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The Impact of Information Technology on Practicing Human Resources Management in the Public Sector in the United Arab Emirates

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Abstract:

This study investigates the impact of Information Technology (IT) on the practices of human resource departments in the United Arab Emirates (UAE)'s public sector organisations. This paper presents the results of a survey of human resources directors (HRDs) in the public sector organisations in the UAE. It is an initial attempt to provide a case study of information and services provided by IT, primarily Web-based self-service, in the human resource function. HRDs were asked about their perceptions on the effectiveness of human resources information systems (HRIS) for their organisations. The results were positive and showed that the scope of HRIS is broad, with almost 28% and 30% of employees contacting HR through email and the Web, respectively. In terms of the perception of HRDs of the impact of HRIS, operational effects such as the automation of record-keeping, alleviation of administrative burdens are significant. However, relational and transformational aspects such as a reduction in response time, improved service quality and retaining knowledge are important to HRDs. Still, they doubted that HRIS enhances the organisation's ability to attract top talent, improves awareness or relationships between HR and employees.

Keywords: E-human Resources Management, Human Resources Directors, Information Technology, Public Sector, United Arab Emirates.

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Introduction:

The adoption of Information Technology (IT) by government organisations has a considerable potential in improving the delivery of public services and in enhancing their various functions. Such utilisation of IT in the public sector is called e-government. IT has the potential for allowing public sector organisations to be more efficient and effective in carrying its various operations (Guanghua, 2009). Public managers, as the contributors to such efficiency and effectiveness, should have the required e-readiness. IT system alone does not do anything useful; it must become part of comprehensive Information System (IS). Human resource function is an information system, which requires adequate access to modern technology and the ability to reconstitute the governance mechanism. Capable and highly qualified human resources managers are needed to coordinate the internal and external services factors to be able to handle the demand for services (Wimmer, 2002)

This study aims to investigate the impact of information technology on the practices of human resources departments in the UAE's public sector organizations. Specifically, it examines the perceptions of UAE public sector employees regarding Electronic Human Resources Information (EHRM) in their organisations. It presents the results of a survey of human resources directors (HRD) in UAE public sector organisations. Human resource directors are chosen to provide a case study of the scope of information and services provided by IT, mainly Web-based self-service. The research is based primarily on a quantitative approach using a questionnaire survey to collect data from HRM's directors of public sector organisations. They are asked about their opinions on the effectiveness of EHRM on their organisations. In addition to this, the study explores the barriers and success factors that inhibit or promote e-HRM adoption.

Research for this paper took place in the UAE, a country that has achieved a remarkable performance in social and economic life. In all indicators about e-government, the UAE fares well above most of the developing countries in general and other Arab countries in particular (Al Athmay, 2013).

After this introduction, the rest of the paper is organised as follows. Section 2 illustrates the research problem, significance of the study, the survey data collection instrument, and the characteristics of the sample. Section 3 describes the theoretical background. Section 4 presents the empirical results, and Section 5 provides the conclusion and future research direction.

Research Problem:

This study is an initial attempt to address the gaps in knowledge left by previous research. This study will expand the scope of literature by examining the United Arab Emirates as a transitional economy. The study mainly attempts to answer the following questions:

1. To what extent IT utilisation in HRM has affected employees information-seeking behaviour in contacting HR
2. Does Web-based service have impacted the provision of information/service by HR
3. How much influence does IT have on operational, relational, and transformational aspects of HR
4. What are the success and barriers factors that promote or inhibit IT utilisation in HR

Questions 1 and 2 examine the scope of HRIS in public sector organisations in the UAE. They specifically address what HR Web-based self-service systems are provided to employees and managers through IT across the organisations. Questions 3 and 4 examine the perceptions of

HRDs of HRIS effectiveness. In order to examine these critical research questions, the following two sections outline the survey data collection protocols and the characteristic of the sample.

Significance of the Study

This study's importance stems from the following points:

1. To the best knowledge of the researchers, this study is the first attempt in UAE and probably is one of few attempts to research the impact of IT on the operational, relational, and transformational aspects of HR.
2. Plenty of studies addressing human resources management systems have focused on developed countries. Furthermore, there are few studies in Arab countries in Arabic that have focused mainly on the impact of HRIS on the effectiveness of HRM. This study will expand this view by addressing electronic, human resource management in the context of the UAE where this country competes with other countries to attract the best talent to its workforce.
3. To understand IT utilisation in HRM within the public sector of the UAE. Researchers could not find any research, especially when it comes to the examination of senior managers/directors' perceptions of IT effect on the functions of human resource departments.

Data Collection Instruments

For this study, a quantitative methodology was used. Survey questionnaires were created and administered in the process of data collection. Human resource directors or equivalent position classifications are chosen. The total number of the surveyed public sector organisations is 92. Altogether we approached over 120 respondents and received response from 92. They are chosen from three Emirates, namely: Abu Dhabi, Dubai

and Sharjah. The three emirates were chosen because it was easy to contact them but most importantly these are the three of the biggest emirates in UAE. This survey took place from the beginning of January until the end of March 2019.

Overall, the questions were simple, so that the respondents would be unbiased and precise in their responses. We put all our efforts (through face-to-face interaction) into making the respondents understand each question clearly by explaining how they can answer the questionnaires. The collected data were then examined using the SPSS software.

The methodology and research design are based on some recent studies on the impact of EHRM in public sector organisations (Coursey & Norris, 2008; Khashman & Al-Ryalat, 2015; Reddick, 2009). These studies have helped the researcher to design the questionnaire items of this study.

The survey questionnaire was designed to collect data related to the operational, relational and transformational impact of EHRM within the public sector. Precisely, the questionnaire consists of five sections. Section 1 includes questions related to demographic characteristics of the sampled respondents — section 2 addresses which types of E HRM services the organisations provide. Section 4 relates to the perception of HRDs about the impact of HRIS on HRs operational, relational, and transformational functions. Sections 4 & 5 of the questionnaire contained questions about the utility and barriers of EHRM, respectively. Section 6 studies the frequency and method of information retrieval from the HR department by the sampled respondents.

Some questions are measured by using the five-points ratinglikertscale ranging from (5) Strongly Disagree, (4) Disagree, (3) Neither Agree nor Disagree, (2) Agree and (1) Strongly Agree,. Other questions are measured as a type scale ranging from two-point scales related to yes and no questions.

To sum up, this particular research method is quantitative, and the

approach we used for data collection was through using a paper-based survey. We believe this approach helped us to get a good response quickly and in an efficient manner. However, the use of the qualitative approach to conducting this study would have been a great opportunity.

Demographic Data

Table 1 provides information on the composition of the survey sample. One notable finding was that the typical age range of HRDs in UAE's public sector organisations was 35-44 years. Besides, there were almost twice as many males in the position of HRDs in the sampled population of public sector organisations in the UAE. It was widespread for HRDs to hold a graduate degree, with 74% having this academic qualification. In terms of the comfort level with IT, HRDs were allowed to rate how "IT sophisticated" they perceived themselves to be. The responses to this question were on the high end, approximately four on a five-point scale. This indicates that HRDs who responded to the survey are probably more IT knowledgeable. Finally, 63% of the sample was composed of organisations that employ 100 to 400 full-time equivalent (FTE) employees, which is a small to medium-sized city government. Overall, it appears from Table 1 that HRDs in public sector organisations that responded to the survey are middle-aged, male, highly educated, comfortable with IT, and work in a small to medium-sized city government.

Table 1: Demographics and Public Organisational Sector Characteristics

What is your age range?	Frequency	Percent
25-34	14	16
35-44	38	41
45-54	24	26
65 or over	16	17

Gender		
Female	32	35
Male	60	65
Education		
Post Graduate Degree	10	11
Graduate Degree	68	74
Diploma (2 years program)/ Higher Diploma (3 year program)	14	15
How many full time employees are employed in your organization		
50 - 100	10	11
101- 200	24	26
201- 399	34	37
400- 499	16	17
Over 500	8	9
On a scale of 1 to 5, where would you situate yourself in terms in terms of IT sophistication, where 5 is highly sophisticated solutions and 1 being low/basic IT solutions:		
1	0	0.0
2	4	4
3	32	35
4	46	50
5	10	11

Theoretical Background:

This paper examines the perception of the impact of e-HRM in terms of how different systems are utilised and what sort of effect they have on operations, relationships and transformations within the organisation. This part reviews first literature on the adoption of information technology on e-HRM and second on the impact of such adoption on the operational, relationship and transformation of HRM in public sector organisations.

Information Technology and HRM

Any technology that is used to attract retain and maintain talent and optimise workforce management should be called EHRM (Tannenbaum, 1990). Accordingly, the benefits of the EHRM system are no different from a typical Information System (Thorp & Thorp, 2003). It is a foundation for a set of management tools (Hyde & Shafritz, 1977). Human Resource Information System (HRIS) is a computer system that is used to acquire, store, manipulate, analyse, retrieve and distribute information related to human resources (Kavangah & Johnson, 2012). Alternatively, as stated by (Stanton & Coover, 2004), EHRM is the integration of IT with HRM functions that aims at creating value within and across organisations for targeted employees and management.

To examine EHRM, this study surveyed public sector HRDs or their equivalent within the UAE. While there is some work done on EHRM in UAE and some Arabic countries in general (Singh & Sharma, 2015), (Haladay, Sergio, Opulencia, & Antiado, 2016), we could not find any research addressing the public sector within the UAE sector especially when it comes to senior managers/director level.

Historically, technology investment has focused on cost-cutting and automating jobs and seen as a quick fix to propose immediate solutions rather than giving strategic direction (Lepak & Snell, 1998) (Snell, Pedigo,

& Krawiec, 1995). For example, if the response time for an existing process is slow, employees may simply automate the process without thinking much about re-engineering the process altogether. Undoubtedly this improves the process to a certain extent.

HR departments are increasingly using information systems across various functions for both self-service as well to increase automation. Talent management (Bondarouk & Ruel, 2009) recruitment and selection (Furtmueller, Wilderom, & Tate, 2011) training and development (Parry, 2011) and performance management (Stone & Dulebohn, 2013) are some examples of applications of EHRM in organisations.

HRIS help organisations to organise most of the HR planning functions, including recruitment of employees in an organisation. Recruitment and selection represent one of the core HR activities that need to be planned and conducted in an efficient and effective manner to attain success (Darrag, Mohamed, & Abdel Aziz, 2010). According to a recent study by (Khashman & Al-Ryalat, 2015), HRIS enhance online recruitment by reducing resources needed and increase the propensity of active recruitment.

Over the past decade, there has been substantial research interest in E HRM and E-Recruitment. However, most of the research has tended to be in developed western countries (the mainly USA and Europe). The research has also been more on the organisational adoption of E HRM and less on the functional subset of HRM such as E-Recruitment (Malinowski, Weitzel, & Keim, 2008)

IT should not be seen as Web-based technology aiming at speeding up processes and creating cost-saving instead it should support the internal management systems such as staffing, budgeting, accounts as long as enhancing the day-to-day operations and long-term policy analysis and planning. According to (Reddick, 2009) automating existing processes without demonstrating the operational benefits of IT application has been

described as plunging into it as an unmitigated blessing. The findings of this study indicated that stressing the operational benefits of HRIS may be misguided since the major benefits are found more in the relational and transformation aspects of its adoption.

The following section will briefly explain the three phases of impacts of EHRM adoption in the organisation.

Impact of EHRM

Operational Impact

In the first stage of adoption of EHRM, typically, organisations use technology to improve operations. Many of the functions of the human resources department are routine and repetitive. Payroll, record keeping and benefits calculations are some examples (Parry, 2011; Shrivastava & Shaw, 2003). EHRM systems easily automate these operations, thus reducing costs and improving efficiency. This is usually the first argument for the adoption of EHRM.

Relationship Impact

While the operational impact of EHRM systems focuses on internally improving the human resources function, the relationship impact crosses over to other departments and connects them. It allows people across the organisation to access HR data, thus resulting in improved and more informed decision making (Ball, 2001; Kovach & Cathcart Jr, 1999). With accessible systems connected from anywhere within an organisation comes a significant reduction in response time and improvement in overall service levels.

Transformational Impact

It is agreed that IT within HR department improves efficiency (operational impact) and also improves the information flow across the organisation (relationship impact). However, the transformational impact of EHRM is an extension of the scope and function of the HR department to include a strong strategic focus. When the transformational impact comes into the picture, the HR department takes centre stage. It is increasingly involved in fundamental changes both within the HR department but also across the organisation on how they view the business. (Nayak, Bhatnagar, & Budhwar, 2018; Strohmeier, 2007) . It aligns business strategy with the needs of employees.

The Evolution of HRM: E-Human Resource Management (EHRM)

Information and Communication Technologies have changed the way we do business today by significantly impacting all functional areas of the organisation. This evolution has not spared Human Resource Management, and in fact, many would say that ICT has improved the way people are managed in an organisation from the operational, relational and transformational point of view.

The advent of E Human Resource Management in the year 2000 has created a revolution in the way Human Resource departments operate and carry out the transactional functions of Human Resource Management, including planning, recruitment, performance and reward management.

EHRM is the ‘planning, implementation and application of information systems for both networking and supporting actors in their shared performing of HR activities (Strohmeier, 2007). In other words, it is ‘a way of implementing HR strategies, policies and practices in organisations through conscious and directed support of and/or with the full use of web technology based channels (Ruël & Bondarouk, 2014). These definitions

encompass the carrying out of transactional HRM functions through web-based technologies and the move away from labor intensive HRM to ‘technology intensive’ HRM

Section Empirical Results:

Employees’ information-seeking behaviour

The respondents were questioned about the methods employees in their organisations used in seeking information or services. HRDs was asked to specify the approximate percentage of each method that employees typically used in contacting HR. Table 1 below summarises the responses. From table 2 we can deduce that the most common methods used of contacting HR were intranet/internet and via email at around 30% and 27% respectively. The least common methods were in-person/over a meeting and over the phone at 18.3% and 24.5% respectively. The results in Table 2 indicate that information-seeking behaviour was influenced because of the breadth of services offered through the Web.

Table 2: Information Seeking Behavior

Methods of Contact	Percent
HR specialists in person or at a meeting	18.3%
HR specialists over the phone	24.5%
HR specialists via email	27.4%
Employee self-service through an Intranet/ Internet	29.8%
	100%

Web-Based information and services provided

Table 3 indicates the use of the Web to offer information and services to employees and managers. The information and services provided are web-based. The most significant method is using the web for recruitment.

Data regarding a job posting, application submission was used by over 95% of the public sector organisations. More advanced functions such as application tracking, resume intake/management and offer processing received higher utilisation but less compared to job postings and application receivable. The proliferation of Web has enabled HR to train employees in public sector organisations at work. The evidence of this occurring in public sector organisations is marginal at best. For example, 28% have used course enrollment, while training/e-learning was utilised by 23% (Table 3). The potential to offer training and learning via electronic can offer the chance to reduce cost at far compared with traditional methods. However, public sector organisations in the UAE are doing this in high numbers.

The use of Web for information for employees' benefits become critical for public sector organisations as the evidence shows. Plan/policy information was provided on the Web by 78% of public sector organisations. Evidence shows that 64% of public sector organisations have provided wellness information/education in the Web pages. About more transactional-oriented annual health plan and welfare enrollment, 72% of the surveyed public organisation has this online service.

Another area for Web services for HR is performance/career management of the public sector organisations workforce. The most common career management web service was job descriptions with 86% of HRDS saying that they had this option. Performance appraisals were provided by 78% of public sector organisations. Information on promotion and employees career paths has also provided by more than 82% of the surveyed public sector organisations. When it comes to Feedback/Follow-ups, only 52% had this online option. More specialised services such as career assessments/planning was done online by only 28% of the public sector organisations.

Concerning self-service tools for HR such as financials and accounting services is being used by 88% of public sector organisations. Time, attendance is being done by 92% and payroll administration is being adopted

by 97% (Table 3). Other more advanced workforce planning system such as management reports system and diversity and compliance reporting is being conducted by 42% and 48% respectively.

Table3: HR Web-based Information and Services Offered

Web Services for recruiting	
Job postings/Advertising	97%
Applications	98%
Application tracking	75%
Automated resume intake/management	78%
Offer/new hire processing	84%
Web services for training	
Course enrollment	28%
Training/e-learning	23%
Web services for employee benefits	
Plan/policy information	78%
Wellness information/education	64%
Annual health plan and welfare enrollment	72%
Web services for performance/career management	
Job descriptions	86%
Performance appraisals	78%
Information on promotions/career paths	82%
Feedback/Follow ups	52%
Career assessments/planning	28%
Web services for manager self-service tools	
Financials and accounting (e.g., budgeting)	88%

Time and attendance	92%
Payroll administration	97%
Management reports system	28%
Diversity and compliance reporting	26%
Services for Web portal (with HR functionality)	
HR information e.g., real-time personnel data entry and management	82%
HR Financial information/transactions	52%
Workforce performance measurement information	48%

Finally, how developed public sector organisations in UAE in terms of their use of the Web as a portal for HR functions? A portal according to (Reddick, 2009) is a one-stop-shop for employees and managers to get HR information/services. HR information such as real-time personnel data entry and management is being conducted by 82% of the sampled organisations. In addition, HR financial information/ transactions have also received higher adoption (78%) by sampled organisations (Table 3). There are fair percentages of organisations 48% have used work performance measurement information on the Web.

Overall, the results of this table reveal that the Web is currently being used extensively by HR as an information source for employees and managers. The web-based information is meant to shorten the processing time on personnel administration by eliminating the need to send request forms from branch offices to the HR department at the main office (ministry) by facsimile (Margatama, 2017). However, there is still limited use of some advanced self-service applications, especially in the areas training/e-learning, career assessment/planning, and diversity and compliance reporting, in public sector organisations surveyed. The following section of this paper examines the perceptions of HRDs on the overall impact of IT on HR.

Operational, Relational, and Transformational Impact of IT on HR

Tables 4, 5, and 6 show the impact of IT on the HR function. Data in these tables examine the everyday operational impacts, improvements in organisational relationships, and the transformational impacts of IT (Reddick, 2009). These impacts can be grouped under three broad categories. In the operational impacts of IT and HR, the average response, indicate some exciting results. The highest average response in the automation of record-keeping and other clerical duties, with an average response of almost 96%. The second highest response was improving operational efficiency with 88%. Increasing the productivity of HR employees and shifting additional responsibilities to line managers were the third and fourth highest operational impacts with an average of almost 83% and 67% respectively. However, there is disagreement among the respondents whether IT will reduce operational costs, eliminate paperwork, and reduced labor force with more than 50% of HRDS disagree and strongly disagree about the IT impacts on these three items. These results are consistent with (Reddick, 2009)'s findings.

Table 4: The operational impact of IT on HR Functions

IT in the HR Function has	Strongly Agree %	Agree %	Neither Agree or Disagree %	Disagree %	Strongly Disagree %
Operational					
IT in the HR Function has automated record keeping and other clerical duties	57.8	38.1	2.6	1.5	0

IT in the HR Function has alleviated administrative burdens	21.9	51.6	21.9	3.5	1.1
IT in the HR Function has improved HR operating efficiency	25.0	63.1	8.8	2.1	1.0
IT in the HR Function has increased volume of work	4.7	21.9	43.8	25.0	4.6
IT in the HR Function has shifted additional responsibility to line managers	15.6	59.2	14.2	9.4	1.6
IT in the HR Function has lowered HR operational costs	6.3	15.6	26.3	42.2	9.6
IT in the HR Function has eliminated paper work	9.4	15.4	19.7	35.9	19.6
Reduced HR labor force	2.1	17.5	29.6	35.5	15.3
IT in the HR Function has improved productivity of HR staff	12.5	70.3	12.5	3.1	1.6

Concerning the relational impact of IT on HR, table (5) revealed some very notable findings. There is evidence that IT in the HR has reduced response time to serve customers, with 93% response percentage has recorded for this item. The second and third highest was HR staff acceptance

and improving the quality and timeliness of services to employees, with 76% and 73% response percentages have recorded for these items. The rest of the relational category's items such as improving working relationships, enhancing the ability to recruit top talent, empowering employees and managers to make more decisions about HR in their own, have shown less supportive and ambiguous agreement (table 5). Overall, the results of the relational impacts of HRIS reveal that it has increased the quality of HR services to employees, made HR be more responsive to its customers, and HR staff is generally accepting of IT systems. Compared to operational impacts of HRIS, there seems to be some consensus that it has affected the relational aspects of the daily HR function.

Table 5: Relational impact of IT on HR Functions

IT in the HR Function has ...	Strongly Agree %	Agree %	Neither Agree or Disagree %	Disagree %	Strongly Disagree %
IT in the HR Function has reduced response time to serve customers	45.3	48.4	4.7	1.6	0
IT in the HR Function has improved working relationships with management	12.5	21.9	42.3	13.1	10.2
IT in the HR Function has enhanced our ability to recruit and retain top talent	9.4	26.6	39.5	13.0	11.5
IT in the HR Function has received HR staff acceptance	29.4	46.8	22.2	1.6	0

IT in the HR Function has empowered employees and managers to make more decisions on their own needs	9.4	20.3	40.6	28.1	1.6
IT in the HR Function has improved employee awareness and appreciation	9.4	18.8	54.7	17.1	0
IT in the HR Function has improved line managers' ability to meet HR responsibilities	22.2	18.5	27.3	22.9	9.1
IT in the HR Function has improved quality and timeliness of services to employees	17.6	56.3	19.8	6.3	0
IT in the HR Function has improved relationships of HR with citizens and business	9.4	20.3	57.8	9.4	3.1

The transformational impact of HRIS is also examined to see whether IT has fundamentally changed the public sector organisations HR. The transformational impact of IT on HR in Table 6 shows that it has improved the overall quality of HR services with highest rate of response of 86.4%. Besides, as it can be seen from Table 6, electronic HR has increased knowledge management with response percentage of 82%. The other items of the transformational impact of IT on HR that received importance among respondents are in order: reengineering HR services; increasing the flexibility of HR; enabling HR focusing on its mission; Enabling HR managers to be more effective, and redefining the scope of HR to focus on strategies issues. These items received response percentages ranging from 73% to 81%.

Unlike, the relational impacts of HRIS with some negative response rates, the transformational impacts is generally positive (except two items). The percentage response for HRIS reducing the level of bureaucracy in public sector organisations was low with an overall response rate of 22%. In Arab countries in general and UAE in particular, this finding is not surprising since many HR departments use command and control methods, which impede the reduction of bureaucracy. Overall, The quality of HR services has improved, knowledge management has enhanced, HR services has re-engineered, enabling HR focusing on its mission, but electronic HR has not reduced the level of bureaucracy. The findings of operational, relational, and transformational impacts of IT on HR showed that it enabled HR to achieve certain things but it has fall shorts on some others. These results are in general consistent with Reddick’s findings (Reddick, 2009). These findings were further elaborated in the following section, which presents the success factors and barriers of IT adoption on HR.

Table 6: The Transformational impact of IT on HR Functions

IT in the HR Function has ...	Strongly Agree %	Agree %	Neither Agree or Disagree %	Disagree %	Strongly Disagree %
IT in the HR Function has redefined the scope of HR to focus on strategic issues	37.5	35.9	20.4	3.5	2.7
IT in the HR Function has reengineered HR	18.8	62.5	8.1	7.1	3.5
IT in the HR Function has increased the flexibility of HR	14.1	64.4	11.9	7.1	2.5

IT in the HR Function has improved the quality of HR services	39.1	47.3	10.5	1.5	1.6
IT in the HR Function has enabled HR to focus on its mission	28.1	52.6	11.5	4.6	3.2
IT in the HR Function has made HR a strategic partner	6.3	21.9	54.7	15.6	1.5
IT in the HR Function has enabled me to become more effective as a manager	18.2	62.1	10.9	6.3	2.5
IT in the HR Function has increased knowledge management	39.1	43.0	10.7	5.5	1.7
IT in the HR Function has reduced the level of bureaucracy	6.2	15.8	40.6	32.8	4.6

Success Factors and Barriers of IT and the HR Function

There various success factors and challenges identified in the literature on the adoption of IT on HR function (Ashbaugh & Miranda, 2002). HRDS in public sector organisations were also asked about in the survey to specify the relevant success factors for IT and their HR function. Table 7 shows that the most cited success factor was improved data accuracy, with almost 86% of HRDS believing that this is the case. The second success factor was service improvement with 83% of respondents accorded significant to this factor. Other lesscritical success factors were improved quality and enabled HR to serve more strategically. These two items were cited by 52% and 55% of HRDS. Success factors such as enabling HR to recruit kay talent and meeting cost savings were not cited favourably by HRDS. These

results are consistent with Reddick’s findings (Reddick, 2009).

Table 7: Success Factors

	Strongly Agree %	Agree %	Neither Agree or Disagree %	Disagree %	Strongly Disagree %
E HRM has improved data accuracy	25.0	60.9	10.9	2.2	1.0
E HRM has improved HRM services	21.0	62.5	8.4	5.1	3.0
E HRM has improved quality	15.8	36.2	35.0	10.0	3.0
Enable HR to serve more strategically	21.5	33.8	33.0	8.2	3.5
E HRM has enabled recruitment of key talent	10.9	14.1	48.4	25.0	1.6
HR staff acceptance	23.2	36.8	24.6	9.2	6.2
E HRM has led to costs savings	10.8	19.1	28.3	23.3	18.5

As can be seen from Table 8, 59% and 52% of the respondents felt that inadequate funds and lack of support from top management were the main barriers to EHRM. Around 27% felt that technical infrastructure that would facilitate E HRM is inadequate. Besides, 27% feel that staff is resistant to change, while 25% disagree. Approximately 38% feel that privacy and security fears lead people and organisations to resist EHRM while 30% of the respondents disagree.

Table 8: Barriers of IT and HR

	Strongly Agree %	Agree %	Neither Agree or Disagree %	Disagree %	Strongly Disagree %
Inadequate Budgets and funding	7.7	51.6	26.7	10.9	3.1
Technical Infrastructure is inadequate	4.7	21.9	59.4	9.4	4.6
Staff resistant to change	4.7	21.9	46.9	23.5	3.0
Privacy/Security Fears	6.3	31.3	31.8	28.1	2.5
Lack of support from senior management	16.7	34.9	28.2	15.5	4.7

Overall, the results in table 7 and 8 indicated that the funding was a significant barrier to HRIS, which almost prevalent theme identified in public administration and IT literature. The second significant barrier was lack of support of top management. This finding is consistent with item 2 of the relational impact of IT on HR. Improving data accuracy and services as the most success factors for HRIS is consistent with role's function of HR to serve. The following section uses this data on the adoption of IT on the HR function of public sector organisations in UAE to answer the research questions addressed earlier in the paper.

Conclusion, Limitations and Future Work:

This paper has examined the scope of information and services provided by HRIS in public sector organisations in the UAE. HRDs indicated that the primary methods of employee contact with HR are through Intranet/Internet, via e-mail, and over the phone. The results of this research indicated that HRDs viewed HRIS, especially web-based self-service,

as more informational and fairly transaction-based. Most of the HRIS is used for the automation of routine tasks. There are still some advanced web-based services for HR are currently being implemented at significant levels, such as career assessments/planning, management reports system. These results are inconsistent with existing literature on IT adoption in public sector organisations (Coursey & Norris, 2008; Lepak & Snell, 1998; Snell et al., 1995)

In terms of the impact of IT on the operational, relational, and transformational aspects of the HR function, some exciting results revealed. The expectation is that the implementation of HRIS on the HR function would have quickly produce operational benefits due to a simple principle of cost savings justification when it comes to the adoption of IT. However, the results of the operational impact of IT on the HR function are mixed. While respondents were convinced about the enhancement of record-keeping and an increase in efficiency, but they cast doubt about saving in operational expenses.

Regarding the relational impacts of IT on the HR function, respondents were reasonably positive on some items and not so on others. Respondents were positive about the IT contribution of reduction in response time and enhancement of service quality. However, respondents accorded less importance to items such as improving the organisation's ability to attract and retain talent, enhancing employees' awareness and appreciation, and improving relationships with management and employees. What can be deduced from this is that perhaps, the respondents are not aware of the relational benefits of HRIS. It could be possible that for some reasons such as the culture (personalised work environment in the Arab World) and distrust in work environment or other might explain that these impacts are not very pronounced in public sector organisations in general or specifically in the UAE.

Respondents were very positive about the transformational impact of IT on HR. The vast majority uniformly felt that IT in HRM has completely re-engineered HRM, broadened its scope to include focused strategy development and execution, created more effective managers, at the same time bringing flexibility into the field thus resulting in an overall improvement in HR services. Barring the operational benefits of IT in HRM, which are apparent, the relational benefits have in a way been brushed aside and the respondents have experienced the transformational benefits. The evidence also shows that there is more use of HRIS necessary information, with some tried advanced services, but less on decision support functions. The impact of this research area is very significant, and researchers of this paper are planning to expand this work by conducting an in-depth qualitative study through focused groups and observing how managers use technology.

This research has several limitations. First of all we focused only on three of the biggest emirates. Another limitation is that we only explored the quantitative aspect of this questionnaire. Also, thirdly, we need to have more significant data set to generalise our findings.

In future, we want to incorporate the temporal aspect in our study and explore how the incorporation of EHRM system is impacting an organisation with time. Besides, we also want to expand our data set and include qualitative aspects. In addition, our study focused on public sector organizations's employees responses to the question air items and in the future we want to include the external parties perceptions to the HRIS in order to have a better picture about the effectiveness of human resource management.

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أثر تكنولوجيا المعلومات على ممارسة إدارة الموارد البشرية في القطاع العام لدولة الإمارات العربية المتحدة

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ملخص البحث:

تبحث هذه الدراسة في تأثير تكنولوجيا المعلومات (IT) على ممارسات إدارة الموارد البشرية في منظمات القطاع العام بدولة الإمارات العربية المتحدة. تعرض هذه الدراسة نتائج حول تصورات عينة من مديري إدارة الموارد البشرية في مؤسسات القطاع العام. وركزت الدراسة على الخدمة الذاتية المقدمة من خلال الإنترنت (الموقع الإلكتروني) بوظائف الموارد البشرية. وقد سئل مديرو الموارد البشرية عن تصوراتهم حول فاعلية نظم معلومات الموارد البشرية في منظماتهم، وكانت النتائج إيجابية. وأظهرت أن نطاق نظام معلومات الموارد البشرية كان واسعاً حيث يتواصل حوالي 28٪ من الموظفين في الموارد البشرية عبر البريد الإلكتروني و30٪ من خلال الموقع الإلكتروني للمنظمة. ومن حيث تصورات مدراء إدارة الموارد البشرية حول تأثير نظام إدارة الموارد البشرية، فتبين أن التأثيرات التشغيلية مثل أتمتة الحفظ الإلكتروني للسجلات وتخفيف الأعباء الإدارية وتحسين كفاءة الموارد البشرية مهمة كثيراً للمنظمات. وبخصوص العلاقات والجوانب التحويلية كان المجيبون واضحين بشأن دور نظام معلومات الموارد البشرية في تقليل وقت الاستجابة، تحسين جودة الخدمة، ودعم المعرفة، لكنهم شككوا بدور نظم المعلومات الإدارية في تعزيز قدرة المنظمة على جذب أفضل المواهب، وتحسين الوعي أو العلاقات بين الموارد البشرية والموظفين.

الكلمات الدالة: إدارة الموارد البشرية الإلكترونية، مديرو الموارد البشرية، تكنولوجيا المعلومات، القطاع العام، الإمارات العربية المتحدة.

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