

USERS' PERCEIVED VIABILITY  
TOWARDS JAWI IMPRINTS DIGITIZATION

BY

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## ABSTRACT

Jawi literature is recognized as a Malay literary heritage, a rare and scarce collection that resulted in a call for preservation. One of the promising ways of preservation today is the technology of digitization. To date, studies have been published on the digitization of Jawi literature primarily concerning Malay Jawi manuscripts collection. Meanwhile, the Jawi imprints were discussed far less frequently. Thus, this study brings users to the forefront of the research in assessing their perceptions on how viable digitization technology for Jawi imprints collection. The main objectives outlined are to: (i) investigate the usage status of the Jawi imprints collection, and to (ii) examine the perceptions of users towards the viability of digitization for Jawi imprints collection. This study employed a quantitative analysis and collected data from respondents through a questionnaire. A total of 225 responses were collected, of which only 213 fit the requirements of this study. The collected data was analyzed using SPSS software for descriptive and content analyses. The findings indicated that from users' perception, the digitization technology is viable for Jawi imprints collection, based on the measurement of their awareness, acceptance, and readiness. Further, the voluntary answers from respondents when they were asked to appraise any opinion that they wanted to add regarding the digitization of Jawi imprints collection have ascertained the importance to fulfil this effort together with lengthy commentaries. This study has contributed significantly to understanding the current status of the usage of Jawi imprints collection as well as users' perceptions towards the viability of digitization for this collection. It can be used to guide the Jawi publishers, distributors, and related industrial players like libraries or specific Malay and Islamic libraries to better plan their collection development towards digitization. This user-response study hopes that it will provide a basis for the implementation of Jawi imprints digitization, or perhaps the establishment of Jawi imprints database in future.

## ملخص البحث

يعتبر الأدب الجاوي تراثاً من ضمن أدب الملايو، وهو مجموعة شحيحة ونادرة استدعت ضرورة الحفاظ عليها. وإحدى الطرق الواعدة للحفاظ اليوم هي تكنولوجيا الرقمنة. فحتى الآن، تم نشر دراسات حول رقمنة الأدب الجاوي في المقام الأول بما يخص مجموعة مخطوطات الجاوي الملايو. وفي الوقت نفسه، تمت مناقشة سمات الجاوي بشكل أقل تكراراً. وهكذا، جلبت هذه الدراسة المستخدمين إلى طليعة البحث في تقييم تصوراتهم حول كيفية تطبيق تكنولوجيا الرقمنة على مجموعة بصمات جاوي. وتمثلت الأهداف الرئيسية المحددة فيما يلي: (أ) التحقيق في حالة استخدام مجموعة سمات الجاوي، و (ب) دراسة تصورات المستخدمين تجاه جدوى الرقمنة لمجموعة سمات الجاوي. استخدمت هذه الدراسة تحليلاً كميًا وجمعت البيانات من المستجيبين من خلال استبانة. حيث تم جمع ما مجموعه ٢٢٥ رداً، منها ٢١٣ فقط تناسب متطلبات هذه الدراسة. تم تحليل البيانات التي تم جمعها باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS) لتحليل المحتوى الوصفي والكمي. وأشارت النتائج إلى أنه من اعتقاد المستخدمين، فإن تقنية الرقمنة قابلة للتطبيق لجمع سمات الجاوي، بناءً على قياس وعيهم وقبولهم واستعدادهم. بالإضافة إلى ذلك، فإن الإجابات الطوعية من المستجيبين الذين طُلب منهم إضافة أي رأي يرغبون كتابته فيما يتعلق

برقمنة مجموعة سمات الجاوي قد أكدت أهمية إتمام هذا الجهد جنبا إلى جنب مع التعليقات المطولة. ساهمت هذه الدراسة بشكل كبير في فهم حالة استخدام مجموعة سمات الجاوي وكذلك تصورات المستخدمين تجاه جدوى الرقمنة لهذه المجموعة. كما يمكن استخدامها لتوجيه الناشرين والموزعين واللاعبين الصناعيين ذوي الصلة مثل المكتبات أو المكتبات الإسلامية والمتخصصة بالملايو للتخطيط بشكل أفضل لتطوير مجموعاتهم نحو الرقمنة. وتأمل هذه الدراسة المتعلقة باستجابة المستخدمين أن توفر أساسا لتنفيذ رقمنة سمات الجاوي، أو ربما إنشاء قاعدة بيانات سمات الجاوي في المستقبل.



## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Library and Information Science.

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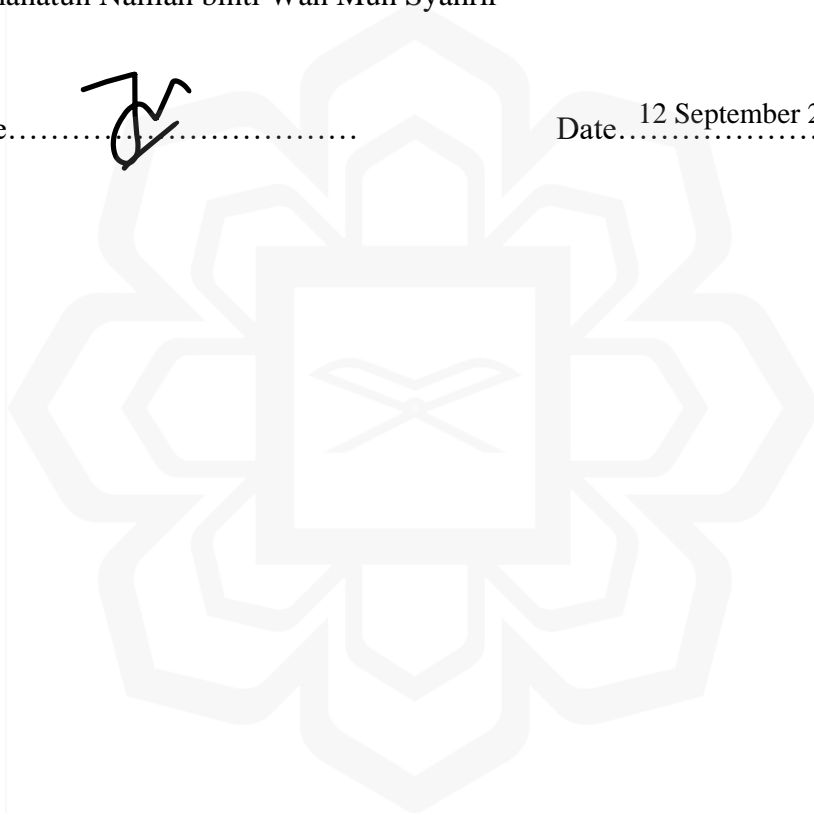
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I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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Abu Huraira reported: The Prophet, peace and blessings be upon him, said, “*Whoever does not thank people has not thanked Allah.*” – Source: Sunan Abī Dāwūd.

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# CHAPTER ONE

## INTRODUCTION

### 1.1. BACKGROUND OF THE STUDY

The potential of digital technologies in safeguarding and preserving valuable assets have been established over time, predominantly in preserving the increasingly threatened heritage (Nadim Akhtar et al., 2018). Technological advancements in digitization have been promoted by important world bodies such as UNESCO, which linked digital technology to the promotion of national and sustainable development and to the human right of information. United Nation Sustainable Development Goals (SDGs), under IFLA calls for “providing documentation and preservation of cultural heritage for future generation” which aims the eleventh agenda, to make the world a better place (IFLA, n.d.).

Many preservation efforts have taken, in which attention been given to the heritage of the nation’s document treasures. For example, in Srinagar, Mohammad Ishaq Lone et al. (2021) carried out a survey on preservation status of rare documents revealed that around 111 individuals or families and religious institutions to be having rare resources and be recorded. Meanwhile in Morocco, the Hassan II Prize program motivated holders of historic manuscripts and archival documents to disclose their holdings, to gain access to records in private collections (Sumayya Ahmed, 2016).

A recent program which named DREAMSEA, is a program that established a digital repository for Southeast Asian manuscripts and their contents run by a collaborative group in Indonesia and now have digitized more than 2,000 manuscripts from Indonesia, Thailand, and Laos. This program highlights the importance of protecting the literary

heritage and safeguarding cultural diversity of Southeast Asian, which many of them are in unfavorable conditions and their future existence is threatened (DREAMSEA, 2018).

The application of technology specifically refers to digitization has been addressed to the domain of preservation of literary heritage in many regions. This study focuses on Jawi imprints collection, a collection of Malay literary heritage that is always discussed for its worthy value and uniqueness. This collection is said as an expression of Malay intellectuals' legacy and valuable treasure to be preserved and protected. Previously, the discussion of preservation mostly covered on the collection of Malay handwritten manuscripts. Because many manuscripts are or will be damaged, their contents may disappear forever (DREAMSEA, 2018). That thought also occurs for Jawi imprints collection, which have the characteristic of being rare and scare.

What one thinks about implementing digitization technology for the Jawi imprints collection is the center point of this study. This study brings users, as a forefront of research because user-response can provide essential foundation for design strategies in the future. Most studies on digitization previously done in the population of information experts and stakeholders, so, this study will present data on users' position, perhaps will help in considering how the potential audience of digitized Jawi collection see towards its implementation in the future.

## **1.2. STATEMENT OF THE PROBLEM**

Jawi literature has long been a subject of research by scholars, particularly about being among the Malay heritage. However, most studies regarding Jawi literature highlight the issues on the rarity and scarcity of this collection. For example, Farhanah et al. (2020) expressed their disappointment in the current scenario where many Jawi literature cannot

compete for its publications and has shut down publishing operations. It may deteriorate the general public's interest in exploring and learning Jawi for Islamic knowledge and exploring traditional Malay cultures primarily written in Jawi (Farhanah et al., 2020). This scenario explains why many studies on Jawi literature highlight a call towards preservation.

Puaad et al. (2020) stated that Jawi literature is indeed “the most important product of local wisdom in Malay Islam and a valuable inheritance that needs to be preserved” (p. 76). Meanwhile Norhasnira Ibrahim (2015) mentioned “the importance to preserve the Jawi literature is to restore the Jawi script as the heritage and identity for Malays” (p. 98). Among the few techniques of preservation mentioned is teaching and learning Jawi literature activities (Norhasnira Ibrahim, 2015). This is in line with Farhanah et al. (2020), who said that sending children to Islamic schools contributed as one of the preservation techniques of Jawi. Norhasnira Ibrahim (2015) also added the need to use the latest technology to nurture the interest among younger generations towards Jawi literature. Therefore, the preservation of Jawi literature is a domain that requires extensive studies to recognize the capable methods and techniques.

To date, many traditional education schools called *pondok* and Islamic institutions like *masjid* and *surau* in Malaysia are still using Jawi literature for the *kitab* Jawi classes. Syukri Rizki (2020) explained the method usually employed is what so called *Collective Learning Process* whereby the teachers and the students open the same specific *Jawi* book; the teacher recites and explains while the students pay close attention and take important notes. Previous literature also shown that there were academicians, researchers, and students in higher institutions locally and even foreign gave attention and reference for *Jawi* literature in various fields of study (Abu Hanifah Haris, 2014; Che' Razi Jusoh & Aliza Elias @ Mayah, 2018; Md Zaki Abd Manan, 1994; Norhasnira Ibrahim, 2015; Nur Syazana Adam & Syed Hadzrullathfi Syed Omar, 2018; Proudfoot, 1991; Rahimin Affandi Abd. Rahim et al., 2019; Rahmah Ahmad Haji Osman, 2016). Relatively, there is no comprehensive data reported on the active use of Jawi collection.

The advances and rapid growth of technology contribute to preserving documentary heritage efforts worldwide. Many studies agreed that digitization is the best solution to preserve the content of rare documentary sources (Mohammad Ishaq et al., 2021). It enhances access and reduces the handling of original documents (Parno et al., 2018). Hence, the researcher views that digitization has made it possible for Jawi collection to preserve Malay literary heritage.

To date, studies have been published on the digitization of Jawi literature, primarily concerning Malay Jawi manuscripts collection. Among online repositories that served Malay manuscripts existed today are the British Library's Digitised Manuscripts site (Gallop, 2013), the Digital Repository of Endangered and Affected Manuscripts in Southeast Asia or known as DREAMSEA centered in Indonesia (DREAMSEA, 2018), and the *Katalog Induk Manuskrip Melayu* (translate: Union Catalogue of Malay Manuscripts) provided by the National Centre for Malay Manuscript of Malaysia's National Library (Pusat Kebangsaan Manuskrip Melayu, n.d.). The Universiti Malaya (UM) used to run a website called *MyManuskrip* on which hosted a significant amount of Malay manuscripts; a project that started around in the late 2000s and pulled somewhere in 2014 or '15, without warning or explanation (L.W.C van Lit, 2019). The presence of a digitized version of Malay Jawi manuscripts as narrated above is because of the awareness from various parties about the unfavorable conditions of manuscripts. It prompted digitization efforts, with the thought that if the manuscripts are damaged, their contents may disappear forever. This study believes that the situation also happens for Jawi imprints collection, in which their digitization matters are discussed far less frequently.

Previous studies conducted on digitization do not adequately report the users' perceptions toward the implementation of digitization for documentary heritage collection (Dutta, 2019; Kowalsky, 2020). So far, few studies have been carried out that report librarians' and information institutions' perceptions and experience on digitization projects (Adeleke, 2019; Masenya & Ngulube, 2021; McRostie, 2014; Wentzel, 2006; Zuraidah, 2008; Zuraidah & Aliza, 2010). Some of them also provide vital data to the administrators

and stakeholders, either libraries or other information institutions, to acknowledge users in the development process and to survey them to evaluate the digitization projects in the future (Nor Sa'adah Md Nor, 2019; Sumayya Ahmed, 2016; Sussmeier & Perez, 2021). From here, this study stands that the study of experts cannot replace the study of users. The absence of users' analysis risks eliminating the variance of thinking among them (Huang, 1999).

The issues elaborated above related to Jawi collection and digitization have directed this study to assess users' perceptions on the digitization technology for Jawi literature, especially Jawi imprints collection. By exploring how users aware the viability of digitization, accept and ready to use the digitized materiality of Jawi literature, would ascertain the sustainability of digitization technology for documentary and literary heritage.

### **1.3. RESEARCH OBJECTIVES**

The research objectives are as follows:

1. To investigate the usage status of Jawi imprints collection.
2. To examine the perceptions of the users towards the viability of digitization for Jawi imprints collection.

## **1.4. RESEARCH QUESTIONS**

The research questions are as follows based on the over listed objectives:

RQ 1: What is the usage status of Jawi imprints collection in terms of:

- a. Who are the users of Jawi imprints collection?
- b. What are purposes of users using the Jawi imprints collection?
- c. Where do users can access this Jawi imprints collection?

RQ2: What are the perceptions of users towards the viability of digitization for Jawi imprints collection?

- a. To what extent users' awareness towards the digitization of Jawi imprints collection?
- b. To what extent users' acceptance towards the digitized Jawi imprints collection?
- c. To what extent users' readiness towards the digitization of Jawi imprints collection?
- d. What is users' appraisal on the digitization for Jawi imprints collection?

## **1.5. SIGNIFICANCE OF THE STUDY**

This study could add a subject in the narratives of preservation of cultural heritage as emphasized by the United Nations in its Sustainable Development Goals (SDGs) towards making the world a better place by 2030. It brings Jawi imprints collection to the forefront of research as the Malay literary heritage, in which its matters are discussed far less frequently compared to handwritten manuscripts. The findings could provide the

information about the present state regarding the usage of Jawi imprints collection, which to date, there are no literature published. This, in turn, could improve the status of management and publication of Jawi collection by experts, stakeholders and publishing industry.

This study offers user-responses on their awareness, acceptance, readiness, and appraisal of Jawi digitization, which useful to take into consideration for the implementation. The findings would contribute to the development of the digital Jawi imprints collection, the results drawn from this study would be used as the guidelines and principles.

## **1.6. DEFINITION OF TERMS**

The following are the operational definition of terms in attaining the objectives of this study:

### **Perception**

The way of thinking about something (Hussaini Musa, 2018). In this study, users' perception refers to four areas of perceptions which are awareness, acceptance, readiness, and appraisal towards the digitization technology for Jawi imprints collection.

### **Viability**

The potential and capability to work successfully (Ciasullo et al., 2021). In this study, the term viability refers to the possibility of digitization to give positive effects for Jawi imprints collection.

## **Digitization**

Digitization is always referred to the process of converting from analog into a digital format, resulting digitized materials refers to digital representation of a physical item (L.W.C van Lit, 2019). For Jawi collection discussion in this study, it means the analogue form of Jawi imprints collection, like a product of scanning from physical *kitab* such as in PDF format.

## **Jawi imprints collection/ Jawi collection**

Primarily weight on the understanding of “*sastera kitab*”, Islamic texts written by Malay Muslim intellectuals and scholars around 17<sup>th</sup> to 19<sup>th</sup> century that were printed and published in Egypt, Mecca, Penang, Singapore, to name a few.

## **1.7. STRUCTURE OF DISSERTATION**

This study is planned and arranged into five chapters, the structure as following:

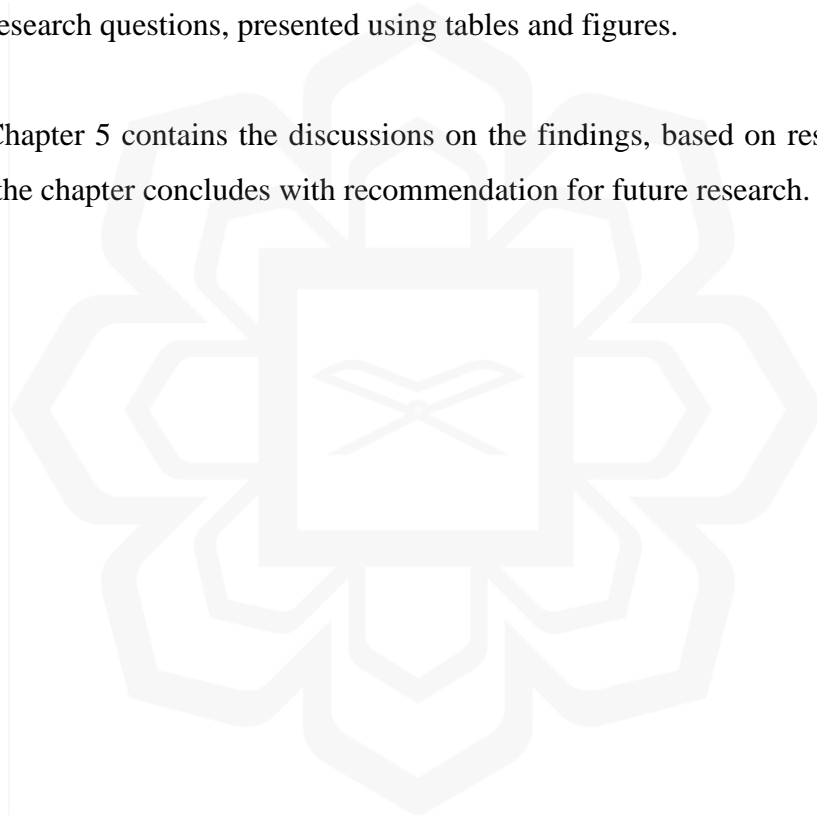
Chapter 1 presents a general picture of this study, with a brief introduction, statement of the problem, research objectives, research questions, its significance and limitation.

Chapter 2 presents a review of the literature to the context of study. This chapter analyzes various literature on Jawi script, classical Malay literature particularly Jawi imprints collection, discussions on digitization and user studies accepting technology. The conceptual framework is outlined at the end of this chapter.

Chapter 3 describes research design and methodology used in this study. This chapter elaborates a detailed description of the research setting, population, sample and sampling techniques, instruments which is survey questionnaire, pilot study and the procedures of data collection and analyses.

Chapter 4 provides the results and findings from collected data, begins with sample screening and data preparation, reliability test and the demographic information of respondents. The collected data are analyzed by using descriptive and content analysis to answer research questions, presented using tables and figures.

Chapter 5 contains the discussions on the findings, based on research objectives. Finally, the chapter concludes with recommendation for future research.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTION**

This chapter highlights scholarship discussions and literature on the nature of Jawi script materials, information resources in the digital world and users' studies on technology adoption. The review begins with the emergence and development of Jawi works and among notions from previous studies. Next, this chapter explains the available information resources in the digital world, with regards to digital transformation. Finally, the literature thoroughly explains users' studies focusing on technology adoption in various areas first, followed within the context of digital information resources.

#### **2.2. JAWI**

This section presented discussion on Jawi script as the Malay writing system and as language and race. The discussion consists of historical facts and the development of Jawi script becoming the identity of Malay literature.

##### **2.2.1. The Jawi Script as the Malay Writing System**

There was an interesting discussion among Malay studies experts as brought by Hashim Musa (2006) regarding the basis of Jawi script; related with the meaning of the term Jawi