

A Survey on the Necessity of Mobile Application Towards Robust Interaction Among Residents

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Abstract—The growth of digital technologies is transmuting almost every aspect of modern life as it can be used to improve the quality of life among community. Physical and virtual areas of people lives are increasingly intertwined by digital interaction and relationship. More and more people interactions are mediated by using technology. People can find any information at their fingertips than ever before. So, the objective of this paper is to identify the need of mobile application towards robust interaction among residents. Moreover, the purpose of this paper is to determine the effectiveness of communication relationship among residents. Therefore, quantitative method is used to find out whether people need the mobile residence application or not in terms of communication and help. With mobile residence application, people can warn any potential risk and hazards as well as to immediately respond if there is an emergency occur among residence. Besides, people can interact with their community members, help and concern to each other, thus improve the relationship among residents. From the finding, most of people tend to have mobile residence application that can cater their needs in socializing and providing services and help. Therefore, having it can generate robust interaction to community, thus leads to stronger community and prosperous nation.

Keywords—Interactions; Mobile Application; Residence; Survey;

I. INTRODUCTION

Throughout the year, Malaysia government is trying to adopt a balanced improvement to the country either in terms of economic growth and the well-being of society. The well-being of society can be in terms of various aspects improved public security and safety, enhanced emergency services and greater social integration and unity [1].

One of the focus areas of Eleventh Malaysia Plan for the year 2016 to 2020 is to create safer living environments for thriving communities [1]. So through this, there is a need to know whether people nowadays still having time to greet and talk with their neighbor in one residence or not. Then, there is also

a crucial part to know the level of relationship effectiveness in the communication among residents; and to know either more people nowadays need to have mobile application to ease communication and get help through digital interaction or not.

Hence, this paper is organized into several sections. Section I covers about the introduction of this topic and Section II focus on preliminaries study. The methodology is described in Section III; and findings and discussion are discussed in Section IV. Last but not least, conclusion and future works are covered in Section V.

II. PRELIMINARIES STUDY

A. Smart Society through Smart Residents

The concept of Smart Society is defined in many ways. The concept of Smart Society emphasizes on the importance of technology in making people's lives easier. This includes the fact that it allows people to focus on the existing resources to improve relationships, health, wellbeing and the quality of life [2]. In short, the smart society affects our lives in many ways. One of it is that the smart residents of the smart society will no longer need to have face-to-face interaction to disseminate information. Apart from that, there are studies which are carried out and the conclusion is that there is a desired future scenario in which ambient networks provide connectivity for (wireless) access to data and energy [3]. The studies indicate that the smart residents are free to choose what they want as the system ensures the privacy and security of users.

B. Robust Interaction Overview

Forest and Kearns have highlighted the issue of societies nowadays are facing new crisis of social cohesion where social

interaction in a neighborhood has become less important [4]. Despite the fast development of technology globally, society has neglected the relevance of robust interaction within their community and ignoring the healthy life in a society. As part of the communities, each member has to find ways to strengthen their members’ sense of social identity and encourage more positive involvement in the community [5]. Pendry and Salvatore have recommended that online interaction is used to foster offline engagement and preserve the well-being of the community [6].

C. Mobile Application Necessity

The growing numbers of mobile applications that are easily accessible for smartphone users all around the world signifies not only the current trend in mobile application technology, but also indicates the necessity of mobile applications in many fields. Mobile applications have been widely used in business [7], education [8] and in social life [9]. Its importance in different sectors has mainly assisted the users in different ways and it seems irresistible. For example, user is no longer buying things using a web browser but his or her can install the application of that online shopping website provided easily through many sources and install the application as simply as it. Therefore, it has become a necessary to have mobile application in user mobile devices as his/her can install various application uploaded in the play store.

III. METHODOLOGY

In this paper, quantitative method is applied specifically by using survey through questionnaire. The questionnaire is used as the data collection to analyze the findings. Random sampling technique is used to select the sample of population of respondents. However the focus group is still inside the state of Kedah, Malaysia. Out of 80 people, only 67 respondents answered the survey questions successfully. This gives a response rate of 83.75%.

The questionnaire is divided into four parts. Part A involved questions on the people response in the event of an emergency or accident in the residential area. Part B is focused on relationship among residents while Part C involved questions regarding the need of having mobile residence application. The last part which is Part D comprised questions regarding demographic information. TABLE I shows the survey questions that was distributed to the sample population of respondents.

Part A- Responses in the Event of an Emergency or Accident	
Item No.	Description
1	If you are experiencing problems at home such as a leaking pipe or interrupted power supply, which individual or organization would you contact?
2	If you see a stranger trying to get into your neighbor’s house, what would you do?
3	Your next door neighbor is having some problems with their power supply and asks for your help. What would you do?
4	You see a person struggling with his/her car as the car broke down in your residential area but you do not know him/her. What would you do?
5	What would you do if your car breaks down outside your residential area?
Part B- Relationship among Residents in Residential Area	
Item No.	Description
6	How close are you with your neighbor?
7	What are the different ways used to send out invitations in your residential area?
Part C- The Need of Having Mobile Residence Application	
Item No.	Description
8	In your opinion, do you need to have an application that can make it easier for you to find people or get help fast from the people around you?
9	Do you need to have an application which can help you to communicate better with the people in your community? (e.g. making it easier to send out invitations or reporting urgent matters that are happening around your residential area)
Part D- Demographic Information	
Item No.	Description
10	Gender
11	Age
12	Marital Status
13	Working Hour
14	Type of Residential Area
15	Duration of living in the Residential Area

Table:1 The Survey Question.

IV. FINDINGS AND DISCUSSION

The findings of the questionnaire are tabulated in several diagrams which are graphs and charts. However, only few questions will be discussed in this paper.

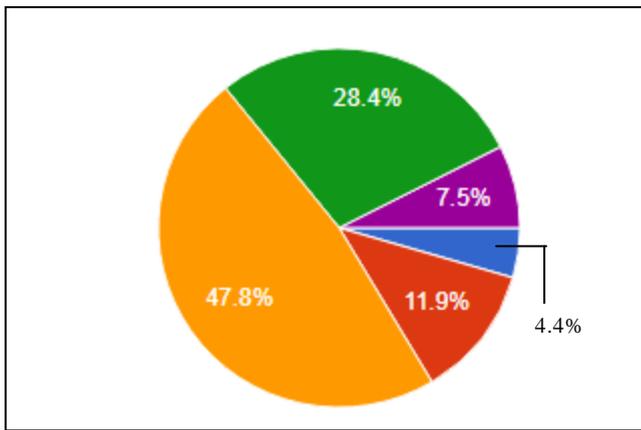


Fig. 1. Relationship Among Residents.

The survey question for item no 6 is related to the relationship of resident with his/her neighbour in the residential area. This question answer is based on Likert scale type. Therefore, TABLE II shows the color indicator with the answer description.

Color Indicator	Answer Description
Blue	We do not communicate at all
Red	We very seldom communicate
Yellow	We seldom communicate
Green	We often communicate
Purple	We very often communicate

Table 2: Color Indication of the Chart.

Based on Fig. 1, most of the respondents were seldom to communicate with their neighbors which denote the highest percentage that is 47.8%. This is due to the long duration hour of working which is approximately answered with eight (8) to ten (10) hours a day. Besides, the people have lived in their residential area quite for a long time which is in the range of eleven (11) to twenty (20) years. However, only 4.4% of people do not communicate with their neighbors at all.

TABLE III shows the need of having mobile residence application from the respondent’s view. The survey question for no. 8 is regarding on respondent’s opinion either to have application that is easier for his/her to find person that can help his/her fast around your residential area. The survey question for no. 9 is regarding on having application that can help resident to communicate better with the people in his/her

community (e.g. making it easier to send out invitations or reporting urgent matters that are happening around your residential area). Therefore, Fig. 2 and Fig. 3 depict the response in the form of chart.

Item No.	Response of Respondents (%)				
	No. of Respondent		It depends on the situation (Blue color)	I need it (Orange color)	I really need it (Yellow color)
	Female	Male			
8	48	19	28.4	44.8	26.9
9			26.9	47.8	25.4

Table 3: the Need of Having Mobile Residence Application.

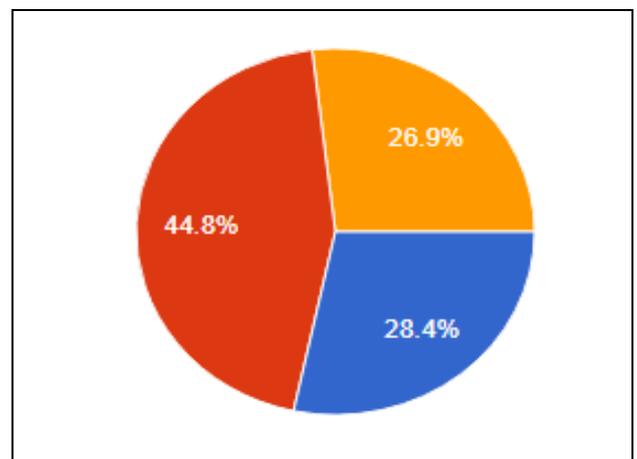


Fig. 2. Respondent’s View on Question No. 8.

Based on Fig. 2, the answer of having mobile residence application that is “I need it” denotes to highest percentage that is approximately 44.8% and the yellow color indicator represents the answer of “I really need it” that is only indicated to 26.9%. Then, respondents who answer it depends on the situations only denote to 28.4%. This shows that most of respondents keen to have mobile residence application due to lack of communication relationship among their neighbors if there is something happen to them and they can easily get help with the use of the application.

Based on Fig. 3, most of the respondents have highest answer the orange color indicator which is “I need it” which indicate to 47.8%. Only 25.4% really wants the mobile residence application and 26.9% denotes to the mediocre answer of

respondents which is depends on the situation occur. However, due to the female respondents (48) have answered this questionnaire more than male respondents (19), there is a factor that female respondents are mostly working and they do not have quality time of life to communicate since they spend their time more in the workplace. This is justified by the duration of hours work. Besides, most of the respondents live in the urban area. Because of that, they prefer to communicate better with their community using mobile application.

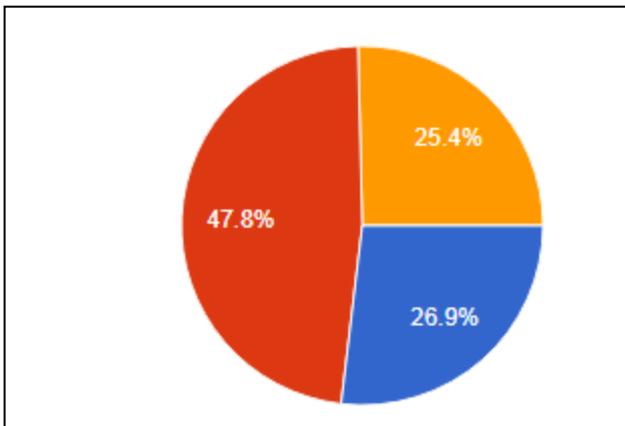


Fig. 3. Respondent's View on Question No. 9.

V. CONCLUSION AND FUTURE WORKS

In conclusion, there is a lack of communication of people among their community due to the long duration of working hour which is approximately eight (8) to ten (10) hours per day. Besides, there is a high needs to have mobile residence application as an alternative to communicate with their community since the mobile technology is currently evolving rapidly. Therefore, a good interaction between community members will shape a good norm and culture to the smart society in Malaysia. Hence, the objectives of this paper are achieved.

For future works, the study of user preference on mobile residence application can be identified and as to further the development of the application. Last but not least, the development of mobile residence application prototype can be implemented to study the effectiveness of the relationship level of communication among residents or community.

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