YOUTH PERSONAL DECISION AID (YOUTHPDA): THE PREFERRED YOUTH DECISION MAKING AREAS

Norfiza Ibrahim[1], Norshuhada Shiratuddin[2], Siti Mahfuzah Sarif[3], Syamsul Bahrin Zaibon[4], Azizi Ab Aziz[5], and Haslina Mohd[6]

[1]Universiti Teknologi MARA (UiTM) Perlis, Malaysia, [2,3,4,5,6]Universiti Utara Malaysia, Malaysia,
[1]norfiza@perlis.uitm.edu.my [2]{shuhada; [3]ctmahfuzah; [4]syamsulbahrin; [5]aziziaziz; [6]haslina}@uum.edu.my

ABSTRACT. A study was conducted to identify the most applicable area for youth to utilize the Personal Decision Aid (PDA). There are eight areas of decision making namely study, career, lifestyle, purchasing, friendship, politic, religion and marriage have been explored in this study. An online survey gathered from 80 respondents, age 18 to 24 years old to participate in the study. The main objectives of the survey are to identify the preferred choice of aid in the mentioned areas as well as trying to figure out their intention to use the aid if provided. The outcome of this survey indicates that four main chosen areas from the youth are study, career, purchasing and lifestyle.

Keywords: Personal Decision Aid, decision aid, decision making

INTRODUCTION

Recently, computer and internet have played a very crucial role in improving and facilitating people's life. Information Technology has made people's activities more easy, simple and flexible. One of the activities involved is dealing with assisting people in decision making. According to Zhang et al. (2011), the development of personalized recommendation technology is to recommend more valuable information to meet user's personalized demand.

Personal decision aid (PDA) is a system that might help users in assisting them to make decision. According to Chen et al. (2010), a decision aid is online computer-based software which is able to identify appropriate option automatically from numerous product alternatives based on specific criteria.

Decision making is defined as the process and act of making a choice by agents such as individuals, groups as well as institutions among many possible courses of action, evaluation, thinking, and feeling in a given situation (Ule, 2009). Decision aids come in many varieties, possibly vary in complexity from simple checklists to statistical model, even to complicated expert systems. Ideally, decision aid is designed to assist humans in choosing the best decision. However, creating great effective decision aids is not simply a matter of finding a method or the interface but is also of finding the most effective way to assimilate tools with human problem solving need (Hayes & Akhavi, 2008).

Decision aid is aimed at generating meaningful recommendations for users (Melville & Sindhwani, 2010), in particular youths. Living in youth era signifies the greatest challenge in determining what is best for the future. Having no proper or specific guidance to assist youth

in making critical life decisions could cause severe effects to their future and consequently to the development plan of a country (Abbas, 2007).

RELATED WORKS

Chen et al. (2010) used to develop a Web-based recommendation system based on the application of an AHP-based mechanism. The study conduct a controlled experiment with 244 mobile phone users which focus on both content and system satisfaction in order to experimentally evaluate the prototype. To construct effective recommendation systems, the results suggest the feasibility and value of using Analytic Hierarchy Process (AHP). In general, this study contributes to research and practice in aid systems and helps develop mobile phone recommendation systems for online stores and consumers in particular.

Al-Azab and Ayu (2010) discussed on a useful mechanism that has been built to assist the decision makers in how to make decision for certain problem using AHP method. This system provides an accurate and acceptable result based on several criteria and alternatives provided by the user. Through this system, a user is able to make a decision in a convenient, reliable and faster way as well as get the final result of the decision by showing the best alternative based on the most important criteria. The Web Based Multi-Criteria Decision Making System (MCDM) using AHP method has been successfully developed to give the users opportunity and a way to assist them finding the best choice for their decision.

Meanwhile, there is a study focuses on developing an empirically based framework for formulating and selecting a vendor in supply chain. Vahdani et al. (2009) applies the fuzzy set theory to evaluate the vendor selection decision by applying AHP in obtaining criteria weights and applied Technique for Order Performance by Similarity to Idea Solution (TOPSIS) for obtaining final ranking of vendors. The usefulness of this model is explained through an empirical study for vendor selection. TOPSIS was used to aggregate the weight of evaluate criteria as well as the matrix of performance in order to evaluate the three vendors.

Based on the Isiklar and Buyukozkan (2007), MCDM approach was used to evaluate the mobile phone selection according to the users' preferences order. The methods used are AHP and TOPSIS where AHP was applied to identify the relative weights of the evaluation criteria while TOPSIS was used to rank the mobile phone alternatives. The findings can be summarized as both methods are appropriate in evaluating the selection of mobile phone and give the most accurate decision when purchasing a phone as the AHP method also capable to be used to rank mobile phone alternatives.

Besides, there are a lot more examples of available decision aids, however there are still lacking on the aid that specifically designed perfectly for youth according to their desired areas.

WHAT YOUTH WANTS?

The preliminary study has provided initial evidence on the necessity to explore the decision making assistance to youths. With the existence of a variety of decision aids mentioned in previous section, how these aids could help the youth should be studied. Basically, youth tends to face many area of decision making with a lot of choices in their hand which this is based on the completed preliminary study. However, they are inexpert on the constraint thus need to decide various kind of things plus existing decision tools are too complex and structured as well as not easily understood models for the youth. Without an effective decision aid, people may tend to make inaccurate decision.

A review of the youth situations in Malaysia done by the United Nations (2002) has mentioned the following:

- Challenges in surviving higher learning education (i.e. tertiary education).
- Lack of support in counselling programmes that deal with youth biological changes. Stress owing to biological changes affects youth's behaviour, personality, attitude and lifestyle.
- Inactive unemployed youth who does not look for work because he or she believes that no work is available or that he or she is not qualified

Apparently, the above mentioned issues could be due to many factors and one of them is lack of ability in making decisions among youth which will lead to being not knowing of what to do and regretting the present situations. Accordingly, implementation of decisional aid in youth services is aimed to educate the youth community in terms of decision awareness, decision making effort and building the self-confidence.

METHOD FOR THE SURVEY

A survey for preliminary study was employed to collect data from 80 youths aged range from 15 to 24. The method used was random sampling where there are quite big population of youth and it is often impossible to identify every member of the population, so the pool of available subjects becomes biased (Statpac, 2013).The analyses of the study further support the justification of the choices research area. As for this study, youth are the main scope for the situation since the United Nations define youth as persons between the ages of 15 and 24 years old (UNESCO, 2012). Respondents were of different gender, races, academic backgrounds and employments status. An online instrument for the preliminary study was created and goes through the validity process from the experts in this field. Next, the instrument was distributed to the respondents via several of communication medium such as emails and social networking websites. The instruments that have been responds were analysed based on the research objective needs. Main decision making areas that mostly preferred by youth were identified and will be convey to the next phase of research development (Figure 1).

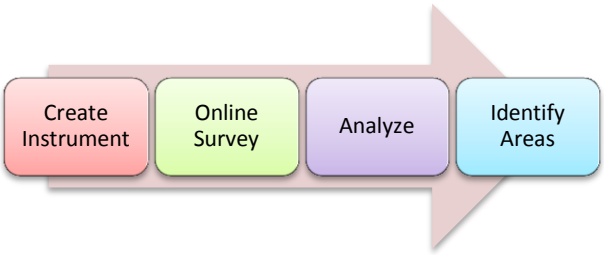

Figure 1. Process in the Youth Survey

Research Instrument

The instrument consists of a set of 22 questions with mixed format which includes three different parts namely demographic, decision making styles and suggestions for the PDA guidance. Table 1 shows sample of the questions that have been carried out to the respondents.

Table 1. Sample of Questions for Instrument in the Preliminary Study

No	Items
1	Have you made your own personal decision in any of the following? (study, career, lifestyle, purchasing, friendship, politic, religion, marriage)
2	How your decision is normally made?
3	Decision is a way in helping a person to make decision by sorting out the available choices. In your opinion, do you need an aid to help you to sort out decision?
4	Personal decision aid is a computerized system that assists a person by providing the best suggestion based on list of options provided by them. If the intended system is available, would you use the personal decision aid?
5	Currently, there are plenty of Personal Decision Aid (PDA) published on the web. Are you aware of any of above mentioned PDAs?
6	Have you tried using any of the decision aid before?
7	In your opinion, would such aid be necessary?
8	Given here are the areas that might become your PDA. Briefly state how can the PDA aid you in given areas

Findings and discussions

Table 2 shows that youth of aged 15-17 were excluded. This is due to assumption that these age groups in general their decision making activities are still influenced by their parents or guidance (HealthLinkBC, 2012).

Table 2. Frequencies of Respondents

Age	Respondents
18	2
19	28
20	7
21	18
22	17
23	8
24	3
Total	80

Table 3. Number of responses for Decision Style by Youth

Decision Style	%
Decide on your own	85%
Get advice from parents/family	85%
Get advice from friends	64%
Get advice from Professional advisors	21%

The youth have experience in dealing with their personal decision; eight areas were identified. These are study, career, lifestyle, purchasing, friendship, politic, religion and marriage. Study, friendship, life style and purchasing are the most areas that the youth themselves experienced in decision making. Results indicate that 93% of the youth made decision on their study, followed by friendship (84%) and lifestyle (76%). Generally, the youth decide decision on their own or get advice from parents and family (85%) and not prefer to get advice from professional advisors as shown in Table 3.

The respondents were informed that the decision aid will assist a person by providing the best suggestion based on the list of options provided by them. The result shows that the respondents positively need decision aid to sort out their decision (Figure 2). Consequently, 88% of them too have intension to use the decision aid (Figure 3) in helping them to make decision.

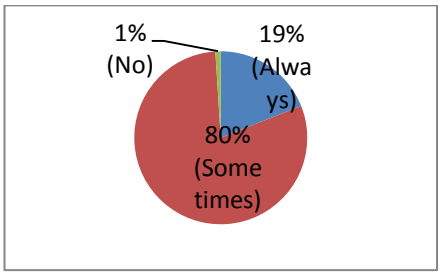

Figure 2. the Need for Decision Aids to Sort out the Decision

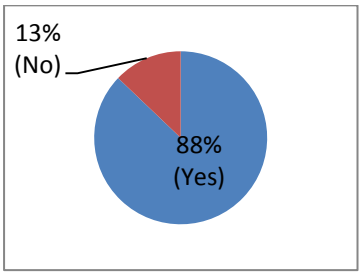

Figure 3. Intend to Use the Decision Aids

As mentioned earlier, eight areas were identified to be selected by the respondents namely study, career, lifestyle, purchasing, friendship, politic, religion and marriage. However, it seems that study (75%), career (72%), purchasing (59%) and life style (51%) are the most preferable areas chosen by the youth as revealed in Figure 4.

Results also indicate that although there are plenty PDA available on the web especially in searching for partner, purchasing, as well as education 70% of the respondents are unaware of such technology.

Then, for those who are aware, only 10% had experienced using such technology. Although this is the case, 69% agreed that PDA is probably necessary (Figure 5) and 88% will use PDA as a tool.

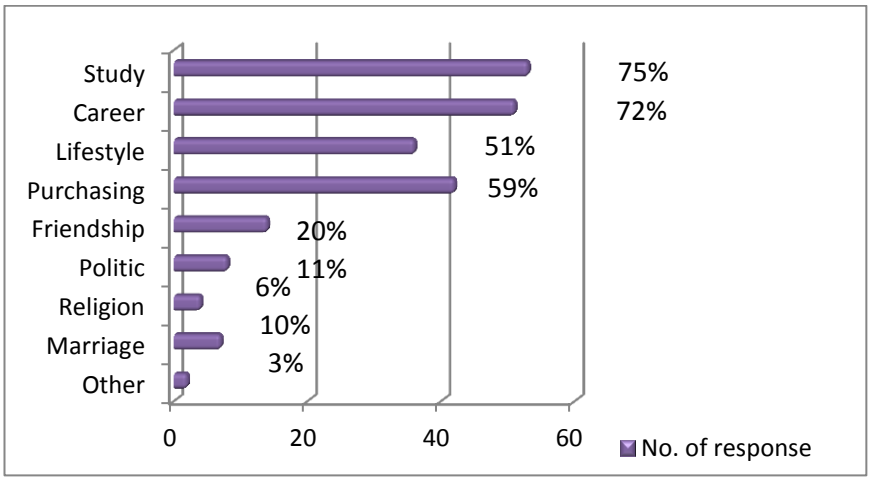

Figure 4. Most Preferable Areas Chosen by Youth

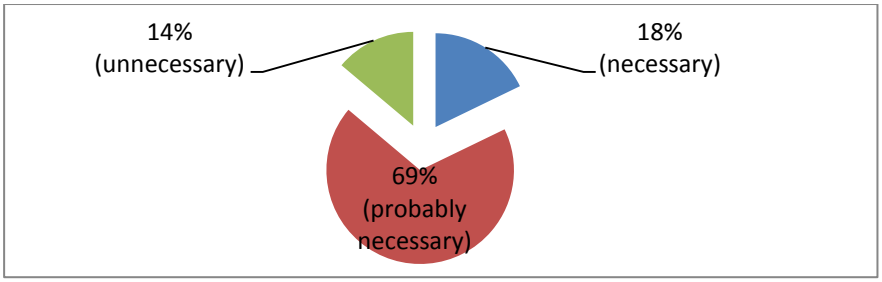

Figure 5. The Needs for the Decision Tools

Result too indicates that mostly 73% of the youths are currently unaware of available decision tools or PDA. However, potential respondents indicated that 88% of them have an intension to use the PDA along with more than 80% might thinking that the PDA is a need.

Implication to YouthPDA

The proposition of this study is the realism of a helpful PDA for youths by assisting them making decision in their preferable areas. Decision making in 'study' shows the most required area by youth which includes the program and IPT choices. Next area is 'career' (72%) that might involves youth in their career path, job industry as well as their job type interest. 'Purchasing' areas which opt by 59% of the youth includes decision assistant in selecting product that will basically base on brand, price, colour and model. Other than that, 'lifestyle' (51%) area holds the type of lifestyles together with favoured activities such as sports, music, fashion, and gadgets.

Therefore, the research development will consider the dynamic design model in developing the YouthPDA by merging the main four areas (study, career, purchasing and lifestyle). The model will specifically design to be personal decision aid in assisting youth in the selected areas of decision making. It will also suggest possible improvement that could further enhance the suggested conceptual design model in any computerized personal decision aid system.

CONCLUSION

This work is an initial study of a PDA development for youth in Malaysia. The main objective of the study is to acquire useful information and relevant data to support the future research on YouthPDA development. Youths' preferences on PDA and their perceptions were examined where the responses show positive feedback. The results reveal that a majority of the surveyed youths have no experience in dealing with PDA. Generally, the results of this study are consistent with previous study where youth tends to make technology to be part of their lifestyles. This is due to misappropriation criteria namely unusable and unlearns able criteria that includes in current technology (Carrol et al., 2002) that makes youth not really looking for such technology. The finding from the survey also disclosed that, most of them are willing to use the PDA as their decision maker assistant. In conclusion, many requirements need to be considered in order to obtain the maximum benefits from the YouthPDA.

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