Presenting Problem

Insurance companies has become a major revenue generator in the business sector over the past years. Their main business is handling life and general insurance policies and under the general insurance solutions insurers usually provide motor, fire, marine, personal, engineering, medical, title, and miscellaneous insurance solutions. The growth in the automobiles usage in the country has led to the establishment of several motor insurance departments in these companies and it has become a competitive market segment in the industry where there is constant cash flows.

Even though there is several companies competing in the industry, they are confronted with a gradual decrease of motor policy renewals which has caused a decline in revenue. This has caused due to the inherent loopholes in the vehicle claiming procedure. In the current procedure of claim settlement, on the scene of an accident, an insurance agent does a preliminary assessment of the damage to the vehicle. This preliminary assessment depends solely on the discretion of the insurance agent. He uses his experience and knowledge to assess the damage. Typically, customers are not satisfied with the assessment of the damage and there are no prescribed criteria or template on which the assessment is based. In most instances assessments are inadequate and customers are left with no choice but to bear the loss.

Furthermore, the process of doing a preliminary assessment, verifying the documents and photographs in the scene of accident and the process of approving the claim and reprocessing the documents in the branch/head office to settle the claim causes hefty delays. These loopholes caused clients to leave the company effecting a decline of motor policy renewals.

To insurance companies, issues regarding the vehicle claim procedure is of utmost importance as motor policies are their top income earner and responsible for their considerable market share. As a solution for the delays ‘On the spot’ motor vehicle claiming procedure was introduced. In this methodology also several loopholes were seen similar to the earlier process due to the fact, the agent had limited access to the company database or any other resources. Hence, the need to re-engineer the existing motor vehicle claim management process using newer technologies is made apparent.

Functional Requirements

This section contains the functional requirements required of the smartphone based solution for vehicle insurance claim settlement procedure. In the solution there are 2 main components namely the online web application and smartphone application. The requirements in this section specify the functions that each component must be capable of performing.

Online web application component is designed for the use of operating staff at the ground office. When a client need to buy an insurance, operating agents needs to register new customer and create account acquiring the relevant information. It will involve the following key functions.

* The users shall be able to create, view and update customer profiles by filling customer details such as first name, last name, date of birth, phone number, company details etc.
* The users shall be able to add, view and update insurance vehicle details such as model, manufacturer, engine number etc. as per the customers’ vehicle.
* The users shall be able to add, edit and view insurance policies in to the system database.
* The system shall be able to add, view and update spare parts details relative to various manufactures and vehicle models.
* The system shall be able to produce reports regarding the customers, insurance policies and etc.

The other component is the smartphone application which will aid the field agent with the assessment process. When an accident happens, once the agents goes to the location, the person can access the following key functions using the smartphone application.

* The user shall be accessed to the insurance policy details of the customer from the database.
* The user shall be able to access the insurance vehicle details and the details of the clients on the system database.
* The user shall be able to access and assess the drivers insurance history.
* The user shall be able to complete the assessment of the accident by entering the details such as drivers’ details of the caused accident, accident location details, cause of accident and damages to the vehicle.
* The users shall be able to attach photos and videos to the record using smartphone camera.
* The system shall be able to complete the assessment by calculating the damage by involving the database and the web server.

Module 1- Customer Details Management

Module 2- Insurance Policy Details Management

Module 3- Vehicle Details Management

Module 4- Spare parts Details Management

Module 5- Report Generation

Following modules will be available in the smartphone application.

Module 1- Policy information module

Module 2- Customer information module

Module 3- Vehicle information module

Module 4- Assessment Module

* User shall be able to enter the accident details such as

Module 5- Spare parts information module

Module 6- Pictures & Video uploading module

Application Proposal

As proposed solution for the prior mention anomalies in the traditional procedure of order taking process, an automated order taking and menu management system will be implemented in order to increase the entire ordering process productivity, minimizing cost incur in the restaurant business processes, resulting better management in employees and resources and increasing the sales.

In view of above mentioned problems the proposed solution is to develop an automated vehicle parking management system using wireless sensor technology for a shopping complex. Infrared sensors (IR) are used as the wireless sensor technology to detect the entering and leaving of the vehicle. The system will be built as a desktop application with the use of C# under Visual Basic .Net platform for the effectiveness and convenience to the user. The main users of the system will be customers, administrative staff and system operators. Through the approval of the administrator access levels will be granted. Allowing to the access levels the different users can access different portions in the system. The proposed solution will be helped to fulfill parking difficulties and would upsurge the customers’ satisfaction. Each time when a new customer joined the system will automatically update the details. Time to search a parking slot will be diminished.

In view of above mentioned problems the proposed solution is to develop a smartphone based motor vehicle insurance claiming solution (SBMVCS) in order to enhance the information communication between the office and the field agents to minimize the loopholes in the current procedure. The solution will consist of 2 main components as the online web application for the use of ground office staff and the smartphone application for the use of field agents to assist with the assessment process. Thus the solution will allow the agents to provide real time updates and maintain the end to end connectivity with the company database.

**Social Perspective**

Reduction of time during the entire claiming process is considered as an advantage of using the smartphone based solution for motor vehicle insurance claiming. The efficiency which is created by the solution makes both clients and the company satisfied by providing means to conduct an accurate assessment on the accident that would benefit both the parties.