Evaluation of e-performance analysis and assessment in the United Arab Emirates (UAE) Organizations

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Increased competition, changing technology, and process re-engineering have changed the traditional employee practice and capability. To meet such demands, organizations and businesses are relying on communications technology to monitor and improve employee performance and productivity. Electronic performance management systems (e-PMS) are being used by many organisations to monitor the performance. The challenge for most organizations is that the use of technology to drive human performance is relatively new and not well understood. The review of the literature shows that very limited research has been conducted to assess the impact of e-PMS in the context of the Middle East. Therefore, the focus of this research is to provide an overall view on e-PMS. The result shows that critical issues and strategic priorities which should be taken into consideration by an Arab organization in formulating its goals to address the needs and requirements of its employees.

Key words: Electronic performance management systems, performance appraisal, United Arab Emirates (UAE).

INTRODUCTION

Performance appraisal and management plays an important role in the effective management of employees in every viable organisation, particularly in light of the recent economic downturn experienced around the globe that have forced governments and organisations alike to improve their performance and save resources where possible (Armstrong, 2006). The organizations are looking for solutions to manage and maximize the performance of their workforce. They recognize that there has been a shift in the business environment from a tangible asset economy to an intangible asset economy (Adler and Bartholomew, 1992). The value of a company is comprised of employee knowledge, brand, and intellectual capital rather than inventories, goods, and machinery. Most organizations base their performance reviews on “what” goals and “how” goals. The “what” goals focus on specific objectives that the individual should accomplish, for example increase sales by 10%. The “how” goals outline the means by which an employee will achieve the “what” goals, which often are expressed in terms of competencies and behaviours (Caligiuri, 2000). E-Performance system is a competency-based system that measures people not only on goal attainment but on the very competencies that are required for their role. To ensure success, one can choose to support all employee goals with competencies and competency ratings that will help achieve success. One can quickly see if a candidate has the right qualities for the job, and can give them the training and development they need in order to succeed. The competency library and ratings are stored in the core human resource management (HRM) system that other processes such as learning, talent searches, and succession planning can leverage these information and data (Cooper and Schindler, 2005). However, the challenge of identifying each employee talents, capabilities, and areas for growth to encourage positive contribution and managing poor performance is daunting (Mohamed et al., 2008).

In addition to that most organizations want a single-system solution that works for all countries, regions, departments, and individuals and can be leveraged globally to deliver consistent messages, foster accountability and offer reports (Frayne and Geringer,
Performance appraisal systems aim to fulfil the features of modern performance management concepts, paving the way for major changes in the work culture of the public sector. Dowling et al. (1994) explain appraisals range from official, prescribed meetings between an evaluator and evaluatee to causal, change occasions where an evaluator observed work activities and indicated his or her assessment with an informal comment. Appraisals regularly record an assessment of an employee’s performance, potential and development needs. The appraisal is an opportunity to take an overall view of work content, loads and volumes, to look back on what has been achieved during the reporting period and agree on objectives for the next.

UAE impressive economic diversification programs, including expanding commercial infrastructure, advancement in the banking sector, development in educational programs, tourism and hydrocarbon natural resources are fuelling growth and helping the country prepare for a more challenging position on the world economic arena (Cory, 2011). It appears through a critical review of the literature that an impact of e-PMS has not been widely studied in the context of UAE. Thus, this research seeks to overcome the gap that has been identified during the literature review process. Thus, the purpose of this research is to focus and critically examine how the e-PMS will help to improve the effectiveness of the output of the employees of the federal government organisations. The research will also seek to focus and assess the overall views of the user’s perception of the employee e-PMS, which will help understand the effects of Arab cultural attitudes on e-PMS satisfaction.

Performance appraisal as a method of measuring performance

Performance appraisal and performance management are two employee performance evaluation methods. Performance management is the traditional approach to evaluating the performance of an employee. The increased competitive nature of the economy and rapid changes in the external environment has forced many organizations to shift from reactive performance appraisals to the proactive performance management to boost productivity and improve organizational performance.

Performance appraisal methods and mechanisms have been used by public sector organizations over a long period of time to evaluate the performance of the employees working in organizations. Rigid performance appraisal processes used for evaluating employees have their shortcomings and most organizations are looking for other means to effectively evaluate the performance of the employees (Fryer et al., 2009). Performance appraisal has also been called an audit function of an organization regarding the performance of individuals, groups and entire divisions.

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Performance appraisals also serve the determination of transfers and assignments, personnel planning, assisting in goal identification, reinforcing the authority structure, and identifying widespread organizational developmental needs. McKenna et al. (2002) define performance appraisal as any personnel decision that affects the status of employees regarding retention, termination, promotion, demotion, transfer, salary increases or decreases, or admission into a training program. The purpose of the performance appraisal affects the observation and the recall of behaviour, as well as the evaluation of performance. Jawahar and Stone (1997) suggested that the purpose of appraisal is the most important contextual factor for understanding performance appraisal processes and outcomes.

The attributes of effective performance measures and measurement systems include the need to measure, to relate directly to the organization’s mission and objectives, to reflect the company’s external competitive environment, customer requirements, internal objectives, explicit need for strategies, action and measures to be consistent. When performance appraisal information is intended to be used for developmental purposes, employees receive concrete feedback about their job performance. This serves a valuable function because in order to improve performance in the future, employees need to know what their weaknesses were in the past and how to correct them. This also enables supervisors to identify which employees would receive the most benefit from additional training.

E-Performance management

The performance management effectively supports key executives and operational management by providing timely and relevant information from both within and outside the enterprise. Among the many applications for performance managers include:
1. Corporate performance measurement,
2. Performance tracking and reporting,
3. External benchmarking,
4. Coordination of internal improvement initiatives/ benefit tracking,
5. Best practice sharing/ acquisition, and
6. Knowledge management.

E-Performance helps the organization retain and motivate top talent by gaining insight into top performers across the enterprise (Jarrar and Schiuma, 2007). By streamlining the performance management process into a web-based real-time solution, the organization can cut costs. The powerful functionality of e-Performance will help you realize:

**Flexibility:** Configurable templates, easy 360-degree or multi-rater selection, and full global architecture tailor the performance management processes to any employee group to fulfill simple or sophisticated business strategies

**Embedded intelligence:** Integrated performance and competency content, along with a collection of embedded manager tools, improve the quality, timeliness and effectiveness of feedback to employees.

**Integration:** Tight integration with core employee data in the enterprise HRMS and helps the management to achieve true pay for performance, timely learning and development, and career and succession planning. Integration with performance and competency data ensures effective communication (Frayne and Geringer, 2005).

E-Performance increases organisations business success by driving and fostering employee engagement with business objectives in a clear process. This process enables you to identify, plan, observe, improve and reward performance. The process begins by empowering the employees with clearly identified performance goals and targets. The organisational management can then observe and adjust plans and goals to respond to employee capability or other circumstances such as a market conditions or competitive threats; and throughout the process, tools are available to coach employees toward success. If development is needed, E-performance enables learning and career planning processes.

Finally, the overall assessment is determined and can automatically kick off related initiatives such as salary increases, bonuses, learning initiatives, or succession plan candidacy. The eBAS is a performance-monitoring project organized in 2000 and officially launched in 2001 aimed to complement policies to create an e-government for Taiwan, including reorganization and increasing administrative efficiency (Figure 1). With the effort of all staff, the project has helped to shape new dimensions of information responsible for the government's budget, accounting and statistics. The performance monitoring system connects all offices and staffs in the nation to form an exclusive extranet offering all kinds of digital business applications, information exchanges, and messaging and communications that establish a fast information network between government to government (G2G) and is the first large government extranet in Taiwan. E-Performance system is a competency-based system that measures people not only on goal attainment but also on the very competencies that are required for their role. To ensure success, one can choose to support all employee goals with competencies and competency ratings that will help achieve success.

One can quickly see if a candidate has the right qualities for the job, and can give them the training and development they need in order to succeed. The competency library and ratings are stored in the core HRMS system so that other processes such as learning, talent searches, and succession planning can leverage these information and data. However, the challenge of identifying each employee talents, capabilities, and areas for growth to encourage positive contribution and managing poor performance is daunting. Further, most organizations want a single-system solution that works for all countries, regions, departments, and individuals and can be leveraged globally to deliver consistent messages, foster accountability, and offer reports. Naylor et al. (1999) and Huang et al. (2002) particularly emphasized the need to eliminate waste and non-value-added activities to reduce cost and improve delivery across lean supply chains. Scale economies result from producing high volumes under stable demand conditions (Harland et al., 2001). In this context, information linkages are established to ensure "... the most efficient, accurate, and cost-effective transmission of information across the supply chain" (Lee, 2002).

**Research model and hypothesis**

Technology acceptance model (TAM) (Davis, 1989; Davis et al., 1989). TAM was adapted from the theory of reasoned action (TRA). The most well-known, widely accepted and cited model is the technology acceptance model. Davis (1985, 1989) developed the TAM to explain the usage and acceptance of technology such as computer and information technology. According to Davis (1993) 'user acceptance is often the pivotal factor to determine the success or failure of an information system'. TAM is based on the following core concepts:

1. Perceived usefulness, which has been defined as a user's subjective perception of the ability of a computer to increase job performance when completing a task, and
2. Perceived ease-of-use, which is a person's subjective perception of the effortlessness of a computer system,
which affects the perceived usefulness, thus having an indirect effect on a user's technology acceptance.

By taking TAM as a base, a model for this research was proposed in order to determine e-performance in the context of UAE. TAM proposes two important variables that affect user intention which are 1) perceived ease of use and 2) perceived usefulness. By reviewing TAM literature, especially TAM studies in various studies that have the relationship with E-performance, the following variables were added to TAM and a new model was proposed. This research focuses on user adoption as it relates to e-performance, using recent extensions of the TAM initially developed by Davis (1989). Based on TAM, this research investigates the perception of users in regards to e-performance with particular focus on performance measurement, e-performance measurement, performance assessment, e-performance assessment and performance standards. The model is represented in Figure 2. To satisfy the intended purpose of this research, the following were hypothesized:

- The premise that increases in system quality increases user satisfaction and has been studied fairly extensively by a number of researchers. Thus, a significant relationship between system quality and user satisfaction was found.

- Based on the aforementioned discussion, the following hypothesis were proposed:

  - $H_{1a}$: Performance measurement will positively and significantly influence user satisfaction.
  - $H_{1b}$: E-performance system measurement will positively and significantly influence user satisfaction.

With the use of technology acceptance model (TAM), found system quality to have a significant influence on system usage. Many researchers have applied TAM for assessment of the different components. They found a significant impact of system quality on system usage, with the latter measured in terms ease of use. The foregoing discussion leads to a second hypothesis.

- $H_{2a}$: Performance system assessment is positively and significantly expected to have significant positive relationship with intentions to use e-performance.
- $H_{2b}$: E-performance system assessment is positively and significantly expected to have significant positive relationship with intentions to use e-performance.

Current literature shows that the higher the standard/quality of a system, the greater the successful use of the system. This shows that standard/quality of a system positively influences the usage of the system. Based on the aforementioned discussion, a third hypothesis was proposed:
H₃: E-performance standard will positively and significantly guide system usage.

RESEARCH METHODOLOGY

Selecting an appropriate research approach is a key task of the research design process, the most common approach being either deductive or inductive. Saunders et al. (2000) reported that a deductive approach is employed when developing a theory and a research strategy is then designed to test the theory. An inductive approach is used to collect data and develop a theory as a result of the data analysis. In this thesis, a conceptual model is determined from the beginning based on the literature analysis, and then data are collected empirically, and finally the model is revised as a result of the theoretical and empirical work. Therefore, in this research an inductive approach was employed to the literature part, as the conceptual model is based on the literature analysis. The survey method is usually to gather data from a relatively large number of respondents within a limited time frame. It is thus concerned with a generalized result, when data is abstracted from a particular population sample. The survey method was implemented by a mail questionnaire, telephone questionnaire and personal interviews. Of these techniques, the mail and personal questionnaire were used in this study.

The design of the questionnaire is based upon theoretical directions derived from the literature review. This procedure was adopted to design and develop the questionnaire. The e-performance in the UAE is affected by the degree to which managers, employees, and specialized development staff are involved in the designing and setting up of the e-procurement process. Data analysis was performed with both descriptive and inferential techniques. On the descriptive, summary tables, averages and average percentage were used. In order to establish causal relationships between variables, regression analysis was used. Though the level of measurement is not ratio (which is the basic requirement for the use of regression analysis) the numerical scale was used as an approximate interval scale. Before starting data analysis, the replied questionnaires were edited to exclude extremely inconsistent and extremely incomplete ones. Each completed questionnaire was read through as it was received. Statistical package for social science (SPSS) was the main tool used for analyzing the collected data for the study. Survey responses were tabulated and regression analyses were deployed.

Data collection and analysis

About 148 responses were obtained from the questionnaires distributed, with 51.5% responded and 48.5% did not respond to the questionnaires. From the general interviews and informal chat with the users, they were keen to the technology of e-performance but were not completely involved and aware about its detailed process and guidelines. Maximum number of respondents was from the 35 to 40 age group representing 24.16% of the responders.
Figure 3. Count of the age distribution of the responders.

Table 1. Predictor statistics for e-performance system in UAE using the e-performance model.

<table>
<thead>
<tr>
<th>No.</th>
<th>Predictor</th>
<th>Mean</th>
<th>S.D.</th>
<th>Coefficient</th>
<th>T</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PM – Performance Measurement</td>
<td>3.71</td>
<td>1.43</td>
<td>0.245</td>
<td>1.987</td>
<td>0.328</td>
</tr>
<tr>
<td>2</td>
<td>PA – Performance Assessment</td>
<td>3.87</td>
<td>1.32</td>
<td>0.387</td>
<td>0.532</td>
<td>0.042</td>
</tr>
<tr>
<td>3</td>
<td>EPS – Electronic Performance Standards</td>
<td>3.64</td>
<td>1.61</td>
<td>0.175</td>
<td>2.352</td>
<td>0.045</td>
</tr>
<tr>
<td>4</td>
<td>EPM – Electronic Performance Measurement</td>
<td>3.06</td>
<td>1.12</td>
<td>0.241</td>
<td>1.462</td>
<td>0.037</td>
</tr>
<tr>
<td>5</td>
<td>EPA – Electronic Performance Assessment</td>
<td>3.18</td>
<td>1.36</td>
<td>0.054</td>
<td>-0.36</td>
<td>0.021</td>
</tr>
</tbody>
</table>

The equation was tested for its validity in two ways. The first was to test for the existence of a linear relationship between the five-predictor variables and the criterion variable. The next test was an examination of the coefficient of determination (R-squared) and adjusted R-squared values are estimates of the 'goodness of fit' of the line. They represent the % variation of the data; the closer the points to the line, the better the fit. Adjusted R-squared is not sensitive to the number of points within the data. R-squared is derived from: R-squared = 100 × SS (regression) / SS (total) where: SS (regression) describes the variation within the fitted values of Y, and is the sum of the squared difference between each fitted value of Y and the mean of Y. The squares are taken to 'remove' the sign (+ or -) from the residual values to make the calculation easier. SS (total) describes the variation within the values of Y, and is the sum of the squared difference between each value of Y and the mean of Y.

In performance measurement, performance feedbacks to the employees were given more importance by the respondents. The maximum response from the employees is for providing performance feedback to employees, which has a mean of 4.28 and standard deviation of 1.63. Continuous personal developments of employees and employee performance and improvement have also high response rates and support from the employees and...
employees in the UAE organisations.

The main area of improvement in the manual performance measurement section is in the use of “mentoring to improve employee skills and development and correction.” The mean of the variable is only 2.68 and the standard deviation is 0.73. This response indicates that the UAE organisations do not use mentoring technique to improve employee skills. Based on the analysis of data previously, the following hypotheses were tested and the outcomes of these hypotheses are presented as follows: The data analysis shows that performance measurement has positive and significant influence on users’ satisfaction. Therefore, the hypothesis \( H_{1a} \) performance measurement will positively and significantly influence user satisfaction is justified. During the empirical analysis of the data, the results reflect that in organisations the performance system assessment have significant positive relationship with intentions to use performance systems. Therefore, the hypothesis \( H_{2a} \) performance system assessment is positively and significantly expected to have significant positive relationship with intentions to use e-performance is verified. The analysis reveals that e-performance system assessments have strong relationship with intention to use e-performance system. Therefore, the hypothesis \( H_{2b} \) e-performance system assessment is positively and significantly expected to have significant positive relationship with intentions to use e-performance. During the data collection organizations were asked to indicate the value of e-performance standards. The results show that e-performance standards guide to the use of the employee skills. Therefore, the hypothesis \( H_{3} \) e-performance standard will positively and significantly guide system usage is justified.

**Conclusion**

The purpose of this research was to see the state of the E-performance management in the context of UAE. The results of this research, reflect a very positive attitude of the E-performance system. Therefore, it appears that Arab organisations in the UAE trying to find the best way to go, embark on e-PMS, and this experimental approach have lead to an almost ad hoc approach being adopted. Organisational culture also needs to be addressed, as currently the Arab firms are showing resistance are showing some level of resistance e-PMS, by being unsupportive in a number of ways; therefore educational and training regarding e-PMS need to start from the top downwards, so that it firstly becomes acceptable to the organisation, and then this acceptability and motivation will then filter down through to lower level employees. The Arab culture can be categorised as having a high dislike to risk, so they hate anything that puts them at risk. It may be the case that Arabs in general view the e-PMS as risky, with the potential to create job insecurity, as it will reveal their real performance, and thus from the outset, Arab users may not be as enthusiastic about e-PMS as western counterparts. This could also be likely as e-PMS ultimate purpose is to monitor performance. There could be so many avenues for the future research. The most important ones are listed as follows:

i. One of the possible future research areas could be to address the examination of sophisticated relationship between the variables.

ii. In future research, the generalization of the results of this research can be further expanded to other developed countries and can be compared for further outcome.

**RESEARCH IMPLICATIONS**

Despite the promising results, some implications of this research that could be addressed in future research should be noted. This research uses a single source of data. In the literature, several authors considered this issue and suggested that the seriousness of this issue depends on the research questions and the variables under consideration. Secondly, this research did not consider the e-PMS implementation process. Thus, it can be recommended that in future research this issue could also be highlighted. Lastly, this research depended on the accessible population of the UAE Federal Organisation, in spite of the numerous private firms and corporate entities located in the UAE and their varied circumstances. Thus, the researcher is aware that this procedure therefore decreases the generalisation of the findings.

**REFERENCES**


