

NANYANG TECHNOLOGICAL UNIVERSITY



Analysis and Findings of the Worldwide Mobile Data Services Survey (2010)

Proposal for K6399 – Critical Inquiry

**M.Sc. (Knowledge Management)
School of Communication and Information**

Submitted by

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Background and Introduction

This project describes in great detail the behavior of customers worldwide in the market for mobile data services. This survey is basically an annual exercise that involves a loosely organized group of universities and research centers around the world. Apart from several other aspects, the main points covered in this research would be

1. Determining the user value that will in-turn facilitate better compartmentalization of users.
2. To gain a better understanding of the behavior of mobile data services in the international arena.
3. How different users perceive and use mobile and data services to satisfy their various needs.

According to “Analysys Mason” which is a Market Intelligence firm, it’s estimated that Mobile handset data revenue will lead the growth in telecoms retail revenue worldwide, which will reach USD 1.64 trillion in 2018, up from USD 1.50 trillion in 2012. It is also predicted that mobile handset data will be the single largest source of revenue growth in the next six years. The shift from voice to data looks robust in developed countries and smartphone penetration gains momentum in emerging markets. Traditional voice and messaging services are declining and new data services are taking their place, driven by next-generation mobile networks and the increased ownership of smart devices.

The primary aim of this study is to do a statistical data analysis and strive in finding out unique patterns in the data set. These unique patterns must correlate to customer behavior, how different users from different regions use mobile data services for various purposes and the overall penetration of mobile data services in various regions across the globe.

Problem Statement

Mobile data services are one major factor that has come of age in this era that is getting more and more technologically developed. With the increasing number of service providers, there is a rise in competition on a daily basis. This kind of competitive environment calls for newer insights into the ‘what’, ‘how’ and ‘when’ of mobile data services.

So this is basically about what kind of users use mobile data services. Secondly it's about how they use the data services and for what purpose they use it. And lastly, it's about when and where they use it most frequently.

For example the AT&T website says they recently introduced the "new sponsored data service" for mobile devices. How does it work? Well the carrier says that if the service is in effect users will see a "sponsored" symbol in the status bar on the screen of their device. And this will indicate that all data charges are being redirected to the sponsoring company.

How do plans like these come into effect? No company is going to blindly introduce new plans to customers without a proper survey of the market, understanding customer needs, and understanding how they use mobile data services. So mining and analysis of the data obtained through the worldwide survey is critical to understanding the fact about what users actually need and the penetration of mobile data services in any particular region and the necessary steps, if any, to further deepen the penetration and how the same is done. Moreover, to sustain in this highly competitive market, it's vital to gain user information so that they necessary action can be taken at the right time, in a way that can please the existing customer base as well as pull in new customers.

Objective of the Research

The primary objective of the research is to analyze the data sets that give us findings about the worldwide mobile data services, and figure out interesting patterns and observations as to how users perceive mobile data services and how they use them in their daily life. The core of this research is basically to identify customer behavior when it comes to using mobile data services and penetration rates in different regions of the world. So first things first, the following are the points that is going to be our main objective for the rest of this research.

1. Find out the profile of users who are more willing to pay for mobile data services.
2. The reason as to why and how they use mobile data services.
3. Penetration in different regions.

In addition, we also have a lot of other factors that will come into picture once we have identified useful patterns in the data that correspond to two of our primary objectives.

Schedule & Timelines

Here you go with the time frame and specific dates which the group expects to achieve.

30 th January'14	Submission of Research Proposal
6 th February'14	Clean and prepare the data set
20 th February'14	Start mining data using SPSS Statistics / Amos
6 th March'14	Data Analysis and finding out useful patterns
20 th March'14	Results and Conclusion
27 th March'14	Integrate findings and Report Writing
3 rd April'14	Submit 2 copies of CI report to supervisor and independent marker
21 st April'14	CI Presentation
5 th May'14	Submit executive summary

Research Scope

As the topic suggests, it is important to analyze and find the adoption rate of Mobile data services by the consumers or customers, based on the data collected by the previous researchers on Analysis and Findings on the worldwide Mobile Data Services Survey, this is a longitudinal study of the analysis done previously.

From the last study, the scope of this research is as follows:

- 1) Have customers perception changed in adopting and using these mobile based services.
- 2) What are the Customer's needs on using mobile-based internet service in different markets that are considered for study and analysis?
- 3) Which class of customers prefers to use these services in those different markets?
- 4) What would be the customers preference to use these service in the different markets
- 5) Does income decides the adoption if these services in different markets
- 6) Customers perception in adoption to these services in different markets
- 7) How does the customer chose to adopt the mobile-based internet services

This study again depends on the factors that the data collected are thoroughly analyzed and cleansed for this longitudinal study; thus, this puts us on a perspective that all data and information are collected considering the previous research.

Implications / Benefits

This study on worldwide adoption rate of mobile data services, gives us the perspective theoretically that the research has to provide an understanding of consumers behaviors in each of the markets worldwide, on analyzing the data extracted. This study would let us propose models that would give profound data to the service providers on how to tackle markets to be sustainable in the business front. The benefits of this longitudinal study are pure benefits for the providers to know what the customers they are to serve and with the proposed model; they can target their customers to maintain their association, which indeed would sustain their growth significantly. This study also puts both the customers as well as the providers on a unique perspective in understanding each other's needs; which creates a momentum for the business for the latter. In addition, this study supplies critical information to service providers to identify features that could serve the right customer at the right market. Again, this study highlights the market needs, which the service providers can work on their strengths and weakness in those markets and identify gaps to serve better.

Proposed Methodology

The data for analysis is collected through various means from various categories of respondents through a set of questionnaire's, which gives us the categories of the respondents in specific to the markets. The questionnaires are set charily with the association of both the institute and the industry; which serves both the study and the implications that arrives from the research. The different respondents are categorized into common type for analyses. The study is set to execute in a small pilot project in the market that is most susceptible to needs on the mobile data services, where the market demands more but considerable on pricing structure.

Further, for each market analysis the executions carried out statistically and are made with the carefully set questionnaires. Several hypotheses are tested statistically thus executed on different markets. We know that this study is very exploratory in nature so that we use the path analysis option of Structured Equation Modeling. According to Gefen et al. (2011), structured equation modeling is the best method for this analysis as it involves in the analyses of the path diagrams for covert variables for compound variables. The SEM is explored with maximum likelihood on IBM SPSS AMOS 22 the stable version of the tool available in the market. Thus, the different attributes and indicators are tested and proposed for the same from the analysis.

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