Chief Registrar: JKSM)

Through this financial support, the technological infrastructure at the court offices has been improved. For instance, quantity and specifications of personal computers at the court offices has been increased to accommodate the number of working staff. This improvement has increased the level of staff acceptance towards the use of E-Syariah in accomplishing their judicial tasks as indicated in the interview: "*Previously, we did not have enough number of PC in this office. The PCs were too old, very low specification. We*

are 10 [staff] in this office, and we used to have only 7 PCs, out of these [PCs], 3 were broken. 4 low end machines for 10 staff! Can you imagine? It was a really frustrating experience. But, things have been improving since then. Now, each of us has our own PC…a new one. This really helps us to adopt and efficiently use technology [PCs] in our works" (Court Administrator: Kelantan).

Further, the funding was also used to provide ICT-related training programmes which has resulted in improved level of ICT skills and knowledge among the staff. This enabled them to efficiently operate E-Syariah. Relating to the importance of funding for this purpose, Head of IT Unit (Kelantan) clearly mentioned that: "*funding is critical, for example, in the context E-Syariah implementation, sufficient financial support enabled us to provide continuous [ICT] training for staff, indeed, specialized training was also offered for different group of [E-Syariah] users*". In addition, Registrar (Kelantan) explained that "*funding created a good linkage between staff and the [E-Syariah] system. How? Funding enabled the initiatives of developing ICT infrastructure and improving ICT skills to be conducted which resulted in good technology for good people*". He opined that sufficient funding is vital to strengthen up the "*relationship*" between two major factors (i.e. human and technology) that posed challenges to the implementation of E-Syariah.

6.3.2.2 Building appropriate ICT infrastructure for E-Syariah

In relation to the explanation in section 6.3.2.1, building appropriate ICT infrastructure was noted as the key task of the government that could be an enabler for alignment between E-Syariah and staff at the court offices. Unavailability and insufficient ICT equipments was informed to contribute to the lack of staff acceptance towards E-Syariah as informed in the case: "*the number of PCs was not enough, internet connection was slow and interrupted. With this condition, it was frustrating to operate the web-based system like E-Syariah*" (Head of IT Unit: Kelantan). This frustrated experience was also echoed by court administrator who said: "*how to use E-Syariah when required fundamental [ICT] facilities [for E-Syariah] such as computers, printers and internet were not available. If there were, they were not up to the standard. Frustrating is the only word to explain about the situation*".

Responding to the problem, through its lead agency JKSM, the government has carried out the initiative to improve the technological infrastructure at Syariah court offices. The task involved the upgrade of network capability, internet bandwidth and ICT equipments. On this note, the Registrar (Kelantan) said that "*Lack of technological infrastructure may limit our capability to efficiently use E-Syariah in order to fully support the Syariah judicial processes at the court offices. For this reason, the task of building*

good [ICT] infrastructure is critical as it increases staff uptake of E-Syariah". On the same note, court administrator at court office in Kelantan informed that the uptake of E-Syariah has increased as "*the system can now be fully and efficiently used, for example, access to case data, share and exchange of information between staff, all can be done quickly, efficiently*".

In relation, Head of IT Unit (Kelantan) noted that having a good ICT infrastructure "*for example, fast internet connection and reliable network, has put us [at court offices] in the best position to realize the strategic benefits of E-Syariah*". He further noted that from his observation, "*building ICT infrastructure, among other, has a significant effect in encouraging our staff to fully use E-Syariah. They are happy to use the system…*"

6.3.2.3 Developing ICT skills and knowledge among staff

The government has not only geared towards improvement of technological infrastructure, but also the capacity enhancement of the staff. The case informed that staff at the court offices has to be proficient at using E-Syariah as part of their daily works. Thus, considerable ICT training opportunities to the entire judicial staff have been provided in order to develop a good level of ICT skills and knowledge among them. Through these ICT trainings, "*today, we can be proud to see that all staff at the court offices can easily*

use computer, and surely, be able to efficiently use E-Syariah to support their daily judicial operations" (Head of IT Division, JKSM).

As E-Syariah provided support for the role of administrative components of the court offices that range from case-filing and keeping official records of all court matters, the need for judicial staff who possessed good ICT skills and knowledge is critical. Lacking of this critical skill may negatively influence the uptake of the system among the staff as indicated by the Registrar during the beginning of its implementation: "…*most of them didn't have enough exposure to this new technology, and it resulted in their inability and reluctance to operate E-Syariah*" (Registrar: Kelantan)". In a response to this issue, structured trainings were carried out in order to ensure that all judicial staff possessed "*at least a minimal standard requirement of ICT skilled and knowledge, enabling them to efficiently operate E-Syariah*" (Registrar: Kelantan).

Moreover, different categories of judicial staff (e.g. judge, registrar, court administrator etc.) have a different nature of judicial tasks at the court offices, which differs their ICT requirements. Thus, the trainings were structured in a way to meet these ICT requirements. For example, contents of the training provided for top management (e.g. Director, Registrar and Syarie' Judges) were different from the one used to train the administrative staff (e.g. court administrators and clerks). The contents of the training

programme were basically tailored to the job specifications and nature of judicial tasks of the staff. This was evident from the interview: "*ICT training was structured in a way that it could cater the needs as well as fulfill the task requirements of every group of staff at the court office. For instance, job specification of the Syar'ie judges is different from the tasks that need to be performed by the court administrator. Hence, the contents and approaches used to train these two different groups of staff were different. Likewise for the training programme provided for the technical staff. Their [technical staff] nature of training was totally different from the way of how administrative staff was trained*". (Head of IT Division: JKSM). Customizing the contents of the training helped to ensure that right skills were delivered to the right group of judicial staff. Head of IT Division (JKSM) stated the training and development team tried to create "match" between contents of the training and group of judicial staff as it was reported that in the beginning "*staff were a bit reluctant to attend the ICT training as they found that the contents were not relevant to them*". By providing customized ICT training, he said that judicial staff were more interested to participate in the training, facilitating their efficient use of E-Syariah.

This approach of ICT training ensured that each category of judicial staff was equipped with sufficient ICT skills and knowledge that corresponded to the nature of their tasks at the court offices, which enabled them to efficiently operate the E-Syariah system. This was acknowledged by the Registrar

(Kelantan) as he asserted that "*well-structured and specialized training programmes have been found to be critical in improving the level of ICT competency among the staff, which later we found, it contributed towards the positive uptake and use of the system at the court offices*".

6.3.2.4 Inculcating inner-connection to Islamic values among judicial staff

This newly emerged government's key implementation task was found to be critical in enabling alignment between E-Syariah (technology) and judicial staff of the court offices (human). Relating to this key task, the Registrar (Kelantan) mentioned: "*we need to develop staff with good Islamic characteristics, who understand the concept of Islamic worldview, who have a good faith, who know how to value their responsibilities as something sacred. Then, as Muslims, they know that they have to do their best to carry out the responsibilities, to provide the best output…*"

In-line with the government Islamic-related initiatives (Section 6.2.8), JKSM embarked on the concept of divinity in managing the attitudes and behaviours of judicial staff at the court offices. According to the Chief Registrar (JKSM), concept of divinity "*is good for human management at the court offices, it is comprehensive because it concerns with both, human to human relationship and human to God relationship*". He further elaborated

on this concept: "*The understanding that we want to instill into our staff is, the purpose of our creation and existence, which relates to his role as the servant of God and his role towards fellow mankind*". Judicial staff with good inner-connection to Islam viewed their "*accountability and responsibility not only to top management, but it goes up to the God*" (Registrar: Kelantan).

The task of inculcating inner-connection with Islam increased awareness among judicial on the need to perform their jobs with utmost level of professionalism. The Registrar (Kelantan) said that he explained to his staff that their main goal in carrying out the tasks with high level of performance and reliability was not only to meet the expectations of E-Syariah, but also to fulfill their responsibility as Muslim professionals working to improve the quality of Syariah judicial system. Court administrator related about this in the interview: "*having this Islamic understanding of work, it informed me that I have to be professional in delivering my job, not only because I have to, but it is more than that, it is about the responsibility of Islam entrusted upon me. Thus, I have to be more dedicated, more responsible in delivering my job*" (Court Administrator: Kelantan).

As a result, it contributed to the increased uptake of E-Syariah among the judicial staff at the court offices as explained by the Head of IT Unit (Kelantan): "*With the divine understanding in mind, I know that Ihave to perform my tasks efficiently, in this context, it means that I have to efficiently*

use E-Syariah to accomplish my tasks in the best manner, which surely contributes to the improved delivery of Syariah judicial services through the strategic use of E-Syariah". Furthermore, when asked about the impact of this task, a court administrator (Kelantan) said: "*it helped to develop a good understanding on the concept of work in Islam, that we have to do our best, and we are questionable for this responsibility. For this reason, I know that I have to use E-Syariah in order to efficiently carry out the responsibility entrusted upon me*". In addition, Registrar (Kelantan) observed that "*over times, I could see the positive result from this task, attitude of staff towards the use of E-Syariah has changed, using E-Syariah to efficiently deliver their tasks is considered as responsibility to Islam. As Muslims, they have to carry it out to the best possible way*".

6.3.2.5 Instilling value of ICT among judicial staff at court offices

The effort of instilling the value of ICT among staff at the court offices was found to enable the acceptance and uptake of E-Syariah. This task was important in order to support reform in judicial work processes through the implementation of E-Syariah. E-Syariah changed the traditional judicial work culture which relied on the use of papers. This transformation involved changes to the method of work practices among judicial staff requiring use of ICT to operate new computerized judicial processes. As mentioned in section 6.2.7, difficulty to initiate reform in judicial work processes involved

the transformation of staff perceptions of the new technology. The Director of JKSM explained that the reluctant of judicial staff appeared in the form of not using or not taking any responsibility for the implementation of E-Syariah. Thus, he tried to instill an understanding of the intrinsic value of ICT at the court offices, for example, by referring to the success stories of technological advantages in managing judicial tasks. He considered this could make individual staff to better understand how the use of E-Syariah could help to improve their performance and accomplish their works more rapidly, saying – "*asking them to look into examples of success stories of adopting ICT at court offices, which I could see, it slowly gave them the idea on the positive impacts from the use of E-Syariah to support their judicial tasks*". Further, this key task was considered successful as he noted that the staff "*became more receptive and indicated their willingness to uptake E-Syariah in their daily activities at the court offices*".

In addition, Registrar (Kelantan) was also found instilling the value of E-Syariah towards the improvement of administration and management of Syariah court offices by encouraging the judicial staff to put more efforts into completing their tasks through the efficient use of E-Syariah. The task was evident in the interview as he noted: "*I tried to keep explaining about this [value of E-Syariah] until the staff became confident to adopt E-Syariah in their works. I wanted to strengthen their understanding on the role of E-Syariah, in the sense that, they could be trusted to functionally implement all*

judicial processes using E-Syariah". Once the staff understood and believed in the capability and potential of the E-Syariah, he saw that they were willing to use E-Syariah without hesitation. Furthermore, the Registrar said: "*I stressed the important value of E-Syariah to the court offices, what E-Syariah can do in terms of improving the Syariah judicial processes. Thus, it is important for everyone to adopt and use this system, if not, the aim to improve the administration and management of Syariah judicial system through the use of E-Syariah could not be achieved*". After sometimes, the staff were found to be more active and enthusiastic in using E-Syariah to accomplish their judicial tasks. In summary, the task of instilling the ICT values among the staff could positively contribute to a better uptake of the system, enabling the alignment for technology – human dimension.

6.3.3 Technology – Organization Dimension

As illustrated in the following Figure 6.4, the case revealed three enablers for this technology – organization dimension namely *establishing collaborative relationships between government agencies through central coordination practice*, *forming ICT strategies and planning to support E-Syariah implementation* and *monitoring and evaluating the implementation of E-Syariah*.

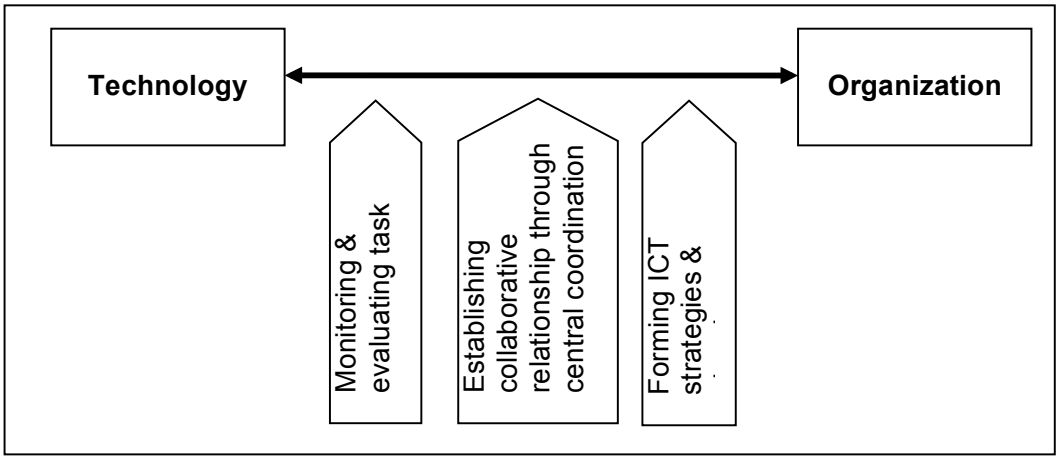

Figure 6.4: Enablers of Alignment for Technology – Organization Dimension

6.3.3.1 Establishing collaborative relationships between government agencies through central coordination practice

This newly discovered key implementation task was found to be critical in enabling alignment for this technology – organization dimension. As indicated in section 5.3.1, the implementation of E-Syariah at the court offices was highly supported by well-structured ICT governance consisting of several related government agencies namely JKSM, MAMPU, INTAN, MCMC and MDC. Each agency has its specific role and function in providing conducive environment which supports the successful implementation of e-government initiatives in the Malaysian public sector. In the context of E-Syariah implementation, JKSM has been appointed as the lead agency to centrally coordinate tasks and activities related to the implementation of E-Syariah. Through this central-coordination practice, JKSM has been collaboratively working with government agencies at both central and state

levels "*…to develop standard practice for E-Syariah, for example, standard technological infrastructure throughout the court offices, coordinate a structured delivery of training for all staff, be responsible for financial supports and outline strategies and future planning for overall development of the court offices*" (Registrar: Kelantan).

For example, collaboration between JKSM and MAMPU in order to develop strategic planning for E-Syariah implementation was significant as each agency represents two important portfolios in the government; organizational-institutional planning (JKSM) and ICT strategic planning (MAMPU). The interviews informed that relationship between JKSM's and MAMPU's teams was very close. Chief Registrar (JKSM) said the collaboration was very helpful as it helped both teams to understand each others' strategic plans through series of meetings and discussion sessions conducted from time to time, which enabled them "*… to give inputs, explain and discuss our perspectives on the best approach to strategically implement E-Syariah*". During the meetings, he recalled that his team explained their plan for the strategic development of Syariah court offices to several representatives from MAMPU, which "…*later followed by, sort of dialogues and discussions [between JKSM and MAMPU] on how E-Syariah can be strategically adopted and used to support Syariah judicial operations*". Chief Registrar mentioned this as an example of the necessity to develop strategic collaboration among government agencies, which could

assist the strategic use of E-Syariah to achieve objectives of Syariah court offices. Further, the Director of JKSM believed that the practice helped to create mutual understanding between both agencies in order to ensure integration between ICT strategic plan and organizational plan of Syariah judicial institutions.

Furthermore, the management team of JKSM also collaborated with state-level management of court offices in order to make sure that the institutional strategies of the state level court offices were aligned to the JKSM's ICT Strategic Plan. Relating to this, Chief Registrar (JKSM) said that: "*we at the central [JKSM and MAMPU] closely worked with management of court offices at the state level in order to make sure that their institutional strategies [at the state-level] communicate well with the national strategic planning for the implementation of E-Syariah*". Corresponding to this task, Registrar of court office in Kelantan stated: "*we were well-informed that any strategy for E-Syariah implementation had to be aligned with the National ICT Strategic Plan. This task [of formulating the institutional strategies] was facilitated through our close communication with the central agencies, in particular JKSM and MAMPU*". Head of IT Unit (Kelantan) noted that the task of aligning the strategic planning was "…*due to collaborative works that we [at the state level] have with the central agencies*".

As the training centre for government agencies, INTAN was brought in to equip management staff (e.g. Director, Chief Registrar, Registrars, Court Administrators) and ICT personnel (e.g. Head of IT Division, Head of IT Unit) with ICT skills and Syariah judicial processes respectively. Chief Registrar (JKSM) informed that it was made compulsory for "top management" of Syariah judicial institutions – at JKSM and court offices at states – to attend courses on ICT management and governance, which "*gave an idea on the importance of strategic use of ICT, and E-Syariah particularly for the enhancement of Syariah judicial practices at the court offices*". Whereas, ICT personnel were equipped with an understanding on various Syariah judicial tasks, processes and practices carried out the court offices as evident in the interview: "*it was good for us, the technical staff, to be briefed and explained about the complex Syariah judicial practices at the court offices. This helped us understand the whole chain of the judicial processes, for us to provide better technical support for these processes*" (Head of IT Division: JKSM). This collaborative effort between JKSM and INTAN contributed to building a shared understanding between these two groups of staff on each other's knowledge, which is an important step in achieving alignment for technology – organization dimension.

6.3.3.2 Forming ICT strategies and planning for E-Syariah implementation

The case informed the formulation of a clear ICT strategies and planning has provided a clear "route" for the implementation of E-Syariah at the court offices. Head of IT Division (JKSM) mentioned that the ICT Strategic Plan of JKSM clearly envisaged the development of E-Syariah that automates the Syariah judicial procedures. Through collaborative relationships between JKSM and MAMPU, national ICT strategy was well aligned with the strategic planning of judiciary system in the country. Later, this integrated strategic planning was communicated to all judicial staff (i.e. administrator/manager and technical) in order to ensure that both groups of staff understand of the strategic need for the implementation of E-Syariah at the court offices.

Moreover, mutual understanding between JKSM that perceived as the "expert for judicial business" and MAMPU served as the "ICT professional and expert" has also contributed to well-aligned strategic plan for E-Syariah initiative. Both teams worked closely in order to understand each area of expertise, as evident from the interview: "*series of meeting that we have really gave us chance to understand each other. What I mean is that, we can explain to them about our strategic planning [at JKSM] and, we also got to know their [ICT] planning for public sector in this country*" (Chief Registrar: JKSM)

The case study also informed that the teams consisted of both groups of staff – administrator/manager and ICT/technical staff. This "mixed" members of the team helped each other in "deliberating and explaining their respective areas [judiciary and ICT]" (Chief Registrar: JKSM). Involvement of staff from different areas of expertise contributed to mutual understanding of knowledge on judiciary for technical staff; and ICT knowledge for managers. Registrar (Kelantan) claimed: "*after having series of meeting with the team members, I can personally feel that my understanding of ICT and its strategic potentials has increased*".

He further claimed that knowing each other planning has resulted in a better understanding between JKSM and MAMPU, leading to alignment between judiciary and ICT planning. This was evident from the interview: "*I noticed that through the collaborative effort between our team [JKSM] and team from MAMPU, we were able to strategically match our planning, which enabling us to provide a good strategic support for the implementation of E-Syariah at the court offices*" (Director: JKSM). In addition, Head of IT Division (JKSM) added that "*good understanding of each others' portfolios has helped to us to develop an integrated strategic planning*"

6.3.3.3 Monitoring and evaluating the implementation of E-Syariah

Monitoring task was found to be significant in the implementation of E-Syariah. The case informed that registrars at the court offices were directed to closely monitor the progress of E-Syariah implementation and provided report to the top management at JKSM. Head of IT Unit (Kelantan) said: "*I directed my staff to monitor and report to me about the progress of E-Syariah implementation, detailed out problems and any concerns every month. If necessary, I relayed the concerns to JKSM [Head of IT Division]".* Later, JKSM arranged series of meeting with the registrars in order to discuss about the report. Chief Registrar (JKSM) noted that: "*the meetings helped me and the team to better understand the real situation of the E-Syariah implementation*". He further said: "*The monitoring task was beneficial for the technical team to actually understand the operational situation of E-Syariah so that, we can ensure that operations of E-Syariah always support judicial processes at the court offices*".

The case informed that some problems related to the incapability of E-Syariah to efficiently support judicial processes of the court offices. In the beginning, for example, it was reported that functionality of E-Syariah did not able to sufficiently support scheduling task of court cases which "*resulted in the conflicted scheduling of cases*" (Court Administrator: Kelantan). The issue was closely monitored and immediately resolved – "*the problem with*

scheduling task was immediately resolved". The Head of IT Unit (Kelantan) attributed this "success" to the efficient monitoring processes of the E-Syariah implementation as indicated in the interview: "*efficiently monitoring the system has helped to ensure the system capability and reliability to fully support judicial processes at the court offices*" (Head of IT Unit: Kelantan).

In another situation, it was found at the E-Syariah was not able to provide sufficient support for timely and better documentation processing of the court offices. The problem was "*due to the incompatibility between functionalities offered by E-Syariah and judicial tasks carried out at the court offices*", which was immediately resolved later on. Responding to this problem, Assistant Registrar said that "…*through the monitoring task of JKSM, the problem was efficiently resolved*". In relation, Registrar (Kelantan) also highlighted that continuous monitoring task "*was one of the key factors that could ensure functionalities of E-Syariah are always able to efficiently support the organizational processes of judicial tasks at the court offices*".

Registrar said: "*…without the close monitoring on the operational of E-Syariah, the system would be inefficient, not able to be successfully support the judicial processes…*" He asserted that the task of monitoring and evaluating the implementation process of E-Syariah could enable efficient technological support (i.e. functionalities of E-Syariah) for organizational

processes (i.e. judicial tasks) leading to successfully putting the implementation of E-Syariah in place.

Role of the government's key implementation tasks as enablers for the three dimensions could be summarized as shown in the following Table 6.1.

Tasks / Dimensions	Org-Human	Human-Tech	Tech-Org
Provision of sufficient financial assistance		X	
Building appropriate ICT infrastructure		X	
Forming ICT strategies and planning			X
Regulating laws and policies	X		
Monitoring and evaluating e-government performance			X
Developing ICT skills and knowledge among staff		X	
Instilling value of ICT among staff		X	
Inculcating inner-connection to Islamic values among staff	X	X	
Establishing collaborative relationships through central coordination practice			X

Table 6.1: Summary of Enablers for Alignment Dimensions

6.4 E-SYARIAH SERVICE DELIVERY IMPLICATIONS FOR GOOD GOVERNANCE

This section presents descriptions and evidences collected from the interviews about the implications of E-Syariah service delivery towards good governance at Syariah court offices in Kelantan. To understand the contributions of E-Syariah for good governance, we referred to functionalities of the applications of E-Syariah as explained in section 5.2.2. They are presented according to the identified attributes of good governance as

illustrated in the research framework – *efficiency and effectiveness*, *transparency* and *empowerment*.

6.4.1 Efficiency and effectiveness

In general, it was highlighted that E-Syariah has increased speed and simplified workflow of judicial processes at the court offices as evident from the interview: "*With the web-based E-Syariah system, it was observed that processes of registering, tracking status, scheduling, storing and retrieval of cases were obviously simplified. This is good as people can make optimal use of their time and resources*" (Chief Registrar: JKSM). The efficiency and effectiveness of E-Syariah can be reflected in a report noting that the court offices have been able to reduce the number of backlogged cases up to 70% within 3 months of its implementation.

It has also improved process of information exchange sharing between judicial staff at Syariah court offices, and with other government departments. Noting on the efficient and effective information sharing, Registrar (Kelantan) explained that: "*….data stored in the database system is accessible by all Syariah Court Offices in Malaysia. Details about cases registered at any of more than 100 court offices in this country are stored at a central database which can be easily accessed at any time. This [information sharing] significantly enhances the efficiency of the court offices*

as it not only helps to expedite the processing of court cases, but also coordinates the court events in a more precise and efficient manner".

Moreover, E-Syariah has also enhanced the communication between Syariah court offices with other government agencies as illustrated in the interview: "*The court offices are now able to send electronic notifications to the Immigration Department, for instance, to impound an individual's passport and prevent the offender from leaving the country. This is important as it can alleviate the inter-agency bureaucracy and ensure timely delivery of information to the Immigration Department as the formal court order may take some time to be delivered manually*" (Chief Registrar: Kelantan).

In particular, an application of E-Syariah known as Syariah Case Management has optimized efficiency and effectiveness in managing administration and delivery of judicial services at Syariah Court Offices. It provides an electronic registration of cases whereby the details of cases are electronically captured and stored in central database system. Thus, it prevents unnecessary data re-entry, decreases possibility of human errors and improves timeliness and accuracy of stored information.

This central database system helps to avoid multiple registrations of cases at different courts which was a recurrence problem during the manual practice. This was deliberately explained by Assistant Registrar (Kelantan): "*…the*

system [E-Syariah] will enable us [court registrars] to check the status of a court case. For example in the case of divorce, the wife might have already filed the case at a particular court while the husband wants to register the case at another court. Previously, we didn't have the ability to perform this checking process which resulted in redundancy of case registration as well as hearing of the case. But now, E-Syariah is able to capture the personal profile of every individual who has had a case registered with any Syariah court not only in Kelantan, but throughout the country. When a new case is registered, E-Syariah will automatically search the database and fill in the case registration details such as the profile of applicant, accused, guarantor and lawyer…..thus duplication of cases can be resolved".

Further, the information of court cases such as charges, verdicts, information on parties, court proceedings and final judgment will aggregate into a comprehensive knowledge base that serves as essential references for the Syariah community nationwide. As an example, Syar'ie judges can easily refer to previous decisions and statements of cases, ordinance and enactment stored in the central database, which help them to ensure uniformity and make quality grounds of judgment. This was noted by Syarie' Judge (Kelantan): "*It becomes easier for us to refer to the previous judgment of the cases because everything is now available online. Providing this functionality is crucial as we [judges] need to have a look into the judgments*

of the previous cases in order to ensure integrity and uniformity of future judgments".

In addition, the online search tool has facilitated speedy retrieval and better sharing of the case information as noted by the Registrar (Kelantan) *"Now, it is better, and far more efficient compared to the previous practice of manual physical file sharing. The electronic case information is now available online and can be accessed by many court officers concurrently, anywhere and anytime, [thus] expediting the processing of a particular case*"

Another application is the E-Syariah e-mail system which has been extensively used by Syarie' judges, court registrars and court administrators for the purpose of sharing knowledge and information. It has significantly supported more efficient and effective communication among judicial staff within court offices, as well as their interactions with external stakeholders of E-Syariah (e.g. other government agencies, lawyers and public). The Registrar explained that *"…e-mail application provided by E-Syariah helps us to efficiently communicate with our counterparts from other court offices*". As the main electronic communication channel, Registrar (Kelantan) mentioned that: *"…e-mail reminders and alert messages are sent to the Registrars and Judges if a case has not been resolved within a specified timeframe as set by the court officers. This helps to minimize the delay of cases and reduce backlogs cases*". In sum, the online case management

application has electronically transformed the Syariah judicial processes, thus, efficiently and effectively improves the delivery of Syariah judicial services at the court offices.

6.4.2 Transparency

Transparency in the Syariah judicial processes at the court offices is visible through the application of Syariah Case Management where hearing schedule of Syarie' judges has been made available and accessible for court administrators. This feature has facilitated the court administrators to easily schedule the hearing date for registered cases as they can view the schedules of all Syarie' judges online. Thus, it enabled the court administrators to "*track activities of the judges*", facilitating them to schedule the hearing of cases according to the availability of each Syarie' judge. Previously, the schedule of Syarie' judges was not made "transparent" to the court administrators that made the scheduling task difficult. The previous poor scheduling practice has caused clash of scheduling time and redundancy of case hearing schedule, resulting in simultaneous appearances of a judge at a time.

Putting the related information accessible has significantly enhanced transparency, which facilitate the way how staff at the court offices perform their judicial tasks. This was evident from the statement of a court

administrator that *"…..given the visibility of the judges' working schedules, we are now able to track the judges' activities such as meetings, seminars and even holidays which enable us to handle the scheduling task more precisely, and coordinate the court events in a more efficient manner*".

In addition, the feature of case tracking has enabled public to monitor and keep track the progress of their registered cases. Further, the feature is also provided for Syarie' lawyers which enables them "…*to monitor progress their client's case, they can access information related to, for example, case details, status and progress of the cases*" (Registar: Kelantan). In this sense, E-Syariah has not only been interactive to the users, but also facilitated transparent relationship between court offices and users.

Relating to the transparent relationship between court offices and public, E-Syariah provides best information related to Syariah judicial practices and procedures, making them available on E-Syariah portal. This increases access level of the public to judiciary related information and provides a better understanding of Syariah judicial practices among the public. It was noted by Registrar (Kelantan): "*This [available information] is made within reach for public, which helps them to know more about the legal instruments regarding Syariah judicial system, and make them know about their judicial rights*".

Providing these information and resources (e.g. judicial updates, rules, procedures, reports and policies) online manifests the value of transparency in the delivery of judicial services to the public as they can easily access the resources through E-Syariah portal. Before, they have to visit counters at the Syariah court offices in order to obtain the resources. This transparent practice facilitates good governance in the delivery of judicial services as problem encountered previously could be solved as cited by the Registrar (Kelantan): "*Through [E-Syariah] the portal, the public can now view, read and even download relevant information about Syariah judicial procedures and processes, which enables them to prepare themselves before they come to the counter. For instance, before, we have a lot of incidents where the public couldn't file their cases at the counter due to the unavailability of some required documents. They only knew when they came to see us. But now, they can figure out [through E-Syariah portal] what are the required documents for case registration….this initiative of making the information transparent, not only facilitates our tasks, but also ensures that the public do not need to make frequent visits to our offices. Moreover, they also can keep track of the status of the registered cases online. These efforts to improve transparency in our work processes, and really help us to improve the performance of Syariah Court Offices in general*"

In sum, E-Syariah helps to make court offices more accessible to users – judicial staff, legal officers, litigants and the general public by making the

court's judgments, hearing calendar, court procedures and case information available over the Internet (i.e. web-based E-Syariah system). This manifests the increased level of transparency in the delivery of judicial services which proves the progress of good governance at the Syariah court offices.

6.4.3 Empowerment

Enabling users to be "empowered" is one of the values for good governance which can be achieved through the use E-Syariah. One of the applications of E-Syariah, Calculator for Islamic Inheritance helps the public to understand the complex distribution of property and wealth according to the Islamic laws of inheritance. Through this application, public can calculate the provision and distribution of their wealth for Islamic inheritance cases based on inputs and conditions keyed-in by them. Not only that it facilitates the judicial staff, but also empowers the public as they can perform the calculation task by themselves without the need for judicial staff to do so for them.

In noting the impacts of this application to the manual practice of calculating Islamic inheritance, the Assistant Registrar (Kelantan) said: "*In calculating the provision of inheritance in Islam, we need to understand the overall situation of the case for example, how much is the wealth, who are eligible for the wealth, how many of them and how much is the portion for each of*

them as dictated in Islamic law of inheritance. These are very tedious processes. Not everyone can do it. Normally, they will come to seek help from us. So, the application dramatically changes the old manual practice of calculation. We just need to key in all the required data into the system, and it will be automatically calculated. Not only that, this application has also empowered the public with knowledge on how to know and perform the calculation by themselves. So, they do not need to come and see us anymore.

As legal practitioners, Syarie' lawyers need to register themselves with the Syariah court offices. As registered Syarie' lawyers, they are able to carry out all judicial related activities at the court offices. Previously, the lawyers have to go to the court offices "*several times*" in order to accomplish the registration. However, Syarie Lawyer Registration application has changed the manual process as it enables the Syarie lawyers to register themselves online. Later, details about these registered Syarie' lawyers are made available for the public through E-Syariah portal. This in turn provides convenient access for Syariah legal consultation and advice by the public.

In the past, the public needed to go and ask about these registered Syarie' lawyers from the court offices. These indicate that E-Syariah empowers relationship between Syarie' lawyers and public, leading to the elimination of middle person (i.e. judicial staff) in the Syariah judicial service delivery.

Noting on this new practice, Registrar (Kelantan) said: "*We at court offices used to be the intermediaries for public and [Syarie'] lawyers. But now, everything has changed, I mean, E-Syariah has changed the process, and it has transformed our role. E-Syariah closes the gap between public and lawyers, our role at the court offices now is to monitor the whole chain of the process*". Syarie' lawyers also indicated that "*E-Syariah has changed the way of how judicial processes are done…I mean a positive change as now, we [Syarie' lawyers] can register online, and public also are able to directly get in touch with us for legal consultation and advice. In short, the process gets better now.*"

Further, it was mentioned that the public have to visit counters at the court offices in order to accomplish judicial related activities such case filing and tracking. This manual practice has been transformed into automated Syariah Case Management application that enables the public to file in their cases at the preferred court office, as well as keep track the status of the filed cases at their convenience. These features enable empowerment of the public's role in the whole chain of Syariah judicial processes. Registrar (Kelantan) noted: "*With the Syariah Case Management, we observed that it eliminated total dependency of the public on our offices, they can manage for example, filing of cases, tracking, and making a preference on which court office that they want the hearing to be conducted…*"

In addition, Syariah System Links boosts good communication with relevant government agencies (e.g. Legal Affairs Division of the Prime Minister's Department, Department of Islamic Development of Malaysia, National Registration Department, Royal Malaysian Police Department and Immigration Department) in order to ensure timely information dissemination among these agencies. This was illustrated through the claim made by Registrar (Kelantan): *"….our stored case data and information is shared with Legal Bureau Aid Division, and authorized officers at Legal Bureau Division will be able to access the information, which enable them to carry out tasks within their portfolio*". Good information sharing practice empowers judicial staff in particular, and other public officials at their respective agencies to perform their tasks efficiently, and by-pass the implications of bureaucracy in government sector. For example, court administrators were able to access ALIS system at National Registration Department (NRD) through Syariah System Links of E-Syariah, allowing them to search and verify specific data such as ID number and current address of registered litigants. This task can be performed online with convenience, whereas previously, official written request should be submitted to NRD offices in order to accomplish the same task.

To sum, the above case descriptions appeared to show that the implementation of E-Syariah at the court offices has generated certain values contributing to good governance practice of Syariah judicial system.

6.5 CONCLUSION

This chapter presented case description of E-Syariah implementation at Syariah court offices in the state of Kelantan. The significance of government's key implementation tasks in the implementation of E-Syariah was highlighted through managerial practices and quotations collected from the interviews. As the lead agency for E-Syariah, JKSM has been collaboratively working with other relevant central government agencies (e.g. INTAN, MAMPU and MCMC); as well as with the management of Syariah court offices at the state level in order to manage and coordinate the implementation of E-Syariah in the state of Kelantan. Nine government's key implementation tasks were found to contribute towards the successful implementation of E-Syariah at the court offices, in which three of them emerged from the case analysis namely, *inculcating inner-connection to Islam values among judicial staff*, *instilling value of ICT among the judicial staff* and *establishing collaborative relationships between government agencies through central coordination practice*.

Further, descriptions on role of these key implementation tasks in enabling alignment for the three dimensions of organization – human, human – technology and technology – organization were explained. As summarized in Table 6.1, majority of the government's key tasks concentrated on establishing alignment for human – technology dimension, which in turn may be related to the discussion on the nature of key challenges for e-government initiatives in developing country as suggested by Chen et al. (2006). It was evident from the case that technological, organizational and human-related factors were inter-connected, and sufficient alignment between these factors was an important determinant for the successful implementation of E-Syariah systems. For example, the case informed that sufficient and continuous provision of financial assistance (i.e. organizational-related factor) could facilitate the task of developing appropriate ICT infrastructure (i.e. technological-related factor), which resulted in the positive uptake and acceptance of E-Syariah (i.e. human-related factor). On the other side, availability of, for example, only financial assistance (i.e. organizational-related factor) and good ICT infrastructure (i.e. technological-related factor) could not totally influence the successful implementation of E-Syariah if there was an issue of lack of ICT skills and knowledge (i.e. human-related factor) among the judicial staff at the Syariah court offices.

Lastly, the implications of E-Syariah for good governance in the judicial delivery of service were presented. The implementation of E-Syariah was found to contribute towards the improvement of Syariah judicial services delivered to the stakeholders such as judicial staff, litigants and lawyers, as well as other related parties like Legal Bureau Aid Division, Department of Islamic Development of Malaysia and National Registration Department. It appeared that E-Syariah has generated certain outcomes that manifested attributes of good governance namely *efficiency and effectiveness*, *transparency* and *empowerment*. This helped to inform a perspective of how E-Syariah could contribute towards good governance in service delivery of Syariah judicial institution in the country.

In sum, government's key implementation tasks are significant for the establishment of alignment between the organization, human and technology factors, leading to good governance in public service delivery.

CHAPTER 7

DISCUSSION

7. INTRODUCTION

The empirical findings from the case study on the implementation of E-Syariah at the court offices detailed in the preceding chapter are discussed in the light of existing relevant literature. In particular, it attempts to explain the significance of government's key implementation tasks for the successful implementation of e-government and its enabling role for the establishment of alignment between organization, human and technology related factors.

This chapter begins with discussion about three new key implementation tasks emerged from this study and discuss their effects on the success of E-Syariah implementation (Section 7.1). Following in Section 7.2, the enabling roles of these key implementation tasks in shaping alignment for *organization – human*, *human – technology* and *technology – organization* dimensions are presented. Finally, the implications of E-Syariah implementation for good governance in judicial service delivery of the Syariah Court Offices are explained (Section 7.3).

7.1 WHAT ARE GOVERNMENT'S KEY TASKS IN THE IMPLEMENTATION OF E-SYARIAH FOR IMPROVED JUDICIAL SERVICE DELIVERY OF SYARIAH COURT OFFICES?

7.1.1 Emergent Government's Key Implementation Tasks

This section provides answers for the one of the sub-questions of this research. It discusses three government's key implementation tasks that unexpectedly emerged from the case study. These key implementation tasks are:

7.1.1.1 Informing and instilling values of ICT among the judicial staff

This study found that the task of instilling the judicial staff of the ICT value in their works and for the improved delivery of judicial service through ICT became one of the critical government's key implementation tasks in the implementation of E-Syariah at the court offices. The top management (JKSM and Syariah court offices in Kelantan) mentioned that they needed to communicate to the judicial staff on the need to consider the significance and advantages of using adopting E-Syariah to the public and to Syariah court offices. For this, the top management used platforms such meeting and training to instill the potentials and plans of E-Syariah in order to improve the management of judicial processes at the court offices. Their aim was to

increase the awareness and create good perception of judicial staff towards the value of E-Syariah and of the role of ICT in general, to materialize the objectives of E-Syariah. In their study on e-government initiative in Turkey, Akman et al. (2005) assert that “one of the primary barriers to maximizing the potential offered by e-government was the need to change individual attitude and organizational culture”.

The awareness of judicial staff can be regarded as the *habitus* (Bourdieu, 1984) which influences the nature of people’s feeling and thinking. After being informed of the significant impact of E-Syariah towards the improvement of Syariah judicial service delivery, the judicial staff’s *habitus* was noticed throughout the interviews as having positively changed in a direction which recognized that the judicial staff had tried to use and adopt E-Syariah in order to better accomplish their tasks at the court offices. This scenario facilitated the smooth implementation process since the positive changes in the judicial staff’s perception manifested how successful the E-Syariah implementation at the court offices was.

Akin to other government departments and agencies in Malaysia that had utilized ICT to transform and improve their delivery of services to the Malaysian, the Syariah court offices required judicial staff who were literate, well-informed and well-trained in ICT to be ready for the implementation. The top management at both JKSM and Syariah court offices in Kelantan; tried to

instill judicial staff about the value of ICT with the main objective of obtaining staff acceptance of ICT as the main factor in success of E-Syariah. As the lead agency, JKSM collaboratively worked with other agencies in order to ensure that the judicial staff established their positive perceptions towards the potentials of ICT and how it improves the efficiency of their tasks at the court offices. This action can be regarded as normative force (DiMaggio and Powell, 1983), which drawn from action of the top management considering that acceptance of judicial staff for new challenges of using new ICT-based operations in their workplaces created a good result and provided motivation to use E-Syariah efficiently. They are normative in that they derived from training and altered professionalism in the court offices. The Malaysian government agencies and Syariah court offices in particular, was able to gain benefits from the increased use of E-Syariah such as increasing staff efficiency and professionalism, and better delivery of service. The judicial staff accepted the use of E-Syariah in their routine tasks without hesitance. This study has indicated that the government's key task had to focus specifically and continuously on instilling the judicial staff with the ICT value, with an objective of obtaining staff acceptance of the use of E-Syariah leading to the successful implementation of e-government initiatives.

This supports finding of the study by Kamal (2006) highlighting that certain perceived technology factors could affect the adoption of ICT innovation in the government sector. These factors were the relative advantage,

compatibility, complexities, functionality, reliability and usability of ICT, and technological potential for integration. Caudle et al. (1991) are of the opinion that, when attempting to achieve the integration of new technologies in a government project, the ICT value through its compatibility with the actual needs of the project becomes a major concern for government. Moreover, Scherlis and Eisenberg (2003) also opine that, in general, the government needs to focus on the value of ICT in order to stimulate the ICT supply chain in response to demands and needs of the public, business and government sector. In the context of this study, the top management regarded the value of ICT as significant for the success of E-Syariah implementation.

7.1.1.2 Inculcating inner-connection to Islam values among the judicial staff

This newly emerged key implementation task of inculcating inner-connection to Islamic values among the judicial staff was highly stressed by the top management. It was mentioned they needed to communicate about the importance of having a clear understanding of Islamic worldview in their working lives. The primary aim of this effort was to instill religious awareness among the judicial staff on their responsibility towards the use of E-Syariah. For this, the top management used several platforms such as religious talks and meetings, which later observed that judicial staff were able to reflect Islamic awareness on their roles in achieving the objectives of E-Syariah. In

addition, inner-connection to Islamic values was perceived to be critical as it could complement various other available policies and regulations that support E-Syariah implementation. Anwar Sadat (1978), the ex-President of Egypt stressed that “change should take place first at the deeper and perhaps more subtle level that the conscious level…”.

In addition, Malaysian government officials have been exposed to Islamic-based initiatives by the government, for example, the Inculcation of Islamic Values in Administration and *Islam Hadhari*. The effort to inculcate inner-connection to Islamic values is more pertinent in the context of E-Syariah. The nature of “business” (i.e. Syariah judicial service delivery) at the Syariah court offices may be the contributing reason behind this effort, as well as, the fact that 60% of the Malaysian populations are Muslims. This may provide an explanation for the reason that inculcating of Islamic values among the judicial staff was identified as vital to increase their awareness of the use of E-Syariah in facilitating routines at the court offices.

In defining values, Kluckhohn (1951) stated that “a value is a conception, explicit or implicit…of the desirable which influences the selection of the from available modes, means, and ends of action”. Another definition was “...as normative beliefs about proper standards of conduct and preferred or desired results” (Nystrom, 1990). In short, values relate to what are desirable and preferable. Relating to this study, Islamic values would relate to beliefs,

conceptions and end-states that are desirable and preferable from the Islamic perspective. In this sense, the meaning of a person believing and doing something desirable and preferable in Islam is actually to obey the Islamic message and teachings, i.e. what is desirable and preferable in the concept of working in Islam is accomplishment with excellence. However, multi-racial and multi-religious nature of Malaysian society may require the understanding of Islamic values to be extended and viewed in a more universalistic perspective.

In this view, an understanding of Islamic values can be more defined when it is likened as a form of sacred values (Atran and Axelrod, 2008, Sheikh et al., 2012). According to Atran and Axelrod (2008), sacred values were independent of any material goal or purpose, and even though the values often have a religious basis, some of them are transcendent (e.g. fairness). Hence, to be considered sacred, it is not necessarily have to be related to religious teachings. Aberle et al. (1950) and Radcliffe-Brown (1952) argued that sacredness was established as a purpose that is universal across societies . Political philosophers like Aristotle, Marx and Nietzsche believed that people would more likely do something if it is based on values that reach beyond the desires of human beings (Tetlock et al., 1996).

Focus of the top management of JKSM and Syariah court offices on the importance of religious role in changing attitudes of the judicial staff towards

using E-Syariah resonates finding of a recent study by Sheikh et al. (2012) suggesting that religion has an important indirect role in the state of conflict. Their study concluded that intensity of participation in religious rituals and priming reminders of the participation in such activities (i.e. religious rituals) increased the likelihood of people reporting their preferences as sacred values. Given the influence of sacred values on decision making (Atran and Axelrod, 2008), the finding is relevant in the context of resolving conflicts and disputes in organizations.

In this sense, the concept of Islamic values would also be applicable to other societies in a more universal way if it is viewed as a form of sacred values that has relation to the concept of sacredness and God. This in turn would manifest the universal character of the Islam that is suitable for all mankind and societies (Al-Ashqar, 1982, Al-Alwani, 2001). Sen (1999) argues that increased human interactions within the process of globalization would bring an increased in “mutual understanding and shared moral norms and values”. Therefore, it is necessary to accordingly “sacralize” Islamic values and to understand them in a universal way.

7.1.1.3 Establishing collaborative relationships between government agencies through central coordination practice

The task of the government to establish collaborative relationships between relevant government agencies was evident to be influential for the success of E-Syariah implementation. This is in line with the findings of previous studies that collaborative relationship among individuals or organizations facilitates the successful implementation of e-government initiatives (Jaeger and Thompson, 2003, Kuk, 2003, Ndou, 2004, Chircu and Lee, 2005, Gil-Garcia and Pardo, 2005).

This study revealed that e-government initiatives in Malaysia supported collaborative efforts, which had been manifested through its structured ICT governance. For E-Syariah project, JKSM has been appointed as the lead agency which automatically also held responsible to lead the E-Syariah Project Steering Committee. It was entrusted to supervise and coordinate all activities and issues related to the development and implementation of the E-Syariah at the court offices. Several other “expert” government agencies such as MAMPU, INTAN and MCMC were appointed to be in the team. The establishment of this team/committee supports the idea that e-government initiatives provide opportunities for network creation that consists of a complex web of interrelationships among government, businesses, employees and other government agencies (Ndou, 2004, Wood-Harper et

al., 2004b, Lam, 2005). Collaboration between these “expert” agencies enabled JKSM to bring in different “types of knowledge” that were essential for the implementation of E-Syariah. The need for ICT training, for example, requires collaboration between JKSM and INTAN; as the latter is the training expert responsible to develop human resource in the Malaysian public sector through quality and structured training. This further accommodates Ndou’s (2004) notion that e-government requires a network approach to put together skills, technologies, information and knowledge that normally span the boundaries of government agencies. It is generally impossible to find all of them in one single governmental agency.

In this collaboration, JKSM took the leadership role which was found to be influential in coordinating collaborative relationships between these government agencies. This echoes the notion that central government must take the lead and play the role of coordinator between agencies to ensure the required level of collaboration is achieved (Mofleh et al., 2009). Aichholzer and Schmutzer (2000) stated that it is a substantial prerequisite for the success of e-government initiatives in public sector to establish appropriate coordination mechanisms such as permanent committee as practiced in Austria. Further, this holds up finding of a study by Kuk (2003), asserting that lack of coordination between different levels of government can have a significant impact on the success of e-government initiatives.

Further, top management at JKSM particularly focused on establishing strategic collaborative initiatives with other agencies in supporting the successful implementation of E-Syariah. The case revealed that JKSM has closely collaborate with MAMPU to build a clear strategic direction and planning for E-Syariah, as well as, with INTAN to provide customized and structured training programmes for judicial staff at the court offices. These efforts were later observed contributing to improved management of judicial processes as well as increased performance effectiveness in the delivery of Syariah judicial service to the public. It informs that a high level of collaboration positively affect ICT implementation in the government organizations as indicated in previous studies (Papantoniou et al., 2001, Kim, 2005, Kamal, 2006). In the implementation of E-Syariah, these benefits accrued to both the Syariah court offices and to its stakeholders (e.g. lawyers, litigants, public). The outcome of successfully implementing E-Syariah resonates somewhat from these collaborative relationships.

Moreover, these collaborative relationships have also enabled the process of formulating institutional policies and ICT strategies to be efficiently performed and properly coordinated. This was to ensure that policies and strategies formulated at state level court offices were aligned to the National ICT Policy regulated at the central level. This provides evident to support Kuk's (2003) study that different levels of government must work in

collaboration in order to avoid conflicting goals and strategies which can complicate the e-government initiatives.

Collaborative relationships in the context of E-Syariah implementation are centrally coordinated by the leading agency – JKSM. This nationwide initiative generates increased complexity as collaboration happened horizontally and vertically. The former relates the collaborative relationships between JKSM and other agencies within a central level (e.g. MAMPU, INTAN and MCMC), whereas, the latter informs the collaboration established between the central agencies and state level institutions (e.g. state government and Syariah court offices). This diversified nature of collaborative relationships requires significant central coordination in order to successfully manage the implementation. Hazlett and Hill (2003) note that government reforms have focused on delegating responsibility and giving more autonomy to organizational units at a lower level, yet, diversified nature of collaborative relationships requires significant central coordination. The notion of central coordination approach has also been highlighted in other studies (Ho, 2002, Weerakkody et al., 2009); as “new types of collaborative mechanisms and federated decision-making models….” (Allen et al., 2001) in transforming the ICT-enabled public sector. Indeed, the success of Singapore’s e-government initiatives has been very much attributed to the e-government policy and direction that were centrally coordinated by a high-level committee (Lee et al., 2005).

The above notion of “relegating responsibility and giving more autonomy to organizational units at a lower level” (Hazlett and Hill, 2003) manifests the practice of decentralizing capability of making decision related to the E-Syariah implementation activities to the management of Syariah court offices at the state level. Subordinating this decision making capabilities is important in the context of nationwide implementation of E-Syariah as each court office may be facing different problems, constraints and difficulties, which surely in need for different strategic approaches. In this study, JKSM and MAMPU for example, monitored the process to ensure that the undertaken approach was properly aligned to national policies regulated by the central government agencies. It is important in order to facilitate the realization of the objective of E-Syariah implementation.

From this study, it can be derived that the approach of decentralization should also – to certain extent – be centrally managed and controlled. The finding appears to support Yong and Koon’s (2003) study that among other principles underlying the government reform is decentralization, which allows programme implementation activities to be moved to relatively autonomous agencies while policy making remains in a central agency. Another study by Bhatnagar (2004) states that decentralization in decision making is essential because no external agency can understand kind of change and need of a specific departmental environment, however, it still needs to be supported by

a central agency which can provide necessary action to ensure common decisions and policies be adopted by different departments.

7.1.2 Expected Government's Key Implementation Tasks

In this section, the government's key implementation tasks that were anticipated to be found, based on the existing literature, influential for the successful implementation of E-Syariah are discussed in some detail and their relevance and importance explained in terms of the theoretical background (Section 2.1.4). Gaining understanding on these key implementation tasks will help policy makers in government sector to manage e-government initiatives and to choose the most appropriate approaches and models for e-government. Moreover, findings from this study enhance our insight into e-government implementation as it improves our understanding on the significant roles of key implementation tasks of the government in managing the implementation of e-government initiatives.

This study presents the critical role of government's key implementation tasks – central and state level – in order to manage the implementation of e-government initiatives, with the emphasis on the central government's so that such initiatives could be successful. This is important as majority of e-government initiatives around the world are initiated and started by central government (Mofleh et al., 2009). In the context of developing countries,

literature reveals that barriers for success have arisen due to the result of central government failing to perform its duties (Basu, 2004, Ndou, 2004, Sharifi and Zarei, 2004, Akman et al., 2005). At the meantime, the strategic roles of state or local government have also been emphasized contributing to the successful implementation and use of e-government systems (Beaumaster, 2002, Deakins and Dillon, 2002, Edmiston, 2003, Irani et al., 2005, Hashim, 2006, Lofstedt, 2007). This study addresses both dimensions, and the results are encouraging enough to argue that more studies of this nature and context need to be performed in order to ascertain what will emerge to supply a better understanding of this domain of study. To the best of the researcher's knowledge, this is the first study – so far – to look into the implementation of e-government system in the context of the delivery of Syariah judicial service and its impact on the concept of good governance. It augments interest in research on e-government by providing enhanced understanding of the managerial tasks of a government towards successful e-government implementation. Nevertheless, the conclusion of study has risen up a number of concerns which require further elaboration.

7.1.2.1 Providing sufficient funding for E-Syariah

Provision of adequate financing is another key implementation task contributing to the success of E-Syariah. This study informs that availability of sufficient funding is very influential to the success of implementation, as it

can either enable or delay it. In the context of E-Syariah, funding allocated by the government is important for conducting some programmes and initiatives to support the implementation such as developing reliable ICT infrastructure and providing training for judicial staff. Lacking of this financial support was believed to put the implementation in the state of problem. This point is supported by previous studies on e-government (Wescott, 2001, Beaumaster, 2002, Kim and Kim, 2003, Reffat, 2003, Ke and Kee Wei, 2004, Ndou, 2004, Dada, 2006, Weerakkody et al., 2009, El-Haddadeh et al., 2010), who claimed sufficient funding must be allocated for the success of e-government implementation.

The management of court offices noted that financial support was essential, which in turn, indicated the importance of government's task to continuously provide sufficient funding for the success of E-Syariah implementation. This is termed as "economic capital" by Bourdieu (1986), which refers to the financial resources that can fulfill staff's demands including budget for technology and human resources. Providing this capital investment was perceived by the top management as essential for the success of E-Syariah. Besides the annual ICT budget, the government also focused on the long-term ICT investment practice. This was manifested through a budget of RM12.9 billion for the Ninth Malaysian Plan (2006-2010), from which RM40 million was particularly allocated for the development and implementation of E-Syariah. This practice of budgetary structures was also attributable for the

success of E-Syariah. This supports the argument made by Basu (2004) that funding structures must be able to fulfill specific needs of e-government projects, particularly those involving long-term funding requirements and collaboration across agencies.

Providing huge budget is essential to support e-government initiative; otherwise, it will face delays in the implementation. Hussein et al.'s (2007a) suggested that adequate financial resources was an important criteria in facilitating the government organizations to succeed in their ICT-related projects. In addition, Ciborra and Navarra (2005) found that the reform in government and bureaucratic systems require supportive establishment such as IT budget, in order to enhance staff operations. It was informed that availability of adequate funding motivated staff to implement e-government in their organization more effectively (Kamal, 2006). Moreover, previous e-government research (Ebrahim and Irani, 2005, Montagna, 2005, Kamal, 2006) also indicated that financial support is vital for obtaining and developing sufficient level of ICT necessities (e.g. hardware and software) in government organization. Basu (2004) said that feasibility of having a successful e-government is directly depended on the governments' overall ability and readiness to spend on the necessary ICT and related costs. In relation, it was also considered that there is virtually inverse relationship between transitional government budgeting and ICT investments (Harvard Policy Group, 2001). Warkentin et al. (2002) noted that financial support can

improve the effectiveness and efficiency of internal staffing and government operations, communications with citizens and interactions with both individuals and other organizations.

A court registrar mentioned that there were two main reasons for the need of financial assistance; ICT infrastructure and ICT training. Expenditure on ICT infrastructure involved the physical ICT development such as network and hardware used to interconnect judicial staff with the system; and the software used to support online communication. It was mentioned that financial support was essential for the management (i.e. JKSM and court offices) to provide enough ICT training programmes for the judicial staff in order to become ICT-qualified and to reach the standards and skills level necessary for development and implementation of E-Syariah. Further, this study showed that task of providing sufficient financial support was essential to build reliable ICT infrastructure and train the judicial staff to enable them working with E-Syariah effectively. This practice conforms with the finding of a study by Ndou (2004), indicating that sufficient financial assistance helped government organizations to arranged for ICT training courses for its staff and build capable ICT infrastructure for an e-government system. Using ICT in public administration requires sufficient financing in order to improve employee's ICT capabilities, to construct ICT infrastructure and to organize ICT training (Montagna, 2005). These findings are further supported in this study as it was indicated that E-Syariah required consideration of sufficient

ICT budget right from the start, and that good financial support enabled court offices to quickly and effectively implement E-Syariah.

7.1.2.2 Developing reliable and appropriate ICT infrastructure

The task of establishing good ICT infrastructure was admitted to be a critical effort in the context of E-Syariah. This manifested the lack of reliable technological infrastructure at the court offices particularly at the beginning of E-Syariah implementation. The technological-related problem is widely cited as the most commonly faced problem in the realm of developing countries (Heeks and Bhatnagar, 1999, Heeks, 2002a, Heeks, 2003a, Bhatnagar, 2004, Avgerou and Madon, 2005, Heeks, 2006, Chen et al., 2007).

Hence, providing a reliable access to ICT infrastructure was found to be an essential fundamental task of the government, which needed to be properly carried out in order to support smooth implementation of E-Syariah. Good and reliable ICT infrastructure enables Syariah court offices to efficiently work together, retrieve, exchange and share information. According to the previous studies (Ang et al., 2001, Chen and Gant, 2001, Chircu and Lee, 2005, Ebrahim and Irani, 2005, Kaliannan et al., 2007, Kaliannan and Awang, 2008a), ICT infrastructure relates to the complexity of existing hardware and software available within an organization, to the reliability of communication and network system, and to the degree of formalization of

system development. In this study, all interviewees admitted that the task of developing a robust and reliable technological infrastructure would build an effective E-Syariah system. This finding supports the conclusions of both Escobar (2007) and Obi (2007), who said that those countries focusing on meeting the technical requirements of e-government will move quicker and easier towards achieving a successful e-government implementation.

This study indicated that the success of E-Syariah was reliant upon the state of quality ICT infrastructure at the court offices in order to efficiently perform online judicial tasks using the system. It was found that reliable technological infrastructure at the court offices enabled judicial staff to carry out their tasks efficiently, thus, promoting good governance in the delivery of judicial service to the public. This is consistent with Gichoya's (2005) study, stating that for a government to improve the efficiency of its internal administration and to relocate its services from the main office to locations that are closer to the public, it requires a good quality technological infrastructure that has a large bandwidth and provide affordable access to them.

Kamal (2006) describes that access to sufficient equipment and to the available ICT skill of individual were key determinants that can either facilitate or limit the introduction of new technologies in organizations. The government organization must provide adequate ICT equipments to its staff, so that, they can perform their roles and accomplish their works efficiently.

Thus, any government organization that is lacking in terms of the quantity of ICT equipments will not be able to serve its public well, as its services will likely be of a low standard and often delayed. That was the problem at the beginning of E-Syariah implementation as described in the case, which later resolved with good supply of ICT equipments that match the needs of the court offices. Similar finding was noted by Newcomer and Caudle (1991) who argued that access to adequate ICT equipments in organizations is a major determinant for the successful implementation of ICT projects.

Furthermore, providing good technological infrastructure including networks and equipments, was considered by the top management as necessary to provide good ICT capability and enhance the reform of government processes. It was found that top management has allocated and distributed enough ICT resources to the judicial staff with an objective of providing good ICT capability in the staff enabling them to deliver efficient and effective judicial services. This resonates findings indicated in the literature (Chen and Gant, 2001, Chwelos et al., 2001, Kamal, 2006) that the levels of ICT capability affected the successful implementation of e-government initiatives.

Therefore, nationwide nature of E-Syariah requires a standard ICT infrastructure. The task to fulfill this need must be given priority as it enables effective communication between the court offices, and with different other government agencies, as well as accomplish judicial processes to be best

possible way. Failing in its task to provide infrastructure impedes the implementation of e-government initiatives (Sharifi and Zarei, 2004, Basu, 2004).

7.1.2.3 Developing ICT skills and knowledge among staff

The case clearly highlighted that staff's ICT skills and knowledge was the primary concern of the government, which in turn, making the task of developing the skills critical for the successful implementation of E-Syariah. This finding is very consistent with previous studies in e-government literature (Ndou, 2004, Basu, 2004, Dada, 2006, Kamal, 2006, Chen et al., 2006, Hossan et al., 2006, Carr and Gannon-Leary, 2007, Weerakkody et al., 2009, El-Haddadeh et al., 2010, Al-Busaidy, 2010), suggesting that government sector with staff who are well-equipped and well-trained with ICT skills and knowledge are better prepared to deal with e-government initiatives. In this sense, level of ICT competency among staff should be equipped with necessary skill, knowledge and resources to deliver needed services at the point of contact (Mohan and Raja Yaacob, 2004). Ebrahim and Irani (2005) support this, stating that it is necessary for staff to learn, improve and update their ICT skills in order to carry out their ICT-enabled tasks precisely and efficiently.

In the context of E-Syariah implementation, staffing was perceived as an essential element in implementing the system. The top management realized each judicial staff at the court offices was important to efficiently operate E-Syariah in accomplishing their tasks. Further, they noted that staff with good ICT skill and knowledge has a better "technology readiness" level to embrace E-Syariah in their works. "Technology readiness" was termed by Parasuraman (Parasuraman, 2000) as "…people's propensity to embrace and use new technologies for accomplishing goals in home life and at work". In this view, JKSM and INTAN worked together in order to provide structured ICT training programme with an aim to improve staff ICT skills. Through the training, it was later observed that level of staff ICT skills and knowledge have increased which subsequently changed their attitudes towards using ICT in accomplishing work processes at the court offices. This shows that acceptance and understanding of judicial staff are important for the implementation of E-Syariah, supporting an earlier study of Tseng et al. (2008) who found that during the implementation of new technological innovation, the technological understanding and acceptance of staff must be employed to strengthen the desired image of e-government.

In this study, all interviewees argued that the strategic task of developing ICT skill and knowledge was a key factor in the success of E-Syariah. This finding conforms to studies of Chen et al. (2006), Ndou (2004) and Basu (2004), suggesting that low level of ICT literacy complicates e-government

initiatives due to the lack of ICT skills and knowledge among staff. The studies argued that government leaders must provide sufficient and good ICT training in order to overhaul the said problem by producing qualified-ICT government officials. The success of E-Syariah was attributable to this key implementation task of government.

Moreover, this study highlighted that technological acceptance and the advanced level of ICT understanding of the judicial staff were significant for the implementation of E-Syariah, confirming a previous study by Dargham and Anthony (2000), who said that improving ICT skills and knowledge among the government officials has been a critical issue in Malaysia. They further argued that inadequate levels of ICT skills and knowledge coupled with insufficient training are an obstacle for the successful implementation of the e-government initiative in the country. Indeed, lack of adequately trained staff was one of the main critical failure factors of e-government implementation (Best and Kumar, 2008).

It was notified that JKSM worked with INTAN in order to continuously support the never-ending needs for ICT skills and knowledge among the staff. In addition to the dynamic nature of ICT, the constant process of employing new government officials into this sector could explain the reason of the need for continuous training programme. This supports the claim made by Beaumaster (2002) that training is complex, and for the training to

be effective it must be a continuous and ongoing process. For this reason, the task of developing ICT skill and knowledge should be perceived as critical in order to make sure the smooth implementation of e-government initiatives.

7.1.2.4 Monitoring and evaluating performance of E-Syariah

This research found that the implementation of E-Syariah was regularly monitored and evaluated because the top management believed that such task would enable them to get feedbacks on the impacts of E-Syariah towards accomplishment of judicial tasks at the court offices. Further, it helped to identify potential challenges and problems, and to ascertain strengths and weaknesses associated to the implementation of E-Syariah. This provides support to the existing literature (Kunstelj and Vintar, 2004, Peters et al., 2004, Irani et al., 2005), which argued that the task of monitoring and evaluating e-governments implementation has become an important or even essential activity in the development and implementation of e-governments.

The task is argued to be more pertinent in the context of nationwide implementation of E-Syariah. The top management believed that the success of the E-Syariah could be delayed without proper monitoring and efficient evaluating activities. This supports Bhatnagar's (2004) work that

suggested the task of evaluating e-government was one of the strategies for successful implementation of country-wide e-government initiatives. Considering that E-Syariah is a relatively new e-government initiative in the context of Malaysia, monitoring and evaluating task is seen to be critical in order to ensure that its success will not be interrupted.

7.1.2.5 Regulating and enforcing laws and policies

The case informed that laws and policy played a vital role in the implementation of E-Syariah, which helped to facilitate the smooth implementation at the court offices. Availability of good legal framework has an enormous impact in facilitating e-government implementation and improving governance (Basu, 2004). In this context, JKSM explained that E-Syariah was derived from and couched in the National ICT Policy which aimed at increasing the effectiveness of and improving the delivery of Syariah judicial service through the strategic of ICT. As the lead agency, top management of JKSM mentioned that they have to make sure that institutional ICT policy of the court offices aligned to the National ICT Policy. This practice is in line with the strategic approach of e-government initiatives in which the process of regulating of laws and policies are centrally coordinated by the higher authority in the government in order to facilitate the smooth implementation of e-government systems (Lee et al., 2005).

Laws and policies have always been perceived as an important driver of e-government. Ho and Ni (Ho and Ni, 2004) stressed that the entire process of e-government implementation requires a clear description of policy, structure and responsibilities. This study of E-Syariah at the Syariah court offices informs firstly, that the initiative was the outcome of the government's aim to improve the delivery of Syariah judicial service and driven by the National ICT Policy; and secondly, that the specific policy for E-Syariah was centrally coordinated by JKSM; and lastly, the commitment of the top management (i.e. policy administrators) in aligning institutional policy of the court offices with the national policy. Due to the nature of nationwide E-Syariah implementation, this task of regulating laws and policies by the central government is necessary in order to avoid any conflict, which can impede the successful e-government initiatives (Kuk, 2003). Ciborra and Navarra (2005) also asserted that the planning for e-government policy could be a principal mechanism for achieving objectives of e-government initiatives.

Furthermore, this study also suggested that the regulatory framework was influential in encouraging the judicial staff to adapt to these new ICT-enabled judicial processes. The top management at the court offices asserted that the development of appropriate regulatory framework has provided a and supportive environment for E-Syariah to be successful. Confirming to studies by Basu's (2004) and Chen et al.'s (2007) that regulating legal environment is feasible to increase the use of e-government systems, especially in the

context of developing countries where resistance among the government officials to turn off traditional methods of working and learn new ones are relatively high. Moreover, this finding provides more evidence to support Bhatnagar's (2004) work that introducing certain mandatory procedures and strict enforcement of policies helps to increase the usage of e-government system.

7.1.2.6 Establishing ICT strategies and planning

The case revealed that development of technological and human infrastructures were the focal points for the government's effort to establish good strategies and planning for E-Syariah implementation. This is taken to suggest that technology and human factors are the critical elements that can either facilitate or impede the implementation of e-government initiatives in developing countries. In this context, Chen et al. (2006) argued that lack of ICT infrastructure and lack of ICT skill were the commonly cited factors for the problematic implementation of e-government, which must be properly managed through well-informed planning and clearly-defined strategies.

Likewise the process of regulating policies, the task of establishing strategies and plans for E-Syariah were jointly performed by several government agencies, in particular JKSM, MAMPU, INTAN and management of Syariah court offices at the state level. The interviewees admitted that the

collaborative effort was a good approach, as it helped the agencies to align the strategies and plans. As a result, the agencies were able to produce a standard set of strategies and planning to be adopted by the court offices. This approach has also been a useful practice as explained by Weerakkody et al. (2008) in their study that aligning between central and local government plans and strategies has been among the strategic tasks of the UK and Norwegian governments in supporting their successful e-government initiatives. The fact that E-Syariah is relatively a new e-government initiative in the country, the need for clearly-defined strategies and well-informed planning is important in order to support the smooth and successful implementation of E-Syariah.

7.2 WHAT ARE THE ENABLERS FOR ALIGNMENT BETWEEN ORGANIZATION, TECHNOLOGY AND HUMAN FACTORS ?

In this section, discussion on the enablers for the organization – technology – human dimensions is presented. Based on the empirical findings of case study, government's key implementation tasks are attributable to the establishment of alignment for the three dimensions (Table 6.1).

7.2.1 Organization – Human Dimension

The establishment of alignment for organization – human dimension is facilitated by two enablers; *inculcating inner-connection to Islamic values among the staff* and *regulating laws and policies*.

The enabling role of the effort to inculcate inner-connection to Islamic values is very much relevant to this context of this study. Having awareness of Islamic values, particularly relating to the concept of working, is of great importance in order to shape individual's understanding and perception towards his/her job in an organization. In Islam, an employee is expected to perform the job conscientiously and diligently, and be honest and trustworthy (Chapra, 1983).

Based on the Islamic awareness, judicial staff at the court offices established a perception that they are "divinely" responsible to support the organizational objectives and processes of Syariah court offices. Therefore, it can be argued that this "divinely-based enabler" influences attitude, commitment and competitiveness at work place among the judicial staff. This could be explained by previous studies (Arslan, 2001, Yousef, 2001, Rokhman, 2010) indicating that religious motives had an important impact of business, and ultimately contributes to hard work, commitment, dedication and

competitiveness. These attributes have motivated the judicial staff to support organizational processes and objectives of the court offices.

The case also informs that support of judicial staff towards organizational processes and objectives is enabled by related policies and laws regulated by the government. Policies and laws regulated by the government provided judicial staff with a clear understanding of the mission of government in adopting and implementing E-Syariah. In addition, the judicial staff has been exposed to Islamic values in several government policies such as Inculcation of Islamic Values in Administration and *Islam Hadhari*. As indicated in the previous paragraph, the effort to inculcate inner-connection to Islamic values – even in regulating policies – is viewed to be significant as it can help to "sacredly" motivate and encourage the judicial staff to support objectives and processes of the court offices.

7.2.2 Human – Technology Dimension

The establishment of alignment for human – technology dimension is facilitated by five key implementation tasks. The concentration of the enablers for this dimension could be explained by the fact that human and technological-related factors are the most cited challenges for the implementation of e-government in developing countries (Ndou, 2004, Dada, 2006, Al-Saber et al., 2007, Chen et al., 2007, Furuholt and Wahid, 2008,

Shin et al., 2008, Al-Fakhri et al., 2008). Chen et al. (2006) argue that having problem with these two factors contribute to the widening gap between developed and developing countries.

The case has demonstrated the importance of having the right staff's attitude, willingness, skills and knowledge in order to establish alignment for this dimension. This relates to three enablers namely *developing ICT skill and knowledge*, *instilling values of ICT* and *inculcating inner-connection to Islamic values among the staff*. This can be seen from the use of E-Syariah, which was primarily driven by both; the awareness of ICT values and sacred values among the judicial staff, as well as their willingness to learn and update themselves with necessary ICT skill and knowledge provided through trainings. Previous studies (Scott-Morton, 1991, Henderson and Venkatraman, 1999, Luftman et al., 1999, Reich and Benbasat, 2000, Pollalis, 2003, Corea, 2007) have highlighted "people issues" as one of the main aspects or components which needs to be aligned for effective organizational performance.

In general, these three enablers possess the government's efforts to change the nature of people feeling, attitude and perception – previously linked to the notion of *habitus* in Section 7.1.1.1.(Bourdieu, 1984). Providing well-structured training was found to create confidence among the judicial staff to use E-Syariah in accomplishing their routines at the court offices. This can

support Corea's (2007) finding that the establishment of alignment between staff roles and technology places a great deal on significant amount of learning activity and behavioral adjustment among staff member in organizations. Moreover, efficient ICT training session has been identified as the enabler that positively affecting fit between individual and technology in the implementation computer-based nursing process documentation at University Hospital of Heidelberg (Ammenwerth et al., 2006). This entails that investing in training programme is significance as it can contribute to positive effects on the alignment of technology – human dimension.

Moreover, the task of instilling the ICT value is also argued to facilitate alignment for this dimension as it entails effort of positively changing the attitude or perception of the judicial staff towards the potentials of using E-Syariah. It was observed that their attitudes and perceptions have changed, and the judicial staff started to operate the system in accomplishing their judicial tasks. Bruce (1998) asserts that developing solid understanding of the value of ICT as one the roles and responsibilities of enterprise executives in order to maximize strategic value of ICT in organization. In addition, the significant of the attitudes of organizational members to ICT is noted as one of the issues that may hinder alignment (Earl, 1989, Campbell et al., 2005). Lack of awareness or belief in the potentials of ICT in solving important business problem is perceived as one of the challenges for alignment (Baets, 1996). In order to increase alignment, Kearns and Lederer

(2000, 2003) argue the need for organizational members to be educated and informed with knowledge about the benefits of ICT.

It is interesting to note from this study that inculcating inner-connection to Islamic values has also enabled the use of E-Syariah by the judicial staff. Based on the case study, “sacred” awareness among the judicial staff seemed to motivate them to operate E-Syariah. Ammenwerth et al. (2006) mentioned about establishing high motivation among users may positively influence fit for individual – technology dimension. This enabler is argued to have an important impact in the context of this study as religious awareness can be a potent enabler influencing attitudes and motivation of the staff towards the use of E-Syariah.

Moreover, provision of sufficient funding is also found to shape alignment for this dimension. Luftman et al. (1999) list budgeting problem as one of the inhibitors of alignment in their study. This was attributed to the fact that availability of financial assistance helped the government to carry out two critical efforts namely building ICT infrastructure and conducting training. Thus, effective management of financial allocation is important in order to support the development of technological infrastructure and staff competency; two primary components that need to be aligned for improved organizational performance. In this context, managing IT budget is critical in supporting the establishment of alignment. Tallon et al. (2000) argue that

managing ICT investment is crucial to seek alignment prudently with an eye on the business case to justify ICT spending. It is also mentioned that it is important to avoid from choosing potentially problematic and costly transition paths in managing organizations' ICT resources (Hirschheim and Sabherwal, 2001).

The key implementation task of developing reliable ICT infrastructure is also perceived to enabling alignment for this dimension. Having reliable ICT infrastructure is pertinent to the implementation of E-Syariah. In particular, it relates to the quality and performance of network and availability of sufficient number of computers at the court offices. The case indicated that these infrastructural related issues influence acceptance and satisfaction of judicial staff to use E-Syariah. In another word, the task of providing good technological infrastructure narrows down the "gap" between judicial staff and E-Syariah, which in turn, facilitating fit between these two components. Quality of information technology has not only reducing anxiety and fear of an individual, but has also strongly affected his/her attitude toward the use of technology (Henderson et al., 1995). In relation, Brown and Magill (1994) assert that satisfaction with technology is an influential antecedent to the establishment of alignment in organizations. Therefore, the enabling role of developing reliable ICT infrastructure for the establishment of alignment in this dimension provides an evident to support a more general claim that it is an important factor affecting a firm's competitive advantage.

7.2.3 Technology – Organization Dimension

Three government's key implementation tasks were found to enable alignment for this dimension. They are *forming ICT strategies and planning, monitoring and evaluating the E-Syariah performance* and *establishing collaborative relationships between government agencies through central coordination approach*.

This technology – organization dimension can be discussed in the context strategic dimension (Chan and Reich, 2007) or intellectual dimension of alignment (Reich and Benbasat, 2000). In these dimensions, alignment is referred to as the degree to which the business strategy and plan (organization), and the ICT strategy and plan (technology) complement each other.

The process of the *formulation of ICT strategies and planning* between the government agencies was found to facilitate the judiciary planning to be matched with the national ICT strategy and planning. This reflects the notion of good alignment which is termed as the state in which business strategies and plans are congruent to ICT strategies and plans (Henderson and Venkatraman, 1993, Lederer and Mendelow, 1989, Reich and Benbasat, 1996, Hirschheim and Sabherwal, 2001, Chan, 2002). The case also also informed close interaction and communication between JKSM and MAMPU

in performing the task has stimulated mutual understanding of each others' area of expertise. Campbell (2005) and Reich and Benbasat (2000) noted that communication is critical antecedent for alignment as it is often associated with understanding that in turn increased locus of comprehension. In relation, many studies (Feeny et al., 1992, Reich and Benbasat, 1996, 2000, Luftman et al., 1999, Teo and Ang, 1999, Burn and Szeto, 2000, Campbell et al., 2005) have widely cited the enabling role of mutual or shared understanding of each other knowledge towards the establishment of alignment in organizations. Further, it was also informed that the process of formulating the strategies and planning involved both administrative/managerial staff and personnel from ICT/technical units. The finding supports the statement by Chan et al. (2006) that involvement of personnel from different area of expertise stimulates improved shared knowledge, which ultimately contributes to alignment.

The above discussion could also be related to the enabling role of e*stablishing collaborative relationships between government agencies through central coordination practice.* Collaborative relationships between the relevant government agencies (e.g. JKSM, MAMPU, MCMC and INTAN) need to be properly coordinated in order to ensure their smooth operations. This signifies the need for a strong leadership in order to coordinate managers coming from these different agencies. As the lead agency for E-Syariah initiative, JKSM took the role of leadership in managing its

collaborative relationships with the agencies. Strong leadership supports successful alignment (Baker, 2004). Furthermore, he explains that managers in firms with collaborative and decisive leadership possess a higher level of alignment in which the firm's ICT strategy is well aligned with business strategy.

The third enabler (i.e. monitoring and evaluating E-Syariah performance) is significant as it helps to ensure that ICT processes, objectives, strategies and plans are consistently aligned to changes happened in the organizational environment. In the context of this study, continuous enhancement has been done to E-Syariah (e.g. E-Syariah v1 to E-Syariah v2). The ICT managers need to make sure that such enhancement will fit to the judicial processes, strategies and plans of the court offices. This finding echoes result from a study by Sledgianowski and Luftman (2005) that ICT should adapt and improvise in order to bring value to the firm and meet key strategic objectives. Further, it aligns to the suggestion made by Venkatraman et al. (1993) that managers should continuously re-evaluate and re-adjust strategic alignment in response to changes in their organizational environment. Burn (1997) analogizes IT management to walking on a tightrope which balances ICT innovation and business transformation simultaneously.

Therefore, management of alignment can be regarded as a dynamic task, reflecting that alignment is in need for continual calibration due to constant changes happened in the environment. This research acknowledges and positions itself in the processual view of IT alignment. This appears to support findings of those who have emphasized that alignment is a process rather than an end state (MacDonalds, 1991, Baets, 1996, Rondinelli et al., 2001, Hirschheim and Sabherwal, 2001, Sabherwal et al., 2001, Sledgianowski and Luftman, 2004, 2005, Corea, 2007). These studies are of the opinion that managing specific organizational components must be continually adjusted in order to keep the organization moving towards the state of alignment.

7.3 HOW E-SYARIAH INFLUENCES GOOD GOVERNANCE IN THE DELIVERY OF JUDICIAL SERVICE AT SYARIAH COURT OFFICES?

Having identified enablers for the three dimensions of alignment, this section attempts to show the implications of successfully aligning the organization, technology and human factors towards good governance in the delivery of judicial service by the Syariah court offices. In general, the quest to implement e-government system is motivated by the objectives of good governance such as increased efficiency, effectiveness, transparency, information quality and improved interaction mechanisms. On the same vein,

Ciborra and Navarra (2005) assert that innovations and reforms in the governments are an important requirement for good governance in the delivery of public service. Adopting from UNDP's (1997) set of attributes of good governance, Kettani et al. (2008) elaborate that good governance can be regarded as "requiring transparent, accountable, efficient and effective, and responsive governmental structures which operate according to principles of equity and that abide by promulgated laws and/or regulation while enabling the involvement and empowerment of citizens so as to actively participate in a country's affairs in a way which facilitates and is responsible to social consensus and a shared strategic vision to the country's development".

This study indicates that E-Syariah has significantly contributed to the reform process of the administration of Syariah judicial service at the court offices. This judicial reform has typically involved tasks of improving the administration of the court offices, strengthening the management of judicial procedures, upgrading the physical facilities of the courts, producing well-equipped staff and expanding access to justice for stakeholders. These "well-rounded" efforts manifest that judicial reform needs interventions associated with organization, technology and people in order to realize the attributes of good governance in delivery of service.

Several attributes of good governance can be seen in the case of E-Syariah implementation at the Syariah court offices. E-Syariah was found to successfully improve the delivery of Syariah judicial service in this country; manifesting three identified attributes of good governance namely *efficiency and effectiveness, transparency,* and *empowerment*. These attributes inform positive changes happened to the way of how judicial services are delivered by the court offices. These changes in a way that make good governance a reality (Hackney et al., 2008).

7.3.1 Efficiency and effectiveness

Previous studies in the literature have greatly drawn attention to potential impact of ICT-enabled processes towards the realization of efficiency and effectiveness in the delivery of public services (Heeks, 2001, Heinrich, 2002, Boyne, 2003, Karim, 2003, Kraemer and King, 2003, Asgarkhani, 2005, Ciborra, 2005, Grönlund et al., 2006, Hackney et al., 2007, Kettani et al., 2008, Al-Busaidy, 2010) .According to UNDP's (1997) Nine Underlying Attributes of Good Governance, the meaning of efficiency and effectiveness are quoted as "processes and institutions produce results that meet needs while making the best use of resources". The case shows that E-Syariah has significantly improved the administration and management of Syariah judicial processes at the court offices. E-Syariah has automated judicial processes and enhanced the management of judiciary system. The ICT-enabled judicial

system collects, organizes, processes, stores and distributes essential case details within the court environment and makes the related information accessible for public. Ability to integrate these judicial processes with ICT has been put up as an evident for the successful use of ICT in judicial reform (Malik, 2002, Kelly and Tastle, 2004, Sze, 2004, Lodder et al., 2004, Hagedal, 2004, Fabri, 2004, Reiling, 2006)

Moreover, E-Syariah enables judicial staff managing flow of cases which includes functions like case filing, case tracking, case retrieval and case scheduling. In particular, it helps judicial staff to improve the efficiency and effectiveness of back office operations of the court offices such as avoiding from repetitive tasks of data entry and monitoring case settlements. Further, E-Syariah has also enhanced the way of how interaction and communication were carried out between court offices and other stakeholders of E-Syariah (e.g. lawyers, litigants, public etc.). It shows that E-Syariah has also efficiently transformed judicial services delivered at the front office. For example, various related information are accessible through E-Syariah portal. This provides an evident to support the earlier notion of good governance addressed by Kettani et al. (2008) that a successful implementation of e-government can be used as a means for the realization of good governance because it changes both the back office (government internal operations and relations) and the front office (government relations with citizens and other external stakeholders).

Furthermore, E-Syariah has significantly simplified judicial procedures and reformed processes at the court offices, thus promoting efficient and effective delivery of judicial service. It has been noted by the interviewees that reforming of judicial work processes improved work productivity and changed the way judicial staff accomplished their tasks at the court offices. In addition, external stakeholders (e.g. Syarie's lawyers) could have a better access to legal information and resources offered by the court offices. This suggests that reform of judicial processes using E-Syariah at the court offices contributes to a more convenient access to Syariah judicial services for the stakeholders. The similar finding was concluded by S-Haghighi (2007) in his study on e-government in Iran, that the development and implementation of e-government system can transform the quality of public services, improve cost efficiency, as well as facilitate convenient and effective access to e-government services for both citizens and public agencies.

In relation, success of public sector reform should be viewed as not only providing support for front office service delivery, but more importantly, enabling change in the nature of human involvement in the service (Voss, 2000). This may explain the nature of government's key implementation tasks that focusing not only technological-related initiative, but also making quite an effort to manage issues related to human such as facilitating judicial staff with necessary ICT skills and knowledge, instilling their awareness on

the value of ICT and inculcating inner-connection to sacred values; which have significantly contributed to the willingness of judicial staff to use E-Syariah.

The effects of inefficient judicial processes at the court were detrimental. It was informed that inefficiency in managing the judicial processes had caused backlog of court cases which indirectly tarnished the image of Syariah judicial system in the country. This problem was later resolved with the implementation of E-Syariah. Similar incident was highlighted by Sze (2004), inefficient judicial service delivery of Singaporean courts contributed to thousands of cases clogged up in the court system. As a result, public confidence in the judiciary system was undermined. Later, the Singaporean courts adopted case management system, which was found to improve the delivery of judicial service in the country. Similar stories of the successful integration of ICT in judiciary systems were also mentioned by Hagedal (2004) in Norwegian courts, Lodder et al. (2004) in Netherlands and Fabri (2004) in Italy. In short, ICT plays an important part in improving the delivery of judicial services, which can consequently help in bringing about effective and efficient administration of judiciary system.

7.3.2 Transparency

Transparency is simply defined as the degree of information being made available. Eschenfelder (2004) state that disseminating government

information (e.g. its activities, policies, decisions) on the web has the potential to increase governmental transparency, educate the public about government activity and boost economic development. Therefore, a government is transparent when the great majority of the information is accessible for the relevant stakeholders. As indicated in the preceding chapter, transparency is another attribute of good governance that could be seen from the implementation of E-Syariah at the court offices.

The application of Syariah Case Management has made some legal information available and accessible to relevant stakeholders. For example, court administrator could effectively schedule the hearing of cases when they could view the timetables of Syarie' judges; and litigants were provided with information about court procedures and practices of Syariah judiciary. Moreover, details of registered Syarie' lawyers were also made available online for the public through E-Syariah portal. This supports the statement of Ndou's (2004) study that availability of diversity of information and publication relating to the activities of public administration increases the level of transparency in the delivery of government services.

In addition, E-Syariah portal also provides various relevant information such as policies, rules, decisions, procedures and legal documentation. Making these information accessible for E-Syariah stakeholders can help them to efficiently accomplish their respective judicial tasks. It holds up the statement

that e-government has the potential to improve public service delivery towards transparency, accountability, promote collaborative and joint-up administrations in which other stakeholders in the government environment can access services through portals or “one-stop-shops” (Bwalya, 2009). On analyzing the impacts of e-government on administrative reform, Kraemer and King (2003) suggest that open access to stakeholders within and outside of the government’s environment could potentially contribute to the reform.

E-government needs to focus on making the entire process of decision making more transparent (Bhatnagar, 2002). He mentioned that computerized workflow enabled transparency because both public and government officials have the capacity to track information and follow progress of any application as they move from one work station to another. Through the application of Syariah Case Management, public and Syarie’ lawyers could keep track status of the filed cases online, which in turn, indicated a call for more active participation of external stakeholders into planning and administrative activities of the government itself (Kraemer and King, 2003).

Furthermore, Marche and McNiven (2003) said that one of the most ostensible impacts of e-government is the way it can enhance government operational transparency and responsiveness to the needs and desires of

the public. In this context of E-Syariah, it provides public with the opportunity to track the progress of their applications or requests through its online functionalities. Through online information of judicial procedures, for example, the public able to know how long it takes for each of the steps in a judicial process to be accomplished, who in the administration had responsibility for each step, and who might be contacted for consultation or enquiry. Such capabilities might conceivably affect management practices at the court offices significantly, while at the same time increase transparency and accountability. Transparency of administrative procedures is not only delivering enhanced value from administration of public sector, but also enabling and managing increased speed of reflexivity in their relationship with the public (Zipf, 2001, Marche and McNiven, 2003).

Another example of transparency in the delivery of Syariah judicial service is the convenient access for resources and legal documentation by Syarie' judges. Retrieving of court decisions can be conveniently done through centralized database system; and the Library Management System of E-Syariah enables access for various religious resources and legal information, which in turn, helps the judges to efficiently improve their judicial or adjudication works at the courts. Putting these information and documents on the court network promotes transparency in the judicial process as it gives access to all other relevant stakeholders at the same time (Reiling, 2006). In relation, Malik (2002) stated database of court decisions and

legislations are the most common and the fastest growing application for judges in order to facilitate the process of judicial reform. This can also be linked to the need of having a good record keeping system as it is of particular significance to public sector reform (Cain, 1999)

7.3.3 Empowerment

The use of E-Syariah has promoted the value of “empowerment” among the stakeholders. Empowerment is referred as transferring power, authority and resources for processes from their existing locus to new locations (Heeks, 2001). The case study informed that the system has empowered, for example, judicial staff to carry out some activities that were previously could only be determined by higher management at the court offices. Using Syariah Case Management, court administrators was able schedule hearing session for cases which the same task could only be accomplished by Registrar or Assistant Registrar before. Relocating the task down to a lower level of management of the court office was found to increase the speed of processes and decision making which in turn, leading to improved performance of the Syariah court offices. This supports Ciborra and Navarra’s (2005) study indicating that e-government system requires the re-organization of government processes to overcome difficulties in staff operations and the administrative processes.

Further, Syarie' lawyers could register themselves to the court offices through Syarie Lawyer Registration application. Then, details about these registered Syarie' lawyers were made available for the public through E-Syariah portal. These ICT-enabled processes have not only replaced the manual practices of Syariah judicial system, but also empowered relationship between Syarie' lawyers, court offices and the public. In addition, the case reported that it enhanced direct communication for Syariah legal consultation by the public, leading to the elimination of middle person (i.e. judicial staff) in the Syariah judicial service delivery which generally contributed to the improved performance of the court offices.

Furthermore, this judicial reform has resulted in the relocation of several judicial processes from back office to the front office operations. For example, Syarie' lawyers could keep track of the "movement" of filed cases through Syariah Case Management application, which was previously the judicial task carried out by staff at the back office. Moreover, public could also perform online registration of the court cases by themselves without going to the court offices. These empowering practices signify the analytical explanation that e-government contributes to the shift of governance structures from back-end government administration to front-end government services (Madon, 2006).

This view is also highlighted by Bhatnagar (2000) who argues that the impact of two computerization projects in India (i.e. CRISP and DISNIC) had been trivial due to “task of changing the administrative culture is enormous”. These arguments may be used to support the strategic process of E-Syariah implementation that generally went through two main phases known as E-Syariah v1 and E-Syariah v2. The former particularly focused on providing functionalities to improve judicial tasks and processes at back office. Later, the management extended the functionalities of the system, whereby, E-Syariah v2 was released with new features to support judicial services offered by the front office of the courts. This can be seen from the applications of E-Syariah that provide functionalities enabling a better judicial processes and activities at both ends – front and back offices.

Moreover, the litigants are allowed to make their preference on the location of the hearing session for the filed cases, however, the final decisions and approvals are still dependent upon the administrative processes at the court offices. The court administrators monitor and review the requests in order to make sure that the hearing sessions are efficiently distributed to the available court offices. While E-Syariah empowers the litigants with services delivered through front office applications, back office administrative processes play a significant role in ensuring the overall efficient delivery of judicial service. This finding provides support to Madon’s (2006) study that front office applications providing government services to the public are

dependent on the efficient back office administrative systems, and thus, both must be given an equal consideration.

Subordinating the process of decision making and granting information access to more localized levels of the public sector, and even down to the public may be seen as decentralization (Heeks, 2001). E-government has great potentials to enhance decentralization reform of administration by bringing decision making closer to the doorsteps of ordinary citizens (Kraemer and King, 2003, Tassabehji and Elliman, 2006). In this study, the litigants could decide on the preference of court (i.e. location) for hearing session that is of convenience for them. This functionality of E-Syariah enables participation of the public in decision making of judicial processes at the court offices. Increased interaction between government and citizens encourages citizens to be more participative, which in turn, allows the government to be more responsive (Yong and Koon, 2003). Further, they avow that it is important for e-government to continuously improve the interactions of the government and its stakeholders, so as to stimulate political, economic and social development of the society.

Achieving good governance in judicial system is essential as lacking of its attributes (i.e. efficiency, effectiveness, empowerment and transparency in the context of this study) in the administration and management of justice erodes public confidence towards this critical institution of government

(Costake, 2001, Malik, 2002, Fabri, 2004, Sze, 2004, Bhatt, 2005, Reiling, 2006, Rottman et al., 2007). In the context of E-Syariah, efficient administration for improved delivery of Syariah judicial service is pertinent considering that 60% of the Malaysian are Muslims. Shuaib (2008) highlights that strengthening administrative institutions of Islamic law can contribute to improved delivery of Syariah judicial services. The efforts, one of them, could be attributed to the E-Syariah initiative which has significantly contributed to achieving the objective. This is important as Syariah judiciary system is necessary for the prosperity and development of the nation as it aims to secure human happiness, protect the rights of the oppressed and contain the oppressor. In another word, it is a way to resolve disputes and ensure human rights which reflects the noble vision of Islam as a religion (Al-Ashqar, 1982).

Finding of this study suggests that the implementation of E-Syariah significantly influence good governance in the delivery of judicial service at Syariah court offices. Hence, it appears to provide more evidences to support the existing literature on the impacts of e-government initiatives towards the performance of governments particularly in the context of Malaysia as a developing country.

7.4 CONCLUSION

In this chapter, discussion on the successful implementation of E-Syariah at the court offices is presented. First, it discusses government's key implementation tasks that are perceived to contribute to the successful implementation. Nine government's key implementation tasks are discussed in the light of existing literature. It provides an insight into the e-government field of study in two ways. First, it improves understanding on the significant roles of government's key implementation tasks in managing the implementation of e-government initiatives. Second, it provides an understanding of how these key tasks enable the establishment of alignment between organization, technology and human factor in the context of study. This finding is significant as it extends the theoretical underpinning of the concept of alignment. Finally, discussion on the implications of E-Syariah towards good governance in the delivery of judicial services is presented in the light of three attributes namely efficiency and effectiveness, transparency and empowerment.

In the next chapter, conclusions of this thesis will be presented.

CHAPTER 8

CONCLUSIONS AND IMPLICATIONS

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8. INTRODUCTION

This chapter summarizes the main findings of the thesis and discussion is presented from the theoretical and practical perspective, highlighting possible limitations and future extensions of the study.

It begins with a general summary of the research findings by re-visiting the empirical work in order to answer the research questions (Section 8.1). In the sections that follow, the findings are discussed in terms of their theoretical and practical contributions (Sections 8.2 and 8.3 respectively). The chapter concludes by identifying possible limitations and outlining avenues of future inquiry within this area.

8.1 RESEARCH SUMMARY

This section summarizes the research findings in order to address the main research question for this study; *how government manages alignment in the implementation of e-government (i.e. E-Syariah) for improved delivery of*

judicial service? While addressing this question, answers for the following sub-questions are provided in this study:

i. What are the government's key tasks in the implementation of E-Syariah for improved judicial services delivery at the Syariah court offices in Malaysia?
ii. What are the enablers shaping alignment between the organization, technology and human factors for E-Syariah implementation?
iii. How E-Syariah influences good governance in the delivery of judicial services at Syariah court offices?

From this research, it is found that E-Syariah implementation, which is part of huge MSC project in Malaysia, was driven by aim of the government to improve Syariah judicial service delivery at Syariah court offices in the country. Focus of this study concentrates on an exploration of the roles and responsibilities of government towards the successful implementation of E-Syariah. Using a theoretical framework derived from a selection of previous literature, this study has sought to understand how those key implementation tasks enable alignment between organization, technology and human factors for improved delivery of judicial service. In the sections that follow, answers for each the research questions are discussed in terms of existing knowledge and the contribution of this study's results in furthering understanding in this area of knowledge.

8.1.1 Government's key implementation tasks supporting the successful implementation of E-Syariah

Studies (Yu and Fang, 2005, Zhang et al., 2005, Li, 2005) argue that the strategic roles of the government are essential in facilitating the successful implementation of e-government. In particular, Mofleh et al. (2009) argue that central government has specific roles and tasks that must be performed in order to effectively implement e-government. Failing to carry out necessary tasks have resulted in the arisen of barriers for the implementation (Sharifi and Zarei, 2004, Basu, 2004, Akman et al., 2005). Therefore, central government has an important role in managing the development and implementation of e-government.

These works have provided evidences indicating the influential role of government towards the success of e-government initiatives. This study, which is based on the case study of E-Syariah, has not only provided support for six government's key implementation tasks identified in the existing literature, but also identified three emergent government's key tasks. The influential roles of the six government's key implementation tasks (i.e. provision of funding, developing reliable access to ICT infrastructure, monitoring and evaluating e-government performance, developing ICT skills and knowledge, regulating policies and laws, and forming strategies and

planning for the implementation) in the context of E-Syariah provide more evidences to enrich existing literature of e-government.

The emergent key tasks from this study are *informing ICT values, inculcating inner-connection to Islamic value* and *establishing collaborative relationships between government agencies through central coordination approach*. Two of these newly emerged key implementation tasks (i.e. informing ICT values and inculcating inner-connection to Islamic values) are "human-based effort" which found to be influential in creating awareness and changing perception of users towards the use of e-government. Finding of this study shows that government has to continually focus on informing the staff about the value of ICT in order to create awareness and gain acceptance of ICT to support success of its implementation. It seems to support the finding of Scherlis and Eisenberg (2003) that informed about role of the government to concentrate on the value of ICT in order to stimulate the needs of citizens, businesses and governments to technological systems.

It is also interesting to note the role of religious values in shaping the attitudes of users towards using ICT in organizations. It is pertinent to see effort of the government to establish such attitudes through religious-based approach as Rokhman (2010) found that religious values and motives have important impacts in shaping good attitudes of organizational members such as commitment, dedication and competitiveness. Positive attitudes (e.g.

commitment and dedication) of staff are among the important determinants of successful organizational change (Vakola and Nikolaou, 2005). Viewing it from a more universalistic perspective, the concept of religious values can be extended to fit into the view of sacred values (Atran and Axelrod, 2008). According to them, sacred values are independent of any goal or purpose, and even though the values often have a religious basis, some of them are transcendent (e.g. fairness). Hence, to be considered sacred, it is not necessarily have to be related to religious teachings. Putting in effort to establish inner-connection to Islamic values or sacred values could complement various other available government's key implementation tasks for public administration reform. This finding seems to support statement by Sadat (1978) that "change should take place first at the deeper and perhaps more subtle level that the conscious level…" Policy makers in the government sector should leverage organizational understanding of what makes religious and sacred value so potent force for successful implementation of e-government initiatives.

Furthermore, finding of this study argues that government has the role to establish collaborative relationships between relevant agencies in order to support the smooth implementation of e-government. This appears to support the finding of those previous studies (Jaeger and Thompson, 2003, Kuk, 2003, Ndou, 2004, Chircu and Lee, 2005, Gil-Garcia and Pardo, 2005) that collaborative relationship among individuals or organizations facilitates

the successful implementation of e-government initiatives. In addition, this collaboration needs to be centrally coordinated in order to make sure processes, tasks, activities and planning can be efficiently monitored. Hazlett and Hill (2003) also argue that process of government reforms have been focusing on allotting responsibility and giving more autonomy to organizational units at a lower level, nevertheless, the diversified nature of collaborative relationships requires significant central coordination.

Therefore, the process of decentralizing decision making should be centrally managed and controlled by the central agencies. The finding aligns to Yong and Koon's (2003) work that decentralization in the government reform allows programme implementation activities to be delegated to relatively autonomous agencies while policy making remains in a central agency. Another study by Bhatnagar (2004) states that decentralization in decision making is essential because no external agency can understand kind of change and need of a specific departmental environment, however, it still needs to be supported by a central agency which can provide necessary action to ensure common decisions and policies be adopted by different departments.

8.1.2 Enabling role of government's key implementation tasks towards alignment between organization – technology – human dimensions

According to Crittenden et al. (2004), government agencies will continue to struggle in order to generate appropriate actions and desired outcomes from the strategic use of ICT to support governmental processes until they are able to establish fit between core components of the government. In this regard, evidence provided by the finding of this study seems to suggest that government plays influential roles in managing the inter-dependency and facilitating alignment for organization – technology – human dimensions.

The main thrust of this study is to explore the role of key implementation tasks to the establishment of alignment for these three dimensions. It informs that alignment is respectively enabled by all nine government's key implementation tasks. Majority of them (i.e. five) are found to be the enablers for technology – human dimension. The concentration of enablers for this dimension could be explained by the fact that human and technological-related factors are the most cited challenges for the implementation of e-government in developing countries (Ndou, 2004, Dada, 2006, Al-Saber et al., 2007, Chen et al., 2007, Furuholt and Wahid, 2008, Shin et al., 2008, Al-Fakhri et al., 2008).

In addition, nature of alignment for human-related dimensions (i.e. *technology – human* and *human – organization*) is very much influenced by government's tasks to change perception, mindset and attitude of the user which entails learning activities. This appears to support Corea's (2007) work that the establishment of alignment between staff and technology places a great deal on significant amount of learning activity and behavioral adjustment among staff member in organizations.

Having inner-connection to Islamic values is found to be the only enabler that facilitates alignment for two dimensions; the human-related dimensions. Capability of Islamic values to positively shape perception and attitude of an individual encourages is significant for this context of study; where all staff are Muslim. This is not surprising as prior studies have also confirmed that the power of religious values and belief is influential for shaping good attitudes of people.

Furthermore, the finding demonstrates that the task of managing alignment needs to be performed continuously due to constant changes happened in the environment (i.e. staff turnover or recruitment of new staff). This study, acknowledges and positions itself in the processual view of alignment, which corresponds to the findings of other studies in the literature (Baets, 1992a, Broadbent and Weill, 1993, Henderson and Venkatraman, 1993, Venkatraman et al., 1993, Baets, 1996, Rondinelli et al., 2001)

8.1.3 Implication of improved delivery of public service for good governance

Prior studies have indicated that e-government has transformed government structures, functions, services and processes enabling public organizations to perform managerial tasks and administrative functions more efficiently and effectively to achieve good governance (Heeks and Bhatnagar, 1999, 2001, Snider, 2001, Madon, 2004, 2006, Naz, 2009). On the same vein, finding of this study informs that several attributes of good governance can be observed in the case of judicial service delivery by E-Syariah – efficiency and effectiveness, transparency and empowerment. It introduces more efficiency and effectiveness into the management and administration of judicial processes, facilitates access and exchange of judicial information and increases public participation in judicial activities.

Exploring the notion of good governance in the delivery of judicial service is pertinent because judiciary system has been continually plagued with a few common problems in the form of delays, backlogs of cases, accusations of lack of openness, transparency and predictability in court decisions, limited access to justice and shortage of staff (Kiskis and Petrauskas, 2004, Oskamp et al., 2004, Bhatt, 2005, Reiling, 2006). Strategically using ICT to realize good governance in this critical segment of public sector may increase public's confidence in the justice system

Finding of this study provides support to the existing limited literature on the use of ICT to improve the delivery of judicial service by courts and legal institutions (Costake, 2001, Malik, 2002, Kelly and Tastle, 2004, Oskamp et al., 2004, Bhatt, 2005). Indeed, it can potentially provides a useful model for the way in which e-government initiatives in developing countries can be successfully developed in order to public institutions of good governance.

8.2 RESEARCH IMPLICATIONS

The implications of this study for current and continuing research efforts within this field of research can be divided into theoretical issues and practical issues. Theoretical issues are concerned with the specific implications of the study's findings for existing theory related to the subject matter of study. Practical issues are concerned with contributions that can be helpfully adopted to improve current administrative and managerial practices of public sector.

8.2.1 Theoretical Implications

Many studies (Awang, 2004, Hussein et al., 2007a, Ahmad and Othman, 2007, Ambali and Hashim, 2007, Kaliannan et al., 2007, Selamat et al., 2008, Siddiquee, 2008, Kaur and Noor Rashid, 2008, Kaliannan and Awang, 2008a, 2008b, Kaliannan et al., 2009) on the development and

implementation of e-government have been carried out in the context of Malaysia. Whilst these studies enriched literature on e-government in Malaysia, none of them – to the best of researcher's knowledge – considers roles of government in order to achieve good governance in Malaysian e-government initiatives. The focus of this study to explore the roles of government's key implementation tasks provides an insight into the managing role of government and its contributions towards successful implementation of e-government initiatives.

Furthermore, task of the government in inculcating inner-connection with Islamic values should be taken into consideration. The role of Islamic values seems to have influential impacts towards the uptake of e-government among the users. This study has likened the concept of Islamic values with sacred values in an attempt to bring in more universalistic perspective towards the concept. This promotes a perspective on the incorporation of sacred values in dealing with human-related issues in e-government particularly, and ICT initiatives generally.

Another theoretical implication of this study is evidence of the enabling role of government's key implementation tasks toward the establishment of alignment for the three dimensions in the context of public organizations. Knowing the impacts of specific enablers to these dimensional relationships will facilitate successful alignment in the deployment of e-government

systems for the improvement of public service delivery. This is important as process and nature of alignment in entrepreneur-led firms is suggested to be different from those found in larger bureaucracies and small to medium-sized firms (Chan and Reich, 2007).

Exploring government reform in the delivery of judicial service is pertinent because judiciary system has been continually plagued with a few common problems in the form of delays, backlogs of cases, accusations of lack of openness, transparency and predictability in court decisions, limited access to justice and shortage of staff (Kiskis and Petrauskas, 2004, Oskamp et al., 2004, Bhatt, 2005, Reiling, 2006). Strategically using ICT to realize good governance in this critical segment of public sector may increase public's confidence in the justice system. This study provides support to the existing limited literature on the use of ICT to improve the delivery of judicial service by courts and legal institutions (Costake, 2001, Malik, 2002, Kelly and Tastle, 2004, Oskamp et al., 2004, Bhatt, 2005).

8.2.2 Practical Implications

The research presented in this thesis is highly relevant to the management practice in public sector. It offers the following managerial contributions and lessons for public managers:

Finding of this research may enhance knowledge and understanding of the key implementation tasks of the government in managing factors that shape the implementation of nationwide e-government system. The key tasks identified in this research may guide the government officials in supporting their efforts to achieve alignment in the public sector.

This research provides public managers with a base of evidence for the first step in continuous improvement for the nationwide e-government initiatives. The public manager must regard the inter-dependent relationship between technological, organizational and human-related factors as the focal point in their plans to support the implementation of nationwide e-government initiatives. Alignment needs to be viewed as dynamic and synergy between these factors. They must not only consider either technology, organization or human factors alone as these factors mutually affecting each other.

8.3 LIMITATIONS OF RESEARCH

In appraising the findings of this research, it is important to interpret the results in the light of the following limitations. First, findings of this research are derived from the empirical data gathered at the government offices. Thus, the understanding on the nature of alignment is developed based on the internal or supply-side perspective (i.e. government officials). As e-government systems involve public interaction with the governments,

demand-side explanation on the nature of alignment in the context of e-government may provide further understanding on the theoretical concept of alignment.

Next, the research findings are drawn from an in-depth study of a single nationwide e-government system. Investigating more e-government systems in the study will enable researchers to strengthen the generalizability of the research (Yin, 2003b). Expanding the scope of studies may produce new results for this significant area of study.

Lastly, considering the fact that the national culture of certain countries influences the implementation of e-government systems, conducting similar case studies in different national cultures may reveal new results, unique and tailored to the specific cultures. Thus, conducting more case studies on this area of research across different regions and countries will enable researchers to test the proposed theoretical framework in different cultural settings and will further extend the understanding of alignment.

8.4 SUGGESTIONS FOR FUTURE RESEARCH

Based on the research limitation outlined in the preceding section, a number of suggestions can be proposed for future inquiries within this area of knowledge. First, future studies may use questionnaires or surveys in order

to expand the exploratory knowledge obtained in this study, particularly in investigating the nature of alignment from the demand-side perspectives (i.e. public).

Next, future research can consider investigating multiple e-government systems implemented at different government departments or agencies. Besides strengthening the generalizability of the research findings (Yin, 2003a), new findings may also be produced. This is helpful when deploying and managing future initiatives of nationwide e-government systems.

In addition, the impacts of religious values and sacred values towards the implementation and use of e-government system would be interesting to explore. The potent force of religious and sacred values cannot be ignored as it seems to be the primary key to manage issues pertaining human.

Finally, this study focuses on the implementation of a nationwide e-government system in Malaysia. In order to further study the phenomenon, exploratory studies can be conducted in different countries with different types of government and in diverse cultural settings in order to potentially yield different insights into this area of study.

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APPENDIX A: LIST OF INTERVIEWEES

Category of Staff	Kelantan	JKSM
Top Management Staff	▪ Registrar ▪ Asst. Registrar ▪ Syarie' Judge ▪ Head of IT	▪ Director ▪ Chief Registrar ▪ Head of IT Division
Administrative Staff	▪ Asst. Director ▪ Court Administrator	▪ Asst. Director (Management and Support Service) ▪ Asst. Director (Corporate Communication)
IT Staff	▪ IT Manager (Kota Bharu) ▪ Technician	▪ Asst. Director (IT Division) ▪ Technician