Project Dissertation Report on

Impact of Human Resource Management Systems

on

HR Functions of

Various Organizations

Submitted By

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Certificate

This is to certify that final year research project on "**Impact of Human Resource Management Systems on HR functions of various organizations**" is a bonafied work carried out by "**Himanshu Singh**" who is a student of MBA 2018-20 batch at Delhi School of Management, DTU. The project is submitted to Delhi School of Management, DTU in the fulfilment for the award degree of Master of Business Administration.

Signature of Guide   **Signature of HOD**

Mr. Yashdeep Singh   Prof Rajan Yadav

(Assistant Professor)   (Head of Department)

Declaration

I, Himanshu Singh student of MBA 2018-20 of Delhi School of Management, Delhi Technological University, hereby declare that Final Year Research Project on "**Impact of Human Resource Management Systems on HR functions of various organizations**" is the original work conducted by me under the guidance of Mr. Yashdeep Singh.

The information and data in the report is authentic to the best of my knowledge. This report is not being submitted to any other University for award of any Degree, Diploma and Fellowship.

Himanshu Singh
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Acknowledgement

Abstract

This project is carried out to understand the impact of Human Resource Management Systems on the human resource processes of various organisations. A survey was conducted specifically for HR employees to understand their opinion on the HR Management Systems with its advantages and disadvantages. The survey included 65 subject related questions with likert scale measure. The whole study was broadly analyzing the impact of Human Resource Management Systems on HR Processes, Time-Cost, Decision Making and Employee Satisfaction. The statistical methodology which includes ANOVA and t-test is used in this study.

The study resulted in the positive relationship in utilization of Human Resource Management Systems in various HR functions.

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Chapter 1 Introduction

1.1 Human Resource Management

Human resource management (HR) is the heart of the organization which pumps the energy in the form of human efforts into organization for its sustenance. It is designed to maximize employee performance in the service of an employer's strategic goals Human resource management is primarily concerned with the management of people within organisations, focusing on policies and systems.

1.2 Functions of Human Resources

There are four core functions of Human Resource:

- Compensation Management
- Performance Management
- Training and Development
- Talent Acquisition

There are other functions in Human Resources

- Manpower Planning
- Employee Relations
- Employee Wellness
- General Administration
- Safety and Health Standards

1.3 Human Resource Management System

The software used to carry out all the HR process through digitisation and online systems. This software could be as simple as maintaining attendance and personal records of employees, and it could be as extensive as connecting every department of organisation and executes every HR functions.

The main advantages of HRMS are:

- Efficient Talent Acquisition
- Workforce Management

- Employee scheduling
- Payroll systems
- Performance Evaluation
- Time tracking & Attendance Management
- Recruiting & Applicant tracking
- Analytics & Reporting

Difference between Human Capital Management Systems (HCMS), Human Resource Information System (HRIS) and Human Resource Management System (HRMS)

1.3.1 HRIS (HUMAN RESOURCE INFORMATION SYSTEM)

HRIS software is designed to manage people, policies and procedures. The following major characteristics are:

- ❖ Recruitment
- ❖ Core Human Resources
- ❖ Benefit Administration /Open Enrolment
- ❖ Attendance Records
- ❖ Compensation Management
- ❖ Learning & Development
- ❖ ATS (Applicant Tracking System)
- ❖ Workflow
- ❖ Reporting

1.3.2 HCM (HUMAN CAPITAL MANAGEMENT)

HCM software includes every aspect of an HRIS but adds Talent Management and global capabilities such as multi-lingual, multi-currency, country-specific formatting and possibly localisation.

Listed below are what I believe to be the major functional elements for a vendor to call its solution an HCM.

- ❖ HRIS
- ❖ Onboarding

- ❖ Performance and Goal Management
- ❖ Position Control / Budgeting
- ❖ Succession Planning
- ❖ Salary Planning
- ❖ Global
- ❖ Analytics

1.3.3 HRMS (HUMAN RESOURCE MANAGEMENT SYSTEM)

HRMS software providers typically cover every element of an HRIS and may include the capabilities of an HCM. Because the HRMS business is so massive and covers such a wide range of employee size and functional requirements, not all HRMS providers have a progressive Talent Management component included in their offering. Some of the HRMS vendors look like this [HRIS + (Payroll + TLM) = HRMS] while others have built their offering to look more like this [HCM + (Payroll + TLM)]. Two characteristics of any true HRMS are the following:

- ➤ Payroll
- ➤ Time & Labor Management (TLM)

1.4 Limitations of HRMS

Technical Limitations: Even complex HR Systems are not sufficient enough for executing every process without human interventions. Adding to that, errors in the systems can be catastrophic at times. Therefore, the HRMS model should be operated by a skilful operator.

Change management: HRMS is built on various complex modules which function together, but it falls short when change management takes place. It also involves the cost of upgrading software and training the employees. Therefore, organisations have to deal with change and develop the systems accordingly.

Privacy concerns: Every digital system has several security concerns attached to it. When it comes to HR processes, the information you gather is personal data of individuals which includes employees, clients and other stakeholders of the company. High cyber security is a must for such Human Resource Management Systems to run efficiently without future repercussions.

Chapter 2 Literature Review

Research on human resource management system is now used in volume in India. There are many studies in other countries like UK and US. An attempt is made hereunder to brief the different studies that are made in India and abroad.

Nishad Niwas (2013), studied the analysis of how the Human Resource Information Systems is useful in HR processes and ultimately HRIS usage working as a strategic tool for organizational development. This research paper is considers the designation-wise usage level of HRIS in select software companies in Bangalore City.

Asha Nagendra (2013), studied the identification of unfilled job positions accurately by HRIS. She found that organisations can record good HR planning efficiency and effectiveness if HRIS aligns with information system strategy and HR strategy. Organisations need to integrate HRIS functions with other business functions. Her study revealed that HRIS needs to offer more intelligent capabilities to increase the effectiveness of HR planning.

Julia E. Hoch (2013), found leadership represents an appropriate approach to improving the functioning of ERP implementation teams. Shared leadership represents a form of team leadership where the team members, rather than only a single team leader, engage in leadership behaviors. While shared leadership has received increased research attention during the past decade, it has not been applied to ERP implementation teams

Normalini (2012), found that four out of the five antecedents are significant predictors of extent of use. It further suggested the evidence on the appropriateness of using Roger's innovation attributes to measure different dimensions of attitude towards extent of HRIS use and Remenyi's and Zuboff's IT framework to measure the outcomes from the extent of HRIS use.

Dr. Nisha Aggarwal (2011), carried out a study which focuses on the role and importance of HRIS towards business competitiveness. And highlight the need, components, benefits and functions of HRIS.

According to Carole Tansley, and Sue Newell,(2009), before HRIS design HR managers and IS mangers have to prepare agenda. They concluded that this agenda included with theoretical, practical, real oriented and easy learning processes.

John Edwards (2008) suggested that HRMS lift the HR activities fast, in respect of streamline processes, reduce errors, collect more data, improve budgeting, simplified access, enhance distribution, reduce duplication, improve security, better hires, easier compliance, and enhanced the employee morale.

Jim Spoor.al.et.(2008) found that Credit Union implemented HRIS software in human capital management and asserted strongly that working in employee self service (ESS). It is update the employee and policy manuals, product brochures, organizational charts, phone numbers. In future they suggested that HRIS can be used as personal digital assistants, pocket PCs, and web enabled phones.

Mary Ipe (2008) undertook a study on interface between technology and human resource. He suggested that HRIS sub modules like recruitment, employee self-service are very useful for organizations.

A1 Doran (2007) identified HRIS usage in request for proposal (RFP) module. Request for proposal generate daily activities reports, response data reports, number of copies, organization contacts reports, formal vendor presentations, covering letters. issues faced by an organization while implementing technology in HR. Organization needed application oriented programs like HR portal SAP HR Module, it was designed and built to work in harmony with single set of database that put together all areas of business, including manufacturing, purchasing, logistics, finance, and HR. Employee Self Service (ESS) Module and HR Portal will have come like single gateway to customized and personalized information on one single place. It had worked as a tool to bring together company's vision and plans to their employees. On the other hand, employees also get aware about the organization visions and plans.

Chapter 3 Research Methodology

3.1 Objectives of the Study

The main objective of the present study is to analyse and find out the utilisation of the Human Resource Management System.

However, the specific objectives of the study are to:

1. To analyse the impact of HRMS on HR Procedures
2. To analyse the Time-Cost Study of HRMS
3. To analyse the Decision making and Information transfer in HRMS
4. To analyse the employee satisfaction using HRMS

3.2 Hypotheses

The following hypotheses have been formulated and tested:

- There is no positive relationship exists between human resource management systems (HRMS) and the usage of human resource processes.
- There is no positive relationship exists between human resource management system (HRMS) and usage on time and cost savings.
- There is no positive relationship exists between human resource management systems and the usage of information transfer and Decision Making.
- There is no positive relationship exists between human resource management systems (HRMS) and employee satisfaction.

3.3 Variables Used in this Research Project

Designation of the employees is divided into 3 categories HR Generalists, HR Specialists and Recruiters as independent variables, while HR processes, time and cost savings, information transfer & decision making, employee satisfaction are considered as dependent variables.

3.4 Sampling Technique:

Snowball sampling technique is used in this research study. It is the non-probability technique which is an example of random sampling. It involves two steps:

1. Identifying the potential subjects and record their inputs
2. Asked the earlier selected subjects to find others as well for the study

Total 18 responses were recorded from the employees of different organisations which included MNCs and Domestic organisations of India.

3.5 Method of Data Collection

The study is empirical in nature. The data for the present study are collected from primary sources. It is collected by forming a well-structured questionnaire which broad divided into two sections. Accordingly, Section A is for collecting the personal details and organisational aspects of the organisations. Section B, is designed which included total 65 questions (which are woven into 14 questions) for assessing the opinions of employees on HRMS usage for HR Processes, Decision making and information transfer, Time-Cost saving and employee satisfaction.

3.6 Statistical Tools Used

The data collated for the study is cleaned and processed and analysed by using the following statistical techniques**:**

One-way ANOVA

One-way ANOVA is used to find out the significant differences if any in two or more means of the dependent variables as per differences in designations such as Recruiters, HR Specialists and HR Generalists. In case the obtained 'F' turned out to be significant it was concluded that differences in designation categories accounted for significant differences in their means.

T-Test

It was used to find out the significant differences between the different pairs of means (3 possible pairs of means) of the designation categories.

3.7 Limitations of the Research

The present study has the following limitations as mentioned below:

- The scope of the present study is restricted to cover only HRMS usage and measured the impact the usage of HR Processes, Decision making and information transfer, Time-Cost saving and employee satisfaction.
- The number of responses received does not represent the diverse variety of corporate sector of India.

Chapter 4 Analysis and Discussion

Major Null Hypothesis:

There is no positive relationship of HRMS on various HR Functions

Research Objectives

1. To analyse the impact of HRMS on HR Procedures
2. To analyse the Time-Cost Study of HRMS
3. To analyse the Decision making and Information transfer in HRMS
4. To analyse the employee satisfaction using HRMS

4.1 Objective 1: To analyse the impact of HRMS on HR Procedures

Dependent Variables:

SNo.	Dependent Variables	Factors for DV
1.	HR Planning	• Forecasting manpower requirements • Requisition • Preparing manpower inventory reports
2.	Talent Acquisition	• Sourcing • Requisition • Collecting & Responses • Short listing & Arranging Interviews • Conducting Interviews • Decision Making
3.	Information Collection	• Day to Day work • Organizational policies and work rules • Employee incentives • Welfare Activities
4.	Employee training and development	• Training Need Analysis • Training Program Design • Cost Time Study Report • Training Programme Report • Trainee & Trainer Performance Information

5.	Career Planning and Development	• Identification of individual interest area goals • To identify the individual skills history • Career development opportunities report
6.	Performance Management	• Creating the performance standards and duties with employees • Measuring employee actual performance • Comparing the actual performance with standards • Communicating the appraisal with employees
7.	Compensation Management	• Identification of direct and indirect financial payments details • Wage and salary history • Incentive awards report • Wage boards and pay commissions information

The above are the 7 listed dependent variables of HR processes for which 'F' values will calculated for comparing the significance level. Also, the pairs mean values corresponding to the above variables have been tested for their significance using T-Test and discussed.

4.1.1. HR Planning

Differences in the mean usage of HRMS in the HR process of HR planning variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis 1:

Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of HR Planning.

The details of One-way ANOVA Summary Results of HR Process of HR Planning (Dependent Variable) as per Designation Levels of Industry Professionals are Given.

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	3	5	1.666667	0.083333
HR Specialists	3	7	2.333333	0.333333
Recruiters	3	9	3	0.28

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.666667	2	1.333333	5.741627	0.040419	5.143253
Within Groups	1.393333	6	0.232222			
Total	4.06	8				

The obtain 'F' value of **5.741627** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of HR Planning process.

The significant 'F' value here gives an overall significant differences of pairs of means of the HR Planning scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (HR Planning), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal
Variances

	g	*s*
Mean	1.666667	2.333333
Variance	0.083333	0.333333
Observations	3	3
Hypothesized Mean Difference	0	
df	3	
t Stat	-1.78885	
P(T<=t) one-tail	0.085793	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.171586	
t Critical two-tail	3.182446	

	g	*r*
Mean	1.666667	3
Variance	0.083333	0.28
Observations	3	3
Hypothesized Mean Difference	0	
df	3	
t Stat	-3.83131	
P(T<=t) one-tail	0.015666	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.031333	
t Critical two-tail	3.182446	

	s	*r*
Mean	2.333333	3
Variance	0.333333	0.28
Observations	3	3
Hypothesized Mean Difference	0	
df	4	
t Stat	-1.47442	
P(T<=t) one-tail	0.107192	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.214384	
t Critical two-tail	2.776445	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusion

i) For HR Planning mean level usage of recruiter is more than the mean level usage of HR generalist

4.1.2. Talent Acquisition

Differences in the mean usage of HRMS in the HR process of Talent Acquisition variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Talent Acquisition.

The details of One-way ANOVA Summary Results of HR Process of Talent Acquisition (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	7	19	2.714286	0.654762
HR Specialists	7	19	2.714286	0.238095
Recruiters	7	24.4	3.485714	0.078095

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.777143	2	1.388571	4.290338	0.029947	3.554557
Within Groups	5.825714	18	0.323651			
Total	8.602857	20				

The obtain 'F' value of **4.290338** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Talent Acquisition process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Talent Acquisition scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Talent Acquisition), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal
Variances

	g	s
Mean	1.666667	2.333333
Variance	0.083333	0.333333
Observations	3	3
Hypothesized Mean Difference	0	
df	3	
t Stat	-1.78885	
P(T<=t) one-tail	0.085793	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.171586	
t Critical two-tail	3.182446	

	g	r
Mean	1.666667	3
Variance	0.083333	0.28
Observations	3	3
Hypothesized Mean Difference	0	
df	3	
t Stat	-3.83131	
P(T<=t) one-tail	0.015666	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.031333	
t Critical two-tail	3.182446	

	s	r
Mean	2.333333	3
Variance	0.333333	0.28
Observations	3	3
Hypothesized Mean Difference	0	
df	4	
t Stat	-1.47442	
P(T<=t) one-tail	0.107192	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.214384	
t Critical two-tail	2.776445	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Talent Acquisition mean level usage of recruiter is more than the mean level usage of HR generalist

4.1.3. Information Collection

Differences in the mean usage of HRMS in the HR process of Information Collection variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Information Collection.

The details of One-way ANOVA Summary Results of HR Process of Talent Acquisition (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	10.5	2.625	0.229167
HR Specialists	4	12.2	3.05	0.036667
Recruiters	4	7.8	1.95	0.416667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.461667	2	1.230833	5.410256	0.028647	4.256495
Within Groups	2.0475	9	0.2275			
Total	4.509167	11				

The obtain 'F' value of **5.410256** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Information Collection process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Information Collection scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Information Collection), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	2.75	2.625
Variance	0.416667	0.229167
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	0.311086	
P(T<=t) one-tail	0.38313	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.76626	
t Critical two-tail	2.446912	

	g	r
Mean	2.75	3.05
Variance	0.416667	0.036667
Observations	4	4
Hypothesized Mean Difference	0	
df	4	
t Stat	-0.89113	
P(T<=t) one-tail	0.211608	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.423217	
t Critical two-tail	2.776445	

	s	r
Mean	2.625	3.05
Variance	0.229167	0.036667
Observations	4	4
Hypothesized Mean Difference	0	
df	4	
t Stat	-1.6486	
P(T<=t) one-tail	0.047288	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.174576	
t Critical two-tail	2.776445	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

For Information Collection mean level usage of recruiters is more than the mean level usage of Specialist.

4.1.4. Employee Training and Development

Differences in the mean usage of HRMS in the HR process of Employee training and development variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Employee training and development.

The details of One-way ANOVA Summary Results of HR Process of Employee training and development (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	5	9.9	1.98	0.232
HR Specialists	5	15	3	0.25
Recruiters	5	14	2.8	0.45

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.921333	2	1.460667	4.701717	0.031059	3.885294
Within Groups	3.728	12	0.310667			
Total	6.649333	14				

The obtain 'F' value of **4.701717** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Employee training and development process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Employee training and development scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Employee training and development), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	1.98	3
Variance	0.232	0.25
Observations	5	5
Hypothesized Mean Difference	0	
df	8	
t Stat	-3.2852	
P(T<=t) one-tail	0.005551	
t Critical one-tail	1.859548	
P(T<=t) two-tail	0.011101	
t Critical two-tail	2.306004	

	g	r
Mean	1.98	2.8
Variance	0.232	0.45
Observations	5	5
Hypothesized Mean Difference	0	
df	7	
t Stat	-2.22027	
P(T<=t) one-tail	0.030926	
t Critical one-tail	1.894579	
P(T<=t) two-tail	0.061852	
t Critical two-tail	2.364624	

	s	r
Mean	3	2.8
Variance	0.25	0.45
Observations	5	5
Hypothesized Mean Difference	0	
df	7	
t Stat	0.534522	
P(T<=t) one-tail	0.304765	
t Critical one-tail	1.894579	
P(T<=t) two-tail	0.60953	
t Critical two-tail	2.364624	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i) For Employee training and development mean level usage of recruiters are more than the mean level usage of HR generalist.

ii) For Employee training and development mean level usage of HR specialist are more than the mean level usage of HR generalist.

4.1.5. Career Planning and Development

Differences in the mean usage of HRMS in the HR process of Career Planning and Development variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Career Planning and Development.

The details of One-way ANOVA Summary Results of HR Process of Career Planning and Development (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	10.5	2.625	0.0625
HR Specialists	4	12.4	3.1	0.146667
Recruiters	4	8.5	2.125	0.229167

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.901667	2	0.950833	6.507605	0.017858	4.256495
Within Groups	1.315	9	0.146111			
Total	3.216667	11				

The obtain 'F' value of **6.507605** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Career Planning and Development process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Career Planning and Development scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Career Planning and Development), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	2.875	2.625
Variance	0.229167	0.0625
Observations	4	4
Hypothesized Mean Difference	0	
df	5	
t Stat	0.92582	
P(T<=t) one-tail	0.198513	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.397027	
t Critical two-tail	2.570582	

	g	r
Mean	2.875	3.1
Variance	0.229167	0.146667
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	-0.73403	
P(T<=t) one-tail	0.245304	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.490607	
t Critical two-tail	2.446912	

	s	r
Mean	2.625	3.1
Variance	0.0625	0.146667
Observations	4	4
Hypothesized Mean Difference	0	
df	5	
t Stat	-2.0772	
P(T<=t) one-tail	0.046195	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.092391	
t Critical two-tail	2.570582	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Career Planning and Development mean level usage of recruiter is more than the mean level usage of HR Specialist

4.1.6. Performance Management

Differences in the mean usage of HRMS in the HR process of Performance Management variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Performance Management.

The details of One-way ANOVA Summary Results of HR Process of Performance Management (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	5	16.5	3.3	0.325
HR Specialists	5	16.6	3.32	0.052
Recruiters	5	13	2.6	0.2

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.681333	2	0.840667	4.370884	0.037498	3.885294
Within Groups	2.308	12	0.192333			
Total	3.989333	14				

The obtain 'F' value of **4.370884** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Performance Management process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Performance Management scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Performance Management), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	2.7	3.3
Variance	0.2	0.325
Observations	5	5
Hypothesized Mean Difference	0	
df	8	
t Stat	-1.85164	
P(T<=t) one-tail	0.050611	
t Critical one-tail	1.859548	
P(T<=t) two-tail	0.101222	
t Critical two-tail	2.306004	

	g	r
Mean	2.7	3.32
Variance	0.2	0.052
Observations	5	5
Hypothesized Mean Difference	0	
df	6	
t Stat	-2.7617	
P(T<=t) one-tail	0.01639	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.03278	
t Critical two-tail	2.446912	

	s	r
Mean	3.3	3.32
Variance	0.325	0.052
Observations	5	5
Hypothesized Mean Difference	0	
df	5	
t Stat	-0.07284	
P(T<=t) one-tail	0.47238	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.944761	
t Critical two-tail	2.570582	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Performance Management mean level usage of recruiter is more than the mean level usage of HR Generalist

4.1.7. Compensation Management

Differences in the mean usage of HRMS in the HR process of Compensation Management variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Compensation Management.

The details of One-way ANOVA Summary Results of HR Process of Compensation Management (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	12.5	3.125	0.395833
HR Specialists	4	8.5	2.125	0.229167
Recruiters	4	11.6	2.9	0.066667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.201667	2	1.100833	4.774699	0.038602	4.256495
Within Groups	2.075	9	0.230556			
Total	4.276667	11				

The obtain 'F' value of **4.774699** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Compensation Management.

The significant 'F' value here gives an overall significant differences of pairs of means of the Compensation Management scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Compensation Management), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3.125	2.125
Variance	0.395833	0.229167
Observations	4	4
Pearson Correlation	0.760886	
Hypothesized Mean Difference	0	
df	3	
t Stat	4.898979	
P(T<=t) one-tail	0.008138	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.016277	
t Critical two-tail	3.182446	

	g	r
Mean	3.125	2.9
Variance	0.395833	0.066667
Observations	4	4
Pearson Correlation	-0.1026	
Hypothesized Mean Difference	0	
df	3	
t Stat	0.639064	
P(T<=t) one-tail	0.284115	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.56823	
t Critical two-tail	3.182446	

	s	r
Mean	2.125	2.9
Variance	0.229167	0.066667
Observations	4	4
Pearson Correlation	-0.6742	
Hypothesized Mean Difference	0	
df	3	
t Stat	-2.27917	
P(T<=t) one-tail	0.053509	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.107017	
t Critical two-tail	3.182446	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Compensation Management mean level usage of HR Generalist is more than the mean level usage of HR Specialist

4.2 Objective 2: To analyse the Time-Cost Study of HRMS

Dependent Variables:-

SNo.	Dependent Variables	Factors for DV
1.	Time spent on recruiting	• Requisition • Prepare job description and job specification • Sourcing • Collecting responses • Short-listing & Arrange interviews • Conducting interview • Decision making
2.	Time spent on Training	• Training courses / Schedule records • Employee training history • Preparing the instructor and trainee details • Trainee performance information record
3.	Time spent for Maintaining Data	• Personal information of employee • Additional information of employee • Adding / deleting of employee data • Storing information and avoid repetition • HR daily routine work • Communication with employees
4.	Expense	• Training Expenses • Salary Expenses • Cost per hire

The above are the 4 listed dependent variables of Time Cost Study for which 'F' values will calculated for comparing the significance level. Also, the pairs mean values corresponding to the above variables have been tested for their significance using T-Test and discussed.

4.2.1. Time spent on recruiting

Differences in the mean usage of HRMS for Time spent on recruitment variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, Time spent on recruitment of employees.

The details of One-way ANOVA Summary Results of Time spent on recruitment of employees (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	7	22.5	3.214286	0.154762
HR Specialists	7	19.6	2.8	0.083333
Recruiters	7	22.8	3.257143	0.062857

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.892381	2	0.44619	4.447785	0.026936	3.554557
Within Groups	1.805714	18	0.100317			
Total	2.698095	20				

The obtain 'F' value of **4.447785** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in Time spent on recruitment process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Time spent on recruitment scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Time spent on recruitment), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3.214286	2.8
Variance	0.154762	0.083333
Observations	7	7
Hypothesized Mean Difference		0
df		11
t Stat		2.24633
P(T<=t) one-tail		0.023093
t Critical one-tail		1.795885
P(T<=t) two-tail		0.046186
t Critical two-tail		2.200985

	g	r
Mean	3.214286	3.257143
Variance	0.154762	0.062857
Observations	7	7
Hypothesized Mean Difference		0
df		10
t Stat		-0.24307
P(T<=t) one-tail		0.406434
t Critical one-tail		1.812461
P(T<=t) two-tail		0.812868
t Critical two-tail		2.228139

	s	r
Mean	2.8	3.257143
Variance	0.083333	0.062857
Observations	7	7
Hypothesized Mean Difference		0
df		12
t Stat		-3.16331
P(T<=t) one-tail		0.004085
t Critical one-tail		1.782288
P(T<=t) two-tail		0.008171
t Critical two-tail		2.178813

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For time spent on recruitment of employees' mean level usage of HR Generalist is more than the mean level usage of HR Specialist

ii)   For time spent on recruitment of employees' mean level usage of HR Specialist is more than the mean level usage of recruiter

4.2.2. Time spent on Training

Differences in the mean usage of HRMS for Time spent on Training variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, Time spent on Training.

The details of One-way ANOVA Summary Results of Time spent on Training (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	14	3.5	0.166667
HR Specialists	4	8.5	2.125	0.229167
Recruiters	4	11.2	2.8	0.026667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.781667	2	1.890833	13.42604	0.00199	4.256495
Within Groups	1.2675	9	0.140833			
Total	5.049167	11				

The obtain 'F' value of **13.42604** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the Time spent on Training.

The significant 'F' value here gives an overall significant differences of pairs of means of the Time spent on Training scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Time spent on Training), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3.5	2.125
Variance	0.166667	0.229167
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	4.370957	
P(T<=t) one-tail	0.002357	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.004714	
t Critical two-tail	2.446912	

	g	r
Mean	3.5	2.8
Variance	0.166667	0.026667
Observations	4	4
Hypothesized Mean Difference	0	
df	4	
t Stat	3.184012	
P(T<=t) one-tail	0.016703	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.033407	
t Critical two-tail	2.776445	

	s	r
Mean	2.125	2.8
Variance	0.229167	0.026667
Observations	4	4
Hypothesized Mean Difference	0	
df	4	
t Stat	-2.66904	
P(T<=t) one-tail	0.027931	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.055862	
t Critical two-tail	2.776445	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i) For Time spent on Training mean level usage of HR Generalist is more than the mean level usage of HR Specialist

ii) For Time spent on Training mean level usage of Recruiter is more than the mean level usage of HR Specialist

iii) For Time spent on Training mean level usage of HR Generalist is more than the mean level usage of Recruiter

4.2.3. Time spent for Maintaining Data

Differences in the mean usage of HRMS of Time spent for Maintaining Data variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, Time spent for Maintaining Data.

The details of One-way ANOVA Summary Results of Time spent for Maintaining Data (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	6	18	3	0.2
HR Specialists	6	17.5	2.916667	0.141667
Recruiters	6	20.8	3.466667	0.026667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.054444	2	0.527222	4.294118	0.033533	3.68232
Within Groups	1.841667	15	0.122778			
Total	2.896111	17				

The obtain 'F' value of **4.294118** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the Time spent for Maintaining Data.

The significant 'F' value here gives an overall significant differences of pairs of means of the Time spent for Maintaining Data scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Time spent for Maintaining Data), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3	2.916667
Variance	0.2	0.141667
Observations	6	6
Hypothesized Mean Difference	0	
df	10	
t Stat	0.349215	
P(T<=t) one-tail	0.367085	
t Critical one-tail	1.812461	
P(T<=t) two-tail	0.73417	
t Critical two-tail	2.228139	

	g	r
Mean	3	3.466667
Variance	0.2	0.026667
Observations	6	6
Hypothesized Mean Difference	0	
df	6	
t Stat	-2.40098	
P(T<=t) one-tail	0.026612	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.053224	
t Critical two-tail	2.446912	

	s	r
Mean	2.916667	3.466667
Variance	0.141667	0.026667
Observations	6	6
Hypothesized Mean Difference	0	
df	7	
t Stat	-3.28362	
P(T<=t) one-tail	0.00671	
t Critical one-tail	1.894579	
P(T<=t) two-tail	0.01342	
t Critical two-tail	2.364624	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Time spent for Maintaining Data mean level usage of recruiter is more than the mean level usage of HR Generalist

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4.2.4. Expense

Differences in the mean usage of HRMS in the Expense variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, Expense on HR Process.

The details of One-way ANOVA Summary Results of Expense on HR Process (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	3	10.5	3.5	0.25
HR Specialists	3	7.5	2.5	0
Recruiters	3	8.8	2.933333	0.093333

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.508889	2	0.754444	6.592233	0.030592	5.143253
Within Groups	0.686667	6	0.114444			
Total	2.195556	8				

The obtain 'F' value of **6.592233** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the Expense process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Expense on HR Process scores based on designation levels. To find out as to

which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Expense), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	r
Mean	3.5	2.933333
Variance	0.25	0.093333
Observations	3	3
Hypothesized Mean Difference	0	
df	3	
t Stat	1.67506	
P(T<=t) one-tail	0.096258	
t Critical one-tail	2.353363	
P(T<=t) two-tail	0.192516	
t Critical two-tail	3.182446	

	s	r
Mean	2.5	2.933333
Variance	0	0.093333
Observations	3	3
Hypothesized Mean Difference	0	
df	2	
t Stat	-2.45677	
P(T<=t) one-tail	0.066667	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.133333	
t Critical two-tail	4.302653	

	g	s
Mean	3.5	2.5
Variance	0.25	0
Observations	3	3
Hypothesized Mean Difference	0	
df	2	
t Stat	3.464102	
P(T<=t) one-tail	0.03709	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.07418	
t Critical two-tail	4.302653	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Expense on HR Processes the mean level usage of recruiter is more than the mean level usage of HR Generalist

4.3 Objective 3: To analyze the Decision making and Information transfer in HRMS

Dependent Variables	Factors for DV
Information for productivity	• Recruitment such as Hiring, Job Evaluation, Personnel Requirement • Training aspects such as Skills Inventory and Requirements • Placement such as Career Plans, Specific Job Requirements • Compensation aspects such as Payroll Benefits • Maintenance aspects like Employee absenteeism Tracking and turnover
Decision-Making	• Competitive advantage • Product quality • Customer services • Goal oriented and alternative solutions

4.3.1. Information for productivity

Differences in the mean usage of HRMS in the decision making through information Variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, information for productivity.

The details of One-way ANOVA Summary Results of decision making through Information (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	5	16.5	3.3	0.325
HR Specialists	5	11.5	2.3	0.2
Recruiters	5	17	3.4	0.08

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.7	2	1.85	9.173554	0.003823	3.885294
Within Groups	2.42	12	0.201667			
Total	6.12	14				

The obtain 'F' value of **9.173554** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in decision making through information variable.

The significant 'F' value here gives an overall significant differences of pairs of means of the Information scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Information), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3.3	2.3
Variance	0.325	0.2
Observations	5	5
Hypothesized Mean Difference	0	
df	8	
t Stat	3.086067	
P(T<=t) one-tail	0.007489	
t Critical one-tail	1.859548	
P(T<=t) two-tail	0.014979	
t Critical two-tail	2.306004	

	g	r
Mean	3.3	3.4
Variance	0.325	0.08
Observations	5	5
Hypothesized Mean Difference	0	
df	6	
t Stat	-0.35136	
P(T<=t) one-tail	0.368662	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.737325	
t Critical two-tail	2.446912	

	s	r
Mean	2.3	3.4
Variance	0.2	0.08
Observations	5	5
Hypothesized Mean Difference	0	
df	7	
t Stat	-4.64835	
P(T<=t) one-tail	0.001173	
t Critical one-tail	1.894579	
P(T<=t) two-tail	0.002346	
t Critical two-tail	2.364624	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Decision making through information mean level usage of Recruiter is more than the mean level usage of HR Specialist

ii)   For Decision making through information mean level usage of HR Generalist is more than the mean level usage of HR Specialist

4.3.2. Decision Making

Differences in the mean usage of HRMS in the HR process of Decision Making variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, HR processes of Decision Making.

The details of One-way ANOVA Summary Results of HR Process of Decision Making (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	14	3.5	0.166667
HR Specialists	4	10.3	2.575	0.229167
Recruiters	4	13	3.25	0.116667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.831667	2	0.915833	5.360976	0.029297	4.256495
Within Groups	1.5375	9	0.170833			
Total	3.369167	11				

The obtain 'F' value of **5.360976** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the HR processes of Decision Making process.

The significant 'F' value here gives an overall significant differences of pairs of means of the Decision Making scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Decision Making), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	s
Mean	3.5	2.575
Variance	0.166667	0.229167
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	2.940462	
P(T<=t) one-tail	0.012966	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.025932	
t Critical two-tail	2.446912	

	g	r
Mean	3.5	3.25
Variance	0.166667	0.116667
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	0.939336	
P(T<=t) one-tail	0.191908	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.383816	
t Critical two-tail	2.446912	

	s	*r*
Mean	2.575	3.25
Variance	0.229167	0.116667
Observations	4	4
Hypothesized Mean Difference	0	
df	5	
t Stat	-2.29562	
P(T<=t) one-tail	0.035077	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.070155	
t Critical two-tail	2.570582	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   For Decision Making mean level usage of HR Generalist is more than the mean level usage of HR Specialist

ii)   For Decision Making mean level usage of HR Specialist is more than the mean level usage of Recruiters

4.4. Objective 4: To analyze the employee satisfaction using HRMS

Dependent Variable	Factors of DV
Employee Satisfaction	• HR Processes • Time and Cost Savings • Information Flow • Decision Making

4.4.1. Employee Satisfaction

Differences in the mean usage of HRMS for employee satisfaction variable as per differences in designation levels of the industry professionals.

Minor Null Hypothesis: Differences in different levels of industry professionals would not account for significant differences in their means scores of their dependent variables, namely, employee satisfaction.

The details of One-way ANOVA Summary Results employee satisfaction (Dependent Variable) as Per Designation Levels of Industry Professionals are Given.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
HR Generalist	4	14.5	3.625	0.229167
HR Specialists	4	13	3.25	0.083333
Recruiters	4	11	2.75	0.09

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.541667	2	0.770833	5.745342	0.024665	4.256495
Within Groups	1.2075	9	0.134167			
Total	2.749167	11				

The obtained 'F' value of **5.745342** is significant at the 0.05 level. Therefore, the null hypothesis stated above is rejected and the alternative hypothesis is accepted. Hence, it is concluded that differences in different levels of professionals would account for significant differences in the Employee Satisfaction.

The significant 'F' value here gives an overall significant differences of pairs of means of the Employee Satisfaction scores based on designation levels. To find out as to which mean is different from which other mean in a pair of means, 't' tests for all possible pairs of means (without repetition) have been done. The means of the sub-samples of dependent variable (Employee Satisfaction), the 't' values of all possible pairs of means (without repetition) are given below with tables

T-Test: Two-Sample Assuming Unequal Variances

	g	*s*
Mean	3.625	3.25
Variance	0.229167	0.083333
Observations	4	4
Hypothesized Mean Difference	0	
df	5	
t Stat	1.341641	
P(T<=t) one-tail	0.11871	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.237419	
t Critical two-tail	2.570582	

	g	*r*
Mean	3.625	2.75
Variance	0.229167	0.09
Observations	4	4
Hypothesized Mean Difference	0	
df	5	
t Stat	3.097628	
P(T<=t) one-tail	0.013463	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.026925	
t Critical two-tail	2.570582	

	s	*r*
Mean	3.25	2.75
Variance	0.083333	0.09
Observations	4	4
Hypothesized Mean Difference	0	
df	6	
t Stat	2.401922	
P(T<=t) one-tail	0.026578	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.053155	
t Critical two-tail	2.446912	

Here g= HR Generalist, s= HR Specialist, r= Recruiter

Conclusions

i)   Employee Satisfaction mean level usage of HR Generalist is more than the mean level usage of Recruiter

ii)   Employee Satisfaction mean level usage of HR Specialist is more than the mean level usage of Recruiter

Conclusion

The analysis conducted on four different aspect related to Human Resource Management Systems resulted out in consensus of positive relation with HR processes.

Therefore, in the conclusion we can say Human Resource Management Systems are highly utilised in HR department of various organisation of India for increasing the efficiency of employees, taking less time and cost for executing same HR procedures, better decision making and flow of information can be done and employees are satisfied with the use of such software.

Recommendations

- ❖ It is recommended for organisations to provide better training to employees for operating the upgraded software.
- ❖ All the organisations should enhance the incentives for their employees for recognizing their high level usage of HRMS in various functional areas of human resource management.
- ❖ HRMS has emerged as an integrated system of application embracing areas like finance and accounts, sales and distribution, production, manufacturing, operational, customer relationship, and logistic and supply chain. Hence, complexities that exist in the present HRMS are to be removed and made easy to understand and reduce time and cost burden.
- ❖ The ERP vendors have to redesign HRIS applications with real time oriented technologies, so as to meet the requirements of the companies with less navigation part.

Future Scope of Research

HRMS is an emerging area, especially when artificial intelligence and machine learning is coming into the picture of every aspect of business. Hence, there is a wide scope for further research on analytics, artificial intelligence and machine learning in Human Resource Management Systems.

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