Global Scientific JOURNALS

Impact of Management Information System on Human Resource Practices: A Case Study of Muscat Stock Exchange

Mr. Hamed Al Harthi

Student, Middle East College, Muscat, Oman

Dr.Nasser Al Harasi

Faculty, Middle East College Muscat, Oman

Email:PG19F2116@mec.edu.om .hingy16@gmail.com

Abstract

The study aim to assess the impact of using MIS on HRM practices and how it helps in retaining talented employees at MSX. A descriptive research design adopted and mixed approach of quantitative and qualitative data collection methods utilized. The study found that there is a positive relationship between Qualification and performance management through MIS as well as positive relationship between qualification and retaining talented employees. Also, the main challenges of MIS in HRM are lack of necessary skills, inadequate standards of using Management Information systems in human resource practices and cost of HRIS. The study concluded by providing couple of recommendations to enhance MIS at MSX in relation to HRM.

Keywords: Management Information system, Human Resource practices, talented employee, Retention, Turnover, and performance.

I.   INTRODUCTION

Human resources management (HRM) uses management information systems (MIS) is talented, knowledgeable, capable, and efficient ways in achieving its objectives within businesses and companies. The major task endorsed on the H.R. department is recruiting employees and defining essential roles/ functions. Recruiting talented staff and employee turnover management help an organization becomes effective and efficient (Stone et al., 2015). The literature review will be done in line with the research objectives so that the information collected can benefit the study. While many techniques, methods, and approaches can be applied in

a research study, the chapter will select the most appropriate and beneficial techniques that the researches study can apply to ensure the successful completion and achievement of its objectives. The areas covered within the study include the reliability test & Cronbach's Alpha, questionnaire demographic, descriptive statistics, normality test, correlation, and crosstab. In the research, data was collected from the participants. The obtained results from the performed data analysis from the data collecting from the questionnaire gave the results that covered every objective.

II.   PROBLEM STATEMENT

According to an interview with the Head of the network team in Muscat Stock Exchange (MSX), the organization uses Management Information System (MIS) in HRMs practices to accomplish many activities, including the management of employees (Al Shubli 2021). In this case, the MIS performs a primary role in the effectiveness and productivity of the MSX. However, the primary challenges in MSX are retaining experienced, talented employees, qualified and reducing employee turnover. Employee performance and high-quality work can be achieved through the system, and if the talented are identified and retained, the rate of retrenchment can be minimized (Taherdoost, 2016). Once talented employees are identified within the system operating in the handling of information, they need to be retained for as long as possible to help MSX offer better quality services to the enrolled organizations and companies.

A. Research Objectives

1. To evaluate the effectiveness of MIS in retaining talented employees and employee turnover at MSX.
2. To assess the effectiveness of MIS in performance Management at MSX.
3. To measure the effectiveness of MIS in Training and Development at MSX.
4. To evaluate the effectiveness of MIS in Recruitment and Selection at MSX.
5. To identify the challenges of MIS in Human Resource Practices at MSX.
6. To provide recommendation to enhance the use of MIS in Human Resource Practices at MSX.

B. Research Questions

1. What is MIS effect in retaining talented employees and employee turnover at MSX?
2. What is MIS effect to performance Management at MSX?
3. What measures do you use to evaluate the efficacy of management information system in Muscat Stock Exchange training and development?
4. What criteria do you use to test the management information system's efficacy in Muscat Stock Exchange recruitment and selection process?
5. What are the MIS challenges in Muscat Stock Exchange Human Resource Practices?

6. What are the best recommendations to enhance the use of MIS in Human Resource Practices at MSX?

III.   LITERATURE REVIEW

A. Management Information Systems & Human Resource Practices

Management information system (MIS) is a computer aided way of performing things that entails hardware and software. The installed servers operate by the use of software which represents the backbones of the organizations represented by the MIS. Organizations handle data that belongs to the staff, customers, inventory, and financial among other information (Nadiv and Kuna ,2017). The enormous of the data requires the help of technology systems that can analyse the information and offer simplified reports ready for use. The simplified reports generated by the MIS programs that organizations use help the management in making of decisions within departments of the entire organization.

The human resource practices involve the strategic operations undertaken by the H.R. department within organizations. The practices of the human resource create a guiding tool towards the management of an organization's staff and coordination of executive business plans (Gregori, et al., 2018). Making great investments in human resource practices within organizations is associated with lower turnover intention and higher employee productivity. Human resource practices can help improve employees' skills alongside the enhancement of motivation and courage (Stone et al., 2015).

The combination of H.R. practices and MIS can help to manage employees in a better way through talent discovery and to lower the turnover. Talent discovery promotes employee security because once identified, they are retained within a workplace for a long time, and some of the employees sign permanent employment contracts so that their skills and efforts can be used by the organization (Cooke and Wang 2017).

B. Management Information System (MIS) and talented employees and turnover

Markgraf (2019) did research on how MIS is essential to companies and organizations. The findings showed that it helps manage the organization's data, creates an informed business decision-making process, aids in analysing trends, and can be used in examining scenarios & strategies. The current research analyses employees' talent and helps make informed decisions regarding talented employee retention and lower employee turnover.

Because employee data can be collected in bulk and analysis become difficult, the MIS application can help in simplifying and generating required reports in less time.

C. Performance Management through Management Information System

Research Leap (2015) emphasized the use of MIS in boosting an organization's performance which requires employees with high qualifications due to its high levels of accuracy. However, when finding out talented employees, the department heads, such as H.R. managers, maybe biased on select retain within an organization based on the mutual understanding or relationship.. MIS can help forecast possible future results, and the employee track record can help sort talented employees and set a turnover according to the organization's needs. MSX can apply a similar strategy in boosting employees' performance so that retention and talent recognition can be enhanced.

D. Training and Development through Management Information System

Xia et al. (2017) explained that learning and development are crucial aspects in the management of employees and simultaneously in their development regarding professional skills, the use of MIS allows managers to monitor the qualifications, certification, and qualifications of workers and to describe the courses offered to employees in business and intelligent allocation of tasks and most importantly monitor the progress of its subjects He categorically stretched upon the utility of Learning Management system Software it is a software application for the administration, documenting, tracking, monitoring, automating and delivery for lectures, education or training, and development programs.

E. Recruitment and Selection through Management Information System

Sakyi (2016) researched where it was found that a majority of the organizations and businesses in the internet age cannot function without computer technology. The technology used in performing most of the activities taking place within the departments. Companies can apply I.T. in the selection and recruitment process in the H.R. department that requires keen analysis and observations of set parameters. Computer systems that work under designated commands cannot benefit from the doubt where human evaluation may pose partiality.

F. Challenges of MIS in Human Resource Practices

Practice, new updates, and challenges faced while using MIS within organizations indicate from Orest and Hadija (2019) research findings that there is unsteady financial support or capacity to sustain the use of H.R. information systems. Another challenge identified in the research was the lack of enough expertise to use the

MIS implemented within organizations. The government gives little support to I.T. within organizations, an act that renders a majority to doubt the legal aspect of implementing MIS within its H.R. departments. The internet connectivity within various regions is not stable, while there is no internet connection in other places. Due to the lack of the basic infrastructure that can support the use of MIS, lack of internet connection is a challenge that MSX has to consider when implementing MIS in its H.R. departments. The offices within regions not covered by the internet connection should be managed differently; hence talent determination and turnover analysis using MIS cannot work (Orest and Hadija 2019).

IV.   RESEARCH METHODOLOGY

A. Research Methodological Approach

The current study applied a descriptive research design, where the collected data will be subject to the tests to evaluate and determine how they are relevant. Furthermore, this study applied a mixed methodology approach for collecting data quantitative and qualitative. This study utilizes a mixed approach to help analyze clearly to align the use of MIS in an organization to determine talent and turnover (Taylor et al. 2016). The collected data will be analyzed using SPSS, where various statistical tests and analyses are performed. In this study, the questionnaire forms the basis of all information that has to be used within research by focusing on the case study organization. And the secondary data is obtained from the reviewed documents and other publications that have researched the same topic.

B. Study Population and Sample Size and Sampling Technique

The target population will be within the Muscat Stock Exchange organization, which will be researched on its use of MIS in determining employee talent for retention. The sample size will be limited to 75 respondents. In the current research, the sampling technique applied will be probability sampling with a random sample, where the employees will be issued questionnaires at random.

C. Research Questionnaire Instrument

In this research, the questionnaire was prepared based on the research objectives, and each question is linked t of main objectives, as shown in table (2). The questionnaires consist of 29 closed questions and one open question.

Table 1: Questionnaire instrument design

Section	No of Item
Section A: Demographic	6 items
Section B: The effectiveness of Management Information System in retaining talented employees and employee turnover at Muscat Stock Exchange	7 Items
Section C: The effectiveness of Management Information System in performance management at Muscat Stock Exchange	4 items
Section D: The effectiveness of Management Information System in training and development at Muscat Stock Exchange	4 items
Section E: The effectiveness of Management Information System in recruitment and selection at Muscat Stock Exchange	4 items
Section F: Challenges of MIS in Human Resource Practices at MSX	4 items
Section G: Your experience with the use of Management Information Systems (MIS) by organizations.	1 items

V.   RESULT DISSCUSION

A. Reliability test Cronbach's Alpha of Questionnaire

A test for reliability is a measure of the degree about the stability and consistency of the intended measure within the collected data. The reliability test aids in measuring of the internal consistency of the collected data within a research exercise (Mohajan 2021). The obtained Cronbach's alpha in the reliability test performed indicated to be 0.766. The result is acceptable because any value above 0.70 is considered to fall under the acceptable range. The Cronbach's alpha was obtained by testing the itemized statistics of the results from questions 7 – 29 as indicated in the table below.

Table 1: Cronbach's Alpha of Questionnaire

Construct	No of Questions	Cronbach's Alpha
Retaining talented employees and employee turnover	Question no.7-13	0.784
Performance Management	Question no.14-17	0.754
Training and Development	Question no.18-21	0.767
Recruitment and Selection	Question no.22-25	0.749
Challenges Of MIS	Question no.26-29	0.772
Overall Internal constancy	0.766	

B. Questionnaire Demographic

From the below table (2), the respondents for Male 76% more than females 21.3% and the highest percentage of respondents with 53% with an average Age 25-40 years. Moreover, in the department, the Administrative affairs and Management obtained 31% of respondents and the qualification of Bachelor's Degree indicate to highest responses with 60%.Then in experiences, the highest respondents, and 36% for more than 5 years experiences. Lastly, the role level respondents indicate the highest responses 38 % Intermediate or Experienced employee.

Table 2: Demographic

Demographic	Category	Frequency	Percentage
Gender	Male	57	76%
	Female	16	21.3%
Age	25 – 40	40	53%

	41 – 60	24	32%
	Above 60	9	12%
Department	Administration affairs and Management	23	31%
	Human Resource	17	22.7%
	IT department	21	28%
	Other	12	16%
Qualification	Higher National Diploma	12	16%
	Bachelor's Degree	45	60%
	Master's Degree	16	21%
Experiences	1-3 years	17	23%
	3-5 years	29	38%
	More than 5 years	27	36%
Role Level	Entry level employee	22	30%
	Intermediate or Experienced employee	28	38%
	Head of the Department	11	15%
	Director general	12	16%

C. Descriptive Statistic

Descriptive statistics are used in giving a summary of the collected and analyzed data within a research project. The descriptions are issued in terms of mean, median, mode, and standard deviation (Mathur and Kaushik 2015). Among the questionnaire questions, it contained 30 questions. The measures for every question were set, and the descriptive statistics also can obtain the minimum and maximum options available. Depending on the participants' responses, the **Mean** indicates the measure chosen by a majority of the respondents in the research

study and means an average of the data. Then the **Median** is the average of the two middle values. After that, the data value(s) that appear the great frequently are known as a **Mode**.

Furthermore, the **standard deviation** indicates how the other responses are distributed from the result mean of the entire responses. Thus, the dispersion factor can be negative or positive depending on the side taken by the respondents (Ali and Bhaskar 2016)**.**

1. **Section (B) The effectiveness of Management Information System in retaining talented employees and employee turnover at Muscat Stock Exchange**

Table 3: Mean, Median, Mode and St. Deviation for Question 7-Qestion 13

N.Q	Retaining talented employees and employee turnover	Mean	Median	Mode	St. Deviation
Q7	The Management Information System used in Muscat Stock Exchange provide accurate ,relevantly, and timely information	3.7671	4.000	4.00	1.07394
Q8	The Management Information System can help to manage employees in a better way through talent discovery and to lower the turnover.	3.4932	4.000	4.00	1.25967
Q9	The system can evaluate and estimate organizational turnover needs through the stored data hence making the decision on the most appropriate turnover becomes easier.	4.0411	4.000	4.00	.85697
Q10	The turnover between the various departments increases the productivity of the employee.	3.9041	4.000	4.00	.83607

Q11	The employees of Muscat Stock Exchange feel satisfied with Management Information Systems because ease of use of the system.	3.4932	4.000	4.00	1.28153
Q12	The management information system provides employees support for improvement and application by updating Muscat Stock Exchange to the latest systems.	3.8904	4.000	4.00	.92138
Q13	Muscat Stock Exchange employees face the difficulty of the existing management information system, which causes difficulty in recognize the talented employees and turnover.	2.4384	2.000	3.00	.98582
Total		**3.5753**	**3.7143**	**3.86**	**1.03077**

In the table (3) above, the questionnaire questions about the effectiveness of MIS in its use for retaining talented employees and determining turnover comprised of questions 7 – 13. The description indicated that a majority of the responses are at a positive level of St.Deviation for all seven questions above average in general and almost agree, and the highest (Mean=4.04) and (St.Deviation=.85697) in Q9 means they (agree) the system could evaluate and estimate organizational turnover needs through the stored data; hence deciding on the most appropriate turnover becomes easier. Then in Q13, the (Mean=2.43) that means almost responses (disagree) on MSX employees face the difficulty of the existing management information system, which causes difficulty in recognizing the talented employees and turnover. In Addition, the neutral responses mean that the remaining responses are valid in concluding whether the participants agreed to the statement.

2. **Section (C) The effectiveness of Management Information System in performance management at Muscat Stock Exchange**

Table 4: Mean, Median, Mode and St. Deviation for Question 14-Qestion 17

N.Q	Performance Management	Mean	Median	Mode	St. Deviation
Q14	Muscat Stock exchange is improving the administrative process based on performance measurement output.	3.3014	4.000	4.00	1.04993
Q15	Employees can control the features of Management information system easy in order to increase organizational performance	3.6712	4.000	4.00	.95822
Q16	The use of Management Information System is a good way to ensure the performance measurement has been done accurately.	3.7397	4.000	4.00	1.02777
Q17	The discovery of talent can be obtained by comparing performance measures among the employee's practices.	3.3288	4.000	4.00	1.14327
	Total	**3.5103**	**4.0000**	**4.00**	**1.04480**

In the table (4) above, the objective about the effectiveness of Management Information System in performance management at Muscat Stock Exchange was examined in questions 14 – 17 of the questionnaire. The description of the table illustrates that a majority of the responses average generally agree in all questions (Mean=3.5103), (Median=4.0), (Mode=4.0) (St.Deviation=1.04480). Then the highest responses in Q16 (St.Deviation=1.02777) at the positive level and (Mean=3.739) that mean they agree that using of Management Information System is a good way to ensure the performance measurement has been done accurately at MSX.

3. **Section (D) The effectiveness of Management Information System in training and development at Muscat Stock Exchange**

Table 5: Mean, Median, Mode and St. Deviation for Question 18-Qestion 21

N.Q	Training and Development	Mean	Median	Mode	St. Deviation
Q18	The use of a Management Information System helps to determine the required training for an employee who needs to develop his skills.	3.5068	4.000	4.00	1.13190
Q19	Management information system provides Muscat Stock Exchange in short term to find out the employee who needs training and development.	3.6712	4.000	4.00	.86690
Q20	An employee training and development system promotes alignment between individual's potential and corporate expectation.	3.3425	4.000	4.00	1.32517
Q21	Trained and developed employees will help boost production, improve profitability and significantly increase market share.	3.890	4.000	4.00	.87499
Total		**3.6027**	**4.0000**	**4.00**	**1.04974**

In the table (5) above, Questions 18 – 21 represented the objective about the effectiveness of Management Information System in training and development at Muscat Stock Exchange when retaining talent and deciding on a manageable turnover. The description of the table shows that a majority of the responses average generally agree in all questions (Mean=3.6027), (Median=4.0), (Mode=4.0), (St.Deviation=1.04974). Then the highest responses in Q19 (St.Deviation=.86690) at the positive level and (Mean=3.6712) that mean they (agree) with Management information system provides Muscat Stock Exchange in the short term to find out the employee who needs training and development. Moreover, the lowest responses for Q20 if the MIS system promotes alignment between individual's potential and corporate expectation with (Mean=3.3425).

4. **Section (E) The effectiveness of Management Information System in recruitment and selection at Muscat Stock Exchange**

Table 6: Mean, Median, Mode and St. Deviation for Question 22-Qestion 25

N.Q	Recruitment And Selection	Mean	Median	Mode	St. Deviation
Q22	The Management Information System is most suitable in making the recruitment and selection of employees easier by the H.R. department with the help of technology.	3.5342	4.000	4.00	.94402
Q23	Management Information System helps to measure the qualifications of candidates that make it effective in the recruitment and selection.	3.4110	4.000	4.00	.76077
Q24	Systems are set to offer the opportunity of taking interviews and tests online which are gauged and evaluated by a system that has pre-determined answers.	3.6027	4.000	4.00	.98234
Q25	The candidates who have talent and practical skills that may not have the computer skills to undergo the recruitment or selection process.	3.3425	4.000	4.00	1.36646
	Total	**3.4726**	**4.000**	**4.00**	**1.01340**

In the table (6) above, under the objective of recruitment and employee selection, four questions ranged from Q22 – Q25. They all received average total (Mean=3.4726), (Median=4.0), (Mode=4.0) (St.Deviation=1.01340, which means nearly agree. Besides, the highest responses in Q22 is the positive level of (Mean=3.6027) and (St.Deviation=.98234), which means they (agree) with that systems have set to offer the opportunity of taking interviews and tests online, which are gauged and evaluated by a system that has pre-determined answers.

5. **Section (F) Challenges of MIS in Human Resource Practices at MSX**

Table 7: Mean, Median, Mode and St. Deviation for Question 26-Qestion 29

N.Q	Challenges of MIS	Mean	Median	Mode	St. Deviation
Q26	The human resources information systems (HRIS) acquisition and maintenance costs are extremely high that the organization cannot meet.	3.8493	4.000	4.00	.93795
Q27	The expertise is inadequate to meet the set standards of using Management Information systems in human resource practices to determine talented employees and turnover.	3.5890	4.000	4.00	1.11599
Q28	The change in how processes and procedures fulfil due to customization can render talented employees lacking an opportunity to exercise the owned skill.	3.5890	4.000	3.00	1.01154
Q29	The employees' lack of necessary skills, they may Management Information System a chance of being recognized to have talent because of missing to record progress.	3.5205	4.000	4.00	1.10692
	Total	**3.6370**	**4.000**	**4.00**	**1.04310**

In the table (6) above, the last objective was related to the experience of challenges by the organizations human resource practices, including four questions from Q26-Q29. The description of the table shows that a majority of the responses average generally agree in all questions (Mean=3.6370), (Median=4.0), (Mode=4.0), (St.Deviation=1.04974). Additionally, the highest response in Q26 is the positive level of (Mean=3.8493) and St.Deviation=.93795), which means they (agree) on the human resources information systems (HRIS) acquisition and maintenance costs are extremely high that the organization cannot meet. Next, from the collected distribution of responses on the neutral selection, Q28 received on (Mean=3.5890) that's mean nearly to (agree) majority of the change in how processes and procedures fulfil due to customization can render talented employees lacking an opportunity to exercise the owned skill. It indicated that a majority took either agree or neutral sides in the objective.

6. **Section (G) Q30. Based on your understanding of the benefits and drawbacks of MIS use within organizations, what can you suggest to help make improvements?**

According to respondents, what I observed from employees within Muscat Stock Exchange concentrated on investing in talented employees and balancing KPI within using Management Information System (MIS) to maintain them employees and provide good retention within departments. Furthermore, the MIS can measure the performance annually through the system to ensure the quality to retain talented employees and choose the best of them by giving them more rewards that may help reduce turnover.

D. **Normality Test**

Normality tests obtain utilized to recognize whether the data is normally distributed or non-normally distributed. Then the Kolmogorov-Smirnov and Shapiro-Wilk tests were used to determine normality test. And that depends on interpretation on the result of significant value for both tests. So, if the result is less than 0.05, that means normally distributed, and if the result is more than 0.05, that means it was non-normally distributing and deviates from a normal distribution (Marshall 2018). The results in the table 8 below, indicating that the data in this study is non-normally distributed because the Kolmogorov-Smirnov test (Sig= less than 0.05) and the Shapiro-Wilk test (Sig= less than 0.05).

Table 8: Normality Test

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Retaining talented employees and employee turnover	.105	73	.000	.969	73	.000
Performance Management	.158	73	.000	.940	73	.000
Training and Development	.127	73	.005	.948	73	.004
Recruitment and Selection	.142	73	.001	.948	73	.004
Challenges Of MIS	.197	73	.000	.917	73	.000

E. **Correlation**

Correlation is a process performed in research to indicate how a variable is related to another based on the measure of significance. When an item is correlated to itself it creates tandem which is a perfect positive correlation and it is always a +1.0 (Albers 2017). The effectiveness of using MIS in retaining talented employees and determining Muscat Stock Exchange turnover was focused so that the correlation among the questions within the variable can be examined.

The Spearman's rank correlation coefficient utilizes to find and assess the strength of a connection between 2 variables. Moreover, concerning correlation coefficient ranges from +1 to -1 if the result of the variable indicates +1 that means the ranks have a perfect relationship. On the other hand, suppose the result of the variable indicates -1, which means no relationship. Also, whenever the value is closer to zero, the link between the variables becomes weaker (Marshall 2018).

1. **Spearman's correlation result for Experience and retaining talented employees**

Table 9: Spearman's correlation result for Experience and retaining talented employees

Spearman's correlation		
Variable	**Statistics**	**Retaining talented employees and employee turnover**
Experience	Correlation Coefficient	-.484
	Sig. (2-tailed)	.000
	N	73

Table (9) above display the report of Spearman's correlation in (correlation coefficient =**-.484**) shows a negative relationship or no relationship between Experience and Retaining talented employees and employee turnover at (Significant level=.000), this result to know the influence of experiences on retaining talented employees and employee turnover in Muscat Stock Exchange negatively. Subsequently, the negative correlation means when one variable increases, the other one must decrease at the same time.

2. Spearman's correlation result for Qualification and retaining talented employees

Table 10: Spearman's correlation result for Qualification and retaining talented employees

Spearman's correlation		
Variable	**Statistics**	**Retaining talented employees and employee turnover**
Qualification	Correlation Coefficient	.193
	Sig. (2-tailed)	.102
	N	73

Table (10) above shows the report Spearman's correlation in (correlation coefficient =**.193**) there is a positive relationship between Qualification and Retaining talented employees and employee turnover at (Significant level=.102), this result indicates the Qualification influence into Retaining talented employees and employee turnover positively. Furthermore, the positive correlation means the relationship among two variables moving tandem.

3. Spearman's correlation result for Qualification and Performance Management

Table 11: Spearman's correlation result for Qualification and Performance Management

Spearman's correlation		
Variable	**Statistics**	**Performance Management**
Qualification	Correlation Coefficient	.554
	Sig. (2-tailed)	.000
	N	73

Table (11) above shows the report Spearman's correlation in (correlation coefficient =**.554**) there is a positive relationship or have a good relationship between Qualification and Performance Management at (Significant level=.000), this result indicates the Qualification influence into Performance Management positively. Furthermore, that means if employees within MSX have high qualifications, the performance as well increase.

4. Spearman's correlation result for Gender and Training and development

Table 12: Spearman's correlation result for Gender and Training and development

Spearman's correlation		
Variable	**Statistics**	**Training and development**
Gender	Correlation Coefficient	.034
	Sig. (2-tailed)	.774
	N	73

Table (12) above shows the report Spearman's correlation in (correlation coefficient =.034) there is a positive relationship or have a good relationship between Gender and Training and development at (Significant level=.774), this result indicates the gender impact into training and development positively. Furthermore, if both male and female employees within MSX increase, training and development will increase.

5. Spearman's correlation result for Qualification and Recruitment and Selection

Table 13: Spearman's correlation result for Qualification and Recruitment And Selection

Spearman's correlation		
Variable	**Statistics**	Recruitment And Selection
Qualification	Correlation Coefficient	.725
	Sig. (2-tailed)	.000
	N	73

Table (13) above shows the report Spearman's correlation in (correlation coefficient =.725) there is a positive relationship or have a strong relationship between Qualification and Recruitment and Selection at (Significant level=.000), this result indicates the Qualification impact into Recruitment and Selection positively. Furthermore, if employees within MSX have good qualifications, the Recruitment and selection also increase with talented candidates.

6. Spearman's correlation result for Role Level and Challenges of MIS

Table 14: Spearman's correlation result for Role Level and Challenges of MIS

Spearman's correlation		
Variable	**Statistics**	**Challenges of MIS**
Role Level	Correlation Coefficient	-.012
	Sig. (2-tailed)	.921
	N	73

Table (14) above display the report of Spearman's correlation in (correlation coefficient = **-.012)** shows a negative relationship or no relationship between Role Level of employees and Challenges of MIS at (Significant level=.921), this result to know the influence of Role Level on Challenges of MIS employees practices at MSX negatively. Subsequently, the negative correlation means that when one variable increases, the other one must decrease simultaneously.

7. Spearman's correlation result for Qualification and Challenges of MIS

Table 15: Spearman's correlation result for Qualification and Challenges of MIS

Spearman's correlation		
Variable	**Statistics**	**Challenges of MIS**
Qualification	Correlation Coefficient	.275
	Sig. (2-tailed)	.018
	N	73

Table (15) above shows the report Spearman's correlation in (correlation coefficient =**.275**) there is a positive relationship or have a good relationship between Qualification and Performance Management at (Significant level=.018), this result indicates the Qualification influence into Performance Management positively.

VI. SUMMARIZE, CONCLUSION ,RECOMMENDATION

A. Summarize

1. What is MIS effect in retaining talented employees and employee turnover at MSX?

Based on the relationship between experience and retaining talented employee, the report of correlation display a negative relationship between experience and retaining talented employee with correlation coefficient= -.484 and significant value=.000.

After that, there was a positive relationship between qualification and retaining talented employees with Correlation Coefficient=.193 and significant value=.102. And the average total response indicated of this objective one agrees, which means the MIS can determine the talented employee and organization turnover. The finding supported by (Silva and Lima 2018), Efficiency has been witnessed within the HR activities due to the use of MIS. A great value is added to professionals and HR functions within organizations.

2. What is MIS effect to performance management at MSX?

According to the relationship of results on Qualification and performance, there is a positive relationship between Qualification and performant and the significant value =.000 and the correlation coefficient =.554 that's mean there is a relationship. Then the description indicates the majority of responses are agreed in all question of this objective two which mean the influencing of MIS on performance management within MSX.

This finding are supported by Abu-Naser and Al Shobaki (2016), the Performance management is a condition that an organization takes to establish whether their employees got a good Qualification to achieve the business goals. Then, Research Leap (2015) emphasized the use of MIS in boosting an organization's performance which requires employees with high qualifications due to its high levels of accuracy. Higher qualifications can lead to easy ways of applying MIS within the organization and promoting increased performance levels that can be undertaken and promoted within the areas of work.

3. What measures do you use to evaluate the efficacy of management information system in Muscat Stock Exchange training and development?

Training and development is a way that MSX takes in preparing its employees towards the tasks ahead of the assigned departments. According to the correlation between gender and training & development, there is a positive relationship between gender and training and development and Correlation Coefficient=.034 and significant value=.774 that's mean there is a relationship. The description of objective three the results mainly responses agree, which means males or females are vital to training and development. This finding is supported by Miś (2020); working together with different members of your task force, their consumers, and clients, MIS

experts play a crucial role in data integrity, consolidation, and information sharing. Gender plays a major role in training and development where both female and male are mixed in the performance of work to ensure that those areas where either gender performs well have been assigned the right gender for high performance results.

4. What criteria do you use to test the management information system's efficacy in Muscat Stock Exchange recruitment and selection?

The use of MIS at MSX is a challenge and based on the relationship between qualification and recruitment and selection process within MSX, founded the highly positive result between qualification and recruitment and selection with Correlation Coefficient=.725 and significant value=.000. The description objective four responses agreed, which means the significant effect of MIS in the recruitment process. This finding supported by Abbasi, and Shabbir (2020), found out that recruitment plays a major role in selecting candidates within online job interviews by specific measures by academic qualifications.

5. What are the MIS challenges in Muscat Stock Exchange Human Resource Practices?

The experienced challenges at MSX were identified to be faced within relationship between role level and Challenges of MIS, there is a negative relationship between role level and Challenges with correlation coefficient= -.012 and significant value=.921 that means no relationship between two variables.

On the other hand, there is a positive relationship between qualification and challenges with correlation coefficient= .275 and significant value=.018. In addition, the description of objective five responses averages generally agrees. Then a better result that can promote the use of highly qualified staff within MSX to come up with better ways of utilizing MIS in identifying talent and determining the most appropriate turnover.

B. CONCLUSION

The overall study intends to analyze the impact of MIS on human resource practices at MSX. The study tries to evaluate the effectiveness of MIS in retaining talented employees and employee turnover. So based on the investigation, the description display the majority of the responses are above average in general and virtually agree for all seven questions, with the highest (Mean=4.04) and (St.Deviation=.85697) in Q9 indicating they (agree) the system could evaluate and estimate organizational turnover. Then the results from correlation one were negative in experience and positive in qualification, indicating that means there is an impact on MIS effectively to determine talented and employee turnover at MSX. In objective two, In all questions, the majority of the responses average generally agree (Mean=3.5103), (Median=4.0), (Mode=4.0) (St.Deviation=1.04480), as shown in table (4). That is to say; they believe that utilizing a Management Information System is an excellent approach to verify that MSX's performance measurement is accurate. Also, the study tried to

investigate the relationship between qualification and performance management. Beyond the checks of performance, the study showed a positive relationship between qualification and performance management. The positive correlation meant the effectiveness of MIS use in performance would be excellent if employees in MSX have the required and most suitable qualifications.

Furthermore, in Objective Three, The description of respondent results shows that most of the responses, on average, generally agree with all questions. Then the highest responses in Q19 (St.Deviation=.86690) at the positive level and (Mean=3.6712) that mean they (agree) on MIS provides Muscat Stock Exchange in the short term to find out the employee who needs training and development. In addition, a positive correlation was obtained whereby gender was discovered to play a major role in the training and development of employees at MSX. As per Objective Four, the majority of the questions was agree and the highest response on (Mean=3.6027) and (St.Deviation=.98234), indicating that they (agree) that systems have been set up to provide the option of completing interviews and exams online, which are gauged and assessed by a system with pre-determined answers. And a strong relationship with a positive correlation was obtained using MIS to recruit and select employees at MSX, where the participants highly promoted and supported the combination of qualification and talent. Having the right qualifications helps select and determine talent among employees applying the qualifications to perfect the skill with talent as they perform work. As per Objective Five: The description responses show that most of the responses average generally agree in all questions (Mean=3.6370), (Median=4.0), (Mode=4.0), (St.Deviation=1.04974).

Additionally, the highest response in Q26 got a positive level of (Mean=3.8493) and St.Deviation=.93795), which means they (agree) on the human resources information systems (HRIS) acquisition and maintenance costs are extremely high that the organization cannot meet. Next, Q28 was obtained (Mean=3.5890) from the gathered distribution of responses on the agree and neutral selection, implying that most of the changes in how processes and procedures fulfil due to customization might leave talented employees without the opportunity to exercise the personal skill. Finally, the assigned role to employees at MSX was found to negatively correlate in identifying talent at the organization. A role can be given to an employee without checking qualifications because lack can cause poor results. However, the challenge was a better way of obtaining the right talent by examining qualifications. And the qualifications can determine the assigned role, which will later lead to identifying talent and turnover.

C. RECOMMENDATIONS

Recommendation based on finding results discussion based on data collection from questionnaire.

1. Developing new programs within MSX

Depending to the results of the effectiveness of MIS on retaining and talented employees and turnover at MSX ,there was a difference in results, so when engaging in the process of finding talent among employees and determining the proper turnover by the human resources practices at MSX, it might be better if the process involves programs such as :

-Maybe implement a new program system for coaching program within MIS to increase employee skills

- Perhaps introduce a new program system for retention rewards program within MIS to increase   productivity.

2. 360-degree reviews

As per result of assessing the effectiveness of MIS in performance Management at MSX, there is a positive result depending on qualifications variable, it might be better to provide improvement of Performance such as:

- Perhaps use the 360-degree reviews developed for feedback method technique, a great employee performance analysis tool. Moreover, indirectly affect employee retention.

3. Develop essential training and executing it well

Based on the result of measure the effectiveness of MIS in training and development, there is a positive result regarding the gender and training and development at MSX; it might be of great importance and benefit if the offered training can be given within essential aspect.

- Maybe develop essential program training and executing it well for Male and female at MSX.

4. E-HRMs recruitment and selection tools

It depends on the result of evaluating the effectiveness of MIS in recruitment and selection.

There is a positive result concerning the qualification and recruitment and selection at MSX; it might be using the system to identify and select and filter the right candidates depending on the high qualifications or other variables such as:

-Maybe add E-HRM to select and recruit the perfect candidates and improve HR services at MSX.

5. Provide comprehensive program for all employees about MIS

Depending on the results to identify the challenges of MIS in Human Resource Practices at MSX, there was a difference in results. The human resources management practices can resort to a check of qualifications more

than focusing on the role to be assigned, and it might be better if qualifications can determine the assigned role, which will later lead to an identification of talent and turnover such as:

-Maybe provide comprehensive program needful for all role levels for using information systems to understanding of the software or applications on the system at MSX.

VII.   ACKNOWLEDGMENT

I would thank Dr Nasser Al Harasi, my supervisor, for his feedback, phenomenal assistance, and huge responsibility to keep me on progress. He was reliably there to offer all the significant assistance. May Allah guarantee him and give him prosperity and wellbeing.

VIII.   REFERENCES

1. Abbasi, S. and Shabbir, M. (2020) 'An examination on how selection and recruitment practices relte towards enhancing business growth'. *Journal of Public Affairs* 2438(3), 17-23

2. Al Shubli, S. (2021) 'Interviewed by Hamed Alharthi for collect information about Muscat Securitas Market: Discussion for problem statement'.25-March 2021. Muscat

3. Albers, M. (2017). Introduction to quantitative data analysis in the behavioral and social sciences. Hoboken, New Jersey, Wiley. [Online] Available from https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1472834. [3 August 2021]

4. Ali, Z. and Bhaskar, B. (2016) *Basic Statistical Tools In Research And Data Analysis* [online] available from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5037948/> [4 August 2021]

5. Cooke, F. and Wang, J. (2017) 'How talent is managed in China and India: A comparison of human resource management practices and managerial perceptions on employees'. *Journal of World Business*, 49(2), 225-235

6. Gregori, G.L, Mueller, J. and Miglietta, N. (2018) 'Advancing technology levels by acquiring knowledge for employee performance and retaining of skill: the need of retaining employees by the HRM practices'. *Journal of Knowledge Management.* https://www.emerald.com/insight/content/doi/10.1108/JKM-09-2017-0391/full/html. [1st April, 2021].

7. Markgraf, B. (2019) *Ways that MIS is of importance to companies*. [Online] Available from <https://smallbusiness.chron.com/management-information-system-useful-companies-63415.html> [19th April, 2021]

8. Marshall, E. (2018) "The Statistics Tutor'S Quick Guide To Commonly Used Statistical Tests". *University Of Sheffield* [online] 1 (2), 32-34. available from <https://www.statstutor.ac.uk/resources/uploaded/tutorsquickguidetostatistics.pdf> [4 August 2021]

9. Mathur, B. and Kaushik, M. (2015) *(PDF) Data Analysis Of Students Marks With Descriptive Statistics* [online] available from <https://www.researchgate.net/publication/293074171_Data_Analysis_of_Students_Marks_with_Descriptive_Statistics> [6 August 2021]

10. Miś, A. (2020) 'Talent Management Practices in the Surveyed Companies: In Talent Management in Small and Medium Enterprises' .*Routledge*, 1 (5), 57-98

11. Mohajan, H. (2021) *Two Criteria For Good Measurements In Research: Validity And Reliability* [online] available from <https://mpra.ub.uni-muenchen.de/83458/1/MPRA_paper_83458.pdf> [2 August 2021]

12. Nadiv, R. and Kuna, S. (2017) 'Organizational and Occupational Features associated with HR strategic roles within the human resource managers in Oman organizations'. *Employee Relations* 12(2), 134-147

13. Orest, M. and Hadija, M. (2019) 'HR Information Systems Usage and Challenges among Organizatiosn operating in Tanzania'. *Journal of Human resource management* 7(4): 131-137

14. Research Leap (2015) *Making use of Management Information Systems (MIS) in Boosting Entities' Performance*. [Online] Available from <https://researchleap.com/using-management-information-systems-mis-to-boost-corporate-performance/> [19 April, 2021]

15. Sakyi, N. (2016) *A comparative study on the leverage of information technology (IT) in the selection and recruitment process within the HR practices*. [Online] Available from < https://www.eajournals.org/wp-content/uploads/Leveraging-Information-Technology-It-In-Recruitment-and-Selection-Processes-A-Comparative-Study.pdf> [19th April, 2021]

16. Silva, M. and Lima, C. (2018) *Management Of Information Systems* [online] available from < https://www.intechopen.com/books/management-of-information-systems/the-role-of-information-systems-in-human-resource-management> [17 April 2021]

17. Stone, D.L., Lukaszewski, K.M. and Johnson, R. (2015) 'The effect of innovation on the prospect of human resource management'. *Human resource management review, 25(2),* 333-339.

18. Taherdoost, H. (2016) 'Methods of collecting a research sample: the best way of selecting a sampling technique during research'. *International Journal of Academic Research in Management*. 5(2), 1-11. https://hal.archives-ouvertes.fr/hal-02546796/document

19. Taylor, B., Sinha, G. and Ghoshal, T. (2016) 'Research methodology: A guide to for reseachers in management and social sciences'. *PHI Learning Pvt. Ltd.* 10(7), 30-49

20. Xia, Z.S.Z.W.J., (2017) 'A PROJECT FOR AN INTELLIGENT MANAGEMENT SYSTEM: INTELLIGENT REDESIGN FOR MIS'. *European Journal of Computer Science and Information Technology*, 5(1), 33-44