

Review Paper on Web Application Development for Customer Management System [CMS] for ISP Provider

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Abstract: *A key managerial challenge, of interest to academics and practitioners alike, is the assessment and management of customer satisfaction. In this paper, we examine the underlying processes involving consumer satisfaction and switching patterns among ISPs using different satisfaction models. It's because local companies are the new companies and have started internet service in the recent time so the technologies used by them are latest but the big have settled years ago and have old technology so internet service of new companies is better in this way. Big companies are even working to upgrade to new technology but it's difficult for them. Our results indicate that the satisfaction levels of ISP consumers are generally relatively low, despite the fact that consumer expectations of ISPs are also low, reflecting mediocrity in the marketplace. In addition, consumers attribute their dissatisfaction to ISP indifference and believe that managing dissatisfaction is within the control of the ISP. Moreover, affective factors play an important role in satisfaction processes and switching behavior. Customer service including technical support and responsiveness of service staff is an important determinant factor in ISP selection. We suggest that as the ISP market matures, service providers that pay attention to affective factors and to building relationships with their customers will have a competitive advantage in the marketplace of Future.*

Keywords: ISP, Customer Satisfaction, PHP, Laravel, VS code, Web application, Database, MYSQL

I. INTRODUCTION

Internet in India began in 1986 and was available only to the educational and research community. General public access to the internet began on 15 August 1995, and as of 2020 there are 718.74 million active internet users that comprise 54.29% of the population.

As of May 2014, the Internet is delivered to India mainly by 9 different undersea fibres, including SEA-ME-WE 3, Bay of Bengal Gateway and Europe India Gateway, arriving at 5 different landing points. India also has one overland internet connection, at the city of Agartala near the border with Bangladesh.

The Indian Government has embarked on projects such as BharatNet, Digital India, Made in India and Startup India to further expedite the growth of internet-based ecosystems. Fixed-line or wired internet technologies used in India include digital subscriber line, (DSL), Dial-up Internet access, ethernet and local area network (LAN), Cable modem, fibre to the home, and leased line.

II. LITERATURE REVIEW

Early there are many wide companies in the market that uses their own customer management systems in the form of web app or a Android application such as my jio. They provide all the basic to advanced customer services to their customers.

Reference- <http://surl.li/baliq>

Early now there are many researches are done to minimize difficulties faced by the customer to maximize the business.

CONSUMER SATISFACTION OF INTERNET SERVICE PROVIDERS

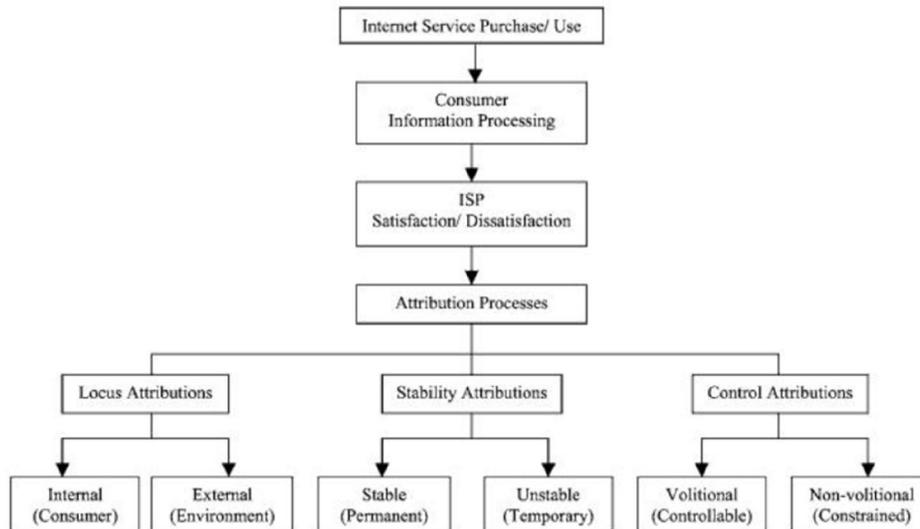


Chart 1: Summary of related work on customer satisfaction techniques

Total care of the customer can only be achieved when the need of the internal as well as external customers is considered. A good customer service meet customers' expectation which is influenced by such factors as competitive pricing, employees courtesy and behavior, good value, and service quality. However, a good employee tries with heart and mind to ensure the best possible service for the customer.

III. GENERAL METHODOLOGY

Getting our business is not about having a separate team for handling our online related work. With the approach of WEB based application, this can be easily achieved. People today are well versed with the technology and are operating smartphones. Thus, the concept of creating a web based customer management system brings us a step closer to being technologically advanced. Now let us see all techniques used one by one.

3.1 For Database we use MySQL 8 server:

MySQL powers the most demanding Web, E-commerce, SaaS and Online Transaction Processing (OLTP) applications. It is a fully integrated transaction-safe, ACID compliant database with full commit, rollback, crash recovery and row level locking capabilities. MySQL delivers the ease of use, scalability, and performance to power Facebook, Google, Twitter, Uber, and Booking.com.

Almost every modern web application interacts with a database. Laravel makes interacting with databases extremely simple across a variety of supported databases using raw SQL, a fluent query builder, and the Eloquent ORM. Currently.

3.2 For database management eloquent ORM will be used:

Laravel includes Eloquent, an object-relational mapper (ORM) that makes it enjoyable to interact with your database. When using Eloquent, each database table has a corresponding "Model" that is used to interact with that table. In addition to retrieving records from the database table, Eloquent models allow you to insert, update, and delete records from the table as well.

3.3 For hosting a web application locally we used Apache 2 server:

The Apache HTTP Server Project is a collaborative software development effort aimed at creating a robust, commercial-grade, featureful, and freely-available source code implementation of an HTTP (Web) server. The project is jointly managed by a group of volunteers located around the world, using the Internet and the Web to communicate,

plan, and develop the server and its related documentation. This project is part of the Apache Software Foundation. In addition, hundreds of users have contributed ideas, code, and documentation to the project. This file is intended to briefly describe the history of the Apache HTTP Server and recognize the many contributors.

3.4 For development purpose we used XAMPP Server

Many people know from their own experience that it's not easy to install an Apache web server and it gets harder if you want to add MariaDB, PHP and Perl. The goal of XAMPP is to build an easy to install distribution for developers to get into the world of Apache. To make it convenient for developers, XAMPP is configured with all features turned on. In the case of commercial use please take a look at the product licenses, from the XAMPP point of view commercial use is also free. There are currently distributions for Windows, Linux, and OS X.

3.5 We have used laravel 8 as a Base Framework

Laravel is an PHP MVC framework with bundles, migrations, and artisan CLI. Laravel offers a robust set of tools and an application architecture that incorporates many of the best features of frameworks like CodeIgniter, yii, ASP.NET MVC, ruby on rails, sinatra, and others.

Laravel is an open source framework. It has a very rich set of features which will boost the speed of web development. If you familiar with core PHP and advanced PHP, Laravel will make your task easier. It will save a lot time if you are planning to develop a website from scratch. Not only that, the website built in Laravel is also secure. It prevents the various attacks that can take place on websites.

3.6 Laravel auth for user Authentication Purpose

Many web applications provide a way for their users to authenticate with the application and "login". Implementing this feature in web applications can be a complex and potentially risky endeavor. For this reason, Laravel strives to give you the tools you need to implement authentication quickly, securely, and easily.

Many web applications require users to verify their email addresses before using the application. Rather than forcing you to re-implement this feature by hand for each application you create, Laravel provides convenient built-in services for sending and verifying email verification requests.

Most web applications provide a way for users to reset their forgotten passwords. Rather than forcing you to re-implement this by hand for every application you create, Laravel provides convenient services for sending password reset links and secure resetting passwords.

3.7 For frontend we are going to use Bootstrap 5, HTML5, CSS 3 and JavaScript:

3.7.1 Bootstrap 5

Bootstrap is a free and open-source collection of CSS and JavaScript/ jQuery code used for creating dynamic websites layout and web applications. Bootstrap is one of the most popular front-end frameworks which has really a nice set of predefined CSS codes. Bootstrap uses different types of classes to make responsive websites. Bootstrap 5 was officially released on 16 June 2020 after several months of redefining its features.

3.7.2 HTML 5

HTML stands for Hyper Text Markup Language. It is used to design web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. Markup language is used to define the text document within tag which defines the structure of web pages. HTML 5 is the fifth and current version of HTML.

3.7.3 CSS 3

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what

background images or colors are used, layout designs, and variations in display for different devices and screen sizes as well as a variety of other effects.

3.7.4 JavaScript

JavaScript is a client-side, object-based scripting language that is used to handle and validate client-side data. JavaScript is also used for making the user interface of the web pages more dynamic making it responsive to events like the movement of the mouse, mouse click on a certain HTML element, a button click, etc, using which we can improve the user experience

IV. CONCLUSION

This paper reviews and summaries techniques used for the development of a web application. Generally used programming languages are html,css,javascript and also frameworks like laravel and Bootstrap. We hope that development of this web application will help to improve business of our sponsor. Brief summary of each technique is explains in this paper.

REFERENCES

- [1]. <https://laravel.com/>
- [2]. <https://www.php.net/>
- [3]. <https://www.frontiersin.org/>
- [4]. <https://roadmap.sh/>
- [5]. <https://developer.mozilla.org/en-US/docs/Web/Tutorials>