The Study of Need and Factors Affecting the Selection of Tablet between IPAD and Samsung Galaxy Tab compared between the Flight of Army Aviation Center’s Pilots and Rangsit University’s students

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Abstract

This paper aims to investigate the need in tablet usage between iPad and Samsung Galaxy Tab in different population clusters. One population contains students of Rangsit University while the other population consists of the Army Aviation Center’s pilots. Various factors affecting the selection of tablet between two popular tablets for two population clusters were observed. The results found that the average of students of Rangsit University is preferred iPad than Samsung Galaxy Tab. On the other hand, the average of pilots of Army Aviation Center’s Pilot is preferred Samsung Galaxy Tab. One major finding is that the main purpose of tablet usage for the students is information searching while that for the pilots is reading and writing information.

Keywords: Tablets, The new iPad, Samsung Galaxy Tab 7.7, Factors affecting, Pilot

1 Introduction

Nowadays, tablets are widely used for both students and workers. There is a needed to study factors affecting selection of tablets usage. The priority of various factors affecting the use of tablets is also interesting. iPad by Apple and Samsung Galaxy Tab by Samsung are very popular tablet. United and Continental Airlines were discarded their paper flight manuals and navigational charts and embracing the iPad. Approximately 11,000 iPads will be given to all United and Continental pilots starting on August 2011[1]. Recently, the Thai government has launched the pilot project, which gives a free tablet for a 1st grade student. Achieving the readiness of using tablet in teachers and parents who are in charge of management for supporting students’ education is very important. Thus, the readiness examination was identified in [2]. Meennapa Rukhiran and Sanon Chimmanee focused on investigating readiness of teachers and parents of grade 1st students during October to November 2012. There are 88 schools with 110 teachers and 2,297 students that are examined from four districts under administrative divisions; Mueang Chathaburi, Tha Mai, Na Yai Am and Kaeng Hang Maen in Chanthaburi Province. There were 110 teachers and 341 parents who were the samples [2].

In [3], Juthamak Kunasakpanich studied factors affecting the selection of the smart phone between iPhone and Backberry of Rangsit University’s students during August to September 2012. There were 400 sample students from total 25,424 students. The result found that iPhone is popular than BlackBerry. For iPhone, the most influential factor for iPhone selection is a brand itself. In[4], Saranya Ruensri studied the behavior choice to buy mobile phone between blackberry and other mobile phones of students in Chiang Mai University. The information was of primary source coming from questionnaire interview of 400 samples from total 24,592 students during May 2010. It was found that functional capacity of the product factor is the most influential factor.

What factors contributed to the success of iPad and Samsung Galaxy Tab. Thus, in this paper investigate the need in tablet usage between iPad and Samsung Galaxy Tab in two population clusters. Various factors affecting the selection of tablet are presented. The priority of various factors affecting the use of tablets is also investigated.

First population cluster is students of Rangsit University. There were 400 sample students from total 25,424 students. These questionnaires were done during September 2012 to January 2013. The
results found that in average, 78% of Rangsit University’s students preferred iPad to Samsung Galaxy. Interestingly, the purpose of using tablet is mainly for information searching which can be accounted for 56.75%. The most influential factor for iPhone selection is a brand itself and the MEAN equals to 4.45.

The other population cluster is the Army Aviation Center’s Pilot. There were 175 pilot samples. This part was done during September 2012 to January 2013. From the result, it is found that the functional capacity of the product factor is the most influential factor. Interestingly, the target of using tablet is mainly for reading and writing information which can be accounted for 52%. It is interesting to note that the different population clusters are different the purpose of using tablet and the requirement for tablet selection.

The rest of this paper is organized as follows. Section 2 presents literature reviews. Research methodology is stated in the section 3. Experimental result is presented in the section 4. Section 5 gives conclusions and discussions to the paper.

2 Literature Reviews

2.1 Tablet

In [5], Micah Stickel used the tablet PC as a lecturing device in 2009. Since the general student body contains many different types of learning styles, these new tools can provide a means to reach a wider range of students than the traditional blackboard-based lectures. Overall, the students in all courses (a total sample size of 280) were quite positive about the use of the tablet, with 56% of the students stating that “The technology of the tablet...greatly improves my learning experience.” It was found that there were no statistically significant differences in how the students of different learning styles responded to the use of the tablet PC. Recently, the Thai government has launched the pilot project, which gives a free tablet for a 1st grade student. Achieving the readiness of using tablet in teachers and parents who are in charge of management for supporting students’ education is very important. Thus, the readiness examination was identified in [2]. Meennapa Rukhiran and Sanon Chimmanee focused on investigating readiness of teachers and parents of grade 1st students during October to November 2012. There are 88 schools with 110 teachers and 2,297 students that are examined from four districts under administrative divisions; Mueang Chathaburi, Tha Mai, Na Yai Am and Kaeng Hang Maeo in Chanthaburi Province. There were 110 teachers and 341 parents who were the samples [2]. More interestingly, from this study many teachers and parents are potentially worries regarding the limited capacity of young students’ caring tablet. For example, screen and equipments caring, tablet cleaning, tablet losing and tablet crashing. In addition, managing time of using tablet should be controlled by teachers and parents because students can suffer eye injuries from spending time too long on tablet.

2.2 Influential Factor for Product Selection

What Factors Contributed to the Success of Apple’s iPhone?[3]. John Laugesen and Yufei Yuan defined a set of success criteria to observe the success of the iPhone and present a comprehensive success model [3].

In [4], Jutharat Kunasatpanich studied factors affecting the selection of the smart phone between iPhone and Backberry of Rangsit University’s students during August to September 2012. Out of 25, 424 students, only 400 students were used as the subjects for this study. The result found that iPhone is popular than Blackberry. For Blackberry, the most influential factor is the price, the distribution channel is second high and the social factor is the lowest. For iPhone, the most influential factor for iPhone selection is a brand itself. The product factor is second high and the social factor is also the lowest.

In [5], Saranya Ruensri studied the behavior choice to buy mobile phone between blackberry and other mobile phones of students in Chiang Mai University. The information was of primary source coming from questionnaire interview of 400 samples from total 24,592 students during May 2010. It was found that product price, buying objectives, functional capability of the product, and the current popularity of specific mobile phone models were associated with the decision to buy Blackberry or mobile phone. Functional capacity of the product factor is the most influential factor.
3. Research Methodology

There are three main objectives of this paper:
1) Purpose of tablet usage is observed.
2) Various factors affecting the selection of tablet are presented. The priority of various factors affecting the use of tablets is also investigated.
3) Investigate the need in tablet usage between iPad and Samsung Galaxy Tab for two different population clusters.

3.1 Population

There are two different population clusters. First population cluster is students of Rangsit University. There were 400 sample students from total 25,424 students. The other population cluster is the Army Aviation Center’s Pilot. There were 175 samples from total 320 pilots.

3.2 Conceptual Framework

**Independent variables:**
Sample population:
- Students of Rangsit University
- Pilots of the Army Aviation Center’s Pilot

Tablets:
- The new Ipad
- Samsung Galaxy Tab 7.7

**Dependent variables:**
- Purpose of tablets usage
- Factors affecting to tablets selection
- tablets selection

3.3 Tool design

Before designing of the questionnaire, this paper has surveyed the target of tablet usage and other factors from sample students and pilots. From roughly survey of two population clusters, it was found that main target of tablets usage between students and pilots are different. Therefore, the questionnaires used to survey for two population clusters should be different in some item. This paper designs two questionnaires used to be tools for survey. Both two questionnaires consists of 4 parts. Pilot questionnaires contains as follows:
- Personal information
- Readiness and Need in laptops or tablets

Student questionnaires contains as follows:
- Personal information
- Behavior on tablet usage
- Factor influencing the selection on tablet between iPad and Samsung galaxy tab
- Suggestion and comment

The main difference of two questionnaires in part 3 as follow: 
**Questionnaires for students:** the factors affecting the selection of tablets as follow: product (functional capacity), price, place for buying, brand, seller, and the current popularity of specific mobile phone models.
**Questionnaires for pilots:** the factors affecting the selection of tablets as follow: product (functional capacity), price, and brand.

3.4 Collect Data

For Rangsit University’s students, the questionnaires were done during September 2012 to January 2013. For pilots, the questionnaires were done during December 2012 to March 2013

3.5 Analysis Data

This paper uses statistic mathematic that are frequency, percentage, mean, standard deviation.

4 Experimental Result

There are two subsections: Rangsit University students and Pilots of the Army Aviation Center’s Pilot.

4.1 Students of Rangsit University

1) Tablets Selection of Students
Figure 1. tablets Selection of Students

Figure 1. shows tablets selection of students of Rangsit University. The results found that in average, 78.34% of Rangsit University’s students preferred iPad, which it is the highest. Samsung Galaxy Tab is ranked as the second with 17.20%. Finally, Sony tablets comes as the lowest in the list with only 0.64%.

2) Purpose of tablet Usage for Students

Figure 2. Purpose of tablets usage of Students

Figure 2 shows the target of tablets usage for students of Rangsit University. It is seen that the purpose of using tablet is mainly for information searching which can be accounted for 17.47%. Social Network is ranked as the second with 16.70%. Game is ranked as the third with 14.93%. Entertainment is ranked as the fourth with 14.24%

3) Factors affecting the selection of tablets for Students

Table 4.1  Factors affecting the selection of tablets between iPad and Samsung for students

<table>
<thead>
<tr>
<th>Influential factors for selection</th>
<th>iPad</th>
<th>S.D.</th>
<th>Samsung Galaxy Tab</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Product *</td>
<td>4.37</td>
<td>0.49</td>
<td>4.00</td>
<td>0.60</td>
</tr>
<tr>
<td>2.Price</td>
<td>3.97</td>
<td>0.77</td>
<td>4.02</td>
<td>0.75</td>
</tr>
<tr>
<td>3.Distribution Channel</td>
<td>4.13</td>
<td>0.68</td>
<td>4.15</td>
<td>0.65</td>
</tr>
<tr>
<td>4.Brand**</td>
<td>4.45</td>
<td>0.63</td>
<td>4.03</td>
<td>0.70</td>
</tr>
<tr>
<td>5.Seller</td>
<td>4.20</td>
<td>0.70</td>
<td>4.03</td>
<td>0.74</td>
</tr>
<tr>
<td>6.Social Factor**</td>
<td>3.96</td>
<td>0.71</td>
<td>3.76</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*It should be noted that product factor is functional capacity of product. **Brand factor includes a product style and option devices. ***Social factor includes the current popularity.

For iPad in table 4.1, it is seen that the most influential factor for iPad selection is a brand itself and the MEAN equals to 4.45. Product factor is ranked as the second with MEAN 4.37. Finally, Price factor comes as the lowest in the list with MEAN 3.97.

For BlackBerry in table 4.2, it is shown that the most influential factor for BlackBerry selection is the distribution channel and the MEAN equals to 4.15. the brand and seller factors are ranked as the second with MEAN 4.03. Finally, Social factor comes as the lowest in the list with MEAN 3.76.

4.2 Students of Rangsit University

1) Tablets Selection of Pilots

Figure 3. tablets Selection of Pilots
Figure 3 display tablets selection of Pilots. The results found that in average, 55.00% of Pilots preferred Samsung Galaxy Tab.

2) Purpose of tablet Usage for Pilots

![Figure 4. Purpose of tablets usage of Pilots](image)

Figure 4 displays the objective of tablets usage for pilots. It is shown that the purpose of using tablet is mainly for Reading and Writing Information which can be accounted for 52%. The Information Searching and Planning Calculation are ranked as the second with 8%. The Recording and Music and Mapping are ranked as the lowest with 2.86%.

3) Factors affecting the selection of tablets for Pilots

![Table 4.2 Factors affecting the selection of tablets between iPad and Samsung for pilots](image)

<table>
<thead>
<tr>
<th>Influential factors for selection</th>
<th>iPad mean</th>
<th>S.D.</th>
<th>Samsung Galaxy Tab mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Brand</td>
<td>3.72</td>
<td>0.74</td>
<td>3.85</td>
<td>0.74</td>
</tr>
<tr>
<td>2.Product*</td>
<td>3.70</td>
<td>0.73</td>
<td>3.87</td>
<td>0.73</td>
</tr>
<tr>
<td>3.Price</td>
<td>3.66</td>
<td>0.79</td>
<td>3.79</td>
<td>0.80</td>
</tr>
</tbody>
</table>

*It should be noted that product factor is functional capacity of product. **Brand factor includes a product style and option devices.

For iPad in table 4.2, it is seen that the most influential factor for iPad selection is the brand and the MEAN equals to 3.72, the product factor is ranked as the second with MEAN 3.70. Finally, Price factor comes as the lowest in the list with MEAN 3.66.

For BlackBerry in table 4.2, it is listed that the most influential factor for Samsung selection is the product and the MEAN equals to 3.87, the brand is ranked as the second with MEAN 3.85. Finally, price factor comes as the lowest in the list with MEAN 3.79.

5. Conclusion and Discussion

5.1 Conclusion

For students, the results found that in average, 78.34% of Rangsit University students preferred iPad to Samsung Galaxy. Interestingly, the purpose of using tablet is mainly for information searching which can be accounted for 56.75%. The most influential factor for iPad selection is the brand itself and the MEAN equals to 4.45.

For pilots, pilots give a higher priority of iPad than Samsung in all the factors affecting selection tablets as listed in table 4.2. From the result, it is found that the functional capacity of the product factor is the most influential factor. Interestingly, the target of using tablet is mainly for reading and writing information which can be accounted for 52.00%. In average, 55.00% pilots preferred Samsung Galaxy Tab to iPad. It is interesting to note that the different population clusters are different the purpose of using tablet and the requirement for tablet selection

5.2 Discussion

Students of Rangsit University is preferred iPad, which is the same direction as the research of Piper Jaffray Inc. on April 2013 that iPad is the most popular for american teenager [6].

However, the main purpose of tablet usage of the thai students in this paper is the information searching while the main purpose of american is for playing game researched by Admob in 2011 [7]. It is should be noted that the target of the information searching of american is ranked as second.

Pilots prefer Samsung Galaxy Tab to iPad since the main purpose of tablet usage is for working that is to read and write information during flying. Samsung Galaxy Tab is easily enable transferring data from other devices to tablets while iPad is limited which is the same as...
in[8].

For student market, iPad is preferred and purpose of using tablet is mainly for information searching. This means that Samsung should improve his product in this feature.

For worker maket, Samsung is preferred and the purpose of using tablet is mainly for reading information. This means that iPad should improve his product in transferring data form other devices to tablets.

5.3 Future work

The population clusters should be extended to other clusters in order to get more information.

Acknowledgment

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