

HRIS auditing: A tool to boost HR performance of the Regional Customs and Excise Administration of Casablanca

Mohamed Elkoutour¹, Mohamed Jallal Eladnani², Fatima Touhami³ and Belaid Bouikhalene⁴

¹Laboratory of Research in Economics and Social Science - Polydisciplinary Faculty, Beni Mellal and Inspector with Customs and Excise Administration, med.elkoutour@gmail.com

²Director of the Laboratory of Research in Economics and Social Science - Professor in the Polydisciplinary Faculty, Beni Mellal, eladnani2000@yahoo.fr

³Member of the Laboratory of Research in Economics and Social Science - Professor in the Polydisciplinary Faculty, Beni Mellal, f.touhami@usms.ma

⁴Director of the Laboratory of Mathematics Innovation, Applications and Information Technologies - Professor in the Polydisciplinary Faculty, Beni Mellal, b.bouikhalene@usms.ma

HRIS AUDITING: A TOOL TO BOOST HR PERFORMANCE OF THE REGIONAL CUSTOMS AND EXCISE ADMINISTRATION OF CASABLANCA

Abstract: To tackle the numerous changes that have taken place in the world, competitiveness research takes today center stage in the strategies of any organization. It goes without saying that every company should have a competitive edge to stand out in a complex environment. To this end, it's important to note that human resources are increasingly becoming a vital key to businesses' competitiveness because they are part of the key players to tackle their challenges. Proper human resources management helps businesses gain a competitive advantage.

The current context brings new game rules that change how things are set as per human resources. Human resources are being modernized and focus on ICT in the form of Human Resources Information Systems (HRIS). Having an innovative and cutting-edge HRIS helps organizations gain a competitive edge to optimize daily functioning of HR and focus on staff fulfillment; yet, to optimize human resources management, businesses not only need a good HRIS for practice automation but also the implementation of an auditing policy for the system to perfect it and hence increase the HR performance. In this article, we will tackle the human resources HRIS auditing as driver for HR performance for the Regional Department of the Customs and Excise Administration in Casablanca.

Keywords: HRIS, human resources, HRM, performance, Customs and Excise Administration of Casablanca, Audit, SPSS.

I. Introduction

To deal with the information technology revolution that has taken place in the world, adoption of Information and Communication Technologies (ICT) in Human Resources Management has become an imperative. ICT has completely redefined how human resources function. Competitiveness research pushes firms to combine HR function and Information Systems to have a competitive edge. Information Systems that are essentially developed for the Human Resources Management are generally called Human Resources Information Systems (HRIS).

With the introduction of HRIS, organizations have started to automate the human resources management process, reduce traditional activities, minimize routine operations and ultimately deal with activities of complex rotation. HRIS plays a crucial role in increasing the HR performance to the extent that HRIS tools that eliminate administrative constraints in order to focus on human management and the importance of Forward Jobs and Skills Management, hence to increase employee productivity and the motivation in organizations.

The automation of HR functionalities and management process dematerialization, their auditing is increasingly becoming a challenging task to accomplish in view of the functionalities' scope covered by HRIS. Thus, it is in this area where the research is centered on the following research problem: "How HRIS auditing can increase HR performance in the Department of Customs and Excise? And how this auditing would prompt the HR departments to integrate in a positive working environment?" This problematic has prompted us to ask where HRIS resides in HRM as well as the way in which HRIS tends to reduce the job burden for HR departments in order to shift its focus on fostering the development of employees.

At the same time, we could wonder about the tools with which HRIS facilitates the HRM and consequently motivate people to work. In parallel, to boost the HR integration in work with more advantages than disadvantages.

We have concluded from the previous problematic three hypotheses illustrated as follows: the first and second ones are related to the use of HRIS that improve the HRM. This usage has led us towards the auditing process of HRIS which encourages employees to be part of an empowering environment for work.

The third hypothesis is based on the HRIS process. It suggests that HRIS auditing process increases and improves HR performance.

To address the problematic and hypotheses, this research is based, firstly, on a literature review to highlight the theoretical backgrounds of HRIS auditing, and secondly to emphasize the role of HRIS auditing in increasing HR performance.

In light of this theoretical study, some questions have been formulated which are verified throughout an empirical study. This latter study was conducted on a sample of 100 people of the Regional Department of Customs and Excise of Casablanca-Settat.

II. Theoretical background

With the advance of technology, HRIS has completely changed how we perceive HR function. This very system changed the traditional HR management into automation and optimization of HRM. HRIS has become a major strategic challenge to all types of businesses that expect to promote internal transfers, recruitment, training, and Forward Jobs and Skills Management. Organizations are becoming more and more dependent on HRIS in order to increase the efficacy of HRM¹.

With the new challenges of our era, HRIS has become a vital tool. Desanctis, G. (1986) claimed that HRIS is designed to support the planning, administration, decision-making, and control activities of human resources management. It is, therefore, difficult to define HRIS since it encompasses the HR function and its complex functionalities and IS with its openness to Information Technology (IT).

Many authors, mainly computer specialists and managers, who have discussed the issue of IS and IT. Some of them argue that “the angle of view of the information system is that of the manager, who has needs to process data and is the owner or the client.” “On the other hand, the IT-savvy’s perspective is that of a contractor or a supplier who offers technical tools (goods and services) which must satisfy the need of the client”². Other authors have stressed on the interrelationships between these notions simply because IT is a strategic partner of HRM (Torres-Coronas, T. et Arias-Oliva, M. 2009).

HRIS is, however, an integrated system necessary to collect, record, store, manage, deliver and present data for human resources and consequently promotes efficacy of human resource systems (Aggarwal, N. and Kapoor, M. 2012). Functionality-wise, HRIS can keep track of information concerning applicant/employee qualifications and demographics, hiring procedures, payroll and retention (Troshani, I., Jerram, C. and Gerrard, M., 2010). In fact, HRIS automate the HR process based on a computer system used to acquire, store, analyze, retrieve, and disseminate information related to human resources (Khashman, I.M.A. and Khashman, A.M., 2016, P.34).

¹ Obeidat, B. Y., 2012, The Relationship between Human Resource Information System (HRIS) Functions and Human Resource Management (HRM) Functionalities. *Journal of Management Research*, Vol 4, No 4, p. 193.

² Gillet, M. & Gillet, P., 2010, *SIRH : Système d'information des ressources humaines* (Dunod, Paris, p.1).

It is now proven that the HR function is one of the main pillars of value-creation so that organizations have no choice but to ensure the performance of their employees. It is paramount to give the HR department some leeway as per creativity, the quality of work environment and especially employee performance. Also, Lippert, S. K. et Swiercz, P. M. (2005)³ have emphasized that the individual is placed in a position of vulnerability if the technology does not function as expected. This vulnerability creates a dependence ICT; in other words, technology reliability is most salient when successful job performance depends upon technology performance rather than solely upon personal performance. IS auditing, particularly HRIS, is hence regarded as means to increase the HR performance to the extent that an auditing process, which is aimed at controlling and correction of anomalies, enhances HRIS performance.

In a world marked by globalization, hyper competition and process dematerialization, the HR performance is a key point in order to achieve the desired purposes. HRIS maybe used for different purposes within particular HR functions, including hiring, development and training, compensation and benefits and mainly performance assessment (Tesi d.,2010)⁴. To this end, it's important to readjust the managerial occupation center of performance to one that is based on HRIS and supported by its auditing.

Nevertheless, the adoption of HRIS as a facilitator of HR functions will change the strategic risks of organizations. They should understand such changes and take appropriate steps to manage such risks. In fact, "when the internal auditor carries out an auditing mission, the internal auditing must have a broad perspective"⁵. "The entire value chain auditing, including the company's activities and IS, will bring a great benefit. These kinds of auditing missions must be based on operational objectives and all the risks (including those related to IS) have to be assessed according to this broad perspective. This assessment mission seems to be difficult but very positive because it can draw the interdependence between the core company's activities and IS"⁶. Yet, given the fact that HRIS is an integral part of the whole organization's IS, its auditing integrates, firstly, the HR activities such as: recruitment, training, Forward Jobs and Skills Management etc. as well as applications which are used to automate these activities.

Given the scope of features ensured by the HRIS, their adjustment to the intended purposes remain a difficult task and hence the need for the adoption of an auditing process and urbanization. To audit an HRIS, many points have to be considered such as: if this system supports the fulfillment of HR objectives, does the information extracted from HRIS meets the needs of the HR group? Whether the implemented system protects the confidentiality of the HRIS data and the dataflow in and out of other systems are secure and reliable.

Finding the right auditing standards remains one of the major challenges facing IS auditors and mainly HRIS's. "The auditor should list check goals of IS and have to find the appropriate framework even though it's not 100% adapted to his or her environment"⁵.

Carrying out an auditing mission necessary entails the definition of a benchmark, i.e., a set of benchmark organizational, procedural and/or technical rules. During an auditing mission, these standards allow to build a common ground of controlling and to enforce the compliance with the law and regulations (Toro, A.F. 2009)⁷.

³ Lippert, S. K. et Swiercz, P. M., 2005, Human resource information systems (HRIS) and technology trust, *Journal of Information Science*, CILIP, DOI: 10.1177/0165551505055399 31, p. 343-344.

⁴ Tesi, d., 2010, Human Resource Information Systems and the performance of the Human Resource Function. PhD theses, Libera University, Roma.

⁵ Just, B., 2012, *Pas de DRH sans SIRH : Présentation, métiers, technologies, méthodologie de mise en place* (Éditions Liaisons, p. 146-148).

⁶ The Institute of Internal Auditors, 2013, *Management de l'Audit des Systèmes d'Information : GAGG*. 2ème édition, IIA, Floride, p. 15.

⁷ Toro, A. F., 2009, *Management de la sécurité de l'information : Mises-en place d'un SMSI et audit de certification – implémentation ISO 27001 et ISO 27002* (Groupe Eyrolles).

In order to ensure that the organization and its process are relevant, an auditing process must be based upon a defined framework such as CobiT⁸. In fact, Moisand, D. and Garnier DE Labareyre, F. (2009)⁹ in their book: “CobiT: Pour une meilleur gouvernance des systèmes d’information”, reveal that CobiT is a control, auditing and governance standard par excellence. First of all, it is considered as an alignment with the company’s activities and strategy. The purpose of CobiT is not to compete with COSO¹⁰ or other standards but to complement and enhance them with control objectives in a targeted manner.

Adopting an urbanization process, however, raises the question of its benefit, firstly for the whole organization’s IS and secondly for its HRIS. Within an HRIS, “urbanization ensures the overhaul of the business process: (1) to optimally cover the needs of HR process by the IS, (2) to address deficiencies of some ERP modules, (3) and to solve problems of data circulation and communication related to the implementation of many non-communicant HR modules” (Just, B. 2012)¹¹.

In the same vein, carrying out an auditing process of HRIS aims essentially at making it more scalable. The HR department reorganizes permanently between decentralization and centralization, managers are increasingly involved in the HR process as buyers, employees take up new functionalities which are relevant to them. Broadly speaking, an auditing process ensures the coherence of HRIS. The HR department must be able to tackle the local needs that are increasingly important. The challenge is, therefore, to maintain coherence between the local systems and the main system for the sake of interoperability (Just, B. 2012)¹¹.

In addition to that, the main purpose of this auditing is to ensure that the implemented control framework of HRIS is suitable and efficient in order to support the HR performance. To this end, auditing is to assess (1) “whether the HRIS is used effectively and efficiently to support the accomplishment of HR objectives”¹², (2) “whether the management information available from HRIS is adequate in meeting the human resources needs and particularly their performance, (3) “whether the control framework in place is adequate and effective in protecting the confidentiality, integrity and availability of the data in the HRIS”¹² (4) and finally to ensure the reliability and integrity of data flows from other systems on which the HRIS depends.

HRIS encompasses a set of technological tools giving HR performance a significant boost. As a result, it is imperative that the HR function must be able to assess the real contribution of HRIS in terms of HR performance boost by adopting an auditing process of this system. Even though numerous studies have been conducted regarding the impact of ICT on the organization’s performance, further research is needed in HRIS auditing and its effect on HR performance if we want to shed more light on human resources and its relation with new technologies within the organizations.

III. Research methodology

1. Research scope

Having realized the importance of HRIS, most of public organizations and administrations have implemented an HRIS in order to facilitate and optimize their HR management but its auditing remains absent. The Customs and

⁸ Control Objectives for Information and related Technology: it’s an auditing and governance standards.

⁹ Moisand, D. et Garnier DE Labareyre, F., 2009, *CobiT: pour une meilleure gouvernance des systèmes d’information* (Eyrolles, Paris, p. 1).

¹⁰ Committee of Sponsoring Organizations of the Tread way Commission. It is used by organizations in order to enhance their internal controlling systems.

¹¹ Just, B., 2012, *Pas de DRH sans SIRH : Présentation, métiers, technologies, méthodologie de mise en place* (Éditions Liaisons, p. 146-148).

¹² Internal Audit, 2010, *Audit of HRIS: A Human Resources Management Enabler*. Election Canada, p. 9.

Excise Administration, however, was able to integrate an HRIS with a control and an auditing process just to align its HR with the overall strategy. Many studies showed that by adopting innovative HRIS the organization will undoubtedly benefit in terms of simplicity, operational effectiveness, quality and ultimately the whole organization's performance.

Consequently, the rationale to choose this subject hinges on the importance of HRIS in the organization and its role as HR serviceability facilitator. Also, this choice is motivated by the importance of HR which seem the primary and ultimate resources. Since the organization can not evolve without human capital, computerization of HR function remains crucial in order to boost the staff's sense of belonging and achieve the main objective of the company.

On the other hand, the research environment, which is the Customs and Excise Administration mainly the Regional Direction of Casablanca, is an enabling environment for research. The selection of this environment is prompted, firstly, by the importance of this Administration as an economic and social stakeholder, and then by its importance to IS, particularly to HRIS. The organization allocates great importance to HR by adopting an innovative HRIS capable of increasing the staff's performance and fulfillment.

Finally, the elaboration of the present subject was not only prompted by the above mentioned ideas but also by a PhD outlook. Continuing PhD studies is also motivated by the shortage of in-depth research regarding this subject.

2. Research instruments

To tackle the above mentioned research problem, our study has combined two types of data collection. Firstly, the use of questionnaire to statistically quantify the characteristics of the surveyed individuals, the use of characteristics of IS and HRIS as well as the impact of HRIS auditing on the performance of human resources.

There are numerous reasons for choosing a survey questionnaire as a tool of data collection. This tool ensures an easiness of the task since the questionnaires are directly delivered to the concerned individuals. It can come close a large number of interviewees also the questions are mostly a closed-ended questions in order to avoid a biased information.

Secondly, this research is supported by semi-structured interviews. The use of interviews is to draw out some findings, useful conclusions for the study and maybe some recommendations from senior managers of the Customs Department.

Moreover, the interviews entailed interviewing senior managers of the Customs Department, i.e., a face to face interviews with head of Human Resources and Training Service, senior liquidators, training officers and inspectors. Many reasons have prompted the use of this type of survey: (1) semi-structured interviews give a great flexibility of data collection manipulation, (2) during the interviews, the interviewees can raise certain organizational aspects which could be useful for the research and (3) the aim being to rationalize interviews time, discussion framework is already fixed just to optimize the interview time and ensure the prescribed objectives of the survey.

3. Conduction of research

The adopted methodology is based on questionnaire management during the period of September and October with a sample of 100 customs officers who represent the Regional Customs Service of Casablanca-Settat. This sample encompasses senior managers, junior managers and other employees. The survey has been completed with interviews with some experienced senior managers.

This survey has been analyzed with two different approaches: a descriptive approach (quantitative) and a qualitative approach. For the first approach, it involves identifying the characteristics of the interviewees especially their age, gender, status and professional experience, ICT training, characteristics of Internet usage, e-mail and Information systems, Human Resources Information Systems and the impact of HRIS auditing on HR performance.

On the other hand, the qualitative analysis is based on the survey results and the interviews with some senior manager. Firstly, we have conducted a block of indicators analysis in order to draw information related to socio-organizational characteristics, the usage of ICT, IS of the Customs Administration and HRIS as well as the impact of HRIS auditing on HR performance. Then, to verify our hypotheses, an inter block analysis was conducted. Finally, to know the veracity of our research problem, we have conducted a Principal Component Analysis.

To analyze the data of the research and draw reliable results which could be easy to interpret, these results are being analyzed by a software of statistical data analysis: Statistical Package for Social Science (SPSS). Our analysis methodology is based on three levels of analysis: (1) basic sorting analysis, (2) cross sorting analysis, and (3) data analysis found on Principal Component Analysis (PCA) demonstrated by the Factor Analysis on SPSS.

4. Data analysis methodology

The questionnaire comprises 47 questions including closed-ended questions and opened-ended ones. These questions are divided into four blocks:

1st block: to identify the surveyed individuals;

2nd block: is for the different usage of ICT;

3rd block: concerns the usage of HRIS;

4th block: is to draw the impact of HRIS auditing on the performance of HR.

These questions are based on the following points: The integration of IS by the Customs Administration, the adopted measures during the implementation of IS, the modules covered by HRIS, the auditing process of HRIS implemented by the Customs Administration in order to overcome the HRIS' deficiencies and the impact of HRIS auditing on the performance of HR.

4.1. The Variable measurement

We have chosen four variables: ICT that is Intranet, e-mail and mainly IS, variable of HRIS usage, socio-organizational variable and finally the variable of the impact of HRIS auditing on HR performance.

4.1.1. Identification indicators: "socio-organizational variables"

The socio-organizational variables of the interviewees are based on the profile, gender, age, professional experience, responsibility and education level of the surveyed individuals.

4.1.2. Indicators of ICT and IS usage

Each technology that we have chosen for this study (Intranet, electronic mail, Information Systems) has its specificity. During this research, we have evaluated the following variables: the benefit percentage of ICT

training, degree of Intranet usage and the quality of its information in relation to job needs, work e-mail checking habits and its relation to the real needs of the job, and the use of Customs Administration's IS.

4.1.3. HRIS indicators

These variables measure the usage trends of HIRS and its role in automating HR functionalities. Also, its role in facilitating the HR practices in order to keep the HR department near the employees concerns of the Administration. Additionally, these variables highlight the usage tools of e-HRM that is the Self Service solution and its relation to Human Resources Management online.

4.1.4. The impact of HRIS auditing on the performance of HR indicators

These variables are the core of the present research. They are going to highlight the impact of HRIS auditing of the Customs Administration on the performance of HR, the influence of an auditing process on the creation of an empowering work environment. Plus, by adopting such HRIS auditing process, HR performance can be increased and improved.

IV. The research results

1. Statistical results

Data analysis of the first block gives the breakdown by socio-organizational indicators of persons; for example, the survey has revealed that the Administration has more men than women. This disparity is also presented in the total number of the Administration's employees, at the end of 2016 statistics show 3712 men and 1121 women, i.e., 70.7% and 23.3% respectively. It's understandable, because the Customs Administration, to recent date, was a masculine Administration due to its status as a paramilitary Administration, its intervention domain and the nature of its work. The number of women was so limited and their role concerns solely searching travelers and desk officer positions far from a direct contact with the operators at the export and import services. However, the Customs Administration is changing this vision by increasingly putting women side by side to their male counterparts.

Statistical results on education level of the Administration's employees show that almost half of the customs officers have a higher education level, that is 4 individuals have a PhD, i.e., 5.3%, 17 individuals have a baccalaureate plus 5 years' higher education, i.e., 22.7%, 15 individuals have a baccalaureate plus 3 years' higher education, i.e., 20% and 26 individuals have a baccalaureate plus 2 years' higher education, i.e., 34.7%. Also, the population that has a baccalaureate plus 2 years' higher education is of 13 individuals, i.e. 17.3%.

These statistics emphasize the recruiting policy which is aimed to recruit those of higher education mainly baccalaureate plus 5 years' higher education and baccalaureate plus 2 years' higher education.

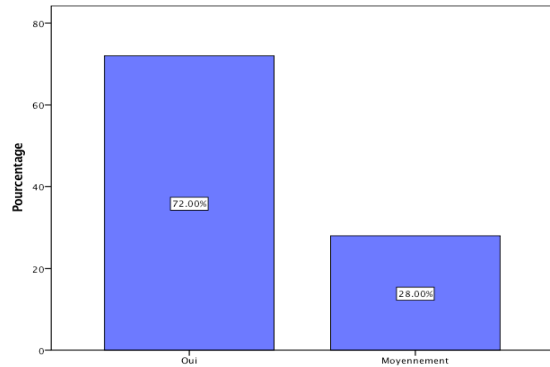
It is important to note that despite the fact that some employees are classified in a low pay scale, they have a higher education diploma simply because they continue their higher education.

Regarding the 3rd block¹³ which measures the use and knowledge of the Administration's HRIS. This research illustrates, among others, the degree of facilitating HR practices in which the HRIS plays a role of facilitator.

¹³ This block has been analyzed with a descriptive analysis or the basic sorting analysis with SPSS. This analysis consists of having the frequencies table with the surveyed individuals' percentage and validated percentage of the surveyed individuals as well as the graphs.

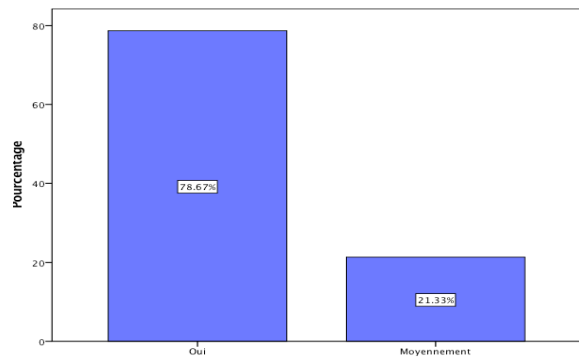
Likewise, this block shows how the Self-Service solution automates HR functionalities, which is considered an important tool of e-HRM. These results are demonstrated as follows:

Figure 1: Degree of facilitating the HRM by HRIS.



Source: Drawn up by the authors.

Figure 2: e-HRM tools and the job's needs.



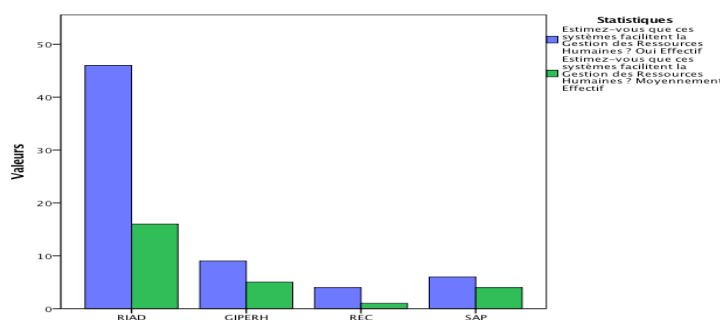
Source: Drawn up by the authors.

According to the extracted results, it appears that almost all surveyed individuals consider that the HRIS facilitates the HRM by up to 70% of users who confirm its role as a facilitator and 30% consider that it moderately facilitates the HRM. So, these statistics emphasize the crucial part of this system in making the HR department addresses employees' concerns in the Customs Administration.

The graphic above shows that the whole customs officers confirm that Self Service solution meets their needs in terms of e-HRM with a percentage of 100%; 78.7% of the surveyed individuals totally confirm the usefulness of this solution while 21.3% consider that it meets moderately their needs. On the whole, all the surveyed individuals have confirmed the significant role of Self Service.

However, the 4th block¹⁴, considered as the core of this study, is to confirm or refute the above mentioned hypotheses by a bi-variate analysis with SPSS. The verification of the first hypothesis: "The HRIS usage improves the Human Resources Management", shows the results as follows:

Figure 3: The HRIS usage improves the Human Resources Management



Source: Drawn up by the authors.

The crossover between the variable of HRIS usage of the Administration and the variable that HRIS facilitates the HRM shows the following results: 72% of the surveyed individuals confirm that the HRIS (RIAD¹⁵, GIPE-

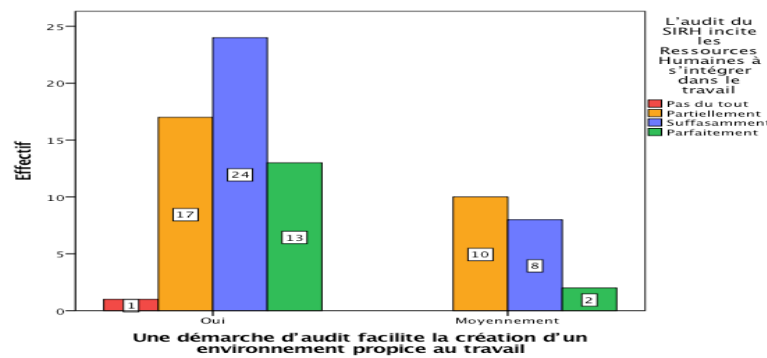
¹⁴ This block has been analyzed with cross sorting analysis method. This analysis ensures essentially hypothesis verification, i.e., confirming or refuting them by the cross sorting analysis.

RH¹⁶, REC¹⁷ and SAP) facilitate the HRM while 28% of these people have stressed that HRIS moderately facilitates HRM. Pointing out that all surveyed individuals have confirmed that HRIS facilitates HRM.

In view of the introduced hypothesis, “HRIS use improves Human Resources Management”, it appears that the majority of the surveyed individuals confirm the central position of the HRIS in facilitating the HR practices. Accordingly, our first hypothesis is validated with a percentage of 72% of the interviewees who emphasize that the HRIS facilitate the HRM.

The second hypothesis, which is based on “an HRIS auditing process encourages employees to engage in a positive working environment”, shows the following results:

Figure 4: an HRIS auditing process encourages the HR to integrate in a positive working environment



Source: Drawn up by the authors.

The survey reveals that according to the crossover between the variable of “an auditing process facilitates the creation of an enabling work environment” and the variable of “the HRIS auditing encourages the HR to integrate in a positive work environment”, it emerges that: 50% of the surveyed individuals consider that the HRIS auditing encourages the HR to integrate in an enabling work environment while 24% of them believe that this auditing has no influence in prompting the HR within the workplace. On the other hand, 26% of the surveyed individuals deny the role of HRIS auditing in encouraging the HR to integrate in the workplace.

Based on chart above, we conclude that our second hypothesis – an HRIS auditing process encourages employees to integrate in an empowering work environment – is accepted with a percentage of 50%. However, the percentage of the surveyed individuals who do not see any relation between the two variables is merely 26% which make it widely approved.

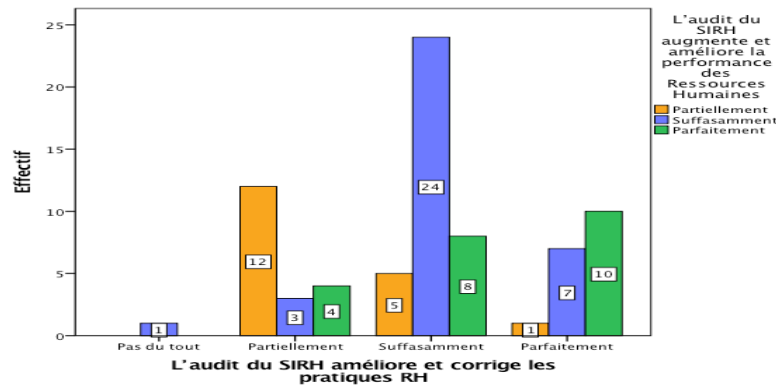
Regarding the third hypothesis, HRIS auditing increases and improves employee performance, its statistics can be illustrated as follows:

¹⁵ Integrated Resources of the Customs Administration, it’s a system that integrates the management of human resources, materials and financial resources.

¹⁶ Integrated Management of the Government’s Employees. This system encompasses almost all the HR modules such as: Administrative management of the employees, training management...

¹⁷ Job and Competence Repository.

Figure 5: The HRIS auditing increases and improves the performance of HR



Source: Drawn up by the authors.

By crossing the variables of “HRIS auditing improves HR practices” and “HRIS auditing increases HR performance” we have the following results: 65.3% of the surveyed individuals (i.e., 49 of the interviewees) emphasize that HRIS auditing improves HR performance while 34.6% of the interviewees say that this auditing does not increase HR performance.

To this end, the third hypothesis, which is “HRIS auditing increases and improves HR performance”, is widely validated simply because 65.3% of the surveyed individuals have stressed on the HRIS auditing increases and improves the HR performance to the extent that this auditing optimizes HRIS and consequently HR performance in the organization.

A qualitative analysis, on the other hand, will be conducted in order to analyze all the variables making up the core part of our research as a testing of the relevance of our research problem. By using the SPSS software, data analysis is based on the “Principal Component Analysis” method.

In fact, based on a factorial analysis, we are going to highlight the whole research since this analysis serves as a testing tool of the relevance of our study. Obviously, we have chosen the Principal Component Analysis since it can outline the variance with minimum factors.

However, in order to address the issue of the relevance of factorial analysis, we are going to analyze KMO rating and the relevance of Bartlett test.

Table 1: The KMO rating and the Bartlett test

The Kaiser-Meyer-Olkin rating for the measurement of the sample quality.	0.746
The sphericity test of Bartlett test	Chi-squared test
	159.74
	Ddl
	15
	Signification
	0

Source: Drawn up by the authors.

First, it’s important to note that the KMO (Kaiser-Meyer-Olkin) rating points out that if it’s interesting to apply a PCA data analysis, i.e., whether a PCA can find the factors (components) that efficiently summarize baseline information. Also, the sphericity test of Bartlett meets the same criteria (Durand, C. 2003).

KMO rating of 0.747, however, can be qualified as excellent. It indicates that the correlations between the items are very good. Moreover, sphericity test of Barlett results are significant ($p=0$). So, the correlations are not all equal zero and, therefore, we can continue our analysis.

Table 2: Components matrix

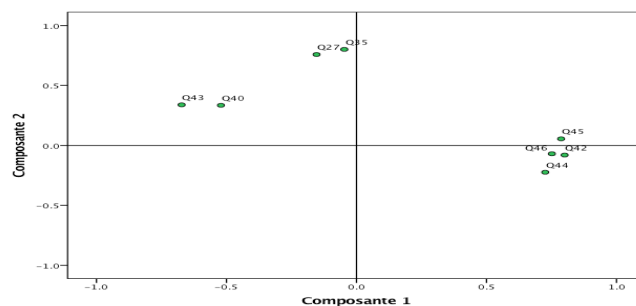
	Component	
	1	2
Do you think the HRIS (RIAD, GIPE-RH, REC...) facilitate the HRM	-0.154	0.758
The Self Service solution meets the needs of the employees in terms of e-HRM	-0.047	0.801
An auditing process facilitates the creation of an enabling work environment	-0.521	0.334
Auditing increases and improves the employees' performance	0.801	-0.081
Auditing improves and aligns the HR department with the general prescribed objectives of the Administration	-0.672	0.338
HRIS auditing improves the HR practices	0.726	-0.224
HRIS auditing encourages the employees to integrate in the work environment	0.787	0.055
HRIS auditing increases and improves the performance of HR	0.751	-0.07
Extraction method : the Principal Component Analysis.		

Source: Drawn up by the authors.

“Components Matrix”¹⁸ table measures the contribution of every variable in the formulation of two axes. The variable of “auditing increases and improves HR performance” and “HRIS auditing encourages employees to integrate in the daily work” are those contributing the most in formulating the first axis. Regarding the second axis, it is identified by the variables “do you think HRIS (RIAD, GIPE-RH, REC...) facilitate HRM?” and “Self-Service solution meets employee needs in terms of e-HRM?”. Since the two axes are independents, these coefficients can be also interpreted as correlation coefficient of variables with the components and also as details of the variables in the components.

In this regard, the interpretation of the components matrix is illustrated by the following diagram:

Figure 6: Components diagram



Source: Drawn up by the authors.

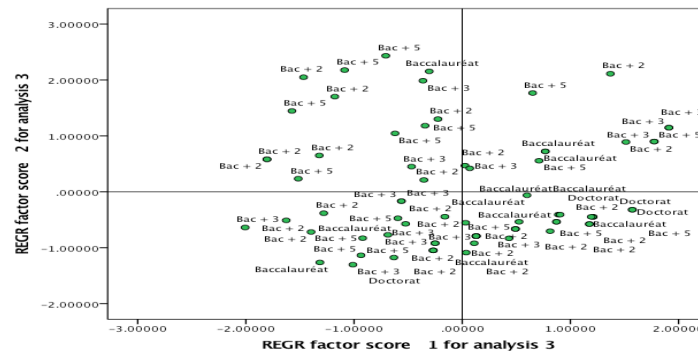
¹⁸ These statistical results have been extracted by the application of the PCA method. This analysis can mainly examine the initiated research problem.

Axes direction: every axis direction is illustrated by the variable or variables which are well represented (farther from the center and close to the axis).

The first axis, which is the second component, is made up of the following variables: “Auditing increases and improves employee performance”, “HRIS auditing improves HR practices”, “HRIS auditing encourages employees to integrate in their work environment” and “HRIS auditing process increases and improves employee performance”; these variables contribute positively in formulating this axis. On the other hand, the variables: “An auditing process facilitates the creation of an enabling work environment” and “Auditing improves and aligns the HR department with the general prescribed objectives of the Administration” contribute negatively in formulating this axis.

However, the second axis, the first component, is made up of the variables “HRIS facilitate HRM” and “Self Service Solution meets the needs in terms of e-HRM”.

Figure 7: Scatter graph



Source: Drawn up by the authors.

According to the scatter graph, we deduce that the individuals who have an education level less than baccalaureate plus 5 years’ higher education formulate the second axis. These individuals claim that the HRIS facilitate HRM. While the individuals who have an education level of baccalaureate plus 5 years’ higher education (PhD level) formulate the first axis.

This graph shows the composition of groups of individuals who have the same characteristics. To this end, our research problem is validated and, therefore, HRIS auditing increases and improves the employee’s performance.

Thus, through hierarchical tree (see appendix 1), this study ensures the reassembly of individuals in their classes. Also, this tree gathers the individuals who have very close characteristics.

V. Discussion and perspectives

We have noticed that the expected results have been achieved since 62% of the surveyed individuals are in favor of HRIS auditing increases and improves the performance of Human Resources.

This survey shows that the expected results have been achieved as customs officers deem positively that HRIS auditing automates and facilitates the HR practices and, therefore, it increases and improves the employees’ performance in the Customs and Excise Administration.

The implementation of an auditing process, mainly of that of HRIS, boosts the creation of an empowering work environment to the extent that auditing addresses the shortcomings, improves the work procedures, controls the daily tasks and aligns HR strategies with the main trends of the executive management.

From data gathering of the survey, it follows that: the first hypothesis is widely validated with a rate of 72% of the surveyed individuals who confirm that HRIS usage improves Human Resources management because this system automates HR functionalities and users' approaches. Regarding the second hypothesis, which is comfortably accepted with 50% of the interviewees who believe that an auditing process of HRIS prompts employees to engage in a positive work environment. In view of the above-analyzed statistics concerning the third hypothesis, it appears that it is validated with a rate of 65,3% of the participants who emphasize that the process of HRIS auditing increases employees' performance.

Furthermore, the Principal Component Analysis has highlighted the relevance of our research problem read as follows: "How the HRIS auditing can increase Human Resources performance in the Customs and Excise Administration? And how this auditing would prompt employees to engage in a positive working environment?". Indices and matrices altogether of this study (the correlation matrix, the component matrix, covariance matrix of components, KMO rating and the Barlett test) have obviously validated the relevance of the raised problematic. These include the Scatter graph by which the surveyed individuals validate the research topic.

However, the survey has showed some difficulties regarding access to the appropriate training since 44% of the surveyed individuals have emphasized that they have not received a continuous training related to Information Systems use, especially Human Resources Information Systems. This survey has revealed that regardless of this absence of continuous training, the bulk of customs officers relatively master HRIS, mainly RIAD system, simply because the last summarizes all HR functionalities disseminated in web mode.

This issue of training can be also overcome by adopting an efficient training policy through: (1) providing a basic training related to these systems right after hiring (2) providing periodically continuous training to update the employees' knowledge and (3) to encourage self-education among the customs offices, when appropriate.

Nevertheless, a full utilization of HRIS can be impeded by some factors such as technical problems and absence of training related to these systems.

Most of the surveyed individuals consider HRIS as critical to their work activity. That said, some constraints face its full utilization, which spurs us to list some recommendations:

- Generalize Internet access for all employees (controlled access);
- Upgrade hardware and software to overcome technical problems;
- Add more members to IT department, HR and training department;
- Allocate regional departments of Human Resources with greater decision-making power;
- Involve staff in the elaboration process of new work practices and future practices;
- Improve work methods by developing new products and organizing training programs;
- Encourage communication and knowledge sharing among Customs' employees;
- Use Intranet as e-learning for all the categories of users;

Recall forgotten HR management instructions, i.e., confidentiality of every employee must be respected: certificate of employment, certificate of commitment and all the personnel documents which must be addressed to the concerned person in a sealed envelope.

On the whole, HRIS auditing process within the Customs and Excise Administration increases and improves employees' performance. So, the impact of HRIS auditing on the performance of HR is relatively positive and consequently there is a positive relationship between the two components namely employees' performance and HRIS auditing.

However, audit report recommendations and guidelines are barely applied; as a result, relevant audited matters remain unchanged. To optimize work tasks and ensure a normal conduct of any services, it is, therefore, advisable to apply the recommendations of audit report and, finally, ensure the general strategies of the Administration.

VI. Conclusion

HRIS is undoubtedly an essential tool for organizations. However, it is important to consider adopting HRIS auditing process in order to increase employees' performance and finally align HR department with the main guidelines of the General Management. In view of its strategic position in the Moroccan economy, the Customs and Excise Administration as a public administration is among the first Administrations that have implemented HRIS in its management system.

Integrating ICT displayed by HRIS is per se a tool of modernization, but the administration's modernization depends on HR engagement and the authority of workers' representation as well as finding the right match between employees'/administration's needs and the answers brought by tackling the concerned issue, in general.

The goals assigned to new technologies can be illustrated in three main points: (1) a transparent government that makes an immense amount of information available to the public in the government machinery as well as in the public policy, (2) an open access and simple government with improved online procedures in parallel with the simplification of the administrative procedures and (3) an efficient government that builds on employees.

Our research falls within the last point. The point is to find a favorable environment to optimize HR function and, hence, boost employee satisfaction across all departments. With that, HRIS auditing is a key tool to optimize HR function, especially in relation to employee's performance.

The survey showed that an HRIS auditing policy bolsters employee's performance. With this system auditing, we increase its performance and make staff's tasks easier; this leads to better employee's performance. Ultimately, HRIS will make a substantial and positive contribution to the Administration only if the program promoting them involves the commitment the Customs department staff, not to mention the importance of behavior in change because motivating employees by making their job easier makes work within reach and drives results consistency for the organization.

To conclude, the study paves the way for further research with respect to HRIS auditing and its impact on employee's performance. So, more profound research is necessary to shed more light on the subject and expand its theoretical framework. Therefore, the current study is largely motivated by further PhD research to expand knowledge about HRIS auditing and its relation to HR performance to use this insightful material.

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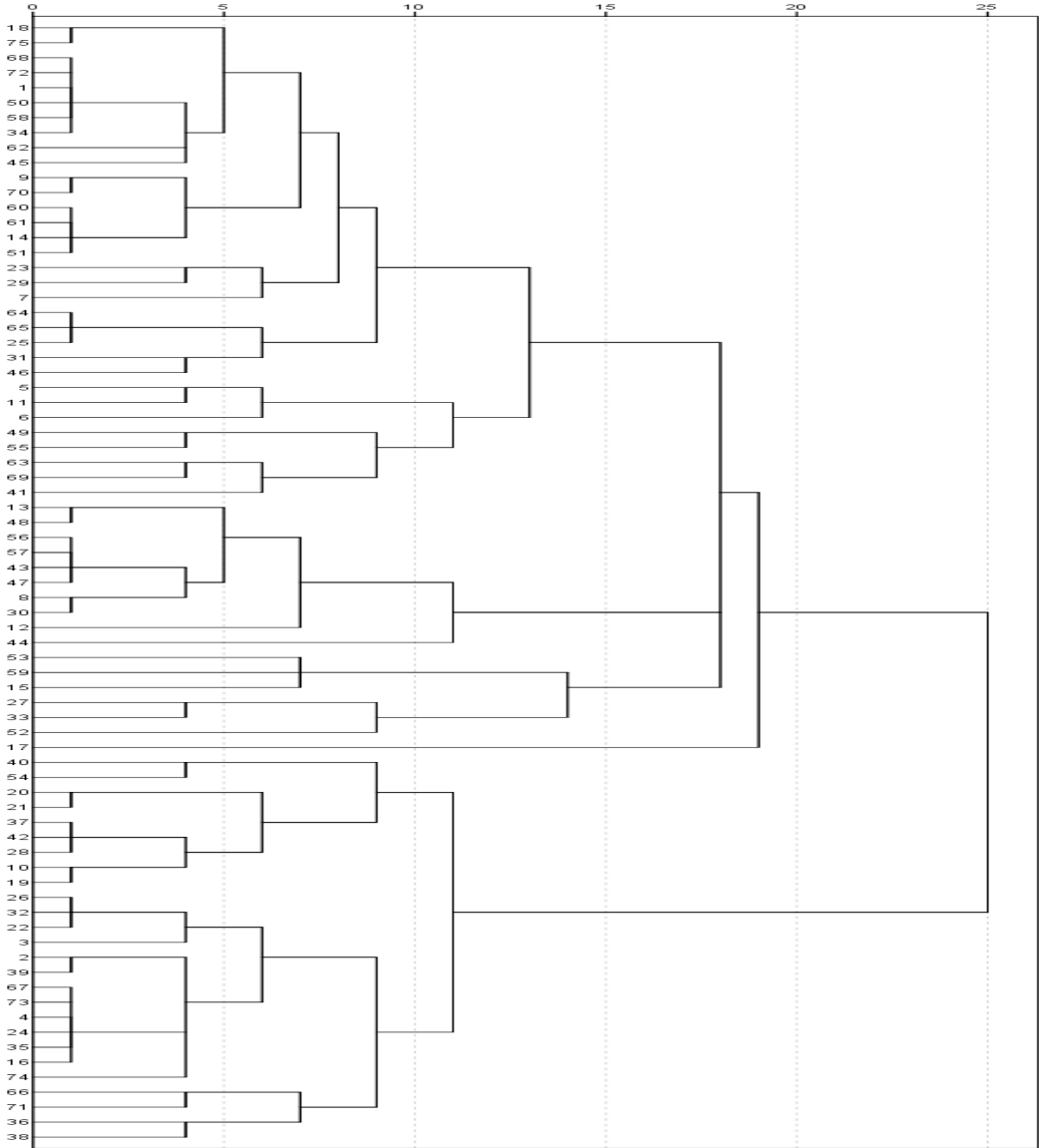
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VIII. Appendix

Appendix 1

Figure 3: Hierarchical tree



Source: Drawn up by the authors.