

The Relationship between using information technologies And Human resources management performance

Case study: a set of Algerian east region business companies

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Abstract

We aim through this study mainly to measure the correlation between information technology and human resources management through its dimensions. For that we have put a model that shows the relationship between the variables studied (information technology and human resources management). This study has been conducted on a sample of 22 companies of the Algerian east area, depending on survey method and discipline to collect and analyze the data by a set of statistical indicators such as Cronbach's Alpha, One-Sample Kolmogorov-Smirnov Test, descriptive statistics such as (Mean, Std. Deviation, Std. Error Mean) and correlation coefficient for testing the hypotheses. The main result of this study is: there is a positive- high correlation between information technology dimensions and developing the performance of human resources management.

Keywords: Technology, Information technology, Human resources, Human resources management, Performance.

ملخص

نهدف من خلال هذه الدراسة أساساً لقياس العلاقة بين تكنولوجيا المعلومات و أداء إدارة الموارد البشرية من خلال أبعادها المختلفة، وذلك بوضع نموذج يوضح العلاقة بين متغيرات الدراسة (تكنولوجيا المعلومات و أداء إدارة الموارد البشرية)، وقد أجريت هذه الدراسة على عينة مكونة من 22 مؤسسة في منطقة الشرق الجزائري، حيث تم الاعتماد على المنهج التحريبي وذلك بجمع وتحليل البيانات من خلال مجموعة من المؤشرات الإحصائية مثل ألفا كرونباخ، اختبار كولموغوروف سميروف لعينة واحدة، الإحصاء الوصفي مثل (المتوسط، الانحراف المعياري، الخطأ المعياري المتوسط) ومعامل الارتباط (ارتباط بيرسون). لاختبار الفرضيات، حيث أن النتيجة الرئيسية لهذه الدراسة تبين العلاقة الموجبة القوية بين أبعاد تكنولوجيا المعلومات وأداء إدارة الموارد البشرية.

الكلمات المفتاحية: التكنولوجيا، تكنولوجيا المعلومات، الموارد البشرية، إدارة الموارد البشرية، الأداء.

I. Introduction

Currently the human resources are considerable as the most valuable in the production and the most important asset of any organization worker that create human capacity in each organization. Professionals and academics consider that Human Resources have now increased capacity in addition to information gathering, storage and retrieval in time and efficient manner. This contributes to raising the efficiency and effectiveness of the management functions. Business managers considered that the human

resources management is more difficult controlling and managing than technology and other material capital. Human resources are a source to achieve the competitive advantage and raise the performance generally and in all other functions because of their ability to convert other resources of money, and various raw materials from the raw format to a format usable such as products and services.

Information Technology as a structural factor and main tool to transform the components of the organization such information and different resources and management, business processes and communication that integrate increasingly the impact on human resources management. While information technology has implications for human resources, as well as directors, employees, customers and suppliers increase their expectations for the performance of the human resources functions.

Human Resources managers face many challenges in the current working scenario, such as workforce diversity, knowledge management, and discovery of talent management, globalization and technological advance and technological changes at political, economic and legal environment in using information technology. All of these challenges increase the pressure on Human Resources managers to attract, retain and strengthen the competencies. Organizations to enhance their functions and activities of each organization parts have to work and focusing on Human Resource Management and Information Technologies, thus we can ask our main question as problematic: **is there significant relationship between the using information technologies and Human resources management performance?**

In the following stages I'll try to present and analyze the Background literature and the empirical study In order to solving this problematic until the results and conclusion.

II. Background literature

2.1. Nature of Human resources management and its challenges:

Human resource management is the theory, techniques, methods, and tools for studying the adjustment of people and their relations in the organization, connection between work and its relations, matching the people and work in order to fully develop human resource management, tap people's potentials, motivating people, promoting the work efficiencies and meeting the organizational objectives (Babu & Eimani, 2014, 135).

Several scholars have noted that managing human resources is more difficult than managing technology or capital. Human resources are the source of achieving competitive advantage because of its capability to convert the other resources as money, machine, methods and material in to output like product and service (Swathi, 2014, 21).

HR managers are facing many challenges in present business scenario like Globalization workforce diversity, technological advances and changes in political and legal environment change in information technology. All

these challenges increase the pressure on HR managers to attract, retain and nurture talented employee (Kamal & Kumar, 2013).

Organizations to enhance their effectiveness and efficiency have moved to two facilitators: Human Resource Management and Information Technology (Talebi & al, 2014). The evolution of technology has encouraged organizations to use human resource information systems (HRIS). HRIS is perceived to contribute to the effectiveness of manpower activities (human resources planning) in organizations (Karikari & al, 2015).

Today the human resources are the most valuable factor in production and the most important asset of any organization and they create human capabilities of each organization (Saber & Khademi, 2015). HR professionals now have an increased capacity not only to gather information, but also to store and retrieve it in a timely and effective manner. This has not only increased the efficiency of the organization but also the effectiveness of management functions (Sadiq & al, 2012)

Human resource management is especially important in a knowledge-based economy, where ideas and expertise are greatly valued, and a creative and innovative workforce is necessary to meet the challenges of this new economy. Efficient and effective management of human capital is increasingly an imperative and complex process. As a result, there has been a considerable increase in the number of organizations gathering, storing, and analyzing information regarding their HRs through the use of software which is human resource information system (HRIS)

2.2. The information technology importance in management field

The topic of IT techniques is one of the core issues that the researchers sought to highlight and study various aspects thereof, in order to enrich the subject and take advantage of the results of studies and research that is being reached in the development of applications in various business organizations. Information technology (IT) is recognized as a critical infrastructure in many organizations (Hiyam & al 2014).

IT is also emerging as an effective contributor to organizational performance. It is often argued that success of the IT induction is attributed to strategy, consistent delivery, systems usability. This finding suggests that human resources (HR) in the organization play a vital role. Information systems (IS) research has recognized the importance of HR in the IT acquisition process (Misra, 2006). These technological advances are being driven primarily by strong demands from human resource professionals for enhancement in speed, effectiveness, and cost containment (Mishra & Akman, 2010).

The rate of organizational change has not slowed in recent years, and may even be increasing. The rapid and continual innovation in technology is driving changes to organizational systems and processes (Ullah, 2012). IT workers experience numerous sources of stress that are universal across occupations and work environments. Research shows that, similar to other professions, stress in IT results from intensive work demands, complex

relationships with others, career concerns, systems maintenance, role ambiguity, and tedious administrative tasks (Debra & al, 2007).

2.3 Interaction between IT and HRM in organizations

The pace of change brought about by new technologies had a significant effect on the way people live, work, and play worldwide. New and emerging technologies challenge the traditional process of teaching and learning, and the way education is managed. Information technology, while an important area of study in its own right, is having a major impact across all curriculum areas. Easy worldwide communication provides instant access to a vast array of data, challenging assimilation and assessment skills. Rapid communication, plus increased access to IT in the home, at work, and in educational establishments, could mean that learning becomes a truly lifelong activity, an activity in which the pace of technological change forces constant evaluation of the learning process itself. (Pritam Singh Negi & al, 2011)

Information technology (IT) is increasingly becoming an important factor and fundamental to support business processes in organizations. IT acquisitions are quite productive in supporting transactions and in aiding coordination mechanism provided the organizational resources and business processes are properly aligned with the IT.

However, many IT acquisition projects fail due to improper alignment of the business process with IT. Role of human resource (HR) is quite critical to such alignment process. It is important that acquiring organizations display HR capability to support alignment process especially in the pre-acquisition stage to minimize the post-acquisition shocks. In this paper role of HR in IT alignment process is discussed through some metrics during pre-acquisition stage. A framework is developed and causal relationships among metrics are discussed. This framework is then tested for its fitness and applied to a case for appreciation (Misra, 2006).

2.4 Information technology and human resources function

The world of computers and information technology has become such an important aspect of our lives, and it is highly doubtful that there will be return to traditional methods of conducting business (Francis, 2013, 84). Information Technology (IT) as a structural factor and instrument transforms architect of organizations, business processes and communication, and is increasingly integrated into human resource management (HRM).

While IT has impacts on human resource (HR), at the same time managers, employees, customers and suppliers increase their expectancies for HR functions (Ünal & Mete, 2012). In nowadays top leaders fully realize the power of information technology (IT) tools for reaching business targets. The utilization of IT tools help not only to fulfill defined company's goals but to optimize the work processes as well. Trends and results of the contemporary studies constantly confirm contribution of the IT tools in Human Resources (HR) area (Seyni & Joshi, 2014), (Shiri, 2012).

2.5 Role of Information Technology in human resource management.

The purpose of the computer for Human Resource Managers is to improve the quality of the services they are offering. Computers up keep us. As a manager we carry out our human resources responsibilities by performing a variety of time consuming jobs. A large amount of the work in the human resources office is clerical in nature. By using Information Technology, many of the routine jobs can be automated and the number of persons can be reduced for these tasks. In large organizations, one of the biggest problems is to upkeep the current data file. It has been proved that one of the supporting pillars which can contribute to the fulfillment of the personal policy is the usage of Information Technologies in Human Resource Management. Computers should be believed of as another human resources management tool, like a growth program, an assignment process which when used properly, can help us to maximize the quality of the products and services we offer. (Suman Kathuria, 2014)

For this Issue Hilla and Yitzhak 2011 have tried to explain through a study by using two independent large databases of 5,991 organizations in 21 countries, this study explored (a) the influence of national values on human resource (HR) information system practices (type of HR information system and information system communication design) adopted by organizations; and (b) the contribution of the level of fit between national values and these HR information system practices to two key organizational performance indicators: absenteeism and turnover.

Results showed that national values explained HR information system practices and supported the hypothesized interactive effects of national values and HR information system practices on absenteeism and turnover. The results have strong implications for organizations concerned with how to maximize the fit between particular cultures and HR information system practices as a basis to enhance organizational performance indicators (Hilla and Yitzhak, 2011).

2.6 Human Resource Information System strategic and its Effectiveness on HR

The purpose of Ebenezer & Evans (2012) research about this issue is to identify specifically, how the use of Human Resource Information Systems (HRIS) contributes to the effectiveness of strategic human resources management and to examine the strategic importance of using HRIS at the workplace.

Relevant review of various HRIS literature were undertaken which culminated into the development of a conceptual model and the formulation of hypotheses to test the proposal that there is relationship between independent variables- HRIS- and the dependent variables- Cost and Time Savings (CTS), Decision Making Contribution (DMC), Quality Information Effects (QIE) and Employment Development Commitment (EDC). The research uses data generated from 34 respondents from insurance companies in Ghana: SSNIT, ELAC, Vanguard, and Done well. Data was analyzed

using SPSS software. It has been found that HRIS adoption and use have a strong and positive effect on CTS and DMC. Essentially, organizations that divert concerted efforts towards HRIS adoption and use have a high likelihood of cutting down cost and saving time, and also ensure better contributions to strategic decision making. Further findings suggest that insurance organizations map up a strategic plan before implementation goes underway.

Financial and resource appraisal in relation to the ability to start and sustain HRIS use are critical. HRIS enables HR professionals and supervisors to manage complex information entities and to plan HR efficiently also, organizations that intend using HRIS should thoroughly educate its employees- not only HR staff- so that internal awareness can facilitate the acceptance of the system (Ebenezer & Evans, 2012).

Human Resource Management is especially important in a knowledge-based economy, where ideas and expertise are greatly valued, and a creative and innovative workforce is necessary to meet the challenges of this new economy. Efficient and effective management of human capital is increasingly an imperative and complex process. As a result, there has been a considerable increase in the number of organizations gathering, storing, and analyzing information regarding their HRs through the use of software which is HRIS (human resource information system).

The growing importance of HRIS is due to the recognition of HR practitioners that IT (Information technology) and IS (information system) should be a part of HR functions mainly to develop and use better HRM programs. This adoption of HRIS by organizations combined with the increasing sophistication of this software, presents the HR function with new challenges which demands the HR professionals to participate and contribute fully to their companies, as true strategic business partners.

This study attempts to identify the effectiveness and the importance of the use of HRIS on the HR functions of an organization. It includes the top management, managers, and executive of HR working in manufacturing, service and IT sectors. Results provide insights into HRIS practice, its effects, effectiveness and shows that HRIS is of direct significance verifies completeness of the HR function and also provides HR professionals with opportunities to enhance their contribution to the strategic direction of the firm (Shammy Shiri, 2012).

2.7 Human Resource Information System (HRIS): Important Element of Current Scenario.

The management of talent is increasingly recognized as critical to organizational performance, particularly during periods of change. This is evident in large scale change projects that are technologically based and where major changes to processes typically require shifts in skills and capability requirements. Based on a single in-depth case study, this paper presents a comprehensive exploration of an organization's decision to

transition from their proprietary stand-alone HRIS system to an integrated vendor system.

The study shows how this transition ultimately led to the reshaping of the organization understands of the talent requirements in both the Human Resources (HR) and information technology (IT) functions and resulted in a new approach to the management of talent. By applying a social construction of technology based approach (SCOT), we argue that it is important for those involved in the study and practice of transitioning technology to be mindful of the potential consequences for talent and talent management. (Sharna Wiblen & al, 2010)

An HRIS, which is also known as a human resource information system or human resource management system (HRMS), is basically an intersection of human resources and information technology through a HR software solution. This allows HR activities and processes to occur electronically.

The Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business. The goal of HRIS is to merge the different parts of human resource, including payroll, labor productivity, and benefit management into a less capital intensive system than the mainframes used to manage activities in the past. Also called Human Resource Management systems (HRMS).

A HRIS generally should provide the capability to more effectively plan, control and manage HR costs; achieve improved efficiency and quality in HR decision making; and improve employee and managerial productivity and effectiveness. In most situations, an HRIS will also lead to increases in efficiency when it comes to making decisions in HR. This research paper helps to know about how HRIS help the organization to enhance the efficiency of work (Barkha Gupta, 2013).

Information technology is changing the way HR departments handle record keeping and information sharing. It decreases the paperwork substantially and allows easy access to voluminous data. The employee can also keep track of his/her achievements without having to go through litigious procedures. It uses intranet or other web technology channels. It can also be used for implementation of different HR strategies. The processing and transmission of digitalized HR information is called electronic human resource management (e-HRM). E-HRM is the application of IT for HR practices which enables easy interactions within employee and employers. It stores information regarding payroll, employee personal data, performance management, training, recruitment and strategic orientation. The authorization of different HR functions can be distributed through E-HRM.

Competitive business environments have compelled the organizations to think speedily to innovate and excel for their survival. The change in Information Technology is faster than any other processes in the organization. One of the major hurdles which the HR department needs to cross is the changing technological environment.

The IT possibilities for HRM are endless; in principle all HR processes can be supported by IT. With computer hardware, software and databases, organization can keep records and information better as well as retrieve them with greater ease. E-HRM is the relatively new term for this IT supported HRM, especially through the use of web technology. E-HRM is the new field of technology that is widely spreading in organizations around the world. It aims at transforming the HR functions into one that is paperless, more flexible and resource efficient. (Pinki J Nenwani, 2013).

2.8 Similar studies

The following studies as background that consists of the main modern available studies about IT and HRM to build a clear idea about the subject, which transformed to a model which explains the correlation between IT and HRM. Therefore we're going to present all the studies offered temporally, study by study for observe the evolution of this correlation between IT& HRM.

2.8.1. Study of Carmen and Ana (2010), the relationship between human resources and information and communication technologies: Spanish firm-level evidence.

Increased attention to the economic impact of information and communication technologies (ICT) underscores the impact of ICT on the social side of the "digital divide." ICT and individual and organizational changes are often closely related. This paper examines the main characteristics of the relationship between ICT and human resources in Spanish firms, in the context of a developed country with an incidence-rate of ICT slightly below the average of its area. The data on 1,269 Spanish manufacturing firms has been taken from the Survey of Business Strategies (SBS) of the Fundación Empresa Pública (Spanish Foundation) of Spain. Our results suggest that ICT are related to higher levels of qualification, higher levels of R&D workers, and higher levels of training per worker. Moreover, firms that invest in ICT offer higher levels of average wages. These results confirm the relationship between technological innovation, and organizational and human changes. Managers and public administrators should take into account such mutual interrelations in order to optimize their decisions concerning investment in human and technological resources.

2.8.2. Study of Pilar (2011), Information Technology, Human Resources Management Systems and Firm Performance: An Empirical Analysis from Spain.

This research paper uses survey data on 1.518 Catalan firms (in Spain, with capital in Barcelona) to examine the relationship between IT use, innovative human resources management systems (IHRMS) and firm's performance. Using factor and cluster analysis, we find that only one-third of Catalan firms use IHRMS. Using association analysis we find that firms that adopt IHRMS are more internationalized; show greater ability to adapt to the change environment, to innovate and to collaborate; focuses product/service differentiation strategy enhancing quality; apply a greater degree of new

forms of work organization; use IT more intensively; and invest more in training their employees. Using regression analysis, we find that features which are structural, technological, strategic, organizational and result related

explain the adoption of IHRMS.

2.8.3. Study of Katayoon, and Rosmini (2013), Information Technology Effects on Strategic Human Resource and Performances.

This article reviews previous frameworks and reveals initial definition from several empirical works on strategic human resource management (SHRM). Organizations find out that it is necessary to use empirical strategies and adopt various approaches in using valuable recent information to achieve high quality performances. Also, using different stage of information technology will decline the transparency in HR departments and improve the HR services in the firms. In conclusion, this study reveals the SHRM performances in the firms and how information technology can influence the effects of SHRM on organizational performances. There is a need to know the results of the moderating role of information to know whether it can decrease or increase the remarkable strategic human resource management influences on firms' performances. The aim of this study is to evaluate the changes in connection between SHRM and HR performances (profitability, productivity, service/product quality) with the moderating role of the information technology.

2.8.4. Study of N. Muthu & al (2015) Emerging Trends in Changing HR Technology and its Landscape.

Technology is changing everything and impacting most every part of every business. Innovative human resource practices have reengineered the old process. Today human resource managers have innovated their way of hiring and recruiting employees. Innovative HR practices have overcome various human capital challenges viz. geographical limitations, mobilization etc. Human resources technology helps in all processes from recruit to retire functions and has drastically changed the way employees and managers get access to the human resource data.

The past decade taught business firms everywhere a humbling lesson. Domestic companies learned that they can no longer ignore global markets and competitors. Successful firms in mature industries learned that they cannot overlook emerging markets, technologies, and management approaches. Companies of every sort learned that they cannot remain inwardly focused, ignoring the needs of customers and their environment.

The key components to an effective human resource team consist of finding solutions that address their biggest challenges with respect to personnel and technology. Using the best in HR Technology to stay ahead of the curve just makes sense. This paper explores the available technology and its usefulness in executing the managerial functions and challenges faced by them.

Indeed technology rules the world and HR people enjoy the fruits of benefits and one cannot wish away the organizational which can accommodate with caution and human touch. No one can deny the fact that no doubt that technology has made it easier and faster to gather, collate, and deliver information and communicate with employees.

More importantly, it has the potential to reduce the administrative burden on the HR department so it is better able to focus on more meaningful HR activities, such as providing managers with the expertise they need to make more effective HR related decisions. Mobile technology adds values to the HR and presents numerous web based applications to HR people.

2.8.5. Study of A. Karasek (2015), Information Technologies in Human Resources Management - Selected Examples.

Rapid growth of Information Technologies (IT) has had huge influence on enterprises, and it has contributed to its promotion and increasingly extensive use in enterprises. Information Technologies have to a large extent determined the processes taking place in an enterprise; what is more, IT development has brought the need to adopt a brand new approach to human resources management in an enterprise.

The use of IT in human resource management (HRM) is of high importance due to the growing role of information and information technologies. The aim of this paper is to evaluate the use of information technologies in human resources management in enterprises. These practices will be presented in the following areas: recruitment and selection, development and training, employee assessment, motivation, talent management, personnel service. Results of conducted survey show diversity of solutions applied in particular areas of human resource management.

In the future, further development in this area should be expected, as well as integration of individual HRM areas, growing mobile-enabled HR processes and their transfer into the cloud. Presented IT solutions applied in HRM are highly innovative, which is of great significance due to their possible implementation in other enterprises.

III. Methodology and Results

In the following points we're going to present the Mythology of empirical study through its steps point by point from the objective to hypothesis testing.

3.1. The main question

The main of this study as following: is there significant relationship between the IT and Human resources management performance.

3.2. Objective:

We try to discover through this study the correlation between the investment in the information technology within the business companies and the performance of their Human resource management.

3.3. The hypothesis

We try to test the following hypothesis by using deferent steps with deferent tools.

There is no significant correlation between the exploiting IT and HRM performance through their deferent dimensions.

3.4. Study context: Society, Sample & The temporal-limits

The population of this study includes all the business companies of Algerian east zone. Where the Sample studied includes 22 available companies. 10 telecom agencies, 5 tourism agencies 7 insurance agencies of constantine , Mila , Skikda and oum el bouaghi (see annex 2) . The study was conducted on the period from the 28th of August, 2016- to the 30th of November, 2016, we choose these service companies for three reasons: the interactivity with customers, use the IT intensively, speed activities

3.5. Methods

We'll depend on the Surveying descriptive and empirical discipline by design a proper questionnaire based on the Likert scale (see annex1) .In addition the interviews with the companies' responsible.

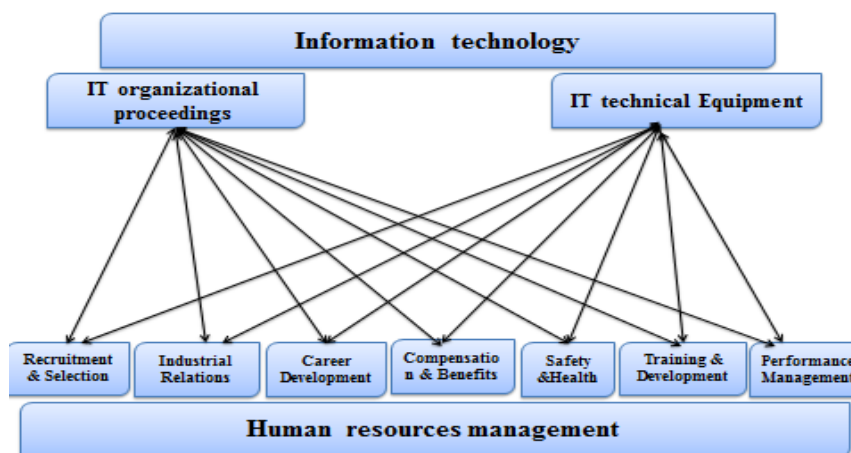
3.6. Tools & Software

To analyze the data we are going to use the correlation coefficient to test the main and sub hypotheses, before that we are going to test the Reliability of tool and Normality, then the descriptive Statistics, by SPSS V20.

3.7. The model & its variables

The following figure is the proposed model that shows the variables, dimension and the relationship between them.

Figure (1):The proposed model



By the researcher depend on the previous studies

The variables of that study defined as follow:

- The first variable is IT (IT organizational proceedings and IT technical Equipment),

- The second variable is HRM (Recruitment & Selection, Industrial Relations, Compensation & Benefits, Safety & Health, Training & Development and Performance Management).

3.8. Reliability Statistics: Information technology & Human resources management

At the first stage we are going to test the reliability of research tool by the following indicators of Cronbach's Alpha

Table (1) Case Processing Summary & Reliability Statistics

S	Variables	Valid	%	Total	%	N of Items	Cronbach's Alpha
X	IT	22	100,0	22	100,0	2	,776
Y	HRM	22	100,0	22	100,0	7	,865
	All	22	100,0	22	100,0	9	,787

By the researcher depend on SPSS V20 results

The table (1) shows the number of respondents (22), missing values (00), and their proportion (100%). The coefficient of Cronbach's alpha value is good for all the parts of **IT & HRM**, which shows the high reliability coefficient therefore the tool is able to address the phenomenon studied.

3.9. Normality Test: Information technology & Human resources management

At that stage, we try to test the normality of statistical distribution of the observations in order to identify the kind of tests used for test the hypotheses.

Table (2) One-Sample Kolmogorov-Smirnov Test of The IT & HRM dimensions

Normality Test by One-Sample Kolmogorov-Smirnov of The IT & HRM dimensions		IT organizational proceedings	IT technical Equipment	Recruitment & Selection	Industrial Relations	Career Development	Compensation & Benefits	Safety & Health	Training & Development	Performance Management
N		22	22	22	22	22	22	22	22	22
Normal Parameters ^{a,b}	Mean	3.2146	3.1394	3.4879	3.2694	3.2667	3.2222	3.1515	3.2273	3.3247
	Std. Deviation	.60274	.63341	.47154	.57666	.59301	.62593	.64426	.62057	.56613
Most Extreme Differences	Absolute	.151	.125	.203	.112	.189	.184	.149	.139	.156
	Positive	.122	.089	.139	.103	.189	.184	.108	.128	.116
	Negative	-.151	-.125	-.203	-.112	-.165	-.149	-.149	-.139	-.156
Kolmogorov-Smirnov Z		.866	.718	1.165	.641	1.084	1.058	.853	.797	.898
Asymp. Sig. (2-tailed)		.442	.681	.132	.806	.191	.213	.461	.550	.396

a. Test distribution is Normal.

b. Calculated from data

By the researcher depend on SPSS V20 results

Every coefficient in the table (3) of the variables studied 'IT & HRM' are significant, because they're higher than 0.05. That shows that the distribution of observations is normal according to the test of Kolmogorov-Smirnov, for that we could use parametric tests for testing the hypotheses.

3.10. Structure validity

In that part we're trying to measure the correlations between IT & HRM and their dimensions for improve the representation of the IT & HRM their components.

Table (3) the correlations between IT and its dimensions:

Person correlations between IT and its dimensions		IT organizational proceedings	IT technical Equipment	IT
IT	Pearson Correlation	.909**	.917**	1

** . Correlation is significant at the 0.01 level (2-tailed).

There is a strong and positive correlation between the IT and its dimension, so the variable IT able to represent its components IT organizational proceedings and IT technical Equipment.

Table (4) the correlations between HRM and its dimensions

Person correlations between HRM and its dimensions	Recruitment & Selection	Industrial Relations	Compensation & Benefits	Safety & Health	Training & Development	Performance Management	HRM
Pearson Correlation	.909**	.957**	.921**	.904**	.903**	.909**	1

** . Correlation is significant at the 0.01 level (2-tailed).

By researcher depends on SPSS V20 Results.

There is a strong and positive correlation between the HRM and its dimension, so the variable HRM able to represent its components Recruitment & Selection, Industrial Relations, Compensation & Benefits, Safety & Health, Training & Development and Performance Management

3.11. Descriptive Statistics: IT & HRM

At this stage we're going to describe all the dimensions of IT & HRM by the main statistical indicators the mean, Std. Deviation and Std. Error Mean.

Table (5) One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
IT organizational proceedings	22	3.1146	.60274	.10492
IT technical Equipment	22	3.4394	.63341	.11026
Recruitment & Selection	22	3.4879	.47154	.08208
Industrial Relations	22	3.9694	.57666	.10038
Career Development	22	3.2667	.59301	.10323
Compensation & Benefits	22	3.8222	.62593	.10896
Safety & Health	22	3.1515	.64426	.11215
Training & Development	22	3.7273	.62057	.10803
Performance Management	22	3.3247	.56613	.09855

By researcher depends on SPSS V20 Results.

According the results above of descriptive indicators of the IT & HRM dimensions. We may observe through these results:

- The indicators relatively existence in the Algerian companies studied. Where the means of all the dimensions are fairly high of IT & HRM, which indicates the companies use the IT as a tool to achieve their goals and objectives and manage their operations and management proceedings. And small standard deviations which indicate the homogeneity of the answers and opinions about the availability of these indicators in the Management practices.
- There are many indications of information technology applications in terms of infrastructure or systems.
- The Scarcity of using technology and rely on traditional manual tools in terms of archives and documents and communication tools such as fax and phone.
- The Algerian companies studied conform in terms of its reliance on information technology more than the other views such organization and management of resources.
- The Algerian companies studied relying on the tools and devices more than control and good management of information.
- The companies studied use the technological tools primarily to improve the vertical and horizontal industrial relations, followed by compensation and profits as a the second goal, training and development, and the least dimension is safety and health through the lack of awareness of companies the culture of this indicator.

3.12. Correlation between IT and HRM dimensions

The following is the table which shows the correlation between IT and HRM dimensions. To test the above hypothesis we're going to depend on The Pearson Correlation coefficient in all the dimensions of IT used and HRM performance, as a matrix of correlations through the following table.

Table (6) correlation between IT and HRM dimensions

Pearson Correlation Between IT and HRM dimensions	Recruitment & Selection	Industrial Relations	Compensation & Benefits	Safety & Health	Training & Development	Performance Management
IT organizational proceedings	.758**	.819**	.739**	.770**	.729**	.774**
IT technical Equipment	.770**	.827**	.779**	.726**	.704**	.811**

****.** Correlation is significant at the 0.01 level (2-tailed).

By researcher depends on SPSS V20 Results.

According the Table 6 above we can note the following results:

- There is a positive and strong correlation between the IT dimensions (IT organizational proceedings & IT technical Equipment) and the performance of HRM (Recruitment & Selection Industrial Relations, Compensation & Benefits, Safety & Health, Training & Development and Performance Management), which proves the relationship between the benefits and deferent usage of IT and human resources management improvement and performance.
- There is positive and strong correlation between information technology and recruitment & selection Wayne information technology Can develop recruitment & selection process and procedures .
- There is positive and strong correlation between information technology and industrial relations. IT play a crucial role in creating good industrial relations between organization members
- There is positive and strong correlation between the information technology and career development. Information technology plays a key role in following of Human Resources career and development their experience
- There is positive and strong correlation between information technology and compensation & benefits through good controlling the Financial and monetary activities and Instantaneous flow of human resources compensation & benefits.
- There is a positive and strong correlation between IT and the safety & health through good controlling and following Human resources safety & health in organization.
- There is positive and strong correlation between information technology and training & development. IT helps Human Resources to training & development through effective communicating and Networking and transforming the knowledge among the Human Resources and their coaches and formers.

- There is positive and strong correlation between the information technology and management performance. IT works to develop all the process and procedures of management to achieve high performance.

IV. Conclusion:

According the foregoing results we can conclude that: The hypothesis of this study the main and the sub-hypothesis are accepted, therefore there is positive and strong correlation between information technology and human resources management performance through that The information technology applications in terms of infrastructure or systems which show the pursuit of the Algerian companies to provide techniques which aim to improve the performance, such as providing data, transferring information and strengthening decisions speedily and efficiently. Also the lack of using technology and rely on traditional manual tools in terms of archives and documents and communication tools such as fax and phone which shows the delay of the Algerian companies in providing technological tools that would facilitate the working process.

In addition the companies studied conform in terms of its reliance on information technology which indicates the spread as a means accredited management and seeking to develop them as a means of supporting the various decision-making and facilitate the work. Wayne the companies studied relying on the tools and devices more than control and good management of information which indicates the resorting of Algerian companies to techniques using instead patterns and methods of management that significant the evolution of management mentality.

Moreover the companies studied use the technological tools primarily to improve the vertical and horizontal industrial relations in order to guarantee integrated work followed by compensation and profits as a the second goal for its important as an tangible resource, training and development which is seeking by The Algerian companies despite it is misunderstood by the Algerian manager as an experience and skill, and the least dimension is safety and health through the lack of awareness of companies the culture of this indicator.

There is a positive and strong correlation between information technology and all the human resources dimensions, recruitment & selection where information technology can play an important role in the announcement for employment and receive files electronically and make tele-interviews which gain time and reduces costs. Industrial relations.

Good industrial relations based on the speed of communication and continuity. Information technology plays a important role in that interactivity instead the traditional tools in order to gain time and develop the flexibility in the transactions and relationships.

Career development. Information technology plays a key role in developing the skills and creativity through improved access to information and knowledge transformation. Compensation & benefits, where the

information technologies work to control the different situations of employees which contribute to facilitating the social compensation and distribute the profits in the good time and manner. Safety & health where the information technology provide the necessary information about the rules followed and informing with the safety risks just in time and the correct ways.

Training & development. Technologies based on the transformation of the data, information and explicit knowledge, where allowing the improvement of the training and employees level as well as it contributes to the development of all the ways, tools and methods of production, marketing and organization.

Management performance, Where IT works to create the coordination and integration of all the functions and as well as facilitate the transformation of information about all the different activities to create synergies among all the parts of company in achieving the goals and objectives. Thus improving the performance finally.

Information technology applications become really necessary in the modern age, where its importance has come from the characteristics of business field to minimize of the losses: money, effort, time ...to achieve interesting results and returns. Where the traditional vision, tools, ways and philosophy of management become unable to cope the movements and components of modern environment.

In the midst of that The companies try constantly to benefit from information technology applications to achieve their goals and objectives which higher performance and different and excellent advantages through focus on the soft and Hardwar to manage efficiently the information within the companies process and functions all of that to achieve the human resources management aims through develop and improve The Recruitment & Selection, Industrial Relations, Career Development ,Compensation & Benefits, Safety &Health, Training & Development and the Performance Management.

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Annex 1: the Questionnaire**Axe 1 : information technologies**

1st	IT : technical Equipment	Scale				
		Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
X11	Using devices and computer developed software					
X12	Own a digital record of Human Resources activities					
X12	Availability of Modern communications and effective network					
X14	Updating and development of hardware and software					
X15	The flow of e-mails via the Internet and phones					
2^{ed}	IT : organizational proceedings	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
X21	Using the available information in databases for formulating the human resources strategy					
X22	Availability of comprehensive and sufficient and available databases for units and various departments.					
X23	The databases Renewed continuously via the results and reports of various processes.					
X24	The HR activities linked with electronic operations through technical programs.					
X25	Information system has high efficiency in storage, classification, retrieval and update data & information					

Axe 2: Human Resources Management

1 st	Recruitment & Selection	Scale				
		Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y11	Skills					
Y12	Attributes					
Y13	Experience					
Y14	Capable					
Y15	Effective					
Y16	Suited					
Y17	Experienced					
Y18	Qualified					
2 ^{ed}	Industrial Relations	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y21	Employer					
Y22	employees					
Y23	employers' associations					
Y24	trade unions					
3 ^{ed}	Compensation & Benefits	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y31	Incentive					
Y32	Benefits					
Y33	perquisites					
Y34	basic pay					
Y35	Allowances (taxable)					
Y36	reimbursement (tax free)					
4 th	Safety & Health	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y41	Define organizational structure					
Y42	comprehensive workplan					
Y43	asite- specific safety and health plan					
Y44	safety and health training program					
Y45	medical surveillance					
Y46	employer's SOPs					
Y47	document Interface					
5 th	Training & Development	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y51	New technology					
Y52	cost control					
Y53	role and career flexibility					
Y54	new appraisal techniques					
Y55	skills and labor shortage					
Y56	product and service quality					
Y57	globalization and speed of change					
6 th	Performance Management	Agree 1/5	Agree 2/5	Agree 3/5	Agree 4/5	Agree 5/5
Y61	Work is planned and expectations are set					
Y62	Performance of work is monitored					
Y63	Staff ability to perform is developed and enhanced					
Y64	Performance is rated or measured and the ratings summarized					
Y65	Top performance is rewarded					

Annex 2: The sample

N	Company	Activity	Address
1	CONSTANTINE AGENCY	Telecom	Place of the 1st november 1954, Constantine
2	ALI MENDJLI AGENCY UNIT OF NEIGHBORHOOD	Telecom	5, new town ali mendjli, constantine.
3	EL KHROUB AGENCY	Telecom	01, rue yezlioui ali, el khroub, constantine
4	CHELGHOUH EL AID AGENCY	Telecom	National road n 05, route of 1st november, chelghouh el aid, mila
5	OUM EL BOUAGHI AGENCY	Telecom	14, quarter of the future, oum el bouaghi
6	SKIKDA AGENCY	Telecom	N ° 116 the alleys, skikda
7	RITAJ MALL AGENCY	Telecom	Ritaj mall shopping center new city ali mendjli, Constantine
8	MILA AGENCY	Telecom	Ben tebal el said, mila
9	AIN MLILA AGENCY	Telecom	50, communal city, ain mlila, oum el bouaghi
10	SIDI MABROUK AGENCY	Telecom	Seize larakeb ahmed n ° 07, superior sidi mabrouk, Constantine
11	CONSTANTINE CAAT	Insurance	09 , mustapha aouati street, Constantine
12	AIN M'LILA CAAT	Insurance	Bechoua street -ain m'lila
13	MILA CAAT	Insurance	Nouar benkara street mila
14	SKIKDA CAAT	Insurance	Aisles avenue of 20 august 1955- skikda
15	AOUM EL BOUAGHI CAAT	Insurance	The 1 st november 1945 street n ^o 6 - aoum el bouaghi
16	CONSTANTINE C.A.A.R 503	Insurance	Mostafa aouati ave, n0 55, constantine 25000
17	SOCIÉTÉ NATIONAL D'ASSURANCE SAA (DIRECTION RÉGIONALE)	Insurance	Industrial zone palma, constantine
18	GLOBAL TOUR AGENCY	Tourism	N ^o 3, abdehamid kurbua street , sidi mabrouk, constantine
19	SALAMA TRAVEL AGENCY	Tourism	10 ismail mahdjub street, sidi mabrouk, Constantine
20	MADIHA AGENCY	Tourism	21 ben tounsi street , mila
21	BENI TOUR AGENCY	Tourism	Arsenal street , skikda.
22	SIDI ARGHIS AGENCY	Tourism	El amel avenue 2 ^{ed} extent, n ^o 8 oum elbouaghi