Lactation Mobile Application in Islam Perspective

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Abstract: This study aims at the discourse of Islamic thought, especially about the reality that occurs among the public about the lactation issues and challenges. It helps Muslims to understand and practice the legal rulings related to the mother's breast milk. A service-based mobile application that assists the Muslim community in getting answers on any questions about the issue of Mahrem, socialisation and how to donor milk is presented in this paper. Users not only gain knowledge but also allow the users to ask and clarify their questions easily as they can use this app to communicate with the experts. Users also can communicate with donors or receivers of the milk. iCareMum'sMilk mobile application is flexible, user-friendly, portable, and support dynamic information. The application offers a set of services to Muslims through their Smartphone or similar smart device.

Keywords - Lactation, Halal milk, Mahrem, Mobile application, Muslims community.

I. INTRODUCTION

Islam governs all aspects of life, ranging from small to large. All of these have been stated in the law of Islam or the so-called Islamic Shari'ah. Undoubtedly, those women who donate some of the milk to their babies will be rewarded by Allah SWT, and be praised by man [11]. Even the milk can be purchased from her if she does not want to donate it, as she is allowed to get paid by breastfeeding someone else's [18].

Does the question appear as what is the problem arises through the donation or lactation of other babies or children? The breastfeeding child (with the mother's milk) will soon increase in age and will want to marry the child to her mother without knowing the status of having a sibling relationship. With the proposed and developed apps, problems that arise in relation with lactation can be solved, as information on mothers and breastfed children will be kept and known by both parties [17]. This study generally focuses on all Muslim societies, to understand and practice the breastfeeding using the milk donation by other's mother with the law of the relationship, by the predetermined *syari'at* [18].

As for that, iCareMum'sMilk is a mobile phone app that works as a platform among mother, lactating mother and experts in this field of breastfeeding or lactation. Each authorised user and experts will create an account to access the app. The basic functionality of this app is to enable users and experts to share knowledge in the form of questions and answers about predetermined *syari'at* or issues related to breastfeeding or lactation issues.

The main objective behind this study is to outline the issue of mahrem, socialization, and how to give milk for donation. Users not only gain knowledge but also allow the users to ask and clarify their questions easily as they can use this app to communicate with the experts. Users also can communicate with donors or receivers of the milk.

The rest part of this paper is organised as follows. Section 2 discusses the related works on breastfeeding and lactation. In section 3, the system features and architectures are discussed and followed by section 4, presenting the evaluation of this application. Section 5 sums up the study with a conclusion and future works. Next, the related works are discussed in the next section.

II. RELATED WORKS

Some important terms of this study shall be explained briefly about breastfeeding or also known as ar-rada'ah. The definition of "milk" refers to the milk produced by the breast milk maternity located in the breast [18]. While in the perspective of Islam, breast milk means the collection or storage of milk by Islamic law. To understand the definition of breast milk, it can be divided into two areas, which are its understanding according to the language and according to Islamic terms. According to the language, the formulation comes from the word radi'a that is the feeding of the child by his mother. Women who breastfeed are called almurdi'ah, while the breastfeeding children are called al - radi'i ' [11]. According to the Islamic term, there are certain views of the particular school on certain meanings and definitions of breastfeeding.

According to the Hanafi School, it defines breastfeeding as drinking milk at a certain time. Maliki also argues that breastfeeding is to enter the milk of a woman whether after death even through a nipple or aids or mixed milk or aids with the condition that the milk should be more than other things with other foods not exceeding two years [18].

The Shafi'I School, which holds the majority of Muslims in Malaysia, states that breastfeeding is something that is used to incorporate female milk into a dish that affects the growth [11]. Next the Hanbali School considers that the preparations are to enter natural milk or a drinking aid to anyone aged not more than two years old. Based on the above meanings and definitions, it can be concluded that the definition of breastfeeding is to incorporate female milk into the cavity of children not exceeding two years [18].

In terms of *syara* ', the law for a woman to breastfeed a baby which is not her son is a must, and Islam recognises and does not forbid it. This is because in some cases, breastfeeding is because of interest and meets certain needs. For example, the mother of the baby dies or has a disease that prevents breastfeeding. In these circumstances, other women need to breastfeed for the survival of the child. Breast milk offers a lot of advantages which mothers now have a positive reaction to breastfeeding, including working mothers. However, there are various constraints to it, especially when a mother works and breastfeeds at the same time [17]. Somehow, this initiates the unofficial milk collection by collecting milk from any Malaysian mothers [18]. The establishment of the milk collection brings various questions that may arise as it becomes a trend to ads on milk donation, especially through media social. The activity of milk collection initially is to overcome the constraints faced by some mothers, who are unable to provide full breast milk or breastfeeding to their child [17. However, the uncontrolled and lack of monitoring of this act subsequently may cause an appalling effect, especially on *nasab*. Hence the proposed application is an initiative to create awareness on how important to document and record the information on the recipients and donors of the breast milk. Section 3 explains the methodology of the study.

III. METHODOLOGY & RESULTS

This study is based on the type of qualitative research, as this study explains the predetermined *syari'at* of the milk collections and its related. Measurements of data in this research give priority to the opinion of the four Schools (Mazhabs), especially the views of the scholars on the study concerned. Data collection is by using written materials such as books and articles which can help to conduct this study through literature review and observation. Several methods in data collection and related information are employed, which are based on research articles and documentation. Based on the data collected from articles, current fatwa and documentation, it can be concluded that the problem of mother and child susceptibility can be assisted digitally via this proposed application [7] [8] [10]. The ultimate goal of this survey is to maintain the relationship of the offspring so that there is no mixing of *nasab* among the breastfed child and the birth child of the breastfeeding mother.

The apps are designed to be flexible, user-friendly, portable, and to support dynamic information. The application is developed using the Ionic framework (HTML, TS, CSS) and MySQL to store online database. Figure 1 depicts the framework of this study.
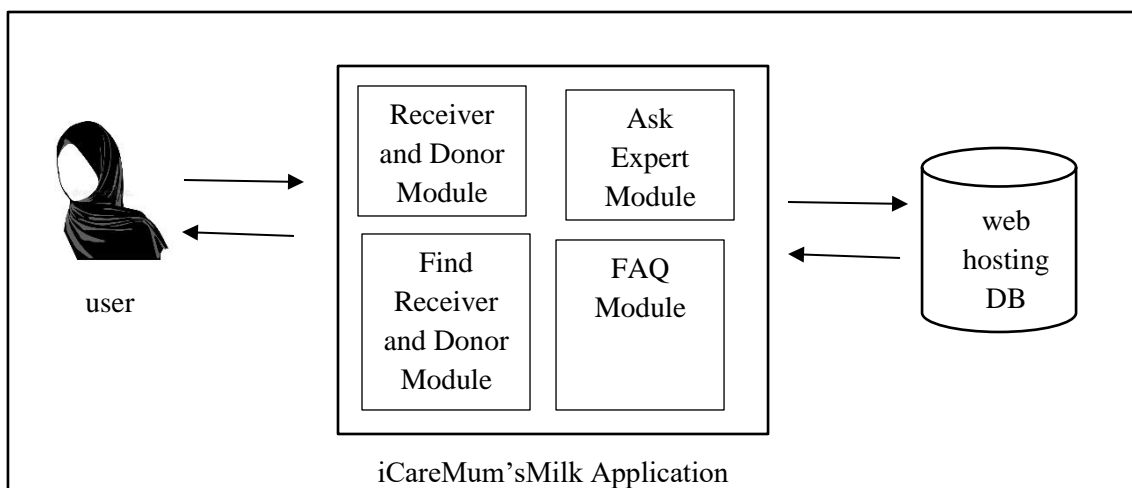

Figure 1. The Framework

IV. SYSTEM FEATURES

iCareMum'sMilk mobile application is an app for the Muslim community focuses on breastfeeding and lactation issues. It has an easy and convenient interface, and as for now, it can be downloaded for Android-based devices through the Google Play store. Figure 1 is the QR-code to download this application.

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Figure 1. QR-Code to download the application

This application only allows authorised and experienced experts of this subject area to respond to any questions posted by users (mothers and breastfeeding mothers). Each authorised users and experts will have to create an account to access the app. This app enables users and experts to share knowledge in the form of questions and answers about predetermined *syari'at* related to breastfeeding or lactation issues. Figure 2 illustrates the interface of iCareMum'sMilk application.

Figure 2. The interface of iCareMum'sMilk

This application also plays a role in recording the personal details of the recipients and the donors of the mother's milk. These include health records, breastfeeding numbers of times and family records to avoid the problem of *nasab*. Figure 3 shows one of the interfaces that display the information on the recipients and donors.

Figure 3. The interface on the information of recipients and donors of mother's milk.

V. CONCLUSION

This study presents the development of the application that focuses on breastfeeding and lactation issues. In Islam, breastfeeding and lactation will have a great impact and influence on family relationships or *nasab*. Therefore, this mobile application can become a reference to public users on this issue. Through this application, it can stream the information on the beneficiaries and donor of the mother's milk. For future works, this study will integrate the information on health and nutrition of the mother's milk.

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