

# What Makes Difference in Mobile Application Sales in Countries?

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**Abstract.** Since mobile applications use expended Wi-Fi environments and smart phones user population growth, the market is expanding rapidly. These mobile applications are supplied to the same standards around the world, but the applications preference is different for each user. Because user can choose applications based their own cultural and technical backgrounds on. Download a large number of applications is assumed to have high affinity. The collection of ranking data from Apple App store analyze this data compare by each country. Accordingly, applications preference is appear differently depending on the each country. The cause of the difference in affinity that results in a measure of the nation's cultural differences and differences in levels of technology adoption, and it can be seen through the analysis.

**Keywords:** Mobile Application Market, Using Smart phone Application, App Store.

## 1 Introduction

Nowadays, there are lots of quite interesting and inventive things around our environment and changing our lifestyle by using a Smart Phone, and, they are familiar with using Mobile Applications. Therefore the Mobile App(application)s market is rapidly increasing. In the Mobile Apps market is focused two highest markets on iPhone and Android apps. Surely, iPhone and Android apps are different system, device and market therefore this paper is studying for the difference in the iPhone application sales in countries. As a previous study, iPhone App market is bigger and longer than Android App market in many countries. But especially South Korean iPhone App market is very difference from other using application market countries. In South Korea case, it is started to iPhone App market from just 12month by Government policy about mobile market, although there are one of leading country of mobile market. As a result, between South Korea and other countries are different sales pattern of iPhone App market and using lifestyle. For instance, in Korean case, there is not game category in iPhone App categories by the National Gaming Control Commission. However, many Korean App company is making inroads in the iPhone App Industry. As a latecomer of iPhone App of the country, many developers need a preference research of mobile application for successful development iPhone App.

## 1.1 Research Purpose

As the fastest growing Smartphone market worldwide, the hardware, platform and applications market trend is also increasing rapidly. Since 2007, appearing Apple's iPhone was added to the terminal on the telephone functionality before than PDA (Personal Digital Assistance). It was not only mobile phone, it's Using a variety of applications that enhance the area's appearance. Recently, Mobile Applications are being circulated through the store environment improvements by wireless Internet without the constraints of space trade is active.

In this research purpose is based on what difference the user's preference between countries in mobile applications market. For this purpose, there are analyzed cultural differences, five measures of cultural variables, and technology adoption life cycle of South Korea, China, United States, UK, and Brazil. After that, it is compared and analyzed user features by market maturity in the Technology adoption life cycle. It will present the rationale theory.

## 1.2 Research Method

This is started from the current state and will present the following ones. Firstly, what iPhone Apps are using for many people? Secondly, which is the most trends App? Why do they shown difference consumer preferences in countries? Are they difference free or paid App market? Finally, current Apps Consumer's preference in countries will be analyzed and surveyed based on the questions.

This research was conducted to collect the opinions of interviewer iPhone Apps uses by divided short and long-term and each App categories users in Korea and USA. According of previous research, we researched about App market of Japan, China, France and UK that were similar the using App culture pattern of Japan-China-Korea and USA-France-UK.

The questionnaires were divided into three sections; 1) User behavior of favorite Apps, 2) information of using Apps and 3) demographic information. This exploratory study investigates the consumer's behavior towards iPhone App trend and preference, especially iPhone App user behavior that has not been researched mainly so far.

## 2 Background

According from starting point, it becomes necessary questions, which are; how many people were using iPhone Apps? which Apps are high ranking in each countries to compare all iPhone Apps market distribution? The purpose of this research is to investigate these points. The specific objectives of this research is what makes difference about iPhone App preference in countries. For this object, there are some of background theories. At first, according to O'Callaghan et al (1992) in innovation diffusion theory, the Technical conformity assessment can be the new technology of the existing software, hardware, technical procedures, and the operational conformity

assessment is able to measured by how relevant procedures in an existing organization. Also Davis, F.D(1989) said that the user acceptance of information technology could be predicted a relative four points in the information technology acceptance model; **Beliefs-Attitude-Intention–Behavior**.

Based upon these objectives and theories, following hypotheses are developed: H1: Consumers will perceive the different technical background in countries. H2: Consumers will recognize useful Apps before download.

### 3 Research

#### 3.1 Technology Adoption Life Style

According to Rogers (Rogers 1962 5th ed, p. 282), he defines an adopter category as a classification of individuals within a social system on the basis of innovativeness as the five categories of adopters are; innovators, Early Adopters, Early Majority, Late Majority, and Laggard. It is produced by consumer's life cycle model from attitudes toward acceptance of new technologies.

Therefore, in the SmartPhone application market, there are difference market place South Korea in the form of the initial market; between Innovators and early adopters, the United States Central market; among early majority and late majority. Because two countries were difference launch date(South Korea: November 2009 / U.S.: July 2007).

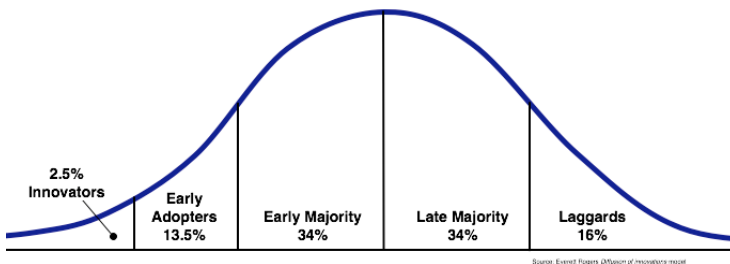


Fig. 1. Rogers, Everett M. (1962). Diffusion of Innovations, Glencoe: Free Press

#### 3.2 Cultural Variables by Hofstede

Hofstede's studied the foundation for a framework under which there are national and regional cultural groupings that affect the behaviour of societies and organizations.

Between Korea and the United States were shown a big difference in numbers. It could be interpreted to comparing to USA and Korea, the emphasis on individual rather than collective, and material success rather than an human relations, and has a conservative or nationalistic cultural forms.

**Table 1.** Differences in levels of Korea and the USA by Hofstede's Cultural Variables (The Top ranking of App store research, ROA group, WIP, 2010.03)

| Cultural Variables                          |       |              |      |       | KOR         | USA      |
|---------------------------------------------|-------|--------------|------|-------|-------------|----------|
| Small vs. large (PDI)                       | power | distance     | Rank | Score | 27/28<br>60 | 38<br>40 |
| Individualism (IDV)                         | vs.   | collectivism | Rank | Score | 43<br>18    | 1<br>91  |
| Masculinity vs. femininity (MAS)            |       |              | Rank | Score | 41<br>39    | 15<br>62 |
| Weak vs. strong uncertainty avoidance (UAI) |       |              | Rank | Score | 16/17<br>85 | 43<br>46 |
| Long vs. short (LTO)                        | term  | orientation  | Rank | Score | 5<br>75     | 17<br>29 |

3.3 Using Mobile Applications

As a following table, although there are using same applications, the categories of top ranking is different pattern between Korea and USA.

**Table 2.** Category Ranking Top Seven(2010.09, iPhone App Store)

| ranking | KOR               |               | USA               |                      |
|---------|-------------------|---------------|-------------------|----------------------|
|         | free              | paid          | free              | paid                 |
| 1       | Lifestyle         | Games         | Games             | Games                |
| 2       | Entertainment     | Education     | Entertainment     | Entertainment        |
| 3       | Games             | Entertainment | Lifestyle         | Utilities            |
| 4       | Social networking | Utilities     | Utilities         | Music                |
| 5       | Travel            | Lifestyle     | Social networking | healthcare & fitness |
| 6       | Utilities         | Productivity  | Music             | Photography          |
| 7       | Education         | Music         | Productivity      | Productivity         |

4 Conclusion and Further Research

The goal of this research is, firstly, it will analyze according to the accumulated sales volume in iPhone App Store currently. Furthermore, there are developed user model of iPhone Apps from technology adoption lifestyle and cultural variable via research. Finally, the document will conclude everything that was studied and analyzed and suggest further research.

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