

The Impact of Artificial Intelligence in Human Resource Management Systems on the Performance of Workers in the Sultanate of Oman

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Abstract

This study aimed to know the impact of artificial intelligence in human resource management systems on the performance of workers in the Sultanate of Oman. The study population included workers in the upper and middle management in educational institutions in Muscat, Sultanate of Oman, who numbered (860) individuals. The questionnaire was used as a main tool for collecting data and information, and then it was analyzed by a set of statistical methods, namely. In data path analysis. The study reached a set of results, the most important of which are: the high interest of workers in educational institutions with the requirements of commitment to work, keenness to apply its correct values and avoiding negative phenomena resulting from delay in work and evasion of its performance. In light of these results, the study recommended several recommendations, including: Attracting specialized labor in the field of the necessity of adopting an integrated and equal incentive system that includes material and moral incentives, taking into account the modern technological developments and techniques that the world is witnessing in the field of education

Keywords: Artificial Intelligence In Human Resource Management Systems, Employee Performance.

Introduction

The human element is one of the most important production elements affecting the quality of organizational performance, which made the interest in managing people and raising the level of human resource management and directing resources and modern technology to serve them a priority for organizations.

Human resources are today considered a main source of sustainable competitive advantage for organizations, especially in the areas of knowledge production, technologies and modern means of communication. 2016.

The human resources function has become one of the most important functions responsible for achieving competitive positions at the local and sectoral levels and ensuring growth, expansion, creativity and customer service (Al-Saadi, 2018).

These repercussions have constituted pressure elements on human resources management and its functional practices, which necessitated it to adapt artificial intelligence in all its main areas of work and functions with those aspects, whether with regard to attracting and appointing employees, training and development, or motivation and ending with performance evaluation (Bratton & Gold, 2017).

Artificial intelligence in human resource management systems aims to expand the individual's perceptions and knowledge, and increase the options available to him, which leads to improving his skills, providing opportunities for creativity, in addition to ensuring his human rights and his positive and constructive participation in work, and the efficiency of artificial intelligence plays in human resource management systems. A key role in how the organization deals with human resource problems and develop appropriate solutions to these problems; It is not possible to achieve good job performance for organizations without resorting to appropriate strategies to manage their human resources, in addition to the fact that the formulation of artificial intelligence updates in human resource management systems requires creating a future vision about it, which will positively affect the performance of employees (Al-Saadi, 2018).

Accordingly, artificial intelligence can be considered as a process of transforming unstructured information into useful and actionable knowledge, and scientific artificial intelligence in the possibility of assembling, mechanizing and maximizing operations using technology as a tool to help obtain new knowledge quickly in areas that will remain intractable to the human mind. At the same time, work on artificial intelligence has become commonplace (Bratton & Gold, 2017).

Therefore, we find that all those responsible for organizations with their various names, sizes and objectives pay great attention to the performance of the workers in their organizations, because performance, as it is clear, is not a reflection of each individual's capabilities and motivation and the amount of work performed by him, but rather it is a reflection of the performance of these organizations and the degree of their effectiveness and evaluation of his work, and that One of the main approaches to improving the level and quality of workers' performance is the use of artificial intelligence in human resource management systems in those organizations (Cascio, 2018).

This study came to identify the impact of artificial intelligence in human resource management systems on the performance of workers in the Sultanate of Oman, through a theoretical presentation of the concept of artificial intelligence in human resource management systems and performance, and to identify the level of application of artificial intelligence in its dimensions and to identify the level of performance in its dimensions from the point of view of A view of workers in the upper and middle management in the Sultanate of Oman.

The study Problem

The use of artificial intelligence in human resource management systems in the performance of employees is considered a very important organizational resource as it helps

the organization to maintain its effectiveness. And that human resource management refers to the philosophy, policies, procedures and practices related to the management of employees in organizations. (Smiley and Amara, 2017)

This study came as an attempt to understand and answer the following question: What is the impact of artificial intelligence in human resource management systems on the performance of workers in the Sultanate of Oman? Where the problem lies in the negatives that result from organizations not adopting advanced strategies and keeping pace with the nature of human resources tasks in contemporary business organizations in light of the rapid technological changes, and therefore the negatives may appear in the weak performance of employees and in low productivity and appear in the low quality of their products due to the lack of interest in training human resources The lack of encouragement of organizational learning and the lack of a comprehensive system of employee motivation, , which leads to a decrease in the level of performance and an increase in costs in addition to the slow growth of the organization's business and its inability to continue in the market.

Study Questions

The problem of the study can actually be shown by asking the following main question : What is the impact of artificial intelligence in human resource management systems on the performance of workers in the Sultanate of Oman?

Several questions arise from the main question

1. What is the level of application of artificial intelligence in human resource management systems on the quality of work performed by workers in the Sultanate of Oman?
2. What is the level of application of artificial intelligence in human resource management systems on the commitment of workers in the Sultanate of Oman?
3. What is the level of application of artificial intelligence in human resource management systems on the amount of work done by workers in the Sultanate of Oman?

Study hypotheses

Based on the study questions, the following hypotheses were formulated, which will be tested, as follows:

1. There is no effect of artificial intelligence in human resource management systems on the quality of work performed in the Sultanate of Oman at an indication level of α (0.05)
2. There is no effect of artificial intelligence in human resource management systems on commitment in the Sultanate of Oman at the level of significance ($\alpha \geq 0.05$)
3. There is no effect of artificial intelligence in human resource management systems (recruitment and appointment, training and development, motivation, performance evaluation) on the amount of work performed in the Sultanate of Oman at a significance level of α (0.05) \geq

Objectives of the Study

1. Determining the level of application of artificial intelligence in human resource management systems on the quality of work performed by workers in the Sultanate of Oman.

2. To reveal the level of application of artificial intelligence in human resource management systems on the commitment of workers in the Sultanate of Oman.
3. Identifying the level of application of artificial intelligence in human resource management systems on the amount of work done by workers in the Sultanate of Oman.

The Importance of Studying

Theoretical Significance

The theoretical importance of the current study is highlighted through the addition of knowledge that it may contribute to, by tracing the theoretical literature and previous studies of the main variables of artificial intelligence in human resource management systems on the performance of workers in the Sultanate of Oman in its dimensions (quality of work performed, commitment, quantity of work performed) in a way that It is an integrated conceptual framework for these concepts and the methodology of their study.

Practical Importance

The scientific importance of the study lies in addressing a topic of great importance represented in the strategies of human resources management and to shed light on its positive aspects, the problems and challenges it faces, and its impact on the performance of employees in the organization, especially in light of the technological and scientific development that has become one of the most important challenges for organizations at the present time, which It requires a structure of qualified human resources capable of responding to the requirements of that development.

Terminology of Study

Artificial Intelligence

It is one of the types of modern science that has spread widely in recent times, so that it has entered many industrial and research fields, especially robotics and smart services for governments and companies. (Shakeel & Lodhi, 2015)

Artificial intelligence (AI) is procedurally defined as the ability of a machine or computer to simulate the capabilities of the human mind. Artificial intelligence exploits multiple techniques to equip machines in planning, working, understanding, learning and sensing with human-like intelligence.

Human Resources Management

It is the management of the workforce of organizations or human resources. It is concerned with attracting employees, selecting, training, evaluating and rewarding employees, as well as following up the organization's leadership and organizational culture and ensuring compliance with labor laws (Boubaker, 2016)

Procedurally, human resource management is defined as one of the most important administrative processes in the organization, as it is concerned with the human element that implements its activities and all its projects, and this element has a major role in achieving its goals, knowing that it is an organizational process concerned with matters related to individuals working in the organization. Such as their selection, appointment, training, and other matters related to work affairs, in addition to the other dimensions of their lives.

Employees Performance

The concept of performance is one of the broad concepts that includes many terms related to success and failure. It is the mirror that reflects the status of organizations or individuals working in them in various fields. It is the interaction between behavior and achievement to produce valuable outputs that help the survival and continuity of work at the level of individuals or organizations within what it is planned and required by both parties (Shields et. al., 2015)

It is procedurally defined as the data that would assist in analyzing and evaluating the performance of employees for their actual achievements in light of the tasks, duties and responsibilities assigned to them, which constitute the nature and nature of the required work.

The limits of the study

The limitations of the study were as follows

Spatial boundaries: This study was applied in the Sultanate of Oman.

Human limits: This study was limited to the upper and middle management in educational institutions in the Sultanate of Oman.

Time limits: This study is expected to be completed during the 2022 academic year.

Theoretical Framework

The theoretical side includes two main topics:

The first topic: Artificial intelligence in human resource management systems, which represents the independent variable.

- **The second topic:** the performance of the workers, which represents the dependent variable with its dimensions (quality of work performed, commitment, quantity of work performed).

The first topic: Artificial intelligence in human resource management systems

Artificial intelligence has invaded the entire world in all areas of life, and has become an indispensable necessity for us, and with what the world has gone through since the beginning of the Corona pandemic, artificial intelligence has proven its necessity in our lives in all fields, as if it has a prominent impact in the world of business and management, it has become to do many Business is easier thanks to the integration of artificial intelligence into it. Not only that, but many of the works are now fully accomplished by using artificial intelligence, and this has revolutionized the world of business management. And because the human resources department is one of the most important departments in institutions and companies, each of them has been keen to use artificial intelligence to support the functions of this department, and all indicators indicate that the majority of businesses will rely completely on artificial intelligence in the next few years (Al-Mahdi, 2020).

The role of artificial intelligence in the development of human resource management:

Human resource management is one of the essential parts of any organization because it is directly related to the lives of the employees working in it. Whereas, employees need a well-communicated and positive work environment in order to be effective and productive. In addition to feeling safe and providing space for creativity, intelligence and empathy to deliver excellent work. For this reason, the integration of artificial intelligence with human resource management contributed to achieving this. It automates and completes the majority

of daily routine human resource management tasks so that more attention can be focused on the strategic scope of the business (Cascio, 2018)

Integrating artificial intelligence with human resource management:

Organizations will see an upgraded and evolving status of job applicants and workers as a result of the end-to-end human component of HR combined with the intelligence of technology. Rather, AI, combined with human resource management, will also enhance the value of achieving better and faster results. Because it uses pre-programmed algorithms to make real-time decisions, as well as coherent computing approaches (Heneman & Milanowski, 2011)

Artificial intelligence applications in human resource management:

Human Resource Management plays an ongoing, routine role in employee recruitment and training, so to reduce the manual workload of an HRM specialist, AI offers many applications

Attracting and hiring talent

Artificial intelligence is used in human resource management to attract and attract talent. It significantly reduces the time and effort required for the recruitment process, from screening applicants to maintaining databases, arranging interviews, and handling and resolving candidate inquiries.

With the help of artificial intelligence, the candidates with the highest potential are tracked and communicated with them via chatbots. The best and most deserving candidate who exactly matches the job description is selected. As a result, the best candidates for job interviews will be identified.

Orientation for new employees

On the first day the AI systems will teach and guide the newly hired employees the knowledge and rules of the organization, whereby the new employees will get all the necessary information, such as job profile data, work regulations, assignments, team members' information, etc., via the mobile application or organized information on their laptop (Al-Assaf, 2016)

Employee training

Using AI services, employees will be able to learn about appropriate roles and needs, AI will also automatically understand and identify appropriate training for employees by providing relevant skill set information based on job descriptions to improve growth, we conclude that this smart technology enhances employee productivity and brains, in addition to teaching and training them more quickly and effectively. (Khader, 2015)

Enhance employee experience

AI is efficiently integrated across the employee lifecycle, from hiring procedures to recruitment through the provision of human resource management services and career paths. This will enhance the employee's personal experience and expertise. Accordingly, HR can assess employee engagement and job satisfaction more accurately than ever before through customized feedback surveys and employee recognition programs (Cascio, 2018).

Leadership

As AI will help employees with training and development, it will also improve the working techniques of coaches, business leaders, and managers in the organization. AI will also structure the characteristics of a leader by asking questions to their team members, giving them the competencies and abilities they lack or the traits they need to adapt. By looking at the dashboard of this smart technology, leaders can analyze their personalities and enhance their skill sets according to workplace requirements. (Bratton & Gold, 2017)

Adopting artificial intelligence in human resource management

Some factors to consider while adopting artificial intelligence in human resource management

1. It is critical to get reliable and valid data first for successful AI outcomes, and then to ensure that the output-driven objective is clear.
2. Implementation requires certain talents and techniques by making sure HRM is specific and clear when it comes to collecting, purifying and organizing the right data sources.
3. . There should be a clear vision and instructions on how to identify appropriate patterns of study and work.
4. It should be known that artificial intelligence will only do what the user wants it to do, and cannot make decisions by itself, so data accuracy must be ensured (Chauhan, 2014)

The challenges of artificial intelligence in human resource management

HRM professionals should be aware of the potential problems and challenges that will face AI in HRM

1. Security and privacy.
2. Some workers prefer to deal with a human being rather than a machine.
3. Protection of personal data of employees.
4. To maintain artificial intelligence, it needs continuous evaluations and upgrades. It requires a time-consuming maintenance procedure, which sometimes makes the availability of data restricted.

Organizations must adopt AI solutions that meet their business needs and align with the culture of the organization, and create the necessary digital maps. We conclude that finding trustworthy learning data sets, using the right implementation strategy, looking for clarity, reducing bias, and considering spin-offs are all. Important aspects of the management and use of artificial intelligence systems in human resource management (Bataineh, 2016).

The second topic: employee performance

The administrative and organizational thought has been concerned with the issue of job performance as a result of its connection with the efficiency of organizations in achieving their goals and reaching their aspirations of visions and goals. Its outputs, whether productive or service, rationalize the use of its available resources, especially human resources, which has made the main problem facing organizations is the extent of their ability to control and control the diagnosis and use of factors and determinants that positively affect the behavior of their human resources, who naturally represent the ability to work in the organization (Al-Mutairi, 2016).

Define employee performance

Performance is a broad concept that includes many terms related to success and failure. That is why many writers and researchers in the field of human resources have confused this term employee performance and other synonymous terms used in the literature of management theories, such as productivity, efficiency, effectiveness, in addition to the term production efficiency or performance efficiency, where the performance of workers in this context is defined as: It represents the output or quantity of production for one worker estimated in a specific unit of time, and it represents a reflection of the extent of his ability or not to achieve the goals related to his work, whatever the nature of this work (Shields. et.al, 2015).

Accordingly, performance is the net effect of the efforts exerted by the individual, which are based on his abilities and his awareness of the role and tasks assigned to him. In the individual's performance levels and in the required manner as follows (Ibrahim. 2015).

1. Knowledge of work requirements and experiences that an individual has towards it.
2. The physical and mental energy that the individual exerts to perform his tasks.
3. The personal characteristics that an individual possesses, such as seriousness at work, the ability to take responsibility, and a commitment to complete tasks on specific dates.
4. The quality of the work assigned to him and its compatibility with his abilities and capabilities.
5. The individual's awareness of the dimensions of the role and tasks assigned to him, and the extent of his belief in their importance in completing the work.

In order to achieve a good level of performance that is acceptable to the management, there must be a minimum level in each component of the performance mentioned above. The consideration of the management or their superiors despite the effort expended in the work, considering that the effort and ability may be misused.

The importance of employee performance

The issue of performance is receiving increasing interest in all societies, as everyone is trying and working to improve the level of performance and raise its rates to the extent that it has become a basic standard and indicator for the progress of those societies, because of its positive impact on the rates of economic, administrative and social development and the resulting contributions to raising the standard of living of individuals and growth in the country's national income sources.

Accordingly, the issue of workers' performance occupies an advanced position in terms of importance to the organization's departments and officials at their various levels, as it represents the tool or means by which organizations can achieve their goals, whether they are service or productivity, in clearer terms, the performance of organizations is the outcome of the interaction of a group of efforts made by employees and their level of competence (the ability and desire) to perform the tasks assigned to them.

Therefore, performance is an essential and important concept for all organizations (service - productivity, it is the woman in which organizations or individuals work, more precisely is the interaction between behavior that reflects status and achievement to produce valuable outputs that help in the competitive environment of the organization and its employees)

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This explains the great interest of all officials of the departments of organizations at their various organizational levels with the performance of their workers, given that performance is not only a reflection of the capabilities and motivation of the individual, but rather it is a reflection of the performance of these organizations and the degree of their effectiveness in achieving their goals.

This influence extends in its scope to reach the state level, because performance at the state level is nothing but an expression of the performance of the organizations in it, in addition to the fact that the individual's interest in his performance and work to improve and develop it will enable him to achieve a number of objectives associated with it, which are economic objectives (incentives). Promotion, wage increase, etc.) as well as his psychological and social goals (need for job stability, feeling satisfied with work, self-affirmation).

One of the main approaches to paying attention to the performance of employees and improving their levels in terms of quantity and quality is the existence of a clearly defined and applicable strategy for human resources in these organizations, with the aim of improving their performance and maximizing the outcomes of their work (Al-Harbi, 2017).

Third: Dimensions of employee performance:

The main criterion on which the impact of artificial intelligence is based on human resource management and the results of its implementation is the extent to which it contributes to achieving better levels of effective organizational performance of the organization, given the direct relationship between the success of implementing these strategies and the level of performance of employees on the one hand, and between that level and organizational performance of the organization on the other hand.

The success of human resource management strategies essentially means high-level human organizational performance, which leads to the achievement of the organization's goals and its general strategy.

To measure this success, three dimensions of the best level of employee performance were identified, as follows:

Quality of work performed:

It means the level of accuracy, mastery, and the degree of conformity of the effort made to specific quality specifications, and within this framework the conformity of performance outputs (service and goods) to the specifications specified by the administration or within international standards (approved quality standards), as well as measures that the performance is free from errors or gaps during implementation (i.e. What is known as workmanship errors), as well as their measurement of the degree of creativity and innovation shown by the individual during the performance presented, Quality is linked to all the activities of the organization, as it expresses the level of work performance provided by workers with their various titles or positions. It is an expression of the individual's

commitment to certain performance levels that contribute to those dealing with it by meeting their implicit or explicit expectations (Blyton et. al., 2017).

Commitment

The concept of functional commitment has been linked to the school of human relations with the field of management that emerged at the end of the first half of the twentieth century. By emphasizing the importance of human resources as one of the main determinants of the work of organizations, and that these individuals have feelings towards the organization, including compatibility with its objectives, and therefore the need to explore and determine the nature of the link between the working individual and the organization to which he belongs and the degree of his desire to integrate with work and continue with it, Since then, the concept of job commitment has been considered one of the well-established concepts in administrative and behavioral sciences, and it has evolved with the development of management theories and the nature of the contractual relationship between the working individual and the organization. The results of many studies and research have confirmed the high cost of negative phenomena resulting from (absence, delays in work, evasion from performance, high rates of work turnover and low levels of job satisfaction). Since the accurate diagnosis of levels of commitment by the levels of management is one of the main indicators to predict the future behavior of employees within the organization. Thus, avoiding the negative aspects of the aforementioned.

Amount of Work Done

It means the amount of work that the working individual can accomplish under normal conditions of work during a specific unit of time through the individual's physical and mental energy exerted while performing that work, and expressing the speed of performance or the quantitative dimension of the energy expended and thus the amount of work performed, and this method includes the effort exerted by the individual at work, and the manner in which his activities are performed, on the basis of the performance pattern practiced by the individual in performing his specific movements or activities, or a combination of these and those will determine the amount of performance outputs and effort and the level provided by the individual, and among the important matters in this field is the necessity of on the quantity and volume of work completed between management and employees to achieve acceptable levels of growth in the performance rate, In proportion to what the individual acquires of experience, training and facilities during work, so that it does not exceed the capabilities and capabilities of individuals and at the same time is not less than their capabilities and capabilities because this means slow performance and therefore it may be difficult to overcome in the future (Blyton, et.al., 2017).

Accordingly, the integrative relationship between each of the two components of the quality of the work performed and the quantity of the work performed, and their similar effectiveness and efficiency, is an important matter to achieve and complete the tasks assigned to the individual, as they constitute the outcome of the results and outputs that the individual can achieve as a result of the effort and energy expended through tasks, duties, responsibilities and his ability and desire In order to achieve the desired and specified goals with high levels of production quality and the required service.

Previous Studies

Study (2013) Mapelu and Juma, entitled: Effect of Training and Development on Employee turnover in Selected Medium Sized Hotels in Kisumu City, Kenya.

The study aimed to measure the impact of human resources practices within the training and development activity on the rate of work turnover and the stability of workers in their jobs. And 187 employees within 6 hotels from the study population, which included 24 hotels and 350 managers and employees, and then the retrieved data were analyzed based on descriptive statistics, including the regression and correlation method. The study found a positive impact of the training and development activity on the turnover rate of employees and their stability in their jobs in the hotel sector, as well as its positive impact on the level of their loyalty and belonging to the nature and place of work in which they work.

Al-Badarin et al (2014) study entitled "The impact of human resource management practices on discovering and developing the creative capabilities of employees: An applied study on banks operating in the northern region." The study aimed to identify the impact of human resources management practices used in Jordanian commercial banks, represented in (recruitment, selection, appointment, training practice, practice of contempt) on discovering and developing the creative abilities of its employees. The sample members on the study sample consisting of 102 male and female employees working in seven banks were selected using a simple random sampling method. The number of recovered and valid questionnaires for analysis was 78. The study reached a set of results, the most important of which are: There is an effect of the practices of polarization, selection, appointment and training used in Jordanian commercial banks on discovering and developing the creative abilities of their employees, which are represented in (originality, intellectual fluency, sensitivity to problems), there was no effect of the motivation practice used in banks. The Jordanian business seeks to discover and develop the creative capabilities of its employees represented in (originality, intellectual fluency, sensitivity to problems).

A study (2015) Athar and Shah entitled Impact of Training on Employee Performance (Banking Sector Karachi. This study aimed to know the extent of the impact of the training activity on the performance of employees working in the banking sector in Karachi, and how to diagnose and identify training needs at the level of individuals in proportion to their individual differences, and to show the effectiveness of the methods used in training. And then the impact of all this on the performance of employees. The researcher developed a questionnaire that was distributed to a random sample of 100 employees and within different administrative levels working in the banking sector, then analyzed the data using the (regression and correlation) method to process the data obtained through the questionnaire.

Bataineh study (2016) entitled "The Impact of Human Resources Management Strategies on Job Performance: A Field Study from the Point of View of Managers in Jordanian Commercial Banks / Irbid Governorate". Irbid Governorate / Jordan The study population consists of two groups, managers and workers at the lowest administrative levels in the banks under study, a random sample consisting of 87 individuals was selected, and a questionnaire was chosen as a tool for the study, as it was distributed to the sample that was neutralized and the statistical analysis program (SPSS) was applied.) to analyze the data collected through that questionnaire. The study found a statistically significant relationship between the strategies of the fields of employment, training and development and the improvement of

the performance of employees, while the relationship between the compensation strategy and the increase in performance was at lower levels than the previous two fields.

What distinguishes this study from previous studies

This study was distinguished from previous studies that dealt with strategies and practices of human resources management in the Libyan state, as it is a comprehensive study of both the independent and dependent variable, especially with regard to the last variable. As most of the studies have focused on the overall performance without addressing the main characteristics of this performance, which were contained in this study and expressed through (quality of work performed, commitment, quantity of work performed).

Methodology and Procedures

Study Approach

The descriptive analytical approach was adopted to obtain accurate and protective data to achieve the purpose of the study, as follows:

1. Relying on the descriptive approach in describing the dimensions of the independent study variables represented in the impact of artificial intelligence on human resource management, and the dependent variable on employee performance.
2. Relying on the analytical approach by presenting the analysis and evaluation of artificial intelligence in human resource management systems in the Sultanate of Oman to shed light on its impact on the performance of employees from the point of view of managers.

Study Community

The study population includes all workers in the upper and middle management of educational institutions in Muscat, Sultanate of Oman, which numbered 861 directors and head of department.

The Study Sample

The study sample was chosen by stratified random method, which amounted to (346) individuals representing all employees in the upper and middle management in educational institutions in Muscat, Sultanate of Oman.

Study tools and data collection methods

In this study, the researcher collected data and information related to the study through two sources:

1. **Secondary Sources:** Academic resources related to the study model were used, which are books, periodicals, and websites.
2. **Primary Sources:** A special questionnaire related to the study hypotheses was developed based on what was reported by writers and researchers regarding artificial intelligence in human resource management systems Oman and the performance of employees to be relied upon as a primary source.

Study Variables

The study included two independent and dependent variables, and each variable includes variables for measurement. The independent variable is the impact of artificial intelligence on human resource management and is measured by (recruitment and

appointment, training and development, motivation, performance evaluation) and the variable dependent on this study is the performance of employees and measured by (work quality). Accomplished, commitment, amount of work performed.

Statistical Processors Used

To answer the questions of the study and test its hypotheses, the researcher will use the following statistical methods: frequencies and percentages to describe the study sample members, arithmetic averages and standard deviations to estimate the responses of the sample members to the study variables, and confirmatory factor analysis using AMOS programming version 22. Multiple linear regression analysis by stepwise method (Stepwise Multiple Regression), which includes analysis of variance (F), test (T), Pearson's correlation coefficient, standard error (SE), Cronbach's alpha for stability.

Study Results and Discussion

1. What is the level of application of artificial intelligence in human resource management systems on the quality of work performed commitment and the quantity of work performed by workers in the Sultanate of Oman?
2. To answer this question, arithmetic averages and standard deviations were used, and the following table shows the results of this question.

the number	fields	SMA	standard deviation	Relative importance	the level	Rank
2	Commitment	4.73	0.32	94.60	high	1
3	Amount of work done	4.72	0.34	94.60	high	2
1	Quality of work done	4.70	0.35	94.60	high	3
	performance of employees	4.71	0.27	94.60	high	

It is noted from the table: that the level of the total degree performance of workers in educational institutions in Muscat in the Sultanate of Oman was high, as the arithmetic average reached (4.71) with relative importance (94.60), and the level of the domains was high, as the arithmetic averages ranged between (4.73 -4.70), and came In the first rank was the field of commitment with an arithmetic average (4.73), and relative importance (94.61), and in the last rank came the field of quality of work performed with an arithmetic average (4.71), with relative importance (94.1)

The results of the quality of the work performed: The results showed that the level of the arithmetic averages for the field of quality of the work performed was high. And the quality of the work done got the third degree in terms of its importance in the performance of workers from the point of view of the sample members working in educational institutions in Muscat, Sultanate of Oman, with interest in work outputs.

Commitment results: The results showed that the level of the arithmetic averages of the commitment domain was high. Commitment ranked first in terms of its importance in the performance of workers from the point of view of the sample members working in educational institutions in Muscat, Sultanate of Oman. This indicates that workers in educational institutions in Muscat, Sultanate of Oman, are keen to apply correct work values

and avoid negative phenomena resulting from absence Late work, evasion, low turnover rates and high job satisfaction.

Results of the quantity of work done: The results showed that the level of the arithmetic averages for the field of the quantity of work done was high, and the amount of work done got the second degree in terms of its importance in the performance of workers from the point of view of the sample members working in educational institutions in Muscat, Sultanate of Oman, and this indicates the interest of educational institutions In Muscat, Sultanate of Oman, the amount of work completed by workers is confirmed, and this is confirmed through continuous surveys, where highly experienced employees are used to assess the amount of work that has been completed during a certain period.

Hypothesis testing

The researcher used multiple linear regression analysis in a stepwise method, and this method is based on calculating the largest value of the correlation coefficient between the independent and dependent variable in the first stage, and then starts adding the independent variables successively so that a prerequisite is met, which is that the added variable contributes to raising the value of R² so that Statistical significance is preserved. If this is not achieved, this variable is excluded, and so on until all independent variables are verified in their relationships with the dependent variable. Hence, we may see in the regression results models that contain only one, two or three independent variables, according to their ability and their contribution to increasing the value of the coefficient of determination (R).

The results of the study showed that there is an impact of human resource management strategies on the dependent variable commitment in educational institutions in Muscat, Sultanate of Oman. Muscat, Sultanate of Oman.

Recommendations and suggestions

In light of the results of the study, the following suggestions can be made :

Taking into account the modern technological developments and technologies witnessed by the world and their uses when defining electronic programs and employing them to develop employees to better accomplish their work.

The necessity of adopting a new knowledge culture based on the culture of educational organizations that supports training and development programs and is based on the basics of continuous learning and the creation of an internal environment that supports its continuity.

Working to provide a work environment that guarantees higher levels of satisfaction for workers in educational institutions, which in turn will lead to an increase in their job loyalty towards them.

Conducting studies to determine the extent to which the skills and capabilities of the current employees in educational institutions fit with the requirements and needs of the growing and renewed work in the field of modern education.

References

- Al-Mahdi, M. (2020 AD). Education and future challenges in light of the philosophy of artificial intelligence, Faculty of Education, Mansoura University, Egypt.
- Saleh, F. A. (2009 AD). The impact of the application of artificial intelligence and emotional intelligence on the quality of decision-making. Unpublished Master's Thesis, University of the Middle East: Amman - Jordan.
- Al-Assaf, F. M. (2016). The impact of applying human resource management strategies on job performance: a case study at Amman Civil Airport. Master's Thesis, Amman Arab University, Jordan.
- Fahmy, A. Q. M. (2014). Introduction to the study of strategy. Majdalawi House for Publishing and Distribution.
- Al-Mutairi, A. A. (2016). The impact of human resource management strategies on job performance: An applied study on government departments in the Tabuk region. Master Thesis, Mutah University: Karak, Jordan.
- Athar, R. and Shah, F. (2015). Impact of Training on Employee Performance (Banking Sector Karachi). *Journal of Business and Management*, 17(11): PP 58-67.
- Blyton, P., Hassard, J., Hill, S., & Starkey, K. (2017). *Time, work and organization* (Vol. 7). Taylor & Francis.
- Cascio, W. (2018). *Managing human resources*
- Heneman, H. G., & Milanowski, A. T. (2011). Assessing human resource practices alignment: A case study. *Human Resource Management*, 50(1), 45-64.
- Mapelu, I. C., & Jumah, L. (2013). Effect of training and development on employee turnover in selected medium sized hotels in Kisumu City, Kenya. *Journal of Tourism, Hospitality and Sports*, 1.
- Shields, J., Brown, M., Kaine, S., Dolle-Samuel, C., North-Samardzic, A., McLean, P& Plimmer, G. (2015). *Managing Employee Performance & Reward: Concepts, Practices, and Strategies*. Cambridge University Press.