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## A Study of User Experience and User Retention of SalamWeb.com

Noryusnita Ramli<sup>1</sup>, Mohd Shazreeq Mohd Alhadi<sup>2</sup>, Efina Hamdan<sup>3</sup>, Maizura Manshor<sup>4</sup>

<sup>1,3,4</sup>Faculty of Communication and Media Studies, UiTM Rembau, Negeri Sembilan, Malaysia,

<sup>2</sup>SalamWeb Technologies DMCC, Kuala Lumpur, Malaysia

Corresponding Author Email: [noryusnita8954@uitm.edu.my](mailto:noryusnita8954@uitm.edu.my)

### Abstract

In line with the 4.0 industry revolution, the development of information and communication technology in Malaysia is developing successfully. Various types of internet browsers provide various services and offers in terms of attractive products and services in order to get a high number of users for their browsers. With the function of the internet known as an unlimited platform, SalamWeb.com is aware of the effects that can be harmful to users and therefore offers a shariah-compliant internet browser system. This paper reports a study which identifies the user experience and user retention of SalamWeb.com. An online survey using 4-point Likert scale has been used to collect the data among 310 active users of SalamWeb.com using purposive sampling technique. The findings of the survey help to provide an insight to identify user experience and retention of SalamWeb.com in terms of its attractiveness, perspicuity, efficiency, customer satisfaction, trust and ease of use.

**Keywords:** User Experience, User Retention, Internet Browser, Shariah Compliant, SalamWeb.com

### Introduction

The advancement of information technology in a borderless world now plays an important role in disseminating and delivering information more quickly and effectively. In Malaysia, the development of information technology is very rapid. The number of internet users in Malaysia increased by 919 thousand (+ 3.6%) between 2019 and 2020 and showed that there were five top online activities namely 98.1% text communication, 93.3% social media, 87.3% video watching, 81.1% voice/video communication and 74.3 % to obtain information (MCMC, 2020).

Nowadays, the synonymity between society and the usage of internet is very common. Everyone from every level of society regardless employees, students, teachers, housewives or even children are using it actively. The Internet can be accessed in a variety of ways, anytime and anywhere. With mobile devices that exist and become more advance nowadays, it is easier for the users to browse whatever website that they are interested in. Today, internet facilities provide channels for users from all walk of life to search and get information, communicate remotely, conduct banking transactions, online marketing and purchasing, use

of social media sites and other various uses without limit, (Muda & Awang, 2012). More and more Malaysians who are Muslims have also become progressive in the field of information technology due to the existence of websites that contain information on Islamic education and Islamic preaching. This has made a good impression in general. These websites present various contents of sermon, motivation, inspiration, education, Islamic lifestyle, family matters, friendship and all matters of life that can be used as guidelines to the community. This opens job opportunities in industry networks that offer communication services that focus on the Muslim community.

SalamWeb.com is a chromium-based internet browser by Google developed by Salam Web Technologies DMCC operating in Dubai. It is created so that users can surf the internet in a shariah-compliant ecosystem that provides a new experience as compared to existing browsers. SalamWeb.com has created a Muslim-friendly internet browser experience and is one of the first shariah-compliant internet browser brands in the world to compete with big names like Google Chrome, Mozilla Firefox, Safari and Opera. Among the features available on the SalamWeb.com browser are prayer times, Qibla direction, traffic information, and others. One of the exciting initiatives of SalamWeb.com is that users can donate to selected bodies using their internet browser through SalamSadaqah. Amanie's Board of Shariah Supervisors as a leading advisory firm that provides shariah advice and consultation has supported SalamWeb.com browser in complying with Islamic laws and regulations to provide web browser services that give benefits and advantages to Muslim users and make this internet browser better in delivering beneficial information, (Ho, 2019). According to Kaur (2019), SalamWeb.com provides a secure online environment with a range of attractive products such as SalamNews, SalamChat, and SalamSadaqah that comply with the Malaysia Digital Economy Corporation (MDEC) in Islamic Digital economy Guide.

However, SalamWeb.com is barely known even though it has now found a place in 197 countries around the world with 800,000 downloads. According to Ho (2019), the objective of SalamWeb is to reach as much as 10 percent of the 1.8 billion global Muslim population. As such, it is a challenge for SalamWeb to increase the number of new users while retaining existing users. Therefore, strategic user retention tactics are needed to help SalamWeb to increase the number of active users in line with other internet browsers. As a result of the previous study, the research objectives were designed as follows:

1. To identify the SalamWeb.com user experience
2. To identify the SalamWeb.com user retention

## **Literature Research**

### **User Experience**

With SalamWeb.com, users can browse or obtain information that is halal and does not contain bad information content such as gambling, pornography and entertainment activities that are considered as non-shariah as compared to other internet browsers. This internet browser service has become a site and social network, especially for Muslims looking for information on the internet. So the user experience is very important in ensuring that the internet is not being misused.

According to Salleh and Ilham (2017), internet users are aware and have experience related to the issue of surveillance on social media but they still do not fully understand the mechanisms used in monitoring the information shared. In addition, internet usage among

adolescents without time limit has resulted to a low level problem among school students in using the internet, (Fauzi et al., 2014). The experience of users who use internet browsers also formed an identity and a sense of belonging directly or indirectly (Fu, 2017).

According to Cabezudo (2008), demographic factors might influence the internet browsers' user experience. A study by Trivedi et al (2018), showed that gender demographic factors and family income influence the use of internet browsers. Moreover, the findings of a study by Mlekus et al. (2020) showed that the user experience is more acceptable and will maintain the usability of a media depending on the technology that meets criteria such as 1) output quality, 2) accuracy, 3) dependability and 4) novelty. The study is also in line with the study conducted by Distler et al (2019), the findings showed 1) previous use experience, 2) perceived autonomy and 3) feelings of control over shared information play a role in user experience in internet browsers. The findings of a study by Arranz and Cillan (2008) showed that an internet browser is not influenced by the quantity and type of content, but serving as an advertising platform is a factor in the high level of user engagement in internet browsers. However, with the advancement and convenience of technology nowadays, studies on user experience in internet browsers showed user experience is more attracted to more interactive content (Anderson & Borges-Rey, 2019) and good service (Södergård, 2001).

Baú and Calandro (2020) have conducted a study on African internet users on the experience of internet freedom to assess the level of trust and distrust of internet freedom from the user experience. The findings of the study showed that the internet plays an important role in contributing to the growth of a country while meeting the needs of consumers and safeguarding consumer rights.

In addition, Al-Hunaiyyan et al (2021) have conducted a study on students' experiences in information systems and human-computer interaction. The findings of the study identified that attractiveness, convenience and efficiency of a system increased the productivity and interactivity of students which led to their academic success. While the user interface features are not very attractive, the ineffective mobile experience and the lack of service availability tempted frustration among users. In this regard, the role of service providers in identifying consumer perceptions is very important in providing optimal services in line with consumer behavior.

### **User Retention**

A satisfactory user experience will lead to retention of usability. According to Lin et al (2020) user retention is the number of users who are active in browsing an application in a given period of time. There are several factors that enable user retention. Adu et al (2020), conducted a study related to user retention and engagement using mobile applications in self-management among diabetics. The results of the study showed an increased involvement with diabetes self-management (DSM) activities such as blood glucose (BG) monitoring, physical exercise, and healthy eating. Participants suggested additional functionality such as periodic extended access to further increase engagement with the app. The findings of previous studies can also be adapted into this study by providing a variety of usage activities in the appropriate bandwidth to maintain usage. Furthermore according to Yang & Han (2020), service providers should focus on developing high quality content and should consider convenience by providing visual appeal. This statement is supported by Huang and Ren (2019)

who stated that instruction preparation, self-monitoring, self-regulation and goals to be achieved indirectly affect the retention of consumption through online activities.

A high level of user retention is a benchmark of success for internet browser developers. According to Legner et al (2019), psychology is an important key factor in user retention in internet browsers. According to Soong and Zhou (2018), internet browser developers should understand what information should be provided and what is the purpose of new users to use the platform, optimize product/content strategies, and offer various product/content selections. The findings of previous studies showed that, getting feedback from users is important if developers want to increase user retention and it should be done systematically (Clement et al., 2018).

The results of a study conducted by Chung et al (2016), showed that strategies that can be developed by communication providers to increase high satisfaction and retention of users are in terms of services and basic functions of such internet browsers. Apart from that, the design features of internet browsers also increased user retention (Kim, 2012) while providing in-depth experience as well as increasing opportunities for social interaction in shaping user retention in internet browsers (Kaur et al., 2016).

Consumers' retention of internet browsers is also due to users feeling of having a high inclination towards the web. The results of a study by Vatanasombut et al (2004) showed that when users have a high commitment to a service, they will maintain the use of the service. Past studies are also supported by a study conducted by Wang et al (2017), the findings of the study showed that detecting various types of activities in internet browsers contributes to better user understanding and participation. This suggests it is forming a more proactive and effective user retention strategy.

According to Yilmaz and Ferman (2017), customer satisfaction, trust in a service, product and brand have a positive impact on consumer retention in using the service. This is more clearly stated when there is a good relationship between customer service officers in handling any complaints, resolving problems and acceptance of improvement proposals.

### **Shariah Compliant**

Discussions on the concept of Shariah compliance in the field of communication and media are still less widespread. Most past studies have discussed the issue of the disadvantages of websites containing inappropriate content especially to internet users among children and adolescents. As the use of internet browsers is now more widespread, the existence of websites that comply with Islamic rules provides a different experience among users around the world and at the same time provides an opportunity for web browser builders to identify the user experience and maintain their usability, especially Muslims in the changing virtual environment quickly (Baber, 2019).

Rapid advancement in technology that changes day by day contributes to the ease of access to any search on the website just by using a smartphone. Therefore, it is important to take the shariah-compliant internet browser industry in Malaysia to a higher level and make it a global hub in the internet browser industry. Findings of past studies indicated that trust in technology and business expectations are key factors influencing Shariah-compliant internet



browsers (Oseni et al., 2018). In addition, previous studies also supported that these shariah-compliant internet browsers or businesses are less risky and last longer because they are in line with Islamic principles that encourage business practices or information that do not pose risks and harm to society (Cheong, 2021). Furthermore, it improves the quality of content (Can, 2020).

### Conceptual Framework

User experience was the independent variable of this study. The components under this variable were divided into three; attractiveness, perspicuity and efficiency. The dependent variable on the other hand was user retention, and the components were satisfaction, trust and ease of use. Figure 1 shows the illustration of the conceptual framework.

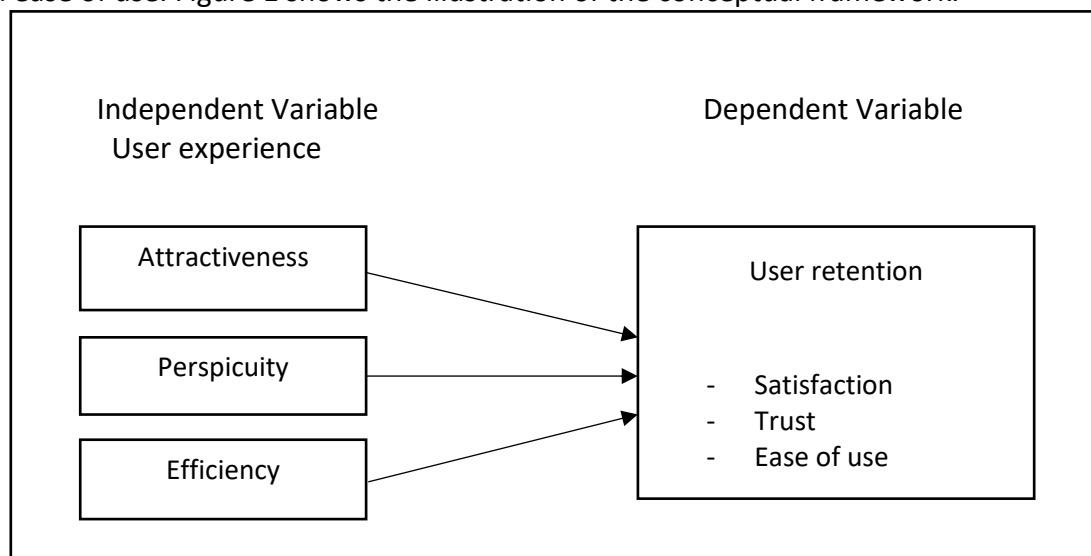


Figure 1: Conceptual framework

### Research Methodology

This research aimed to identify the user experience and user retention of Shariah-compliant web browser SalamWeb.com. Quantitative study has been used as data collection method by using survey questionnaire involving 310 respondents. The questionnaire has been divided into three sections; demographic profile, user experience and user retention. Both user experience and user retention questions used four-point Likert scale ranging from the lowest to the highest as adapted from Smith (2012). Prior to the data collection, this research conducted a pilot study to determine the reliability of the survey questionnaire. The 100 respondents of the pilot study required between 10 minutes to 15 minutes to answer the questions. The Cronbach alpha value was obtained at >0.6 indicating that the questionnaire items were reliable. It is reported that monthly active users of SalamWeb.com in the Klang Valley area is around 1,475 users. Hence, the minimum required sample size based on that population is 306 participants, calculated at 5% margin of error and 95% confidence level as determined by Krejcie & Morgan Table, (The Research Advisor, 2006). A purposive sampling technique has been used for data collection and the survey questionnaire were distributed to the participants via email. The analyses were performed using IBM SPSS software as a tool for quantitative study. Descriptive analysis comprising of mean, median and standard deviation were used to determine the user experience and user retention of Shariah-compliant web browser SalamWeb.com.

		Frequency	Percent (%)
Gender	Male	114	36.8
	Female	196	63.2
Age	15 - 24	142	45.8
	25 - 34	56	18.1
	35 - 44	92	29.7
	45 and above	20	6.5
Race	Malay	303	97.7
	Chinese	3	1.0
	Others	4	1.3
Occupation	Student	139	44.8
	Self-employed	17	5.5
	Government sector	60	19.4
	Private sector	88	28.4
	Unemployed	6	1.9
Education	SPM/STPM	27	8.7
	Diploma	150	48.4
	Degree	96	31.0
	Master	35	11.3
	PhD	2	0.6

### Findings

The survey questionnaire collected data from 310 respondents. Table 1 shows the demographic data that have been analysed in terms of gender, age, race, occupation and education of the SalamWeb.com users. Demographic profile analysis is very important in order to identify the background of the respondents who have answered the survey questionnaire. Demographic analysis indicates that in terms of gender, the frequency of female respondents is 196 with a percentage of 63.2% as compared to male respondents of 114 with a percentage of 36.8%. Meanwhile, the respondents' age is highly distributed at the age range between 15 to 24 years (45.8%), between 35 to 45 years (29.7%), between 25 to 34 years (18.1%) and 45 years and above (6.5%). Majority of the respondents were Malay (97.7%), while Chinese (1.0%) and others (1.3%). In terms of the respondents' job profile, majority were students (44.8%), followed by private sector (28.4%), government sector (19.4%), self-employed (5.5%), and unemployed (1.9%). In terms of the respondents' educational background, majority of them were Diploma graduates (48.4%), followed by bachelor (31.0%), master (11.3%), SPM/STPM (8.7%) and the remaining 0.6% of the respondents were PHD holders.

Table 1: Demographic

A twelve-items questionnaire were used to identify the respondents' user experience of using SalamWeb.com. The attractiveness, perspicuity, and efficiency were measured by asking these questions that is presented in Table 2 below.

Statement	N	Mean	Std Dev
I think that SalamWeb browser is organized	310	3.35	.624
I think that SalamWeb browser is practical	310	3.34	.611
I feel that SalamWeb browser is easy to use	310	3.33	.591
I think that SalamWeb browser is efficient	310	3.32	.611
I feel that the features on SalamWeb browser are easy to get familiar with	310	3.32	.606
I feel that SalamWeb browser is clear to navigate	310	3.30	.593
I think that SalamWeb browser is fast	310	3.28	.626
I understand how to use SalamWeb browser	310	3.28	.618
I feel that SalamWeb browser is user friendly	310	3.25	.631
I feel that SalamWeb is a good browser	310	2.72	.921
I enjoy using SalamWeb browser	310	2.66	.909
I feel that Salamweb browser is attractive	310	2.62	.926

Table 2: User experience of SalamWeb.com

Table 2 above presents the mean and standard deviations of the user experience of SalamWeb.com among its active users. The results of the descriptive analysis show that "I think that SalamWeb browser is organized" is the experience most felt by SalamWeb.com users with a mean value = 3.35, followed by "I think that SalamWeb browser is practical" (Mean=3.34), "I feel that SalamWeb browser is easy to use" (Mean=3.33), "I think that SalamWeb browser is efficient" (Mean=3.32), "I feel that the features on SalamWeb browser are easy to get familiar with" (Mean=3.32), "I feel that SalamWeb browser is clear to navigate" (Mean=3.30), "I think that SalamWeb browser is fast" (Mean=3.28), "I understand how to use SalamWeb browser" (Mean=3.28), "I feel that SalamWeb browser is user friendly" (Mean=3.25), "I feel that SalamWeb is a good browser" (Mean=2.72), "I enjoy using SalamWeb browser" (Mean=2.66) and "I feel that SalamWeb browser is attractive" (Mean=2.62).

A twelve-items questionnaire were used to identify factors that contributed to the user retention of SalamWeb.com. The satisfaction, trust and ease of use were measured by asking these questions that is presented in Table 3 below.



Statement	N	Mean	Std Dev
I could access SalamWeb browser from the latest technology device	310	3.45	.599
I am satisfied with the quality of the information given by SalamWeb browser	310	3.36	.572
I feel confident while browsing using SalamWeb	310	3.35	.591
It was easy to search for the current issue on SalamWeb browser	310	3.35	.598
It only took a while to download information on SalamWeb browser	310	3.35	.582
I trust the current information provided by SalamWeb	310	3.34	.572
I trust SalamWeb service to search for the current issue	310	3.34	.600
It was easy to ask SalamWeb browser to do what I want	310	3.34	.610
It was easy to access SalamWeb browser to get current issue	310	3.34	.601
I am satisfied with the accuracy of the information given by SalamWeb browser	310	3.34	.574
I am satisfied with the wide range of features by SalamWeb browser, ensuring that I find what I need without having to browse another website	310	3.27	.622
I trust SalamWeb to handle my information security, such as credit card information, personal information and purchase records	310	3.21	.697
I am satisfied with the unique website design offered by SalamWeb	310	2.65	.930
I am satisfied with the customer service provided by SalamWeb	310	2.62	.929

Table 3: User retention of SalamWeb.com

A descriptive analysis to determine the contributing factors to user retention are presented in Table 3 above. *"I could access SalamWeb browser from the latest technology device"* is the main factor with a mean value of 3.45. A total of 141 respondents answered "Agree" and 156 respondents answered "Strongly Agree" for this factor. This was followed by *"I am satisfied with the quality of the information given by SalamWeb browser"* with a mean value of 3.36 from respondents who answered "Agree" (175 respondents) and "Strongly Agree" (124 respondents). *"I feel confident while browsing using SalamWeb"* is the third highest contributor factor with a mean value of 3.35 derived from "Agree" (168 respondents) and "Strongly Agree" (125 respondents). *"It was easy to search for the current issue on SalamWeb browser"* has a mean value of 3.35 with respondents answering "Agree" (168 respondents) and "Strongly Agree" (126 respondents) who sit in the fourth place contributing factors to user retention of SalamWeb.com. The fifth factor contributor is *"It only took a while to download information on SalamWeb browser"* with a mean value of 3.35 derived from "Agree" (170 respondents) and "Strongly Agree" (125 respondents). The sixth factor contributor is *"I trust the current information provided by SalamWeb"* with a mean value of 3.34 derived from "Agree" (177 respondents) and "Strongly Agree" (119 respondents). The seventh factor contributor is *"I trust SalamWeb service to search for the current issue"* with a

mean value of 3.34 derived from "Agree" (167 respondents) and "Strongly Agree" (124 respondents).

The eighth factor contributor is *"It was easy to ask SalamWeb browser to do what I want"* with a mean value of 3.34 derived from "Agree" (166 respondents) and "Strongly Agree" (125 respondents). The ninth factor contributor is *"It was easy to access SalamWeb browser to get current issue"* with a mean value of 3.34 derived from "Agree" (168 respondents) and "Strongly Agree" (125 respondents). The tenth factor contributor is *"I am satisfied with the accuracy of the information given by SalamWeb browser"* with a mean value of 3.34 derived from "Agree" (178 respondents) and "Strongly Agree" (120 respondents). The eleventh factor contributor is *"I am satisfied with the wide range of features by SalamWeb browser, ensuring that I find what I need without having to browse another website"* with a mean value of 3.27 derived from "Agree" (176 respondents) and "Strongly Agree" (111 respondents). The twelfth factor contributor is *"I trust SalamWeb to handle my information security, such as credit card information, personal information and purchase records"* with a mean value of 3.21 derived from "Agree" (164 respondents) and "Strongly Agree" (109 respondents). The thirteenth factor contributor is *"I am satisfied with the unique website design offered by SalamWeb"* with a mean value of 2.65 derived from "Agree" (88 respondents) and "Strongly Agree" (70 respondents). *"I am satisfied with the customer service provided by SalamWeb (complaint, chat, etc.)"* is a last factor contributor with a mean value of 2.62 from respondents who answered "Agree" as many as 92 respondents and "Strongly Agree" as many as 66 respondents.

## Discussion

Based on the findings, it can be summed up that majority of the active SalamWeb.com users are among students with the age ranging from 15-24 years old. The findings of this study also showed that from the aspect of user experience, most of the SalamWeb.com's active users felt that the browser is organised, practical, easy to use, efficient, easy to get familiar with, fast and clear to navigate. This somehow ticked the perspicuity and efficiency boxes. This finding is consistent with the findings made by Al-Hunaiyyan et al (2021) who identified that convenience and efficiency of a system increased the productivity and interactivity of the users. However, in terms of its attractiveness, most of them did not feel that it is a good browser, unattractive and lack of enjoyment while using it. Therefore, it is important to attract users to use SalamWeb.com browser with attractive and interesting content in order for them to have positive experience as what Anderson and Rey (2019) found in their study that internet browsers users are attracted to more attractive and interactive content.

The finding from this study also identified that SalamWeb.com is easy to use. It is easy to search and access for current issues on the browser and also, it only takes a while to download information on SalamWeb.com. The findings also showed that SalamWeb.com's users trust and feel confident for using the browser to look for current news and to handle users' information security such as credit card information, personal information and purchase records. However, in terms of satisfaction, most of the users did not feel satisfy with the website design and the customer service provided by SalamWeb.com hence this contributed to the low retention of SalamWeb.com usage. As indicated in previous study by Yilmaz and Ferman (2017) that found customer satisfaction and trust in a service have a positive impact on consumer retention.

## Conclusion

This study has achieved its aim to identify the SalamWeb.com user experience and user retention. The major finding of this study indicates that establishing good user experience will contribute in retaining users for SalamWeb.com browser. The active users of SalamWeb.com felt that the browser is user-friendly and efficient at the same time, and they put their trust on SalamWeb.com in handling any information security. For the record, there are no issue in terms of the efficiency, ease-of-use and trustworthiness of the browser. Therefore, this finding supports Al-Hunaiyyan et al (2021) that this will increase productivity and interactivity of the users of SalamWeb.com for using the browser on their daily basis. However, in order to retain the existing users to keep using SalamWeb.com and not switching to other browsers, SalamWeb.com must look into the attractiveness of its browser. This could be in terms of its content, website design, and any interactive elements offered in the browser. Apart from that, customer satisfaction should also be another concern. Majority of the users are least satisfied with the customer service provided by SalamWeb.com that includes complaint and chat. Hence, this issue must be taken care of, so it would not affect user retention in a long run. The findings of this study will help SalamWeb.com in identifying and acknowledging the strengths and weaknesses that the platform serves to its users. In order to increase the number of new users, strategic research and planning must work together to generate and implement the ideas for better experience and retention of SalamWeb.com users. Future research should expand the geographical area so that the findings could be generalised to the whole population, and more insightful findings could be gathered to help SalamWeb.com to retain their users.

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