

A Mobile-Based Leave Application (M-La) For Government Institutions: The Case of the Teachers Service Commission of Kenya (2014 eLearning Innovations Conference and Expo-Kenya)

Track 2: Technologies Transforming Education

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Abstract: In government institutions in Kenya and particularly the Teachers Service Commission (TSC), leave management has been done, but little consideration has been made for the possibility of mobile leave application. With the rapid changes in Information Communication Technology (ICT) and in particular introduction of m-government, mobile leave management is inevitable. Yet to be seen is a mobile leave management system being introduced in the TSC so as to cater for the ever changing ICT trends. This paper therefore reports about the current systems being used for leave management and the success factors that can lead to the use of a Mobile Leave Application (M-LA). The research also analyses successful m-application in the government and also in different parts of the world and considers the applicability of the same in the TSC.

From the literature reviewed, it was found out that there have been some successful m-government applications in different sectors which include transport and energy. However, little has been done in the education sector which is still struggling to adapt to m-government. Factors that have led to failures in the current system were looked at and from them; focus was put on the applicability of M-LA in the government. The normal way of Leave application by teachers is through the manual system which is not very efficient, because a lot of paper work has to be done which takes a reasonable length of time to prepare and process. Due to the increasing number of teachers applying for leave, management of data has become a difficult task. As a solution, a Mobile-based Leave Application system (M-LA) should be used for leave management in the TSC. Apart from phones being available to over 70% of the population, more trust has developed on m-applications in Kenya since the advent of m-pesa. M-apps are also reliable and they eliminate a lot of paper work with security also being assured. M-LA additionally enables faster and reliable processing of data since the interaction between the employer and the user is through a mobile phone which is easily accessible.

The research involved development of a mobile leave application (M-LA) model that was used as a proof of concept in the research. This model application was implemented using, Java Micro Edition for mobile phones, php/html web application framework, windows operating system, MySQL as a Relational Database Management System (RDBMS) and other reliable open source products. The Mobile Leave Application (M-LA) will be implemented within the Teachers Service Commission (TSC) and for the teaching staff only to solve problems associated with leave management. A formal observation and interview with experienced staff that are using the current manual application was conducted to gain more information. It is this application together with a questionnaire and a set of interview questions that data was collected and analyzed. From the data collected, it was found out that the main factors that will lead to the introduction of a mobile leave application (M-LA) in the TSC include its availability, acceptability and speed of data processing by the user which bases itself on the cases of preceding applications. Finally, for further research, this paper recommends a look at the security flaws that can be encountered in an m-government application as this can lead to serious loopholes in the system.

Keywords: M-Government, e-Government, Mobile Leave Application (M-LA)