

ENHANCED ADOPTION MODEL FOR COLLABORATIVE KNOWLEDGE
SHARING IN MALAYSIA HALAL FOOD INDUSTRY

SITI ZAKIAH BT MELATU SAMSI

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For my husband – Hiswadi Bin Anuar

For my daughter – Dhiya Hiswaniza Binti Hiswadi

For my son – Muhammad Darwisy Hayyan Bin Hiswadi

For my parents – Allahyarham Melatu Samsi Bin Suhadah and Jurimah Binti Aspan

My supervisor – Associate Professor Dr. Othman bin Ibrahim

My family members

My staff

All my friends

Thanks for the understanding, sacrifices, du'a and support.

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ABSTRACT

Collaborative Knowledge Sharing (CKS) is one of the strategies that enable organisations to work together with their internal and external stakeholders. It enables the achievement of common objectives which in turn improves organisational performance. Accordingly, via qualitative phenomenology, this research has explored the ways by which a Halal food organisation adopted CKS. The approach entailed explorations of the CKS practices of respondents' from one of the main players in the Malaysian Halal food industry which findings contribute to the enhancement of CKS adoption model for the industry. Purposive sampling was employed to recruit the respondents, who consisted of staff from different management levels. Semi-structured face-to-face and over-the-phone interviews have been conducted to collect data. All interview sessions have been recorded using a voice recorder, following which transcription was done so that the text could be analysed using the Atlas.ti software. As per findings, the organisation's CKS practices were still at pre-adoption stage, meaning that they were still informal and not centralised. However, there were activities that have already been embedded in current policies, examples of which included induction sessions for new staff, trainings, and the audits. Meanwhile, the new requirements set by the external stakeholders (like vendors and customers) provided useful information for product-development. This research has found five factors that helped enhance the CKS adoption model in the Halal food industry: individual, organisational, environmental, technological and non-technological channels, as well as Islamic perspectives. From a practical viewpoint, this study provides the players with valuable information that can assist in strategising for CKS adoption in their organisations.

ABSTRAK

Perkongsian pengetahuan secara kolaboratif (CKS) merupakan salah satu strategi yang membolehkan sesebuah organisasi bekerjasama dengan pemegang taruh dalaman mahupun luaran. Ia membolehkan mereka mencapai objektif bersama yang akhirnya menyumbang kepada peningkatan prestasi organisasi berkenaan. Oleh yang demikian, kajian ini, melalui pendekatan kualitatif fenomenologi, telah mengenal pasti cara-cara penerapan CKS di salah satu syarikat makanan Halal di Malaysia. Pendekatan ini telah meneroka pengalaman responden dalam proses pelaksanaan CKS yang membolehkan dapatan kajian menyumbang kepada penambahbaikan model penerapan CKS di dalam industri tersebut. Melalui pensampelan tujuan (*purposive sampling*), para responden telah dipilih daripada pekerja-pekerja dari jabatan dan tahap pengurusan yang berbeza. Sesi temu bual separa berstruktur telah dijalankan secara bersemuka dan melalui panggilan telefon. Semua sesi temu bual berkenaan telah dirakam dan ditranskripsikan bagi membolehkan analisis teks melalui perisian Atlas.ti dijalankan. Hasil penyelidikan ini telah mendapati bahawa penerapan CKS dalam organisasi kajian masih di peringkat pra-penerapan. Dalam kata lain, CKS dalam syarikat tersebut masih bersifat tidak rasmi dan tidak berpusat. Walau bagaimanapun, unsur CKS telah dikenal pasti dalam polisi-polisi dalaman dan proses-proses tertentu berdasarkan permintaan pemegang-pemegang taruh luaran seperti pembekal dan pelanggan. Terdapat lima faktor utama yang menyumbang kepada penambahbaikan model penerapan CKS dalam industri makanan Halal, iaitu faktor individu, organisasi, persekitaran, saluran teknologi dan bukan teknologi, serta perspektif Islamik. Secara praktikal, dapatan kajian memberikan maklumat bermakna yang boleh digunakan oleh pemain industri dalam menerapkan CKS di organisasi masing-masing.

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LIST OF ABBREVIATIONS

B2B	-	Business-to-Business
BERNAS	-	Padiberas Nasional Malaysia
CAP	-	Consumers' Association of Penang
CKM	-	Collaborative Knowledge Management
CKS	-	Collaborative Knowledge Sharing
DNA	-	Deoxyribonucleic acid
DOI	-	Diffusion of Innovation
EPU	-	Economic Planning Unit
ERP	-	Enterprise Resource Planning
GIEI	-	Global Islamic Economy Indicator
GMP	-	Good Manufacturing Practices
HACCP	-	Hazard Analysis and Critical Control Point
HDC	-	Halal Industry Development Corporation
HFI	-	Halal Food Indicator
HR	-	Human Resource Department
IFSB	-	Islamic Financial Services Board
IIUM	-	International Islamic University Malaysia
JAIN	-	Jabatan Agama Islam Negeri
JAKIM	-	Jabatan Kemajuan Islam Malaysia
KBV	-	Knowledge-based view of the firm
KM	-	Knowledge Management
KPDNKK	-	Kementerian Perdagangan Dalam Negeri, Koperasi dan Kepenggunaan
KS	-	Knowledge sharing
MAIN	-	Majlis Agama Islam Negeri

MARA	-	Majlis Amanah Rakyat
MATRADE	-	Malaysia External Trade Development Corporation
MIDA	-	Malaysian Industrial Development Authority
MIHAS	-	Malaysia International Halal Showcase
MITI	-	Ministry of International Trade
MOHE	-	Ministry of Higher Education
MPC	-	Malaysia Productivity Corporation
NGO	-	Non-Governmental Organisations
OIC	-	Organisation of Islamic Cooperation
PPIM	-	Persatuan Pengguna Islam Malaysia
PUM	-	Persatuan Ulama' Malaysia
RBV	-	Resource Based View of the Firm
SaaS	-	Software as a Service
SECI	-	Socialization, Externalization, Combination, and Internalization
SIRIM	-	Standards and Industrial Research Institute of Malaysia
SME	-	Small Medium Enterprise
SWOT	-	Strength-Weaknesses-Opportunity-Threat
TAM	-	Theory Acceptance Model
TOE	-	Technology – Organisation – Environment
TPM	-	Technology Park Malaysia
UPM	-	Universiti Putra Malaysia
USIM	-	Universiti Sains Islam Malaysia

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CHAPTER 1

INTRODUCTION

1.1 Overview

This introductory chapter starts with the background of the research (Section 1.2), followed by the statement of the problem (Section 1.3), research questions (Section 1.4), research objectives (Section 1.5), research significance (Section 1.6), research scope (Section 1.7), and research design (Section 1.8). The last section presents a summary of the structure of this thesis (Section 1.9).

1.2 Background of Research

In the global market, knowledge has become a valuable organisational resource. Knowledge in an organisation includes written knowledge (such as procedures, policies and employees' emails) and invisible knowledge (which resides in the employees' minds and thoughts) which is better known as explicit or tacit knowledge. Knowledge management can help an organisation achieve its core

competencies since it coordinates different skills, knowledge, values, norms, etc (Hao-yu Yun, Yun-feng, Xing, & Bei, 2010). However, the management and distribution of knowledge in an organisation is not an easy task as it requires comprehensive strategies and policies, detailed organisational structures, well-defined information flow, as well as performance measurements (Laakmann, 2005). Knowledge management efforts which involve numerous parties like trading partners, supply chain members, and other relevant stakeholders are known as collaborative knowledge management (CKM) (Aziz & Poorsartep, 2010). In CKM, various stakeholders collectively create, share, access, and utilise knowledge to achieve the business objectives of the supply chain, enabling them to learn from each other as well as improve the performance of every supply chain partner (Li, 2007). Knowledge sharing (KS), on the other hand, is part of KM and essential for knowledge management in organisational learning (Titi Amayah, 2010). KS involves the exchange, transfer, or dissemination of knowledge, experience, ideas, as well as skills between individuals, groups, or organisations (Kumar & Che Rose, 2012).

The importance of knowledge sharing in an organisational context is to encourage organisational learning which according to Sita Nirmala Kumaraswamy and Chitale (2012) needs to be interactive and collaborative. Collaborative knowledge sharing (CKS) links knowledge sharing with work processes. It will also enhance organisational learning by encouraging communications, idea sharings, organisational development programmes, and interactions between stakeholders. Previous researches have mostly defined knowledge sharing as an activity in knowledge management that involves collaborations with others to solve problems and issues, develop new ideas, as well as implementing policies and procedures (Cummings, 2004; Titi Amayah, 2010). Sita Nirmala Kumaraswamy and Chitale (2012), on the other hand, have mentioned that the key to effective KS is to ensure that people collaborate with each other. Marlowe *et al.* (2011) have mentioned that the current business environment needs collaborations from different perspectives (depending on the nature of the organization) that lead to the sharing of resources, including knowledge. It was therefore the motivation for this study to focus on CKS, based on the understanding that CKS fosters collaborations between relevant parties and supports the attainment of shared objectives by the stakeholders.

Knowledge is also an important resource in Halal organisations. In Islam, knowledge sharing is one of the responsibilities of humans i.e. the beings that govern the Earth (Kumar & Che Rose, 2012). One of the examples of knowledge management in the Halal Industry is the Halal Industry Development Corporation (HDC) website. HDC has developed a Global Halal Support Centre to gather knowledge from and disseminate knowledge to the stakeholders of Halal industries. The types of information available in the said website include Halal concepts, industrial statistics, market trends, compliance and certification issues, as well as research and innovations in the Halal industry. This Halal Knowledge Centre is also a source of reference for the stakeholders of Halal companies. For Halal food manufacturers, the abovementioned information helps them improve their performance by ensuring that the produced food always complies with the Shari'ah regulations, apart from meeting the demands of the industry and customers. However, this initiative should be extended to CKS, in which collaborative elements can be included so that other stakeholders can also contribute to the knowledge shared in the platform. For starters, the exercise can begin with the identification of the relevant stakeholders, their roles, and the knowledge that they need and are willing to contribute to further develop the industry.

However, in an organisational context, Halal organisations should be more competitive by taking the effort to improve their knowledge through exchanges of information regarding their products and services, business processes, practices, procedures, skills, policies, etc. with their stakeholders. The knowledge shared collaboratively between the internal and external stakeholders such as supply chain members, business partners, subsidiaries, and customer can help improve their business processes, productions, and service deliveries, thus contributing to the development of the Halal food industry in Malaysia. However, the adoption of CKS by Halal organisations is still lacking which require better plans and strategies for the organisations to enjoy the benefits of CKS to the organisations. Thus, this research has attempted to explore the current practices of selected Halal organisations, CKS adoption factors, and the ways by which the CKS adoption model can be enhanced in the Halal food industry.

1.3 Statement of the Problem

Considering the benefits of CKS highlighted in the previous section, it is time for the industry to be more competitive. The existence of web-based knowledge portals and government-private activities such as trainings, Halal showcases, conferences, and Halal industry related events where knowledge exchange activities occur are the indicators that this industry needs a knowledge management approach in order to utilise its full potential. With the understanding that knowledge is important in all organizations including Halal food organisations, CKS adoption must be formulated as one of the organisational strategies. Knowledge must be circulated within and between organisations to enable the industries to attain a competitive advantage (Hao-yu *et al.*, 2010). However, studies in Malaysia still fail to address the Malaysian Halal food organizations, especially in the contexts of collaborative knowledge sharing (CKS).

The previous studies have not been intensive, did not consider collaborative elements, and have not properly defined the stakeholders (internal and external) and their roles in the organisation. As the Halal food industry has distinctive characteristics as compared to other well-established industries, there is a need to explore the specific adoption criteria for CKS implementation. The stakeholders' perceptions of collaborative knowledge sharing will be explored in terms of the reasons for which this measure should be implemented, as well as the methods by which it can be applied in the companies. Hence, an enhanced adoption model is proposed based on the experiences shared by the stakeholders of the selected organisations in the phenomenological study and analysis.

1.4 Research Questions

This study has investigated into collaborative knowledge sharing (CKS) practices in a Halal food organisation based on the following research questions. The main research question is “*How to apply the CKS adoption model in the Halal food industry?*” Listed below are the sub-research questions:

- i. What are the current CKS practices in the Halal food industry, from the stakeholders’ perspectives?
- ii. What are the factors that influence the implementation of CKS in the Halal food industry?
- iii. How to apply the CKS adoption model in the Halal food industry in Malaysia?

1.5 Research Objectives

The main objective of this research was to enhance the model on CKS practices in the Malaysian Halal food industry. The specific objectives of this research are listed below:

- i. To explore the current CKS practices in the Halal food industry, from the stakeholders’ perspectives.
- ii. To identify the factors that influence CKS adoption in the Halal food industry.
- iii. To enhance the CKS adoption model in the Halal food industry.

1.6 Significance of the Research

The significance of the research will be discussed from three different areas, i.e. (i) theoretical; (ii) practical, and (iii) methodological perspectives.

1.6.1 Theoretical Perspective

This research has combined the adoption theory and TOE Framework with the Islamic perspective in order to enhance the existing adoption model. It has also specifically designed the CKS adoption model in the Halal food industry. The adoption theory was used as a Technology-Organisation-Environment Framework (TOE), while the Islamic values carried additional weight in the model by contributing to the additional contexts. As CKS in the Halal industry is in line with Islamic thought, it is appropriate to be implemented in Halal businesses to serve the Muslim population. Therefore, new knowledge has been created, and it has contributed to the body of knowledge.

1.6.2 Practical Perspective

From the practical perspective, the findings of this research have created awareness regarding the importance and benefits of CKS to the Halal food industry. This study has provided information that may benefit the industrial players on the ways by which CKS can be properly initiated either within their organisations or with the stakeholders for improving the companies' performances. This research has also

highlighted the fact that CKS is actually in line with Islamic thought, and is also part of a Muslim's responsibilities as part of the stakeholders in the Halal organisation.

1.6.3 Methodological Perspective

This research has fully utilised qualitative methods using phenomenology approach. Data has been collected via semi-structured interviews, and the results derived from text analysis using hermeneutic phenomenology in a qualitative research. During data analysis, deductive and inductive methods have been applied to identify the codes from the interview transcripts. The combination of both approaches has enabled the creation of more codes and hence, provided in-depth findings based on the research objectives. All outcomes of the analysis have contributed to the enhancement of the final model.

1.7 Scope of the Research

To clearly define the boundaries, the following are the scopes of this research:

- a. The unit of analysis of this research was an organisation. One of the main players of the Halal food organization, which has been known at the initial phase of the study to practise CKS, was selected.
- b. This research has focused on exploration of CKS practices in the organisation, regardless of whether they have been practised formally or not. Formal practices could be standard procedures, written instructions, and formal business processes. Non-formal practices could be normal day-to-day routines that became a culture, CKS

elements that were embedded in any activity or work processes as well as ad-hoc or non-routine activities that could be classified as CKS.

- c. The target respondents were the staff from different backgrounds and levels of management who had experience in CKS practices, as recommended by the management.

1.8 Research Design

This purely qualitative research was based on a phenomenological study with the intention to explore individual experiences of a phenomenon. The data collection process comprised three different phases, each with different expected outcomes and deliverables. Phase one of the study focused on literature reviews and published industrial analyses. Phase two consisted of the stakeholder analysis, whereby the stakeholder model by Donaldson and Preston (1995) became the theoretical foundation of the study. Here, the industrial stakeholders were approached to study their roles and identify the important types of knowledge to be contributed to CKS. Phase three comprised a phenomenological study, in which a well-known Halal company was selected, and some of its staff as well as stakeholders were interviewed for their feedback on CKS. This would later validate the conceptual model proposed in Chapter 2. A more thorough discussion of the research design will be presented in the Research Methodology chapter.

1.9 Thesis Structure

This thesis consists of a total of interrelated 6 chapters. Chapter 1, 2, and 3 are introductory that discuss the objectives and methodology of this research. Chapter 4

discusses the data collection procedure and the findings of the exploratory study and phenomenological inquiry. All the findings of the research and the answers to all the research questions as well as objectives are presented. Chapter 5 revisits all the findings with regards to each research question, while the final chapter will discuss the contributions and limitations of the research as well as the future research opportunities.

Chapter 1 has elaborated on the background of the research by explaining in general the importance of knowledge management and sharing, followed by the significance of their application in the Halal industry. In order to justify the reason for the selection of a Halal industry, the Malaysian background of the same has been explained. The market size and industrial opportunities are the important reasons for which these businesses should be enhanced through collaborative knowledge sharing practices. The stakeholders of Halal firms and industries are not supposed to work independently. Collaborations through knowledge sharing will bring a lot of benefits to these industries. Based on that understanding, the aforementioned research questions and objectives have been devised to direct the research. The theoretical, practical, and methodological significance of this study have also been presented in this chapter.

Chapter 2 reviews the relevant previous studies and theories. It starts with the concept of knowledge management (KM) followed by knowledge sharing (KS), collaborative knowledge management (CKM) and collaborative knowledge sharing (CKS). A table is presented to show the differences between the different concepts. The discussion continues with the elaboration of enablers of CKS, as well as the knowledge sharing concept from the Islamic perspective. It is followed by the elaboration of the Halal concept and Halal food industry in Malaysia in order to justify the link between CKS and the selected industry. The most important part of this study is the theoretical background, in which well-established theories like the stakeholder theory, Diffusion of Innovation theory (DOI), and TOE framework are elaborated. These theories would later become the basis for the development of the conceptual

model, which would be referred to during the deductive coding process in data analysis. The conceptual framework is then presented and elaborated.

Chapter 3 elaborates the methodology of this research. It starts with the discussion of different research paradigms and the research paradigm of this research, which determine the methodology or approach of this study. The approach is then elaborated along with the selected research design for data collection. The three phases of the procedure are elaborated one by one to provide a further understanding of the way by which this research is carried out. Every phase had its own specific research design. In answering the research questions of this study, the main part was the phenomenological study whereby respondents from the selected organisation shared their experiences and perceptions towards CKS in the organisation. The justifications for the selected research design were discussed in this chapter as well. In addition, the methods of data analysis including the triangulation aspect, deductive, and inductive data coding, as well as saturation concept are discussed to confirm that the methodology of this research is strong and in accordance with well-established qualitative research methods. This chapter concludes with the operational framework, which shows the sequence of activities in the research methodology.

Chapter 4 discusses the data collection and findings of the research with respect to two areas i.e. identification of Halal stakeholders and the findings of the phenomenological inquiry. The first area identifies the stakeholders of the industry (based on the interviews with different industry players) while the latter answers research questions 1 and 2 of this research. This chapter also discusses some interesting findings on the issues related to CKS practices, based on the feedback from the respondents. Additional findings will be presented and considered as additional contributions to the study.

Chapter 5 focuses on the discussions and contributions of this research. It discusses the significance of the stakeholder analysis in this research, elaborates the CKS practices in the organization, and presents the TOE analysis of CKS practices.

The essence of the research findings will be presented in this chapter in terms of suggestions for CKS implementation in the Halal organisation. The final model on CKS is also presented at the end of this chapter.

Chapter 6 concludes the whole research by elaborating on the overall contributions of this research. The limitations of the research will also be presented. Finally, recommendations for future research will be discussed.

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