

e-Pocket Musafir (e-PM): The Development of Android Mobile Apps as a Mobile Companion Information Application for Muslim Travelers

Mohd Hatta Mohamed Ali @ Md Hani^{1*}, Muhammad Hafiy Aiman Husain¹, Dang Sofia Mohd Zahari¹, Nur Alisya Nadira Mohd Sukeri¹, Sam Faheeda Abdul Samad²

¹Department of Information Technology, Centre for Diploma Studies, Universiti Tun Hussein Onn Malaysia, Pagoh Education Hub, 84600 Pagoh, Johor, MALAYSIA

²Human Resource Division, Registrar Office, University Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, MALAYSIA

*Corresponding Author Designation

DOI: <https://doi.org/10.30880/mari.2022.03.01.010>

Received 03 July 2021; Accepted 30 November 2021; Available online 15 February 2022

Abstract: *Musafir* (مسافر) is a word in Arabic meaning ‘traveler’ which refers to a person who is on a long journey. According to Quran Verse 6:11 “Say (unto them, O Muhammad): Travel through the earth, and see what was the end of those who rejected it.”. This verse encourages Muslims to travel while observing what is the end for the people who lie to Allah SWT. Even if a person is on a journey, in Islam prayer is obligatory and a person must perform religious obligation. Therefore, Allah SWT has given privileges to Muslims while traveling to perform the prayers. Since this way of praying is rarely performed, people who travel must have a reference before performing this prayer, and most references nowadays are in the form of non-interactive documents and are difficult to carry anywhere. Therefore, this project aims to develop a mobile application for Muslim traveler which will guide them to perform prayers with privilege. We are using incremental model methodology to develop this project. In addition, the application will also provide several importance features for Muslims to use such as tasbih, *Qasar* and *Jamaq* prayer guidance, Hadith and prayer times. Selected group of people a chosen to confirm the project usability. At the end of the research, we found that that this project is successfully helps Muslim Traveller to performing prayers wether it is in *Qasar* and *Jamaq* prayer states. In conclusion, the effectiveness of this application is likely to be extended into the study other topics areas.

Keywords: Mobile Application, *Marhalah*, *Qasar* & *Jamaq*, Prayer, Distance, *Musafir*

1. Introduction

Allah SWT has given *rukhsah* [1] to his servants who are in a travelling to perform prayers, they are called *Jamaq* and *Qasar* prayers, the *rukhsah* was given to facilitate his servants while facing a difficult situation. A Muslim who is on a journey can perform *Qasar* and *Jamaq* prayers. This is based on a hadith from Ibn Abbas ra which means Prophet Muhammad SAW combined day prayers (Zuhr and Asr) and (Maghrib and Isyak) prayers while traveling [1]. In short, *Jamaq* and *Qasar* prayers can be performed by Muslims who are on their journey, yet their journey must exceed 85 to 90 kilometers from their starting point to their destination, but they should not intend to stay at the destination place for 4 consecutive days.

This application is very important for Muslims in particular. Therefore, this can make it easier for Muslims to pray while traveling. The reason is because this application has some functions that will guide Muslim traveler on performing their worship. In short, this app will provide guidance for Muslims to perform *Jamaq* and *Qasar* prayers.

However, how can Muslims determine the intention of *Qasar* and *Jamaq* prayers and how to determine the actual prayer time during their journey? Based on the results of Google Forms that we have made, some of us still do not know about the terms and abbreviations for *Qasar* and *Jamaq*. However, as many as 30% still do not know the extent of manners and intentions when traveling. There are many key factors that give us the impetus to set up this system. Among them is that a Muslim still does not know about these privileged prayers. This can be evidenced in the question section in Madrasah Sunni Online, a reader is still confused and asks "Is there a traveler prayer guide? I just don't know about the plural and short prayer guide"[3]. This is one of the reasons why we want to develop this system to provide convenience to Muslims.

Therefore, the aim of this project is to help and provide guidance for Muslim who is on a journey such as the way of reciting the intention of the *Qasar* and *Jamaq* prayer and the application of tasbeih for those who travel. In addition, the system also allows users to be reminded of the time of their prayers using this Application. Therefore, it will help Muslims to perform *Jamaq* and *Qasar* prayers as they are in the state of traveling. We have also made observation of other applications, but there are still no applications that provide information and guidance for Muslim who are traveling. So, we will develop an application that implements Multimedia elements to attract users with an interesting design. Lastly, this application is expected to develop a society that is more concerned with the importance of religion, especially for Islam, which will assist them in facilitating the journey and position of those who wish to perform *Qasar* and *Jamaq* more accurately and adequately.

Systematic review is a research method [4], as well as cohort research methods, case control, experiments, cross sectional, and various other research methods. The basic difference between systematic review and other methods is that this method collects various references (either from scientific journals, books, magazines, research reports, or theses/theses/dissertations) that are collected, selected, and synthesized to find patterns or red threads, and then concluded as output of the study. "Systematic review is a research method to identify, evaluate, and interpret all relevant research results related to a particular research question, topic, or phenomenon of concern [5]."

1.1 Research Muslim Application

Based on the study, there are other applications similar to e-Pocket Musafir (e-PM), for example e-MUSAFIR, but do not have the flexibility and additions like the rosary featured in e-Pocket Musafir(e-PM).

Such programs and applications can give a good impact and use to Muslim users who are traveling and on their way to a place, it also helps them in reminding them to perform *Qasar* and *Jamaq* prayers in a more orderly and smoother manner. Therefore, it can help them to continue to maintain worship.

We hope for your support and encouragement so that this application can be well received by the community and those who are in dire need of the e-Pocket Musafir (e-PM) application while they are busy working. e-Pocket Musafir (e-PM) is expected to help the community and the front line in

simplifying their affairs in the future because this application is simple and innovative because it is introduced with the features of prayer beads and manners. This interesting features can provide learning to today's society and children about the *Qasar* and *Jamaq* and help parents in producing a good generation.

The e-Pocket Musafir (e-PM) application is expected to build a society that is more concerned with the importance of religion, especially for Islam, which will help them in facilitating the journey and position of those who want to do the *Qasar* and *Jamaq* prayers more accurately and adequately.

This app also works to bring those who often leave prayers and will change them to someone who does not leave prayers. This aims to be loyal to religion in shaping a noble personality and giving birth to a balanced society and a peaceful nation.

If e-Pocket Musafir (e-PM) does not exist, it is likely that Muslims will face difficulties in performing prayers, especially when traveling because there is no knowledge about *Qasar* and *Jamaq* prayers and lack of useful information when traveling.

In addition, we have referred to some applications that involve prayer systems and functions such as Muslim Pro, if you can see most prayer applications have a function leading to setting the Qibla and so on but they do not have applications that make it easier for them to glorify and how to recite intentions *Qasar* and *Jamaq* as it should be done and it serves the development of a better Muslim -friendly Multimedia system.

1.2 The effectiveness of using Applications to channel information

To improve application methods, in addition to obtaining information traditionally, application development is appropriate methods are used in providing more in depth information. Application use is the use of channeling information using trusted technology that has an impact and advantages in developing the level of knowledge of users. The benefit in developing information and information -based applications is that it can create awareness and increase knowledge more easily. In addition, users can give a very full focus in obtaining information.

Accordingly, consumers' minds become more open and think outside the box in solving problems. In addition, it can provide an early approach to new converts to Islam who are less knowledgeable about travelers and have no guidance. In addition, it can provide early experience to young people, especially children in their growing up and their general knowledge of Islam.

The next advantage is that users can apply this information when they are on a long journey when traveling such as the use of prayer beads and how to pronounce the intention of prayer. In turn, the app provides an interface that is more suitable for all ages and can be accepted by all walks of life. Finally, users can improve their understanding and the addition of their information and information while traveling.

1.3 Attention to the application of information

Although the application of information is often considered trivial and less well received, it is very necessary, especially when it involves worship. There are several factors that contribute to problems in channeling information. The main factor is due to the perception of users who think that the information developed into the application is not authentic and cannot be trusted.

But the presence of such techniques has produced users who are more sensitive and skilled and not fully using listening skills fully from the teacher's teaching during the learning process and formal information only.

2. Material and Methods

The methodology that has been undertaken by this project study consists of additional models that serve as the best benchmarks and guidelines to produce an effective study. Additions consist of analysis,

design, code and testing [5]. Based on **Figure 1** are the sources and graphs of the study for this project. In the analysis part, the collection of resources will be done from various key factors, namely the process of questionnaires, interviews, grumbling and observation techniques as well as other observation techniques. The applications developed can be said to be like MuslimPro and Google Prayer but can be said to be a combination of travel applications that are much needed by the community, especially Muslims [6]. Next is the design on the design side is the design between the two front and front pages and the application design. In addition, the code used in application design uses union and Adobe Illustrator, and the last step is to test the application developed to reduce errors and test the effectiveness of the application and test the functionality of the application to users who use it.

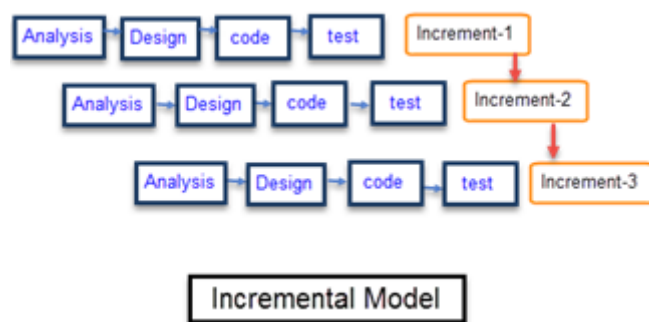


Figure 1: The Incremental model

2.1 Analysis

In the analysis phase, the study will begin with an information seeking session identifying common problems that should be solved, analysing the abilities and capabilities in building the product and collecting all the data requirements for research. As a result of the analysis of the study collected, there are problems in the aspects of general knowledge and sensitivity to the need in performing worship, especially when traveling.

In addition, there is some need to overcome this problem by developing more systematic and mobile methods of knowledge and information such as the development of applications that facilitate users in carrying anywhere and are friendly for those who travel. The project has been developed with the necessary application technology, hardware and software. Those requirements have been collected before designing the product. The study began by gathering information with several sessions and a questionnaire with a focus group consisting of individuals from various groups and roles and target groups.

Table 1: Respondent’s knowledge of *Qasar* and *Jamaq* prayers

Question	Yes (%)	No (%)
Have you ever heard of <i>Qasar</i> and <i>Jamaq</i> ?	70	30
Do you know how to differentiate the intention of <i>Qasar</i> and <i>Jamaq</i> prayer?	70	30
Do you know the conditions while traveling?	90	10

Table 1 shows that there are still 30% who do not understand the implementation of *Qasar* and *Jamaq* while traveling. And as many as 70% understand about the implementation of *Qasar* and *Jamaq* while traveling. There are 70% know about distinguishing intentions and 30% do not know about distinguishing intentions of *Qasar* and *Jamaq* prayers while traveling. Shows that 90% know about the conditions of traveling and 10% do not know the conditions of performing *Qasar* and *Jamaq* prayers while traveling.

2.2 Design

In this phase we describe the overall view of the structure, the type of design media and the application technology developed. Also, on this project of ours, we have created storyboards for our guidelines while developing interfaces for our users to use as shown in **Figure 2**.

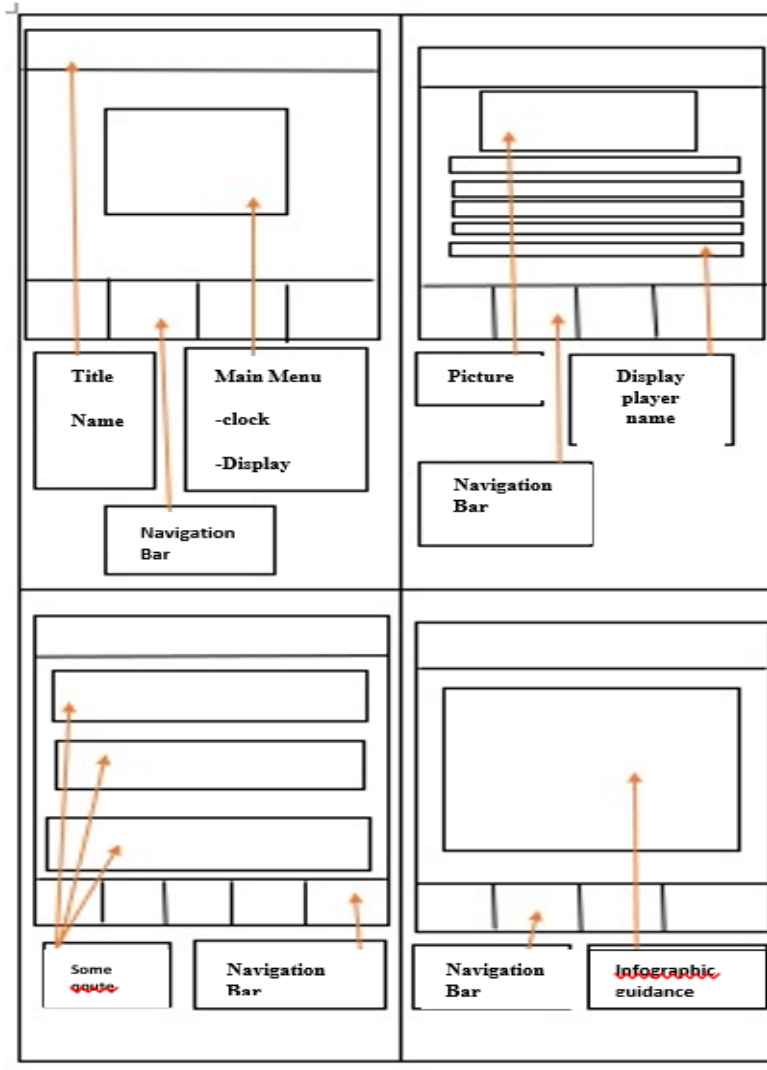


Figure 2: e-Pocket Musafir (e-PM) storyboard

2.3 Code

In the code phase of development, e-Pocket Musafir (e-PM) began to be developed based on information specifications as well as requirements obtained from the design phase at 3.2. Certain software has been used in the process development such as using Adobe Illustrator and Android Studio as shown in **Figure 3**. We are aware that to produce an application for a gadget is not easy so we have taken drastic steps and put a high risk because of choosing Android Studio as the main application in the development of e-Pocket Musafir (e-PM) despite experiencing high challenges from various aspects especially access and computer which we use to achieve the development of e-Pocket Musafir (e-PM).

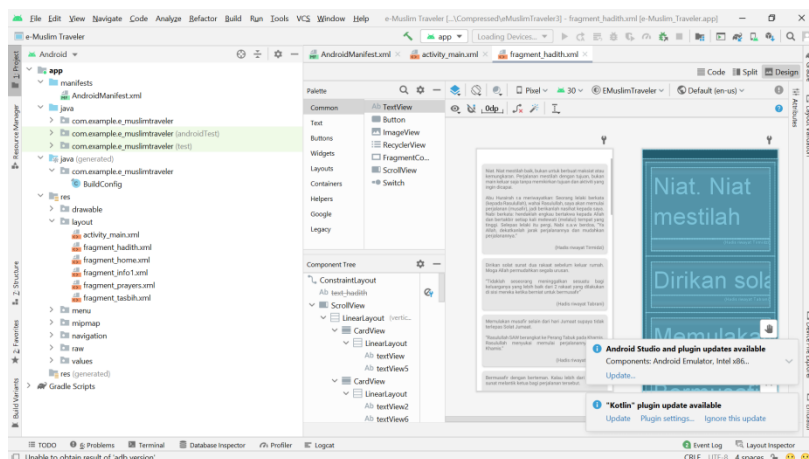


Figure 3: Code development via Android Studio application

2.4 Testing

In the last phase of testing, the process of measuring the effectiveness of the use of e-Pocket Musafir (e-PM) has been carried out and developed. The method used is in the form of face-to-face questionnaires and online as illustrated in **Figure 4**.



Figure 4: The user is testing the e-Pocket Musafir (e-PM) application

The face-to-face questionnaire method is more suitable because it involves users of all ages to provide feedback in an informal manner. Google Forms, which were given after the use and testing of the application on users, showed an increase in their info and information in worship, especially regarding *Qasar* and *Jamaq* prayers when traveling.

3. Results and Discussion

Various methods of collection and point of inquiry that have been carried out and must be collected to meet the aspects and prospects of the study and the scope of the study. There are several studies that have been collected to obtain valid and useful sources for this system as has been done by “A discussion is not possible with someone who does not claim not to seek the truth, but who already has it”- Roman Rollan. In addition, for the collection of research results and discussions. We have carried out various ways and steps, namely the collection of user information resources by creating a Google Form for users and doing the initial steps to study the effectiveness of the e-Pocket Musafir (e-PM) project for Muslim users.

3.1 Results

The results of the study conducted on the e-Pocket Musafir (e-PM) project many positive effects occurred and showed an increase in their knowledge in religious knowledge especially about the *Qasar* and *Jamaq* prayers and manners. Previously, some did not understand the concept of *Jamaq* and *Qasar* prayers but after the presence of e-Pocket Musafir (e-PM) of the application, this shows the effectiveness of this application as a guide to them in performing worship more perfectly. Next, we are aware that this application also focuses its use on those who are in a state of traveling at the same time want to take care of their worship well. The presence of e-Pocket Musafir (e-PM) to some extent increases their knowledge and confidence in worship despite being traveling in a place far from their residence.

Table 2: Opinion about the e-Pocket Musafir (e-PM) application after using it

Scale	Percent (%)	Respondent
1	0	0
2	0	0
3	10	1
4	30	6
5	60	12

Table 2 shows the results of the study from Google respondents on the views of users after the use of e-Pocket Musafir (e-PM). The results show that people who say scale 1 is 0%, scale 2 number 0%, for scale 3, 10% is with the rate of 1 respondent, for scale 4 the percentage is 30% 6 respondents and 60% which is scale 5 equal to 12 respondents. This shows that they are basically very satisfied with the production of e-Pocket Musafir (e-PM).

Table 3: Survey results

Question	Yes (%)	No (%)
Do you know in depth about <i>Qasar</i> and <i>Jamaq</i> prayers and how to perform them?	70	30
Do you agree that the e-Pocket Musafir (e-PM) app helps travelers or those who migrate to a place to perform <i>Qasar</i> and <i>Jamaq</i> prayers well?	100	0

Table 3 shows some questions and results from the questionnaire that was done after using this e-Pocket Musafir (e-PM) application. As many as 70% of the respondents know about *Qasar* and *Jamaq* prayers and how to do them. Furthermore, 100% of the respondents have agreed that the application we built can help travelers perform *Qasar* and *Jamaq* prayers well. This shows that this application is very effective to those who are Muslims and those who travel who want to perform their worship well.

3.2 Discussions

The discussion is about the importance and appropriateness of your results. This should focus on explaining and evaluating what you find [7], showing however it relates to your literature review and analysis questions, and making arguments to support your overall conclusions. Why we choose the use of multimedia in this application is because it has many advantages in making it easier for users to use it because the review by David Campbell is more functional in providing more direct and more practical features for users to use.

However, there are studies that say that the dangers of applying multimedia elements have adverse effects that can negatively impact users in distinguishing between reality or not based on Advantages and challenges related to multimedia for education: A systematic literature review written by Gokce Akcayir University of Alberta [8]. Although we know that multimedia also has a negative impact on consumers, especially involving worship and religion such as errors in information and tenets. However, we should also realize that nowadays multimedia and digital tools are more relevant and have a

profound impact on consumers. It is true that the elements and steps in the development of e-Pocket Musafir (e-PM) are true and it is wise to implement multimedia elements in the application.

The use of the application added in this application is the intention to perform *Qasar* and *Jamaq* prayer and manners is because users can apply the functions and methods and abilities of this application in step by step and manners to complete worship and their journey traveling to a place e-Pocket Musafir (e-PM).

We will create an app for use by people especially for Muslims that will help and guide them to perform their duties as Muslims while on the go. We named this application as e-Pocket Musafir (e-PM), and the main thing in this application is to be a guide to *Qasar* and *Jamaq* prayers for a tourist to perform prayers while traveling because these 2 prayers must meet the conditions to be passed and the main steps and intentions in establishing prayers when traveling from their starting point [9]. e-Pocket Musafir (e-PM) will also have a rosary that will help those who travel in performing the sunnah practices prescribed by the Prophet Muhammad SAW. Additional features will also be added in the e-Pocket Musafir (e-PM) application which is a guide and hadith based on the traveler plus sounds for tourists to perform *Qasar* and *Jamaq* prayers [10].

4. Conclusion

The e-Pocket Musafir (e-PM) application information system is very useful and helpful for travelling Muslims, especially those who are Muslims and those who work or who are traveling to a place far from their homes [11]. Applications like these provide many beneficial functions, especially for those who are Muslims and have an interest in performing responsibilities on the go while maintaining their worship [12]. Graphics show evidence that this application helps users in daily affairs and increases their sensitivity to worship in Islam with the availability of prayer guides, hadith travelers and prayer times as well as prayer beads. Some of benefits that users will get is, users will get a guide to perform *Qasar* and *Jamaq* prayers and also know abo the prayer times.

The feedback survey results conducted from 20 participants shows that majority agreed that this application. We hope that the app can help those who are traveling and need to be improved for the future.

Acknowledgement

This e-Pocket Musafir project will not be able to be implemented successfully without the support of many parties involved. Many thanks to our supervisor, Mohd Hatta Mohamed Ali @ Md Hani, who provided many comments on our technical report as well as helped a lot in understanding the confusion. Thanks also to the members of the e-Pocket Musafir group, Muhammad Hafiy Aiman Husain, Dang Sofia Binti Mohd Zahari, and Nur Alisya Nadira Binti Mohd Sukeri, who worked hard to make the project a success this time. Thank you to Universiti Tun Hussein Onn (UTHM) for giving us the opportunity to produce this project for our final year project. And in closing, thank you to our parents, and many helpful friends for going through this long period of process with us, always providing support and love.

References

- [1] J. Kinsella, "A Journey Prayer", *The Iowa Review*, vol. 34, no. 2, pp. 45-46, 2004. Available: 10.17077/0021-065x.5807.
- [2] M. F. Noordin, "Al-Kafi # 1181: Maksud Dua Marhalah Di Dalam Jamak Dan Qasar", *Pejabat Mufti Wilayah Persekutuan*, 2021. [Online]. Available: <https://muftiwp.gov.my/artikel/al-kafi-li-al-fatawi/3248-al-kafi-1181-maksud-dua-marhalah-di-dalam-jamak-dan-qasar>. [Accessed: 09-Jul- 2021].
- [3] A. Berhan, "Persoalan Jamak & Qasar Solat", *Madrasah Sunni Online*, 2015.

- [4] R. Russell et al., "Systematic Review Methods", *Agency for Healthcare Research and Quality (US)*, 2021. [Online]. Available: <https://www.ncbi.nlm.nih.gov/books/NBK44088/>. [Accessed: 08- Aug- 2021].
- [5] D. Hearnden, M. Lawley, and K. Raymond, "Incremental model transformation for the evolution of model-driven systems," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2006, vol. 4199 LNCS, pp. 321–335.
- [6] W. Sanjaya et al., "Qibla Finder and Sholat Times Based on Digital Compass, GPS and Microprocessor", *IOP Conference Series: Materials Science and Engineering*, vol. 288, p. 012149, 2018. Available: 10.1088/1757-899x/288/1/012149.
- [7] T. Annesley, "The Discussion Section: Your Closing Argument", *Clinical Chemistry*, vol. 56, no. 11, pp. 1671-1674, 2010. Available: 10.1373/clinchem.2010.155358.
- [8] M. Ganado, J. Ellul, S. Tendon, G. Pace and B. Wilson, "Mapping the Future of Legal Personality", *MIT Computational Law Report*, 2021.
- [9] F. N. Rahma, "Mafhūm Manhaj Al-Ta'lim Al-Islamī Li Al-Aqaliyāt Fī Al-Marhalah Al-Mutawassīṭah", 04-Apr-2018. [Online]. Available: osf.io/preprints/inarxiv/k3yhf.
- [10] A. Zulkepli and N. Ismail, "Program Perkongsian Solat Jamak dan Qasar", *Universiti Malaysia Kelantan*, 2021. [Online]. Available: <http://ir.umk.edu.my/handle/123456789/904>. [Accessed: 08- Aug- 2021].
- [11] S. Siswanto. "Systematic Review Sebagai Metode Penelitian Untuk Mensintesis Hasil-hasil Penelitian (Sebuah Pengantar)." *Buletin Penelitian Sistem Kesehatan*, vol. 13, no. 4, Oct. 2010, doi:[10.22435/bpsk.v13i4 Okt.2766](https://doi.org/10.22435/bpsk.v13i4.Okt.2766).
- [12] W. Ali and A. Ismail, "Kisah Pemberantasan Bid'ah di Malaysia: Kajian atas Kitab Risalah Al-Azhari", *Hanifiya: Jurnal Studi Agama-Agama*, vol. 2, no. 2, pp. 89-104, 2020. Available: 10.15575/hanifiya.v2i2.7962.