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# Quality Improvement of Services in Unversiti Teknologi Mara Pahang from a Management Perspective

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**Abstract:** Feedback from customers is an effective method to identify the quality of services and facilities provided by a university. The effectiveness to respond to customers' feedback also depends on an effective workflow. By having an effective method and workflow, the action from the management to improve the quality of services and facilities can be done immediately and effectively. The aim of this paper was to describe the development of new complaint management system. Manual process of complaint handling between customers and the university was monitored to develop the new complaint management system. New complaint management system known as e-Aduan was developed. Both customers and management had accessed to the new system to complaint and retrieve information. Through this study the researchers had also identified workflow procedures to be followed by the management to address customers' complaints and comments. This new scenario produced good impact to both customers and management; customers now had a platform to communicate their dissatisfaction and the management would be able to act immediately upon any customer feedback. Researchers believed e-Aduan and the effective workflow could be applied to other sectors nationally and internationally. The strength of this research was on the combinations of the effective method (e-Aduan) and effective workflow. The implementation of the system indicated there were a lot improvement need to be done on the quality of services and facilities. Further study could be done on identified the real problem automatically from the complaint to improve the effectiveness and performance of the system.

**Key words:** Complaint management; Complaint handling; Management; University; Complaint; System

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# INTRODUCTION

The services and facilities available at a university are the determining factors in identifying its level of quality. Universiti Teknologi MARA (UiTM) Pahang always trying to improve their quality of services and facilities to make sure their customers are satisfied. Customers have the right to complaint or give comments on the services and facilities provided by university (Zirtiloglu & Yolum, 2008). Normally the customers will make their complaints directly to the university. Unfortunately, in most of cases customers face difficulties to channel their complaints and comments to the right party. Hence, resulting them in complaining in the media such as television and newspapers. This actually gives a negative impact to the university's reputation. Besides that, the customers also have difficulties in knowing the status of their complaints. For the university, the weaknesses of the complaint management process hamper them from taking immediate actions against any complaints forwarded. They also have difficulties in compiling the information regarding customers' dissatisfaction that can be used to improve their services and facilities.

Trappey *et al.* (2010) developed and analysed a framework of complaint handling system for a Japanese restaurant chain. The complaint handling process is overcomes the deficient approach of previous complaint handling through process reengineering. Thus, it is giving benefits to the operations between headquarter and branches of the restaurant. A formal integrated process modelling (INCOME) approach is used to define the complaint handling model and its process. The new framework includes complaint reporting, compensation diagnosis, and complaint analysis. Furthermore, the model has capability of the decision supports on complaint resolution automatically by the system.

Torben *et al.* (2010) identified two clusters of retailers from the cluster analysis. The clusters are non-active complaint handlers and medium-active complaint handlers. Medium-active complaint handlers regard complaint handling as having higher strategic relevance than non-active complaint handlers. The medium-active complaint handlers also are more inclined to compensate the complaining customers for the loss they might have experienced. The developed cluster profiles are reveal that medium-active complaint handlers perceive a higher degree of customer dissatisfaction than do non-active complaint handlers and also that a larger proportion of their customers have complained. The results obtained are indicating that retailers hesitate from inciting customers to complain. This is unfortunate, as dissatisfied customers should be regarded as a strategic asset, which potentially could provide retailers with important knowledge concerning their products and services and thereby helping retailers in improving their market place behaviour.

Pyon *et al.* (2010) believed that customer complaints through call centres are adequate to support the analysis for service improvement in financial service industry. Hence, they proposed a web-based decision support system for business process management employing customer complaints, namely Voice of the Customer (VOC). The system is handling data for service improvement and involves VOC conversion for data enrichment and includes analysis of summarization, exception and comparison.

Najar *et al.* (2010) tried to improve relation between citizens and government by presenting a new model based on Service Oriented Architecture (SOA). With utilizing the presented model in government body on one hand governments will have the ability to minimize citizens' dissatisfaction and on the other hand it can encourage citizens to participate in controlling government body such as governments' staffs and organizations. Results of this study are becoming a good reference to find out users needs from e-complaint and the importance of complaint in the body of government.

Jan *et al.* (2010) hypothesized that credibility and congruence in attitude orientation positively enhance complaint utility perceptions and strongly bias complaint dialogue evaluations. The research is highlights that expected relevant results for online complaint managers and marketers alike are the inclusion of post-complaint communication into corporate image and relationship management as well as using credibility perceptions as a benchmark for online customer satisfaction and potential positive electronic word-of-mouth.

Homburg *et al.* (2010) indicated that the impact of a company's complaint handling design varies significantly depending on the characteristics of the complaining customers with which the firm has to deal. The study which is performed based on an integrative multi-level framework and a dyadic dataset also

addressed that, contingent on these characteristics, a company's complaint handling design can shape complainants' fairness perceptions either considerably or only slightly. Overall, findings suggest that companies should apply an adaptive approach to complaint handling to avoid misallocation of attention, energy, and resources.

Chan and Ngai (2010) suggested that an unfavourable outcome in the post-complaint stage leads to counterfactual thinking by the consumer about the consumer's state of well-being. The complaint must be due to the discretionary actions of the service provider whose accountability is assessed. Those harmful actions are then judged against an ethical standard. Explanations can reduce blame, and their effectiveness is moderated by outcome favourability but not ethical judgment. Favourable outcome, captured by ''Would Perception,'' has only limited influence on Perceived Potential Harm (PPH), which is an important determinant of ethical judgment. It is the first study to validate Fairness Theory empirically and apply it to complaint handling as a complement of Justice Theory in the information and communication technology (ICT) service context. The study indicates that customers may condemn a service provider because of PPH even though the outcome is favourable. Unfair trade practices are what make customers hate ICT service providers.

Galitsky *et al.* (2009) were aware that nowadays automating customer complaints processing is a major issue in the context of knowledge management technologies. Thus, they presented a novel approach for modelling and classifying complaint scenarios associated with customer-company dialogues. Such dialogues are formalized as labelled graphs, in which both company and customer interact through communicative actions, providing arguments that support their points. Through the study it shows that such argumentation provides a complement to perform machine learning reasoning on communicative actions, improving the resulting classification accuracy.

Au *et al.* (2009) examined nine complaint categories of Hong Kong's Hotel across different origins of the complaints. The results is reveal that although no significant relationship is found between e-complaint categories and hotel class, the age group of reviewers is significantly associated with specific types of complaints made online. Various kinds of management responses are also explored against each e-complaint category to identify possible managerial reactions.

Vos *et al.* (2008) highlighted the importance on complaint management is acknowledged of learning from complaints. Still, the concept of organisational learning has not yet been embedded in the field of complaint management. Therefore, a research accomplished to adjust a general model for organisational learning to the concept of complaint management. The results of the research categorise a variety of complaint management practices along two elements of organisational learning: triggers and modes of learning (i.e. informational learning or interactive learning). This collection of practices can be used as a managerial guideline for improving the processes of learning from complaints.

Kopparapu (2008) proposed a natural English enabled mobile interface which can be used to lodge complaints. The essential idea is to make use of the existing web portal infrastructure and provide an easy, cheap and quick mode of complaint registration around the clock. The system enables and assists citizens to lodge complaint and seek redressal through their mobile phone in natural language.

Coussement and Van den Poel (2008) introduced a methodology to improve complaint handling strategies through an automatic email classification system that distinguishes complaints from non-complaints. Hence, complaint handling becomes less time consuming and more successful. The classification system combines traditional text information with new information about the linguistic style of an email. The empirical results show that adding linguistic style information into a classification model with conventional text-classification variables results in a significant increase in predictive performance.

This study was undertaken to improve the current complaint management to benefit the university. The objective of this study is to propose implementation of *e-Aduan*, an online system to channel complaints and comments to the university. For a start the researchers have identified a new complaint management process which includes a work flow process and a method. The method is a platform for the complaint management process and the working flow process that needs to be combined with the method.

# WHAT IS *E-ADUAN* SYSTEM?

*e-Aduan* is an a web-based system as a platform for UiTM Pahang's customers to complaint and comment regarding the services and facilities provided by the university. Customers here would comprise of the students, parents, staff and any parties related to UiTM Pahang. The owner of *e-Aduan* system is *Unit Korporat* and the users include *Bahagian Pengurusan Fasiliti, Hal Ehwal Pelajar, Hal Ehwal Akademik, Pentadbiran, Unit Pentadbiran Kolej, Perpustakaan, Bendahari, Unit Kesihatan, Unit Perkhidmatan Teknologi Maklumat and Unit Keselamatan.*

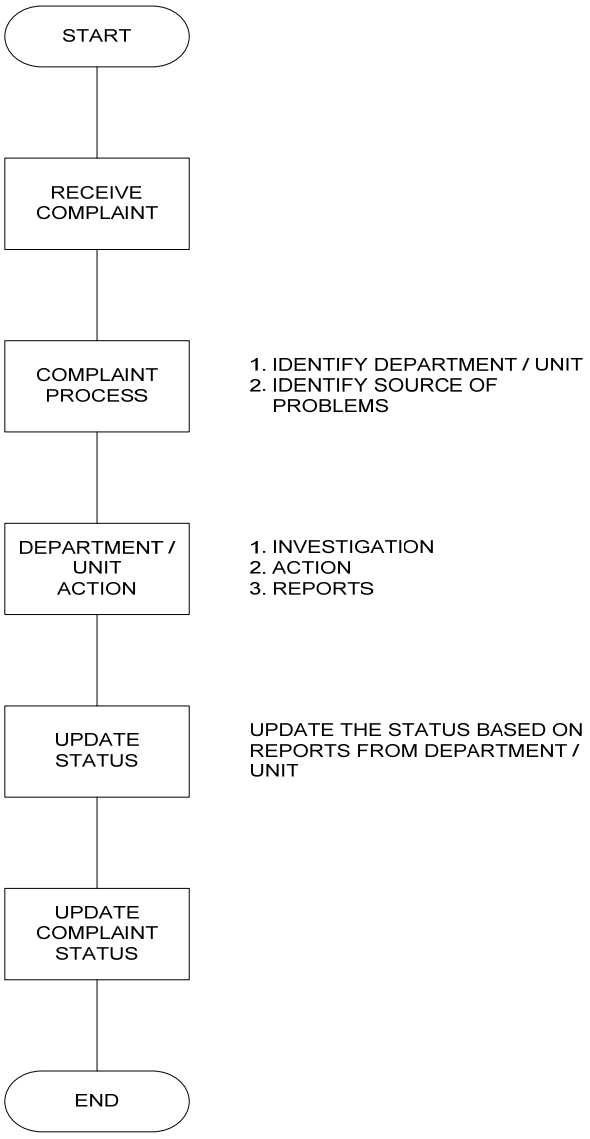


**Figure 1: Working Flow Process *e-Aduan* System**

*e-Aduan* can be accessed through the web by using web browser such as Internet Explorer, Mozilla Firefox and Netscape. The accessibility is not limited to UiTM Pahang's network but it can also be accessed from anywhere in the Internet. *e-Aduan* consists of the interface for complaint and comment and a reporting

tool for management usage. The interface for complaint and comment is for customers to complaint or to give comment on the services and facilities provided by the university. Customers can also view the status of the complaints through *e-Aduan*. With this feature the customers will be able to view the status of the complaints and the action taken by the university. This feature already solve issues where customers normally do complaints through telephone, letter or media and they have difficulties to follow up the status (Zirtiloglu & Yolum, 2008).

The reporting tool is another component of *e-Aduan*. Compiling and reporting data is very important for any organization, government and private sectors because through the data they will be able to retrieve valuable information to be used to make good decision or action. In this case, based on the reports, the university can proceed with proper action to handle the complaints and comments from the customers. The reports that available in *e-Aduan* can be retrieved based on a few of categories depending on the management requirement. The report categories are full reports based on current date, reports based on date, reports based on department and unit, reports based on categories of complaints, reports based on type on complaints and reports based on complaints status.

The development of *e-Aduan* is not only depending on how the system works. It also depends on the working flow process that being identified and need to be implemented and followed by the management. *e-Aduan* is a method, platform or tool to ensure that the complaint process is addressed properly by the management. The important factor that makes sure the success of the complaint process is the working flow process. Figure 1 shows the working flow process of *e-Aduan*.

Figure 1 shows five main processes in the working flow process of *e-Aduan* system. The first process is 'Receive Complaint' where the complaints will be retrieved from *e-Aduan*. The second process is 'Complaint Process'. In this process the complaints will be identified based on the source of the problem and the department or unit responsible to handle the complaints. The next process is 'Department / Unit Action' where those departments and units that responsible for the complaints will handle the complaints by investigating, taking action and reporting. After the departments and units execute their duties, they need to report the result to '*Unit Korporat*'. In the final process '*Unit Korporat*' will update the complaints status in *e-Aduan* based on the report from the departments and units.

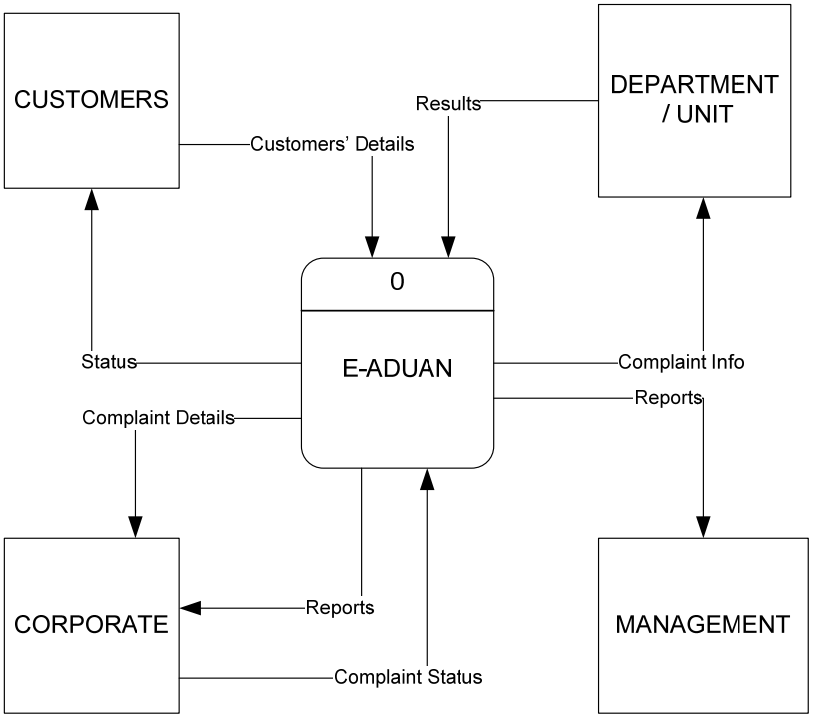


**Figure 2: Data Flow Diagram *e-Aduan* System (Context Diagram)**

With the explanation on the working flow process of *e-Aduan*, the next step is the design of *e-Aduan* system. The diagrams below show the data flow diagram of *e-Aduan* system where Figure 2 shows the context diagram of *e-Aduan* while Figure 3 shows the diagram 'O' of *e-Aduan* system. Based on Figure 2, there are four external entities that are involved in *e-Aduan* system. The external entities are 'Customers', 'Department / Unit', 'Corporate' and 'Management'. The detailed process of *e-Aduan* system can be seen in Figure 3. Figure 3 shows two main process and one data store that exist in *e-Aduan* system. The processes are 'Manage Complaint' and 'Produce Report'. The data store is 'Complaint' where all data that are retrieved for *e-Aduan* be kept in this data store. *e-Aduan* will produce information by processing the data in the data store. Both diagrams are showing the boundaries or scopes of the system and the information used in the system (Kendall & Kendall, 2008). With this it will be a guideline to the researchers while developing the *e-Aduan* system. This will also make sure the development process is not exceeding from the system scopes.

Based on the working flow process and the system design, *e-Aduan* system can be used effectively by the management in improving their services and facilities. The management can also immediately identify the complaints and comments from the customers and take an immediate action to handle the complaints. With this, the existing problems and issues that are faced by the management can be solved and thus increase the quality of services of the university.

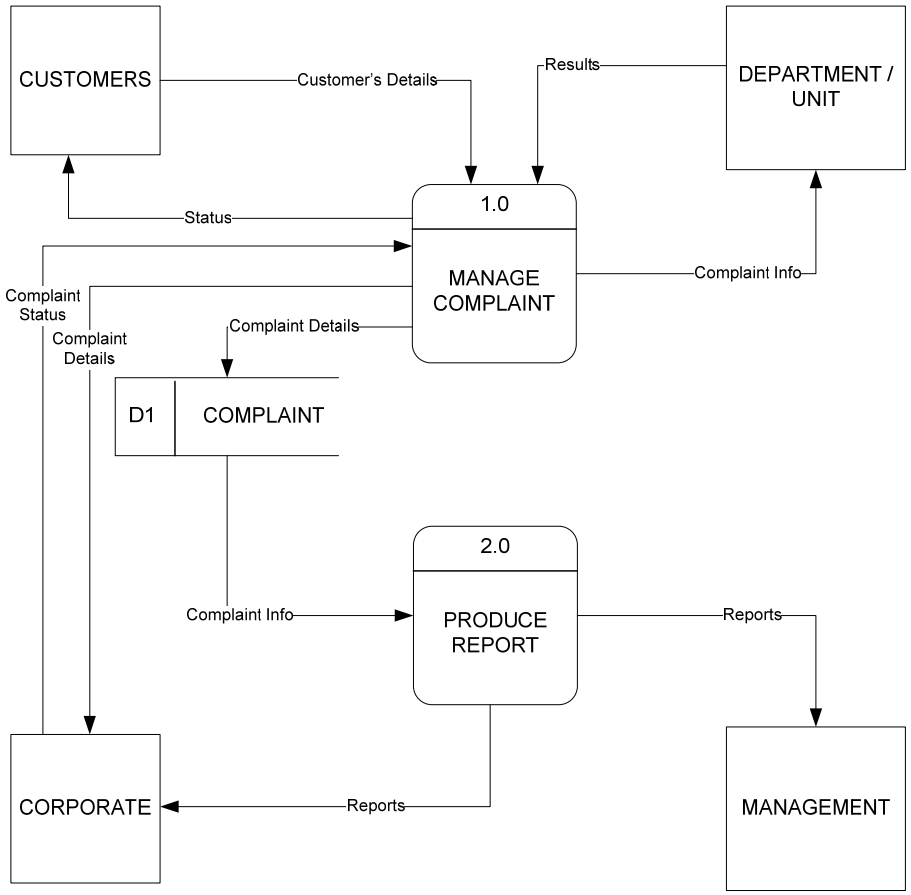


**Figure 3: Diagram 'O' *e-Aduan* System**

# ADMINISTRATION OF CURRENT PROCESS AND ISSUES

UiTM Pahang is always looking for better solution to improve their services and facilities for the customers especially the students. Previously, complaints and comments from the customers are handled manually by using a complaint form and book. The complaints are handled individually by the departments and units. Each of the complaint form and book has different format depending on the departments and units. With this conventional method customers need to make complaints or comments directly to the departments and units that are responsible for the complaints. This exercise requires the customers to learn and understand the process of complaints in the university. Due to this constraint sometime the customers will complaints through the media such as television and newspapers. This gives negative impact and bad reputation to the university. Besides that, once the customers' complaints to the wrong departments or units, the responsible departments or units have difficulties to handle the complaints. Through observation and study done, the researchers have identified four major issues that can be concluded in related on to the current complaint management. The issues are the accessibility of the complaints service, the quality of the investigations, the quality of responses, how well trusts learn from complaints and use this information to bring about improvements to services and facilities (Jane & Sandy, 2008).

Next, the customers also need to identify the department and unit that should be responsible to handle their complaints. If they are unable to do this, there would be possibilities that their complaints might not be addressed at all. This will eventually frustrate the customers and force them to use other platform such as television and newspapers which they learn as a more effective channel to direct the university's attention to their dissatisfaction.

The weakness of the complaint management also affects the quality of investigations on the complaints. Departments and units cannot carry out proper investigations if they receive complaints that are not under their responsibility. The delay of receiving the complaints also affects the quality of investigations. This will definitely affect the quality of response towards the customers. Responses that are inaccurate and do not meet customers' satisfaction will affect university's reputation as a whole.

Besides that, from the observation the researchers have identified that the university has not utilized the information they received from the customers' feedback to improve the quality of services and facilities. It was also observed that customers have repeatedly revised the same issues which indicate that appropriate action have not been taken to address those issues.

# BENEFITS OF IMPLEMENTING *E-ADUAN*

The benefits discuss here are related to the issues highlighted in previous section. The implementation of *e-Aduan* will solve all issues identified and will improve the complaint management for UiTM Pahang. Once the *e-Aduan* system is used as the platform for the complaint management together with the working flow process, the researchers believe in a certain period of time UiTM Pahang will improve its quality of services and facilities. Benefits on implementing *e-Aduan* system can be divided to improved services, better performance, more information, better controls and reduce costs (Shelly, et al., 2008).

The implementation of *e-Aduan* system is based on client-server concept. Figure 4 shows *e-Aduan* system client-server concept. This concept is using centralized server to control all data and information of *e-Aduan* system. The clients of the server such as customers which include students, staff and the management can access *e-Aduan* once they have internet connection. Customers can access to make complaints and comments while the management can access *e-Aduan* system to retrieve the reports. The changes or modification on *e-Aduan* system will only involve the server. Once the server is updated the client will automatically get the latest version of interface and features.

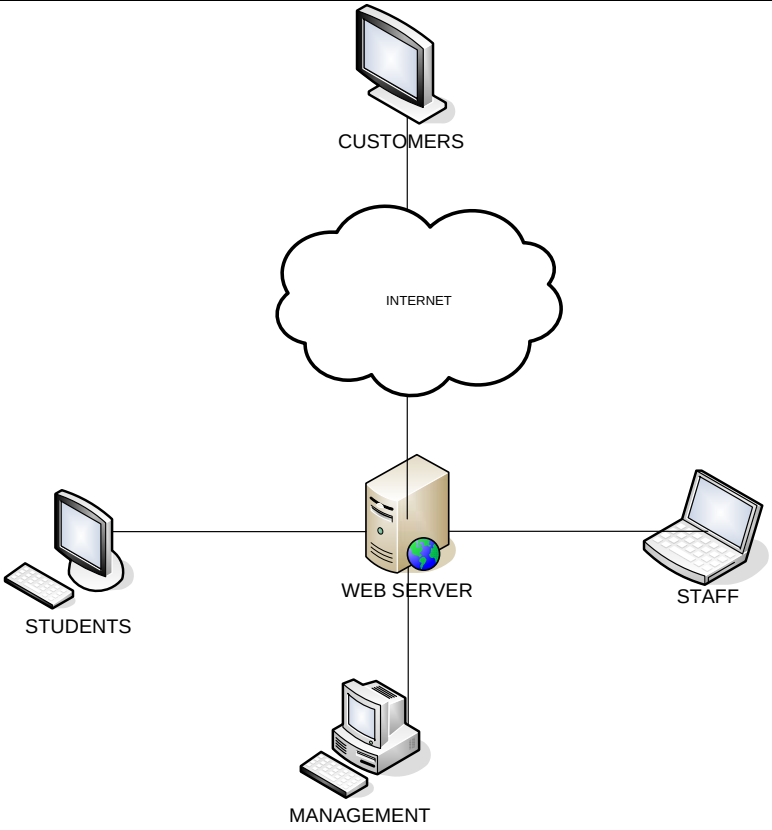


**Figure 4: Client Server Concept for *e-Aduan* System**

The first benefit is related with the current manual process of complaint management. Previously, complaints and comments were made using forms or books. *e-Aduan* is systematic system where all complaints and comments can be done online. Complaints will be centralized in the server and the responsible departments or units will be identified. Then the complaints will be accessed by the department or unit to handle the complaints.

The implementation of *e-Aduan* also gives better performance compared to the existing complaint management. By using *e-Aduan* the complaints can immediately retrieved. As explained earlier, *e-Aduan* uses client-server concept. Due to that, all complaints information is stored and centralized in one server. The maintenance can also be done easily and effectively. Once the server is updated the clients will get the latest features immediately when they connected with the server.

A lot of information can be retrieved from *e-Aduan* system. The information is also more accurate compared to previous complaint management. This information is very useful for UiTM Pahang especially in increasing the quality of services and facilities provided by university. *e-Aduan* system also provides various types of reports depending on the management requirement. Each department or unit can view and retrieve related reports immediately for their usage. It also helps them in solving all complaints more effectively. Even the customers get the benefit from *e-Aduan* system where they can view the status of their complaints. Besides that, all the information will be stored in the server and can be retrieved anytime when they are needed.

*e-Aduan* system has stronger controls especially for the management usage. The reports produced by the system are only be accessed by authorized department, unit or management personnel. Each department, unit or management personnel will be given authentication access code, which only permits them to access information intended for their departments and units. In other words they will not be able to gain access to information intended for other departments and units. The privilege to access all the information in the system will only be given to top management personnel.

The last benefits that being identified through this research is the cost. Implementing *e-Aduan* system will reduce complaint management cost. This is an online system means it is paperless. Previously complaint management process was being done manually. Complaints and comments need to be done through forms and books. With this, the university not need to printing forms or preparing books for customers to do complaints or comments. Besides that, *e-Aduan* system also reducing time in producing reports, receiving complaints and comments from customers and handling complaints and comments.

## THE IMPLEMENTATION OF *E-ADUAN* SYSTEM

Implementation a new system in an organization is not an easy process. The development team should prepare the planning from the beginning phase of the development process. Besides that, the most important thing is the support and co-operation from the management. Without management support any planning will face difficulties from the beginning of the process. Implementation of *e-Aduan* system needs a preparation on four main issues. The issues are management support and co-operation, preparation on resources, staff awareness and rules and policies (Razali, et al., 2006).

The first and most important factor is the management support and co-operation. As mentioned earlier, without their support the implementation process will fail. This will also be an indicator that the project is not approved by the management. So, from initial stage once the management has gives full support and commitment in the project, it will be executed and implemented without much constraint.

The second issue is the preparation of the resources. Resources here refer to hardware, software and technical staff. Again, the management plays an important role, in approving the budget for hardware, software and provision for technical personnel to be in charge of the system. These resources needed to be identified at the early stage to ensure the development and implementation process run smoothly.

The implementation of the system has to be announced by the management to the staff and customers. This is very important to raise the awareness on the existence of the new system. This step will also prepare the staff to accept and be familiar with the system.

The last issue is related with the rules and policies. Normally, a new system implementation will involve the setting up of rules and policies which can support the system. These rules and policies can ensure not only the success of the implementation of the system but also provide the clients with clear guideline regarding the existence and usage of the system in the university.

## CONCLUSION

The researchers have highlighted how the system works, who are the entities relevant to the system, the benefits of the system, and preparation of the management for implementing the system. This paper provides an overview of *e-Aduan* system and its functions. The implementation of *e-Aduan* will improve UiTM Pahang complaint management system thus easing all departments and units in managing and reacting to customers' complaints and comments. More importantly the system will enable accurate and efficient access to information regarding customers' complaints and comments. The information can be stored more systematically and can be retrieved at all the times. Implementation of the system also indicates that there a lot of improvement need to be done by the management on the services and facilities. A lot of improvement still can be done for this system such as identify method on classifying real complaint. This can improve the effectiveness and performance of the system for giving optimum positive impact on the management of the university.

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