Users Satisfaction on Online Map Application

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Abstract

Web mapping is the process of using maps delivered by geographic information systems (GIS). A web map on the World Wide Web is both served and consumed, thus web mapping is more than just web cartography, it is a service by which consumers may choose what the map will show. Web maps are now so ubiquitous that it can be easy to forget the qualities that distinguish them from a typical paper city map or world atlas. When you browse a web map, the experience is like planning across a very large, continuous image. In the present study, an attempt has been made to study the Users satisfaction on online map application in Pollachi Taluk. The study mainly depends on primary data which is collected from 104 users of online map by adopting convenience sampling technique. Simple percentage is used to analyze the data. The study reveals that accurate data is the main reason for preferring online map and most of the customers are using this service for speed of search. Also, the study disclose that customers are satisfied with all time usage of the online map followed by access speed, quick information and distance search whereas the customers are dissatisfied with voice search of the place through online map.

Keywords: Online – Map – GIS – Users Satisfaction.

Introduction

Web mapping is the process of using maps delivered by geographic information systems (GIS). A web map on the World Wide Web is both served and consumed, thus web mapping is more than just web cartography, it is a service by which consumers may choose what the map will show. Web GIS emphasizes geodata processing aspects more involved with design aspects such as data acquisition and server software architecture such as data storage and algorithms, than it does the end-user reports themselves. Web mapping has brought many geographical datasets, including free ones generated by OpenStreetMap and proprietary datasets owned by Navteq, Google, Waze, and others. A range of free software to generate maps has also been conceived and implemented alongside proprietary tools like ArcGIS. As a result, the barrier to entry for serving maps on the web has been lowered.

Web maps are now so ubiquitous that it can be easy to forget the qualities that distinguish them from a typical paper city map or world atlas. When you browse a web map, the experience is like planning across a very large, continuous image. You can view New York, Paris, and Tokyo in the same contiguous space by panning (great distances) across the map. By zooming in and out,

the amount of detail increases from country labels to city streets and buildings. Instead of jumping between country, state, and city maps, web maps let you navigate with a single continuous system. Despite the name, this concept is shared by many mobile maps and there are just as many maps on the web that take the approach of an isolated paper map. Nevertheless, from here on out we will refer loosely to this approach as web maps.

Literature Review

P.T.Chen and Y.S.Lin in 2011."A study on mobile location based service: an empirical study of user preference". With a view to identify the user preference of young mobile phone user's of Taiwan. The sample size is 290 and they used secondary data for analysis. They used consistency index and consistency ratio to identify the user preference of mobile map application in Taiwan. From this study they conclude that, Taiwan users mostly preferring the application in high rating one and many countries like Taiwan using MLBS provider to find the place quicker than ever they had.

Gerogiannis,V. C., Papadopoulou, S., Papageorgiou, E. I. in 2012 carried out a study on " Identifying Factors of Customer Satisfaction from Smartphone: A Fuzzy Cognitive Map Approach" to investigate the factors which influence positively/negatively the satisfaction of Smartphone users. They used both primary and secondary data. They have quantified the strength of causal relationships between any pair of satisfaction factors through a Fuzzy

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Cognitive Map (FCM).Finally, they have the intention to use the full capabilities of FCMs (i.e., simulation by activating the FCM) as a proper decision analysis tool for supporting the selection of a suitable Smartphone device model which confronts with each individual customer's needs/preferences.

Statement of the Problem

Map application help users to find even a remote place. Before introducing the map application it was quite difficult for a person to locate a place, either they have to carry a hard copy of a map or enquire someone to find location. With the introduction of map application the above drawback have been overcome. This study will help to gain knowledge about the usage and satisfaction of customers on online map application.

Objectives of the Study

The following are the objectives of the study.
- To identify the customer usage of online map application and
- To analyze the users satisfaction level in map application.

Research Methodology

The present study is mainly based on primary data which is collected through issue of questionnaire. The Questionnaire contains questions relating to socio-economic profile, usage and satisfaction on online map. The data required for the study have been collected by issuing questionnaire to 120 customers in Pollachi taluk. Of the total 120 questionnaires issued, 110 questionnaires are collected and out of the 110 questionnaires collected, 104 questionnaires are taken for analysis because of incomplete information found in the six questionnaires. Convenience sampling method is adopted to select the sample users. The data collected are analyzed using simple percentage.

Findings of the Study

The findings of the study are divided into five sections namely, socio-economic profile of customers, source of awareness, preference and details of using online map, reasons for using map, satisfaction on online map are depicted in the following paragraphs.

(i) Socio-Economic Profile of Sample Respondents

The findings relating to socio-economic profile of sample respondents like area of residence, age, gender, marital status, educational qualification, occupation, type of family, size of family and monthly income are disclosed below.
- Majority of 54(52%) respondents belong to urban area.
- Most of the respondents 48(46%) belong to the age group between 18-25 years.
- Majority of the users 62(60%) are female.
- Majority of the respondents 54(52%) are married.

- Most of the 29(28%) respondents are educated up to PG.
- Most of the 31(30%) respondents are employees.
- Majority of the 70(67%) respondents belong to nuclear family.
- Majority of the 67(64%) respondents family size are more than three members.
- Most of the 29(28%) respondents monthly income is between Rs.20,000 - Rs.40,000.

(ii) Source of Awareness about Map Application

The respondents are classified based on source of awareness

Table 1
Source of Awareness

Source of Awareness	Number of Respondents	Percentage
Family Members	20	19
Relatives	21	20
Friends	36	35
Advertisement	27	26
Total	**104**	**100**

Most of the respondents, 34 (33%) came to know about online map through their friends followed by advertisement, family members and relatives.

(iii) Preference and Details of using Online Map

The findings with regard to preference of online map, period of using online map and usage of map application are given below.
- Majority of the respondents, 54 (53%) are using Google map application for their search of place followed by map my India ,local search, city search and others.
- Majority of the respondents,79(76%) are using online mode for accessing map followed by offline mode.
- Majority of 59 (57%) respondents are using the map application for a period between one and three years followed by below one year and above 3 years.
- Most of the respondents, 36 (35%) are using map application for searching direction followed by distance and comparison of KM and mode of transport.
- Most of the respondents, 49(48%) are using road map view for viewing the place followed by satellite view, hybrid view and terrain view

(iv)Reasons for using online map

The following table depicts the reasons for using maps

Table 2
Reasons for using online map

REASONS	STRONGLY AGREE	AGREE	DISAGREE
Website is easy to navigate	44 (42%)	54 (53%)	6 (5%)
Search tools are easy	59 (56%)	43 (41%)	2 (2%)
Speed of search	32 (31%)	66 (63%)	6 (6%)
Accurate data	76 (73%)	20 (19%)	8 (8%)
Up to date information	33 (32%)	65 (62%)	6 (6%)
Time Calculation	22 (21%)	40 (38%)	42 (41%)

It is observed from the above table that among the six reasons considered while using the map application, the most of the respondents choose online map for accurate data followed by search tools, speed of search and Up to date information and website is easy to navigate whereas most of the customers disagree with time calculation.

(v) Level of Satisfaction on Online Map
The customer's satisfaction on online map is measured by considering the variables like access speed, all time usage, quick information, voice search, distance search and it is depicted in the table given below.

Table 3
Satisfaction Level of Online Map

Factors	Satisfied	Neither Satisfied Nor Dissatisfied	Dissatisfied
Access Speed	53 (51%)	42 (40%)	9 (9%)
All Time Usage	55 (53%)	42 (40%)	7 (7%)
Quick Information	50 (48%)	43 (41%)	11 (11%)
Voice Search	39 (38%)	46 (44%)	19 (18%)
Distance Search	47 (45%)	43 (41%)	14 (14%)

From the above table, it is ascertained that majority of the customers are satisfied with the *all time usage* on online map followed by *access speed*, *quick information*, *distance search* whereas most of the customers are dissatisfied with *voice search* on online map application.

Suggestions
Based on the findings of the study and opinion given by online map application users at the time of data collection, the following suggestions are put forth.
- Awareness should be created about online map application.
- Access speed should be increased in remote areas.

- Easy search tools should be introduced.
- Voice search service should be improved.
- Distance accuracy has to be improved.
- Up to date Information should be provided to the users.

Conclusion
Map application is one of the most important application for the travelers on unknown place. This study focus on the usage and satisfaction of the public in pollachi taluk. This study will provide a information about a map application and the reasons for using the application. The result of the study helps to improve and update the map application in future which avoid

wastage of time in searching place and also to know the famous place available throughout the world by single click.

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