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"THE INFLUENCE OF TECHNOLOGY ON THE IMPROVEMENT OF AUDIT QUALITY IN STATE AUDIT BUREAU OF KUWAIT"

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Abstract

The purpose of the present study is to determine the influence of technology on improving audit quality in State Audit Bureau of Kuwait (SAB). **Methods and Materials** – Questionnaires, personal interview and database log were the tools implemented to gather information regarding the auditors' impression of utilizing readymade application and in-house developed application in the auditing field. **Results and Conclusion** - The results show that auditors employ technology in their duties in order to achieve higher accuracy and save time and effort.

Introduction

The current world's trend is employing technology into the process of audit to seek higher quality in less consumed time. The third parties that are being audited by state audit bureau (SAB) have the data recorded in their database. SAB has the desire to improve the auditing tasks through using the technical tools. Technical support is available to provide and maintain the tools upon the auditor's needs. Employing the technology in the auditing process can be achieved by using either readymade and /or in-house developed applications.

The readymade application is an application that is purchased from outer sources organization. The application has multiple features that can be summarized as follows:

- The ability to deal with a large number of records.
- Allowing a comprehensive auditing process on all of the entities data.
- The ability to run different type of analysis.
- Obtain results in a short time.
- Explores gaps and duplicates of records.
- Select different statistical samples.
- Compare and match different records
- Prepare statistical reports.

In-house application is developed in the organization itself. The organization is responsible of applying the complete cycle of software development. Currently, SAB has several in-house applications supporting the auditing process. In this study, we focused on choosing in-house application that supports post audit. The Breaches Follow-up System (BFS) was selected in the present study. It is a system that is responsible for applying the full cycle of a Breach as follows :

- The Possible remarks are received by manager.
- The Remarks will be transferred to a specific division according its entity.
- The Division head will assign it to one or more auditors to study it.
- The Auditor(s) will study the remarks and prepare /collect all required documents
- The Auditor(s) prepare an analytical report to the financial remarks to be reviewed by SAB technical office.
- After approving of technical office, the study will be sent in cascaded order with proper approvals.

The Department, dealing with breaches, is responsible of creating several reports and statists. Whereas the system is responsible for following the status of each possible breach using a workflow regarding the cycle of each breach in the department. Within each breach, the system provides the ability of adding possible attachments with respect to each phase in breach cycle. The application is implemented using Power Builder and Oracle database. Moreover, BFS is developed considering Quality Management System (QMS) through its Software Development Life Cycle (SDLC).

All in-house developed systems consist of multiple phases that can be adopted to comply with the auditors' needs. The advantage of having in-house developed system over the readymade system is providing full control for customization and future modifications. The organization should train their auditors to utilize either application.

Overview of IT audit in SAB

SAB top management supports and encourages the use of technology in auditing by Issuing regulations and circulars (i.e. Circular 18/2012) and certifying IT employee with audit IT certificates. On the other hand, IT department of the SAB uses Quality Management System to meet the needs of auditors using CMMI L2 & ISO 9001 framework. All the effort is employed to provide high quality in developing and securing applications, websites, network.

SAB has several applications. These applications can be divided into read- made applications and in-house application. This application tackles specific employees in SAB. (Figure 1) summary some of ready-made applications in SAB.

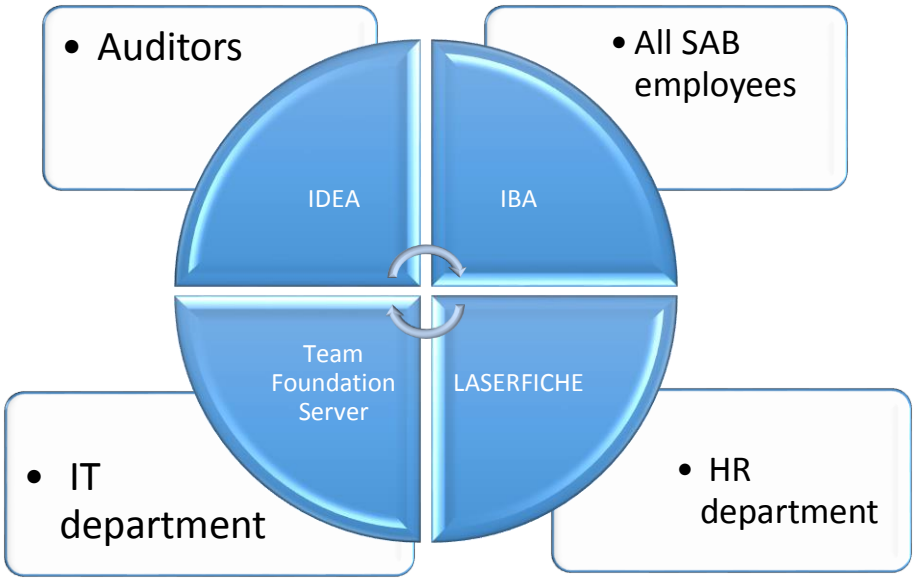

Figure 1

On the other hand, in-house applications play an important role in leading auditing process. These applications, which exceeds 31 applications, are used with different employees in SAB. (Figure 2) summaries some of these applications:

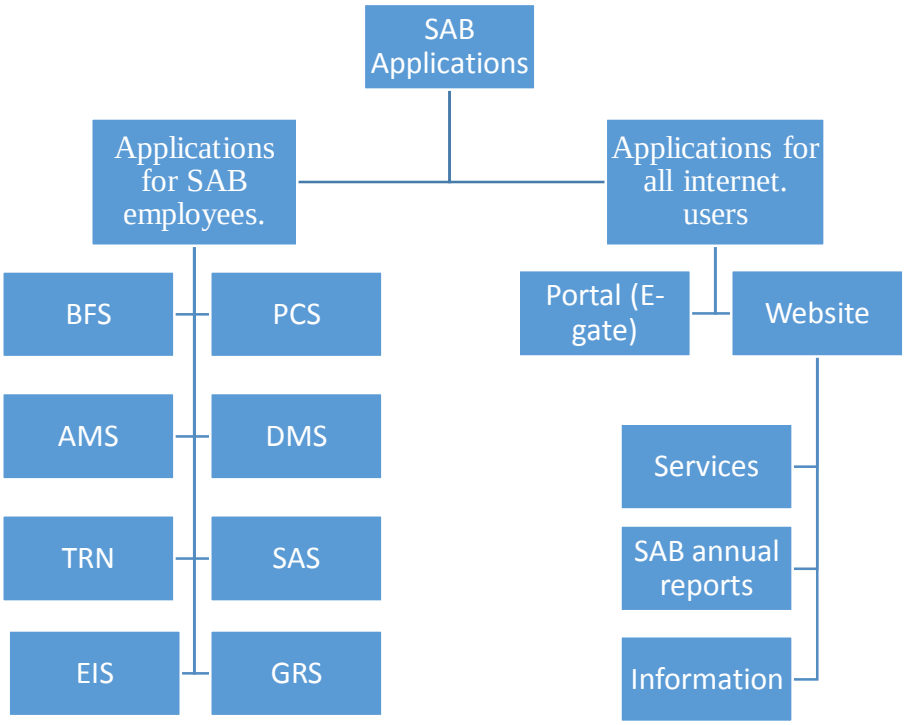

Figure 2

The requirements that must be provided to idealize the environment needs (figure 3) that the study will use were measured. The requirements vary based on the type of the application whether it is readymade or in-house built.

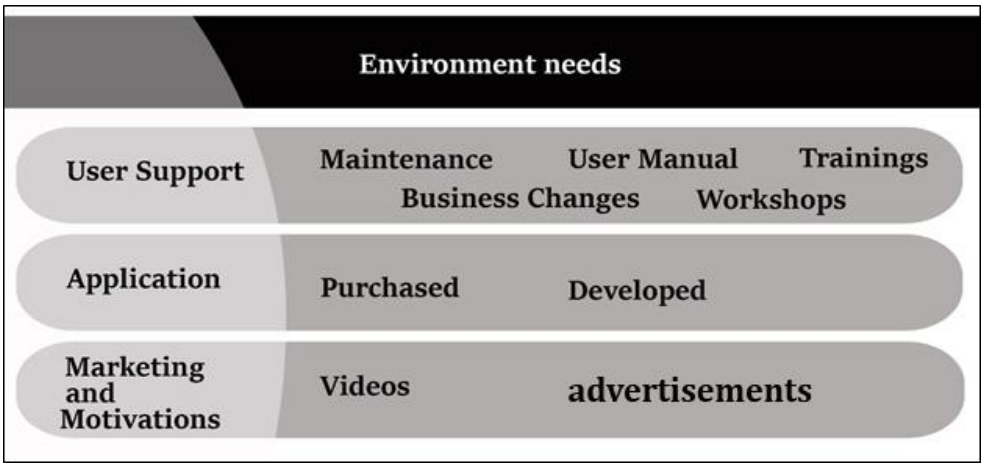

Figure 3 F

Generally, environment needs are divided into two main categories. The first category is application. This category defines the source of the application that SAB employees will use. It can be implemented in case of in-house systems or can be purchased in case of readymade ones (table 1). The second category is related to user support. This category covers all user needs to reach a point where user can fully adopt the application within work responsibilities. This adoption shall be achieved through several trainings, workshops and well-structured user manuals. On the other hand, it is important to provide the ability of enhancing system services or implementing new ones based on the user requests. Finally, system capabilities must be known by all users through proper marketing and supportive videos.

Environment Factor	Readymade Application	In-house Application
Maintenance	×	✓
User Manual	✓	✓
Training	✓	✓
Business changes	×	✓
Workshops	✓	✓
Software purchased	✓	×
Developed purchased	×	✓
Videos	×	×
Advertisements	✓	✓

Table 1

In this paper, we will present a SAB experiences within a ready-made and in-house application. Each experience is presented with its own methods and material. For a ready-made application, we choose IDEA. IDEA is a well-known application that follows CAATS standards. It is used to detects false records in large data. On the other hand, we choose Breach Follow up System (BFS) as a sample of in-house application in SAB. It is a system that is used to automate the cycle of breach in SAB.

Methods and Materials

The randomly selected sample is divided into two groups. Group 1 consists of the auditors using IDEA software, while group 2 holds auditors using BFS. Both groups were personally interviewed. The interview was carried out to define the work improvements, advantages and disadvantages of this application from auditor perspective. Moreover, it measures the gap of performance in what is provided by the application against the auditor`s needs. A direct multiple choices questionnaire was handed to group 1 to determine their level of satisfaction. The study generalized the answers based on categorizing the numerical results, where 1 considered low, 2-3 considered average and 4-5 considered high. The database log was used to determine the level of utilizing BFS through daily work of group 2. Collected date was analyzed accordingly. The structure shown in Figure 2 defined our research method.

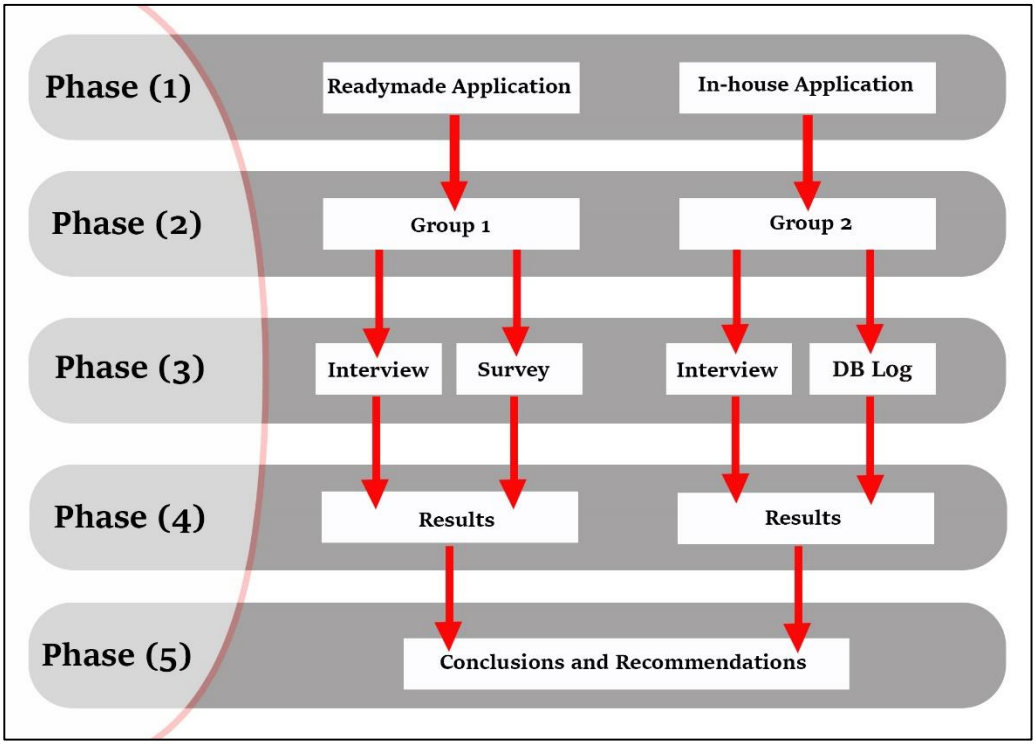

Figure 4

The questionnaire consisted of 16 multiple choices /open questions composing four different question categories:

- The Auditor general experience.
- The Auditor experience with idea.
- The Attending training course for IDEA.
- The Level of benefits after knowing about IDEA .

(Table 2) summarize SAB experience with using IDEA:

Application	IDEA
Purpose	Auditing and Analyzing large amount of data
Audience	Around 425 Auditor
Training \Workshops	173 auditors in 13 training courses or workshops
Advantage	• Audit large amount of data • Accuracy of results • Save time & effort

	• Easiness in defining the duplication and Similarity
Difficulties	• Difficulty in receiving electronic data from entities • Lack of auditor experience in using the application • Lack of knowledge in CAATs fields

Table 2

Database log was focusing on measuring level of usage for BFS through daily work. Employees' usage is measured based on number of data entry, number of updating data and number of viewing data. These data are registered in SAB server within specific database tables. (Table 3) summarize SAB experience with using BFS

Application	**BFS**
Purpose	Automation of Manual Process to follow-up & Audit the Financial Breaches.
Audience	30 Auditors
Training \Workshops	30 auditor in 4 training courses
Advantage	• Increase the productivity due to the easiness of retrieving data • Increase in the accuracy of data • Easiness of identifying the defect of financial breaches • Integration with other systems
Difficulties	• Lack of trust upon the auditor in using the application • Human resistance to change

Table 3

Results

Readymade application (for current study: IDEA)

After analyzing the survey, we found that overall of 33% of participants audit electronic data easily in all entities whereas 29% have some difficulty with that process. Moreover, 44% participants agreed that entities audited by SAB does not have proper tools to analyze the data. This explains the reason why most of the auditors are reluctant to use tools available in those entities. Finally, 30% of participants were enrolled in IDEA training course and only 13% out of them gain sufficient knowledge of IDEA after the training course.

In-house application (for current study: BFS)

The data gathered from the interview show that auditors do us a system to perform their duties more than their reliance on applying them manually. Table 4 summarizes several indications of user satisfaction after performing their duties in technical way rather than manual. It is noticeable that satisfaction reached all of the study`s measurement factors.

Measurement Factors	BFS	Manual
Rate of monthly Breaches	High	Low
Accuracy of performance	High	Low
Consumed time to perform a breach	Low	High
Consumed effort for a breach	Average	High
Number of roles for one breach	5	5
User satisfaction	4	1
Number of mistakes and remarks	Low	Average
Mistake rate in data entry	No Mistakes	Average

Table 4

Conclusion:

Technology has the ability to cover higher range of SAB needs than what is currently used. Also, encouragement factor plays an important role into adopting new ready-made auditing tools instead of manual methods.

Recommendations:

The results emphasize the need to:

- Familiarize SAB`s Auditors with the CAAT field and tools , encourage them to rely on these tools and discontinue using manual methods.
- Employ specialized expertise in technical and auditing fields.
- Increase the concentration of developing software`s that serve the auditing needs by increasing the awareness of auditing to IT Specialists.
- Improve the methods of marketing and training for any technical application.
- Issue decrees and regulations to mandate the use of the technological tools to ensure the quality of audit work.
- Reformulate the rules to obligate all entities audited by SAB to cooperate with auditors in delivering their data.
- Provide sufficient software licenses and a trail period along with technical support
- Amend the articles of laws to ensure a direct access to the data of the entities subjected to SAB auditing without any chances to data destruction.

References

English References:

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