Electronic-Customer Complaint Management System

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ABSTRACT
Customer Complaints are considered vital and significant information that can be utilized to attain customers' satisfaction. Consequently, establishing a complaint handling system is important towards addressing customer dissatisfaction and stopping similar problems from reoccurring. The main objective of this paper is to investigate the degree of association between customers' complaint behaviors and their complaints about the goods or services they get. Therefore, the paper proposes a generic approach for the Customer Complaint Management System that can be effective in reducing customers' complaints through urging customers to participate in controlling the quality of the services or goods offered to them. The "Service" has been used to connect different databases from different platforms to retrieve certain data. The system starts by discussing the service implementation with the web-application interface development. Afterward, the "Service" is used to connect the three main Servicesused in the proposed e-complaint web service. These services have been explored to obtain the Citizen and Staff data and find out about how they are working. Then, they have been implemented in the web application, each according to the operation that calls the service to restore certain data. Moreover, the most important reports extracted from the evaluation results have also been explored. For implementing the model, a web application has been developed to exhibit both the ability of the model and the efficiency in e-Gov, since that web application could be developed thoroughly. It was supposed that to complete the e-complaint system cycle, there is a need for five modules to implement this cycle; the first module is related to the "Citizen"who wants to fill his/her complaint; the second is the "Admin" who manages the system users; the third is the "Agent" who will handle the Citizen complaints; the fourth is the "Staff" who will analyze the causes and actions of each complaint; and the fifth module is the "Supervisor" who views the overviews reports and takes decisions for improvements.

Keywords - Complaint Handling System, Complaint Management System, e-Complaint, SOA**.**

I.   INTRODUCTION

In recent economic, the internet is increasingly used in different areas. We can all see various services being offered through the IT environment, (Afify, E.., & Nasr, M.,, 2017)presented Service-oriented architecture (SOA) based Customer Complaint Management System to develop a ServiceOriented framework for e-Complaint Web-based that targets the charity lifecycle .Using website as a tool for interaction is something greatly beneficial to both providers and users. From users view, first, the IT environment makes it easy for them to access wherever they are, they can access the internet to invoke services. Secondly, it facilitates the process of reading, the website interface is user friendly, and users can quickly interact with the website. Finally using the website/IT environment is time saving since users don't need to refer to the providers directly. From the website providers point of view, web based tools are time and money savings.(sultan, A. B., Abidin, K Z., & Abdullah, M. T.,, 2008) have developed an Agent based Complaint Management system (ACM) run by web application called e-Complaint for students and teaching staff of the Faculty of Science Computer and Information System.

The evolution of web-site/ web- application such as portals is necessary with the continuous improvement in the appearance of current required and characteristic. Accordingly promoting "web services" through utilizing the "service-oriented architecture" pattern is a commonly another point. In another way, most of the user's dissatisfaction is evident when a system has usual contacts among

firms, their jobholders, and client (citizens). Inappropriate communication usually lends to offering low-quality services or goods by the firm and dissatisfaction has always been a part of human nature that some customers are good at when it comes to ways of complaining, yet some manufacturers are not very experienced in dealing with customer's complaint and suggestion. From time to time some producers belittle customer's complaint and consider them as trivial issue to hard to be handled.

II. AIM AND OBJECTIVE OF STUDY

This research work is aimed at implementing an Electronic- customer complaint management system which will be having the listed objectives,
1. Receive daily complain from customer.
2. Allow customer to registered and obtain username and password to login into the system and lodge in their complain, view previous complain,
3. To provide a model through which authorize personnel can attend to those complain from customers from any location. Simultaneously update changes made to any data, item in the entire database.
4. To use the model in (3) to resolve customers complaint

III. STATEMENT OF PROBLEM

What is normal with the customer complaint management system

A customer complaint management systems is supposed to allow a customer to create a login ID and be able to save the customer information in the data based for easy access and retrieval of information when is been needed.

This research work was undertaken to uncover the various problems with conventional complaint management system. These include; Incomprehensive complaints history, Inconsistency in customer interaction, Lack of prompt updating as to when a complaint issues has been resolved, Lack of legitimate precise, concise data about the customer implicit rules and character.

Proposed system

The proposed model has resulted in a model that enables both the staff and advisor to access so that they can make a follow-up of the customers' complaints and their proposals and comments. Also, the model enables the customers to raise their complaints and submit their propositions in whatever subjects. Eventually, the model supports department heads in running their departments efficiently through the **KPIs** reports

they get. The proposed model aims to create a Web-based e-Complaint related to the subsidiary lifecycle. The cycle begins with the distribution of various services supplied through the subsidiary. Those services were delivered to various people according to their requirements. Due to different hindrances, those services may not be efficiently applied. Because of that, there has been a must for a system that tracks down and discovers Customers problems and provides them with suitable feedback. This system can manage complaints through recording them and giving feedback for each raised complaint. The study outcome has been a helpful reference to determine users' requirements from the e-Complaint and the managing process of this complaint in the core of any firm.

IV. LITERATURE REVIEW

A previous related most recent research paper has been recently conducted on customers complaint, it is (Afify, 2017). The paper presents a generic automated mechanism technique suitable for providing academic advising in the university system. It proposes a new model for e-Academic Advising System as a web-based application. The researchers have created a system which helps the academic advisors to successfully provide their customers with whatever necessary advice. The system can easily investigate the design and implementation of a computerized tool to ease this operation.(Kopparapu, 2008)Has presented a natural English mobile interface that could be utilized to file complaints. The goal was to make use of the available web portal framework and provide an immediate complaint registration. The system has helped citizens to file the complaint and try to get recompense by means of their mobile telephone through natural language. (Hansen, T., Wilke, R., & Zaichkowsky, J.,, 2010). Have used the cluster analysis to pinpoint two clusters of retailers, based on the degree of their activity in complaint handling. They are either no active or medium-active complaint handlers.

(Breitsohl, J.., Khammash, & Griffiths, G., , 2010) Have introduced a hypothesis of credibility and conformity in behavior orientation which expanded the understanding of complaints and appraisals of complaint conversation. The study states that foretold outcomes for both the online complaint image and relationship management together with utilizing credibility serve as a criterion for online customer contentment. (Galitsky, B, A., Gonzalez M. P., & Chesnevar, C. I.,, 2009)Have proposed a new way for modeling and sorting complaint scenarios connected with

customer-firm conversations. These conversations were designed as tagged graphs, where the firm and client can communicate to exchange and transport their viewpoints.

V. METHODOLOGY
I. PROPOSED MODEL STRUCTURE

In this section, we will be developing a model suitable to deal with e-complaints and capable of ridding the complaining process of drawbacks regarding poor service quality and delivery. After a series of reviews on available research methodologies, we have found WSDM (Web Site Design Method) as an appropriate model for designing e-Complaint web service in terms of an e-Complaint model based on SOA. The research simplifies the idea for some parts of the services; webpage design Rational Unified Process (RUP) is utilized as a guide for how to effectively use the Unified Modeling Language (UML) in research.

The advantage of this proposed model is to create an easy way of managing the customer's complaints about what displeases them. For that, the proposed Complaint Management System is essential to get better workflows and makeallcustomers take part in handling the customer's complaint management system easily and efficiently.

The workflow complaint handling model serves as a platform designed to secure proper and efficient complaint management.

Fig.1 Illustrates the main process as included in the complaint managing model.
* ❖ Confirm customer authenticity.
* ❖ Create the Customer complaint,
* ❖ Classify the complaint according to its priority,
* ❖ Search in the knowledge base for an identical situation to get an immediate solution.
* ❖ Assign a complaint to the concerned employees who will pinpoint the guidelines on how to track down and settle the complaint cases.

Figure 1. Conceptual Framework
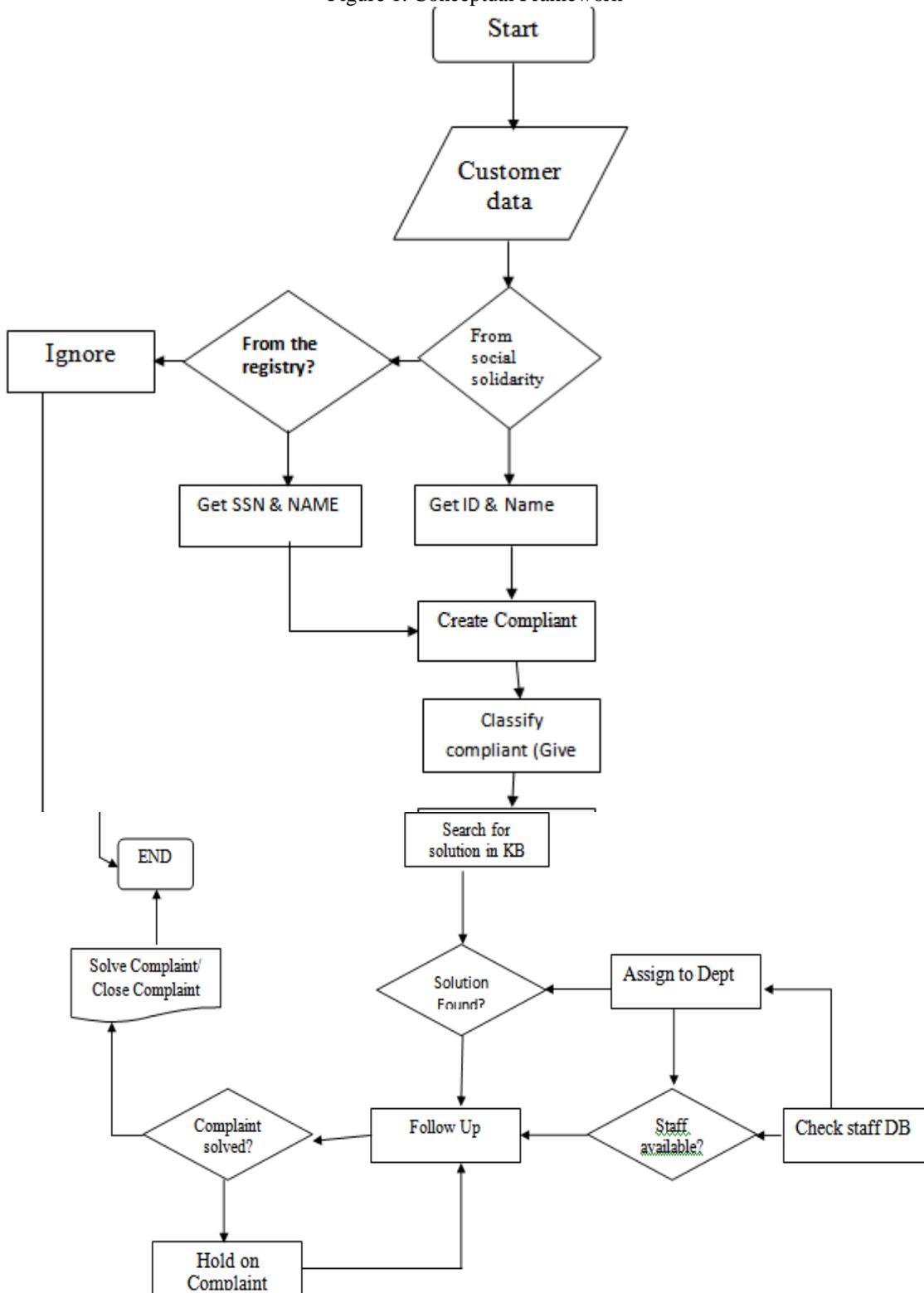
CONCLUSION

This study innovated a generic approach for the customer complaint management system. The system is developed using recent technologies which open chances to any organization regardless of its size to build its own system using simple technology tools.

The methodology proved that SOA standards and concepts are feasible to be used in the building or transforming customer's complaints solution. It also proved that SOA guarantees flexibility.

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