

A STUDY ON ROLE OPPORTUNITIES AND CHALLENGES OF USING HR ANALYTICS IN BUSINESS

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

BY

SOLOMON.S

Register No.40410170



SCHOOL OF MANAGEMENT STUDIES

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

APRIL 2022



SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

credited with "A" grade by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119

www.sathyabama.ac.in

SCHOOL OF MANAGEMENT STUDIES

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **SOLOMON.S 40410170** who carried out the project entitled "**A STUDY ON ROLE OPPORTUNITIES AND CHALLENGES OF USING HR ANALYTICS IN BUSINESS**" under my supervision from January 2022 to March 2022.

Dr.JOYCE
Internal guide

External Guide

Dr. BHUVANESWARI .G
Dean – School of Management Studies

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I **SOLOMON.S (40410170)** hereby declare that the Project Report entitled “**A STUDY ON ROLE OPPORTUNITIES AND CHALLENGES OF USING HR ANALYTICS IN BUSINESS**” done by me under the guidance of **DR JOYCE.S** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE:

PLACE:

SOLOMON.S

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my sincere thanks to **Dr. G. Bhuvaneshwari, Dean - School of Management Studies** and **Dr. A. Palani, Head - School of Management Studies** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **DR.JOYCE** for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **School of Management Studies** who were helpful in many ways for the completion of the project.

SOLOMON.S

TABLE OF CONTENT

CHAPTER NO	TITLE	PAGE NO
	ABSTRACTS	11
	LIST OF TABLE	7
	LIST OF CHARTS	9
1	INTRODUCTION	12
1.2	DEFINITION	13
1.4	TYPES OF HUMAN RESOURCES ANALYTICS	14
1.5	HR ANALYTICS REPORT (AIHR)	14
1.6	ROLES OF HUMAN RESOURCES ANALYTICS IN HUMAN RESOURCE	15
1.7	EMPLOYEE MANAGEMENT	15
1.8	PERFORMANCE MANAGEMENT	16
1.9	STATISTICS ANALYTICS	16
1.1	DEVELOP AND PROVIDES INSIGHTFUL MODELS	16
1.11	DATA PRIVACY	16
1.12	OPPORTUNITIES AND CHALLENGES OF USING HUMAN RESOURCE	17
1.13	OBJECTIVES	19
2	REVIEW OF LITERATURE	20
3	RESEARCH METHODOLOGY	22
3.2	RESEARCH DESIGN	22
3.3	SOURCES OF DATA	22

3.4	SAMPLE TECHNIQUE	22
3.5	AREA OF STUDY	22
3.6	STRUCTURE OF QUESTIONNAIRE	23
3.7	HYPOTHESIS TESTING	23
3.8	ANALYTICAL TOOL	23
3.9	INFERENCE	23
3.10	PREPARATION OF REPORT AND PREPARATION OF REPORT	23
4	DATA ANALYSIS AND INTERPRETATION	24
4.1	DATA ANALYSIS	24
4.2	PRIMARY DATA	22
4.3	SECONDARY DATA	22
4.4	TEST OF ANALYSIS	28
4.5	CHI SQUARE	44
4.6	ANOVA	43
5	FINDINGS LIMITATION AND CONCLUSION	46
5.1	FINDINGS	46
5.2	LIMITATION OF STUDY	47
5.3	CONCLUSION	47
6	REFERENCES	48
6.1	ANNEXURE 1	49
6.2	ANNEXURE 2	49

LIST OF TABLE

CHAPTER	TITLE	PAGE NO
1	AGE	23
2	GENDER	24
3	EDUCATION LEVEL	25
4	MONTHLY INCOME	26
5	HR ANALYTICS IS WELL HAVE POSITIVE IMPACTS ON THE PROGRESSION ON BUSINESS	27
6	INDICATE WHICH DATA ARE COLLECTED BY THE HR DEPARTMENT	28
7	IN WHAT WAYS CAN HR ANALYTICS HELPS IN BUSINESS	29
8	IN HR ANALYTICS IS INFLUENCING THE BUSINESS PERFORMANCE	30
9	IF THE HR ANALYTICS IS A ESSENTIAL PART OF THE BUSINESS	31
10	WHAT ARE THE FUNCTIONS ARE MEASURED IN THE HR ANALYTICS	32
11	DO YOU THINK HR ANALYTICS ARE MORE REQUIRED FOR THE BUSINESS	33
12	IF THE HR ANALYTICS WELL SOLVE EVERY CHALLENGES IN THE BUSINESS	34
13	FROM THE FOLLOWING LIST WHICH OF THE OPTION IS MOST EFFECTIVE WAYS OF PRESENTING HR ANALYTICS	35

14	IN THE BUSINESS HR ANALYTICS PLATFORMS DELIVERS SACTIONABLE INSIGHTS	36
15	WHAT ARE THE FOUR KINDS OF THE HR ANALYTICS TO GET INSIGHTS ABOUT A COMPANY IS WORK FORCE	37
16	DID YOU AGREE THE TERMS ANALYTICS IS CHANGING THE HR WORLD	38
17	ORGANIZATION HAS TO CONCENTRATE ON HR ANALYTICS	39
18	DO YOU AGREE HR ANALYTICS IS THE RESPONSIBILITIES FOR THE HR ANALYTICS IN BUSINESS	40
19	GIVE YOU RATING FOR HOW THE HR ANALYTICS ARE USEFULL IN THE BUSINESS	41

LIST OF CHARTS

CHAPTER	TITLE	PAGE NO
1	AGE	23
2	GENDER	24
3	EDUCATION LEVEL	25
4	MONTHLY INCOME	26
5	HR ANALYTICS IS WELL HAVE POSITIVE IMPACTS ON THE PROGRESSION ON BUSINESS	27
6	INDICATE WHICH DATA ARE COLLECTED BY THE HR DEPARTMENT	28
7	IN WHAT WAYS CAN HR ANALYTICS HELPS IN BUSINESS	29
8	IN HR ANALYTICS IS INFLUENCING THE BUSINESS PERFORMANCE	30
9	IF THE HR ANALYTICS IS A ESSENTIAL PART OF THE BUSINESS	31
10	WHAT ARE THE FUNCTIONS ARE MEASURED IN THE HR ANALYTICS	32
11	DO YOU THINK HR ANALYTICS ARE MORE REQUIRED FOR THE BUSINESS	33
12	IF THE HR ANALYTICS WELL SOLVE EVERY CHALLENGES IN THE BUSINESS	34
13	FROM THE FOLLOWING LIST WHICH OF THE OPTION IS MOST EFFECTIVE WAYS OF PRESENTING HR ANALYTICS	35

14	IN THE BUSINESS HR ANALYTICS PLATFORMS DELIVERS SACTIONABLE INSIGHTS	36
15	WHAT ARE THE FOUR KINDS OF THE HR ANALYTICS TO GET INSIGHTS ABOUT A COMPANY IS WORK FORCE	37
16	DID YOU AGREE THE TERMS ANALYTICS IS CHANGING THE HR WORLD	38
17	ORGANIZATION HAS TO CONCENTRATE ON HR ANALYTICS	39
18	DO YOU AGREE HR ANALYTICS IS THE RESPONSIBILITIES FOR THE HR ANALYTICS IN BUSINESS	40
19	GIVE YOU RATING FOR HOW THE HR ANALYTICS ARE USEFULL IN THE BUSINESS	41

ABSTRACT

HR Analytics act as a tool which is a combination of statistical techniques that enable collection, interpretation, measurement, and forecasting of data. HR analytics enlightens solution to the organizational problems and make accurate decisions. HR analytics hence aligns HR strategy with overall business strategy to obtain a competitive advantage. HR analytics has passed through phases of measuring the Sub HR functions.

HR Analytics provides various opportunities to business as it forecasts workforce requirements, enables HR to achieve corporate goals, and improve organizational performance which helps businesses in finding success. Despite the success, the business faces some big challenges like data governance, skill gap among employees, top management support, and many other such challenges in implementing and using the HR Analytics tool in business.

Various research scholars have discussed HR analytics from so many years. So many papers have come focusing on the conceptual part of HR analytics, past present and future scenario of HR analytics, acceptance of HR analytics in organizations, the extent of its utility, rise of HR analytics, and various other related studies. This paper aims to find out the challenges and opportunities faced by the business firm in implementing HR analytics as a tool in organizations. This study also gives the theoretical concept of HR analytics based on secondary data collected from previous research papers, journal of the year 2016- 2019 given by various research scholars, blogs, and websites that provide HR analytics recent data. The study will provide the pros and cons of implementing and using HR analytics.

CHAPTER – 1

INTRODUCTION

Human resource management is aligned towards investing all the tools & techniques, practices & strategies and approaches & measures to understand the performance of employers and employees who work together to achieve organizational goals. Humans are important resources for any organization.

Human resources act as a very important aspect as the human resource department results in prosperous organizational performances through forming a connection between HR actions and business results. Every function of any organization plays an important role as their results can be analyzed easily, only the human resource function of any organization was lacking behind due to its dependency on metrics and scorecards of data which can be quantified. Most of the data could not be quantified due to its qualitative nature in human resource function. But now human resources are forwarding itself towards understanding how people are affecting the organization with improvement in technologies. As organizations have large amounts of HR data it becomes difficult to collect and analyze it.

During the last few years, the organization has shown huge growth especially in the era of the 21st century that too in-service sector. There has been development of new advanced practices and technologies in industries as they are growing very fast. The development and new practices have shown improvement in the working of organizations and these organizations are showing growth effectively and efficiently. Organizations are working to improve competitive advantages. Businesses are showing tremendous adoption of such technologies and practices which can help in retaining utilizing the HRD as human resource management plays a very important role in any organization. It is the only function of an organization that plays an important part in its people. HRM prospects all the tools, practices, approaches, principles, and forms guidelines for the employer and employee's behavior so that they can come and work together to achieve competitive organizational goals. With an understanding of how important HRD is for any organization, these organizations are working towards the adoption of such technologies which can enhance their working. Only HR Function was lacking behind due to its dependency on metrics and scorecards of data which can be quantified, most of the HR data could not be quantified due to its qualitative nature, and analysis of HR data was mostly dependent on instincts. But now HR is forwarding itself towards understanding how people are affecting the organization. There has been an evolution of HR analytics in the organization to quantify the qualitative data too. HR analytics helps in gathering, interpreting, and measuring of HR data. HR analytics provides up-to-date and accurate data along with providing better future

decisions.

DEFINITION:

- HR analytics is a methodology that uses statistical tools and techniques to unify and evaluate employees quantitative and qualitative data that helps in bringing out meaningful insights to develop better future decision making.
- HR analytics is an experimental approach that uses software and method based on HR metrics to provide reliable and justifiable human capital results impact effectively and efficiently.
- HR analytics is a data-driven framework that understands and evaluates the relationship between workforce problems and employee's performance by driving new insights through existing insights.
- HR Analytics is HRM innovation enabled by companies to analyses HR data, processes, human capital statically for making data-driven decision making and ignoring the process of gut feeling. This tool helps in making better decisions and testing the effectiveness of the HR department towards business goals. HRIS has provided a way to HR analytics to grow and develop as it includes some limited analytics solutions within its system.

EVOLUTION:

- As organizations were raising globally, they have a large amount of data in each function. The Organization uses analytics in all of its functions but HR was lacking behind, so due to difficulty in collecting and analyzing HR data it becomes a necessity for the evolution of HR analytics.
- In 1959 E.T. Rennese explained a theory given by Barney namely "Resource-Based View Theory". This theory explained that to achieve a competitive advantage in an organization there is a need to understand the relationship between HRM and Business strategy. Barney also stated VRIO i.e., Valuable, Rare, Inimitable, and Organized framework which was later criticized by scholars as this theory included only human capital and accordingly human capital cannot create any competitive advantage.
- In the 1970s HRM-related issues were analyzed and how to use HR metrics and scorecard to measure HR data were discussed.
- In 1988 Baird and Meshoulam explained the relationship between three important aspects of any organization i.e., HR policies, organization life cycle, and business challenges within the organization. They also explained vertical and horizontal fit which explains how collaborations of the HR function with other functions and HR sub functions helps in achieving organizational objectives.
- In the 1990s organizations found that to achieve objectives and goals of any organization to create a competitive advantage it is important to value employees and they started viewing their employees as material resources.

During the first half of the 2000s, various new tools and techniques were introduced to measure the impact of HR activities and practices on organizational performances such as HR scorecards or workforce scorecards. Later in mid of 2000, there was the exposure of HR accounting and utility analysis which later showed a shift towards the development of a more scientific and evidence-based approach to HR.

- In 2002 Oakland A found more advanced perceptive use of metrics and based on this experiment Lewis in 2003 found a concept called “Moneyball Concept” which showed growth on a large scale in 2006. In 2009 GOOGLE worked on finding out the best competent traits that are needed to be an effective manager and doing this Google developed “Project Oxygen” which brought a tremendous shift from traditional HR measurements to HR analytics. Google also highlighted the benefits of using HR analytics in organizational performances.
- Since then HR analytics has received a certain amount of attention but still, it has not reached its final stage. Researchers on HR analytics recently have been started which mainly focuses on the use of HR analytics, it was a decision support tool, the capability of this tool, or awareness of HR analytics. HR analytics is developed after the development of big data and now it uses a large amount of HR data to provide the organization with decision making.

TYPES OF HUMAN RESOURCE ANALYTICS

- Gartner’s model has described various kinds of depth levels HR analytics includes which are discussed below:
- Descriptive: it explains “What” of HR data. It interprets the historical data to analyses results.
- It includes key performance indicators and dashboards to explain the data.
- Diagnostic: it explains the “Why” of HR data. It gives a deeper analysis of descriptive data.
- Predictive: it explains “What will” of HR data. It uses statistical modeling to predict results. It explains the trend that would occur in the future.
- Prescriptive: it guides to understand the HR data and provide evidence-based results. It uses simulation and optimization techniques.

HR ANALYTICS REPORT (AIHR)

1. Bright 2016

- 81% of developed analytical organizations report at least one HR analytics project with proven business impact.
- 65% of developed analytical organizations have Business Partners and HR

managers who can explain analytical outcomes and translate them into clear actions, versus 35% of starting analytical organizations.

- 87% of front runners report analytics to be part of the HR roles description

Almost half of starting organizations indicate they have no analytical professionals with statistical knowledge HR analytical maturity goes hand in hand with HR reporting maturity

2. NTM 2016

- 87% of front runners report high data quality
- 31% of organizations report poor data quality as the biggest data challenge to conduct analytics
- 77% of organizations report dispersed data across multiple HR systems as their main challenge to analytics

3. Rosslyn, 2017

Only 20% report a lack of skills to analyze data as their biggest challenge for conducting people analytics. 60% report data problem as their biggest challenge

4. Bersin, 2017 69% of companies are integrating data to build a People Analytics database

ROLE OF HUMAN RESOURCE ANALYTICS IN HUMAN RESOURCE

HR analytics plays a significant role in human resources. Using analytical techniques HR functions can grow at a faster pace and can have evidence-based decision making. HR analytics gathers, assess previous information which provides organizations with positive and negative trends. It evaluates the organizational performances against its competitors easily. HR analytics plays a major role in workforce planning, competitive advantage, employee acquisition to employee retention, leveraging data, developing insights and models for organization, helps in performance management, data manipulation, selecting suitable modeling techniques, and others. Some of the key roles of analytics in Human Resources are discussed below

EMPLOYEE MANAGEMENT

Human resource analytics plays an important role in managing employees of the business. This tool stores relevant data of employees profiles including experiences, skillset, knowledge etc. It includes data that help the HR department in the hiring process as it analyses resumes and other relevant details using various metrics. HR

analytics evaluates the reason for the increase or decrease in attrition rates of organizations. This keeps records of employee or job satisfaction, job involvement, years in the role, and every other relevant information about the employee.

PERFORMANCE MANAGEMENT

HR analytics helps in building a road map to evaluate the performance of employees as it can provide high and low-performance indicators. HR analytics provides current performance, and improvements required in their performance for development. This provides what and how of employees performance.

STATISTICAL ANALYSIS

The information collected through the use of HR analytics is collected to analyze data. Hr analytic help in data integration and provide input-output analyses related to employees, costbenefit, social-networking analysis can be evaluated through using statistical analysis of hr analytics. This tool also helps in providing satisfaction, performance of employee's evaluation. This plays a significant role in project planning and utilization and also provides communicationand interaction schemes. For example:risk level attrition can be evaluated through HR analytics.

DEVELOP AND PROVIDES INSIGHTFUL MODELS

HR analytics tool uses statistical measures that help in leveraging data to show an impact on theorganization. This creates models that provide visual insights to identify the performance gaps, factors boosting or decreasing productivity etc.

DATA PRIVACY

Privacy of any data is of utmost importance for any organization to protect itself from threats.HR analytics maintains and stores a huge amount of data with security. Data can not be manipulated and unauthorized use of data is not possible if an organizationuses HR analytics.

OPPORTUNITIES AND CHALLENGES OF USING HUMAN RESOURCE

ANALYTICS IN BUSINESS:

OPPORTUNITIES:

Opportunities include the favorable scope of something. Here when we talk about opportunities of HR analytics, we mean the favorable scope or outcome that may arise from using this tool. HR analytics has got various opportunities which are found by the organization while using or implementing this tool. Here are some opportunities for using and implementing HR analytics which are listed below.

1. Better organizational performance
2. Competitive advantage
3. HR as a true strategic leader
4. Find the reason for Attrition
5. Prioritize HR investments and actions

Opportunities for Using HR Analytics in Business:

1. Better organizational performance:

HR analytics enables businesses in a better understanding of the workforce and building trust among employees resulting in employee's performance improvement. This enables organizational performance improvement.

2. Competitive Advantage:

HR analytics enables HR professionals and managers to make data-driven decisions and influences the way the HR function of an organization is managed. It manages the organization by linking HR function to organizational objectives. HR analytics allows strategic decision making leading to competitive advantage by performing better in financial and operational measures.

3. HR as a True Strategic Leader:

HR analytics helps businesses to communicate good decisions within the organization. The decisions are analyzed through tactical and strategic alliances i.e., decisions are now not based on predictions. It allows the HR department to act as a strategic leader as it provides meaningful insights.

4. Find the Reason for Attrition:

As HR function focuses on planning, recruiting, training and retaining of employees. Business focuses on the satisfaction and health of its employees to gain organizational objectives effectively and efficiently. HR analytics enables organizations to know the reason for the attrition of employees. Organizations do invest in retaining valuable

employees and reduce the attrition rate.

5. Prioritize HR Investments and Actions:

HR analytics has enabled the HR department in a dynamic shift from the traditional system to the tactical and strategic system to shape and improve organizations. This has helped in bridging the gap of HR function role in the organization. Previously HR function was lacking behind due to the non-availability of analytics techniques to evaluate results. Thus, HR analytics has enabled HR in prioritizing in investments and actions.

Challenges of Using HR Analytics in Business

1. Data quality issue
2. Data governance
3. Top management support
4. Skill gap

1. Data quality issue

HR analytics faces data quality issues as organizations have a huge amount of data which is not easy to collect, generate, and store easily. Data collected may have missing attributes or wrong attributes due to the lack of inaccurate data given by employees. There may be availability of duplicate data or data may get affected while transferring it from one source to another. The HR analytics tool generates results based on the availability of data but if they have data quality issues then the result may not be provide expected.

2. Data governance

Organisation lacks data governance while using the HR analytics tool. Data governance states the legality and ethicality of data. It states that data used by the business should use ethically and legally. And when businesses use HR analytics tools it may hinder data governance as it uses modern ways and techniques to collect and interpret a large amount of data for making data-driven decisions.

3. Top management support

HR analytics lacks support of top management of business. As management is going through the traditional process for many years so businesses found it difficult to get their support in investing in such tools in an organization that collects and analyses employee-related data. The top management will ask for a greater return in investment to build a strong HR analytics.

4. Skill gap

HR analytics requires analytical, understanding, and explaining business and business environment, quantitative analysis, psychometrics skills, relevant laws, and many other such skills to use this tool efficiently and effectively. HR analytics can be conducted only by those who have the required knowledge and skills and can develop contextual insights to provide relevant results to perform analytics. Otherwise, HR analytics may damage business.

OBJECTIVE

- Primary objectives:

To study the role opportunities and challenges of using HR analytics in business

- Secondary objectives:

1. To study, how the human resource analytics are being used in the business.
2. To understand how to select and identify the characteristics of high performing job applicants for the business.
3. To analyse the high value career path and leadership candidate for the business.
4. To reduce the rate of employee reduction in business.

CHAPTER -2

REVIEW OF LITERATURE

- **Boudreau and Ramstad (2004) as in Levenson (2005)** - HR Analytics is about statistics and research design, but it goes beyond them, to include identifying and articulating meaningful questions, gathering and using appropriate data from within and outside the HR function, setting the appropriate standards for rigor and relevance, and enhancing the analytical competencies of HR throughout the organization.
- **Kapoor and Sherif (2012)** - HR analytics means managing key HR related data and documents in order to analyze the gathered data using business analytics models and disseminate the analyzed results to decision makers for making appropriate decisions.
- **Dooren, (2012) as in Lochab et al. (2018)** - A methodology for understanding and evaluating the causal relationship between HR practices and organizational performance outcomes (such as customer satisfaction, sales or profit etc.), and for providing legitimate and reliable foundations for human capital decisions for the purpose of influencing the business strategy and performance, by applying statistical techniques and experimental approaches based on metrics of efficiency, effectiveness and impact
- **Vihari and Rao (2013) as in Ben-Gal (2018)** - The application of sophisticated data mining and business analytics techniques to the field of HR
- **Jain and Nagar (2015)** - A mixture of quantitative and qualitative data and information that derives important insights which help to support in making decisions by the management
- **Bhattacharyya (2017)** - The application of analytic logic for the HRM function
- **Reddy and Lakshmikeerthi (2017)** - Evidence-based HR (EBHR) is a decision-making process combining critical thinking with the use of the best available scientific evidences and business information. It uses data, analyses and research to understand the connection between people management practices and business outcomes, such as profitability, customer satisfaction and quality
- **Kiran et al (2018)** - HR Analytics means providing a data driven framework for solving business problems using existing information to drive new insights. It is about smart decision making, delivered with the combination of software hardware and methodologies that applies statistical models to work related data, allowing business leaders to optimize human resource management
- **Jabir et al. (2019)** - HR analytics is about analyzing and understanding how and why things happen, produces alerts about what the next best action is, and make interpretation about what the best and the worst are that can happen based on the analyzed data

- In paper A Study on the Acceptance of HR Analytics in Organisations by Lije George and **T. J. Kamalanabhan, 2016** states that the popularity of business analytics can also be seen in the growth of the business analytics software market which was valued as \$40 million worldwide with a growth rate of 6.5%
- Global HR analytics market to grow by 12% by **Anushree Sharma** on People Matters states the report Outlook on the World HR Analytics Market, 2019-2025 estimates around 12 percent growth at CAGR in the global HR analytics market by 2019-2025

CHAPTER-3

RESEARCH METHODOLOGY

3.1 RESEARCH METHODOLOGY

Research methodology is mainly needed for the purpose of framing the research process and the design and tools that are to be used for the project. Research methodology is framed for the purpose of finding the role, opportunities and challenges of using hr analytics in business

3.2 RESEARCH DESIGN

The research design is used in this is descriptive research design. Descriptive research design is a scientific method which involves observing and describing the behavior of subject without influencing it in any way. The Main characteristic of this method is that the researcher has no control of variable's, we can report only what has happened or what is happening.

- **SOURCE OF DATA PRIMARY DATA**

Questionnaire method have been used as a tool for a data collection in this research

- **SECONDARY DATA**

Secondary data describes the data that is already available. They Refer to the data which has already been collected and analyzed by someone else. The secondary data for the study was collected from company website, employees, magazines and other sources.

3.3 SAMPLE TECHNIQUE

Sampling Method used here was non probability sampling method. Responses were collected from all.

3.4 AREA OF THE STUDY

SAMPLE SIZE: 100

SAMPLE TYPE: Nonprobability
sampling

SAMPLE LOCATION: Chennai

PERIOD OF STUDY:

This is one time research where the research is conducted only one time and that project is based on the responses derived from definite period of time. The period of study for the project is about three month period offline.

3.5 STRUCTURE OF QUESTIONNAIRE

Questionnaire was divided into two sections

First part was designed to know the general information about the person and the second part contained the respondents opinion about the HR analytics.

Multiple choice

Question check box

Question linear

Scaling question

3.6 HYPOTHESIS TESTING

H₀— Null hypothesis (there is no significant relationship between the variables)

H_a – Alternative hypothesis (there is significant relationship between the variables)

After analyzing the data, hypothesis testing is done. It will result in either accepting or rejecting the hypothesis.

3.7 ANALYTICAL TOOL

The following are the tools used in the study

1. Chi square
2. Correlation

3.8 INFERENCE

After testing the hypothesis, the researcher comes out with his conclusion. The explanation of theory can also be considered as Inference.

3.9 PREPARATION OF REPORT AND PRESENTATION OF REPORT

Finally, the researcher has to prepare a final report along with conclusion and suggestion

CHAPTER-4

DATA ANALYSIS

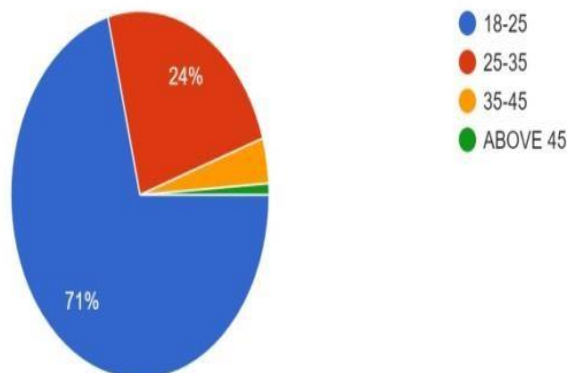
4.1 NO OF RESPONDENTS AGE

AGE	NO.OF RESPONDENTS	PERCENTAGE
18-25	71	71
25-35	24	24
35-45	4	4
ABOVE 45	1	1
TOTAL	100	100

SOURCE: primary data

4.1 CHART

AGE
100 responses



INTERPRETATION:

from the above table it is interpreted that 24 % from the category of 25-35
4% from the category of 35-45 1% from the category of above 45

INFERENCE:

Here the Majority of the respondent are from the category of 18-25 age

4.2 NO OF RESPONDENTS OF GENDER

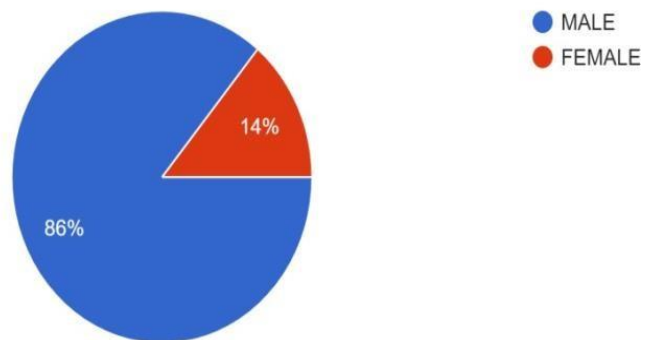
GENDER	NO.OF RESPONDENTS	PERCENTAGE
MALE	86	86%
FEMALE	14	14%
TOTAL	100	100

SOURCE: primary data

4.2 CHART

GENDER

100 responses



INTERPRETATION:

From the above table it is interpreted that 14% from the category of female

INFERENCE:

Here the majority of the respondent are from the category of male

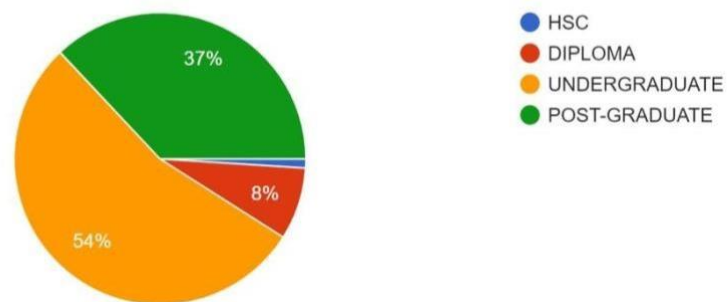
4.3 EDUCATION LEVEL

EDUCATION	NO.OF RESPONSE	PERCENTAGE
HSC	1	1
DIPLOMA	8	8
UG	54	54
PG	37	37
TOTAL	100	100

SOURCE: primary data

4.3 CHART

EDUCATION LEVEL
100 responses



INTERPRETATION

from the above table it is interpreted that 1% from the category of HSC 8% from the category of DIPLOMA 37% from the Category of PG

INFERENCE

Here the majority of the respondent are from the category of UG

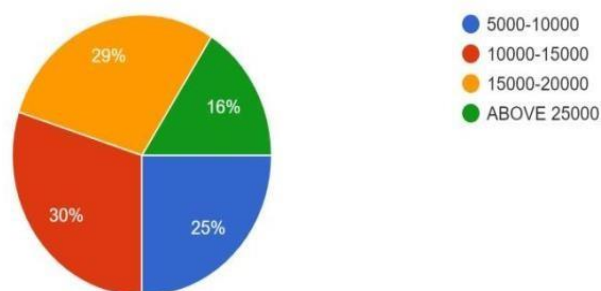
4.4 NO OF RESPONDENTS MONTHLY INCOME

MONTHLY INCOME	NO OF RESPONSE	PERCENTAGE
5000-10000	25	25
10000-15000	30	30
15000-20000	29	29
ABOVE 25000	16	16
TOTAL	100	100

SOURCE: primary data

4.4 CHART

MONTHLY INCOME?
100 responses



INTERPRETATION:

from the above table it is interpreted that 16% from the category of above 25000
25% from the category of 5000-10000 29% from the category of 15000-20000

INFERENCE

Here the majority of the respondent are from the category of 1000-15000

4.5 HR ANALYTICS IS WELL HAVE POSITIVE IMPACT ON THEPROGRESSION ON BUSINESS?

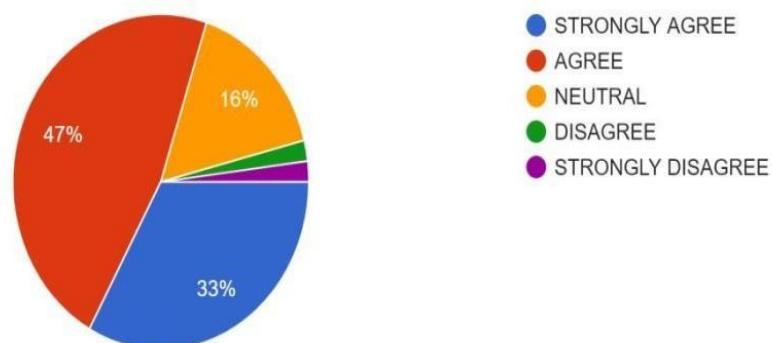
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	33	33
AGREE	47	47
NEUTRAL	16	16
DISAGREE	2	2
STRONGLY DISAGREE	2	2
TOTAL	100	100

SOURCE: primary data

4.5 CHART

HR ANALYTICS IS WELL HAVE POSITIVE IMPACT ON THE PROGRESSION ON BUSINESS?

100 responses



INTERPRETATION

From the above table it is interpreted that 2% from the category of disagree 2% from the category of strongly disagree 16% from the category of neutral

INFERENCE

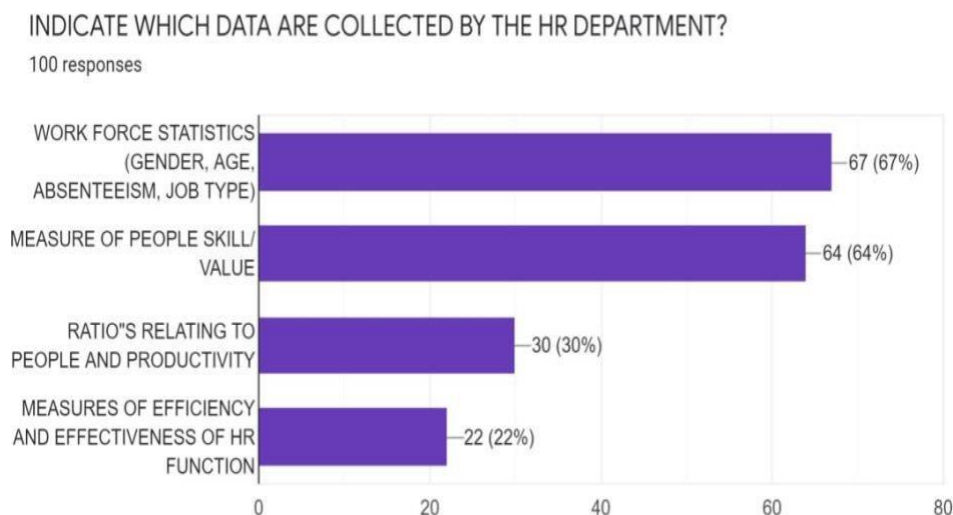
Here the majority of the respondent from the category of agree

4.6 INDICATE WHICH DATA ARE COLLECTED BY THE HR DEPARTMENT?

PARTICULARS	No of RESPONSE	PERCENTAGE
WORK FORCE STATISTICS	67	67
MEASURE OF PEOPLE SKILLS / VALUE	64	64
RATIO RELATING TO PEOPLE AND PRODUCTIVITY	30	30
MEASURE OF EFFICIENCY AND EFFECTIVENESS OF HR FUNCTION	22	22
TOTAL	100	100

SOURCE: primary data

4.6 chart



INTERPRETATION

From the table 22% from the category of measure of efficiency and effectiveness of hr function 30% from the category of ratio relating to people and productivity 64% from the category of measure of people skill/value

INFERENCE

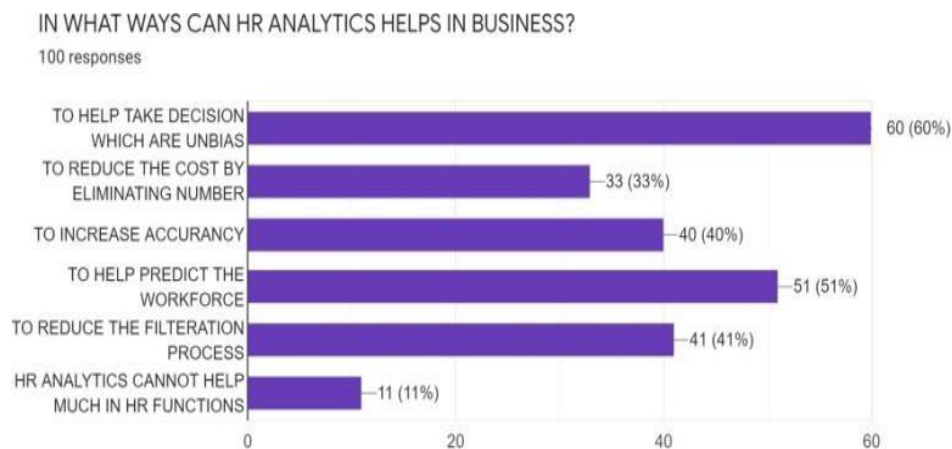
Here the majority of the respondent from the category of work force statistics

4.7 IN WHAT WAYS CAN HR ANALYTICS HELPS IN BUSINESS?

PARTICULARS	NO OF RESPONSE	PERCENTAGE
TO HELP TAKE DECISION WHICH ARE UNBIAS	60	60
TO REDUCE THE COST BY ELIMINATING NUMBER	33	33
TO INCREASE ACCURACY	40	40
TO HELP PREDICT THE WORK FORCE	51	51
TO REDUCE THE FILTERATION PROCESS	41	41
HR ANALYTICS CANNOT HELP MUCH IN HR FUNCTION	11	11
TOTAL	100	100

SOURCE: primary data

4.7 chart



INTERPRETATION

From the table 11% from the category of hr analytics cannot help much in hr functions 33% from the category of to reduce the cost by eliminating number 40% from the category of to increase accuracy 41% from the category of to reduce the filtration process 51% from the category of to help predict the work force

INFERENCE

Here the majority of the respondent from the category of to help take decision which are unbiased

4.8 IF HR ANALYTICS IS INFLUENCING THE BUSINESS PERFORMANCE ?

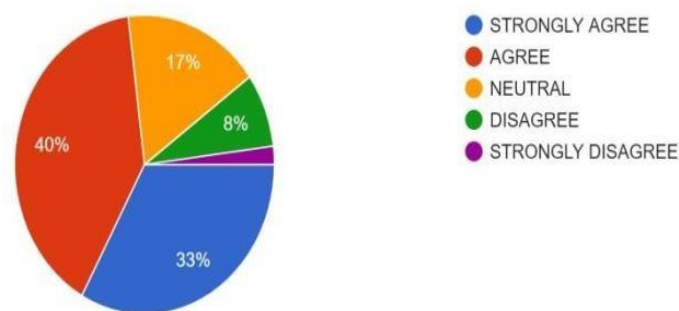
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	33	33
AGREE	40	40
NEUTRAL	17	17
DISAGREE	8	8
STRONGLY DISAGREE	2	2
TOTAL	100	100

SOURCE: primary data

4.8 CHART

IF HR ANALYTICS IS INFLUENCING THE BUSINESS PERFORMANCE ?

100 responses



INTERPRETATION

- 2% from the category of strongly disagree
- 8% from the category of disagree
- 17% from the category of neutral
- 33% from the category of strongly agree

INFERENCE

Here the majority of the respondent from the category of agree

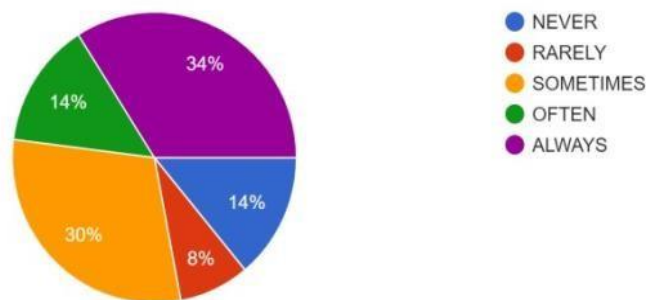
4.9 IF THE HR ANALYTICS IS AN ESSENTIAL PART OF THE BUSINESS?

PARTICULARS	NO OF RESPONSE	PERCENTAGE
NEVER	14	14
RARELY	8	8
SOMETIMES	30	30
OFTEN	14	14
ALWAYS	34	34
TOTAL	100	100

SOURCE: primary data

4.9 CHART

IF THE HR ANALYTICS IS AN ESSENTIAL PART OF THE BUSINESS?
100 responses



INTERPRETATION

8% from the category of rarely 14% from the category of often & never 30% from the category of sometimes 34% from the category of always

INFERENCE

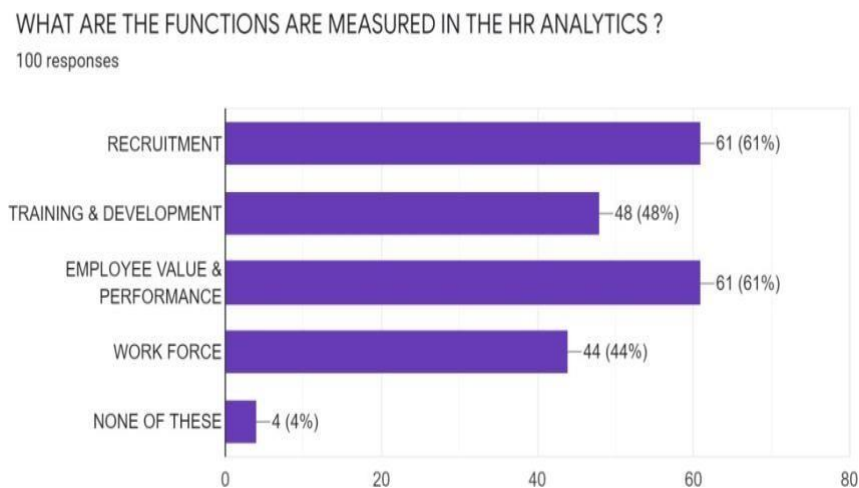
Here the majority of the respondent from the category of never

4.10 WHAT ARE THE FUNCTIONS ARE MEASURED IN THE HRANALYTICS ?

PARTICULAR	NO OF RESPONSE	PERCENTAGE
RECRUITMENT	61	61
TRAINING&DEVELOPMENT	48	48
EMPLOYEE VALUE & PERFORMANCE	61	61
WORK FORCE	44	44
NONE OF THESE	4	4
TOTAL	100	100

SOURCE: primary data

4.10 CHART



INTERPRETATION

- 4% from the category of none of these
- 44% from the category of work force
- 48% from the category of training & development

INFERENCE

Here the majority of the respondent from the category of recruitment & employee value & performance

4.11 DO YOU THINK HR ANALYTICS ARE MORE REQUIRED FOR THE BUSINESS ?

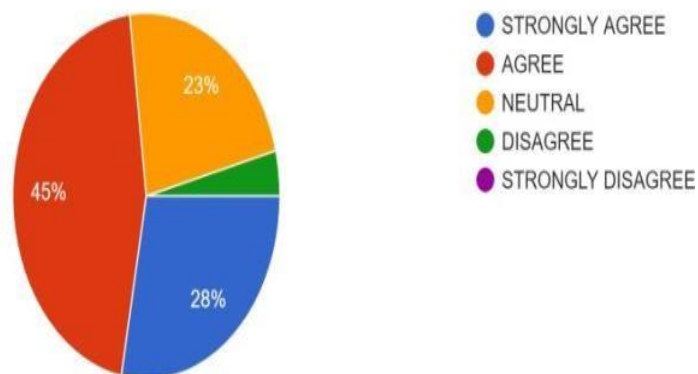
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	28	28
AGREE	45	45
NEUTRAL	23	23
DISAGREE	4	4
STRONGLY DISAGREE	0	0
TOTAL	100	100

SOURCE: primary data

4.11 CHART

DO YOU THINK HR ANALYTICS ARE MORE REQUIRED FOR THE BUSINESS ?

100 responses



INTERPRETATION

- 0% from the category of strongly disagree
- 4% from the category of disagree
- 23% from the category of neutral
- 28% from the category of strongly agree

INFERENCE

Here the majority of the respondent from the category of recruitment & employee value & performance

4.12 IF THE HR ANALYTICS WELL SOLVE EVERY CHALLENGES IN THE BUSINESS?

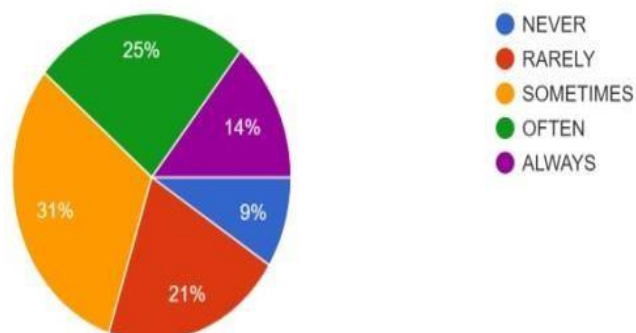
PARTICULARS	RESPONSE	PERCENTAGE
NEVER	9	9
RARELY	21	21
SOMETIMES	31	31
OFTEN	25	25
ALWAYS	14	14
TOTAL	100	100

SOURCE: PRIMARY DATA

4.12 CHART

IF THE HR ANALYTICS WELL SOLVE EVERY CHALLENGES IN THE BUSINESS?

100 responses



INTERPRETATION

- 9% from the category of never
- 14% from the category of always
- 21% from the category of rarely
- 25% from the category of often

INFERENCE

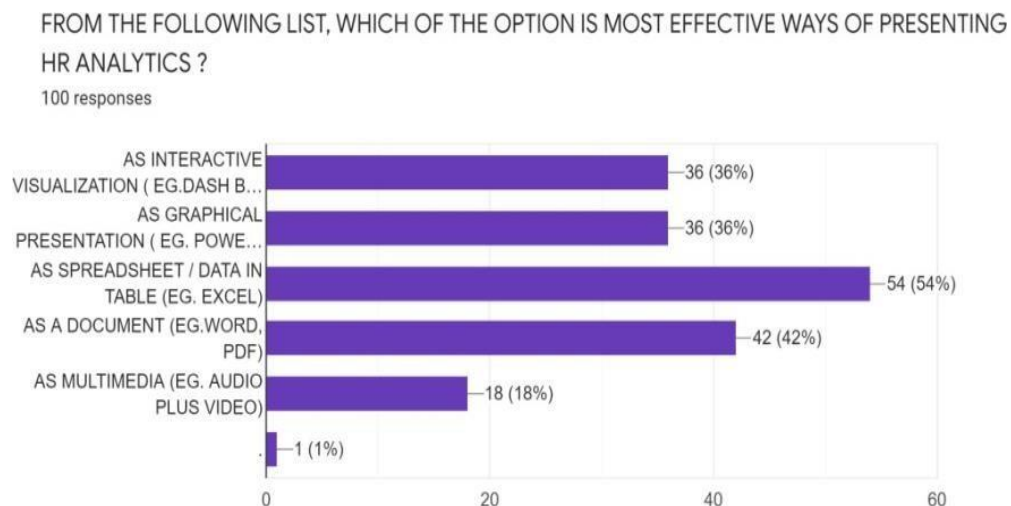
Here the majority of the respondent from the category of sometimes

4.13 FROM THE FOLLOWING LIST, WHICH OF THE OPTION IS MOST EFFECTIVE WAYS OF PRESENTING HR ANALYTICS ?

PARTICULARS	NO OF RESPONSE	PERCENTAGE
AS INTERACTIVE	36	36
AS GRAPHICAL	36	36
AS SPREAD SHEET/DATA IN TABLE	54	54
AS A DOCUMENT	42	42
AS MULTIMEDIA	18	18
TOTAL	100	100

SOURCE: PRIMARY DATA

4.13 CHART



INTERPRETATION

18% from the category of multimedia 36% from the category of as interactive & as graphical 42% from the category of as a document

INFERENCE

Here the majority of the respondent from the category of as spread sheet/ data in table

4.14 IN THE BUSINESS, HR ANALYTICS PLATFORM DELIVERS ACTIONABLE INSIGHTS ?

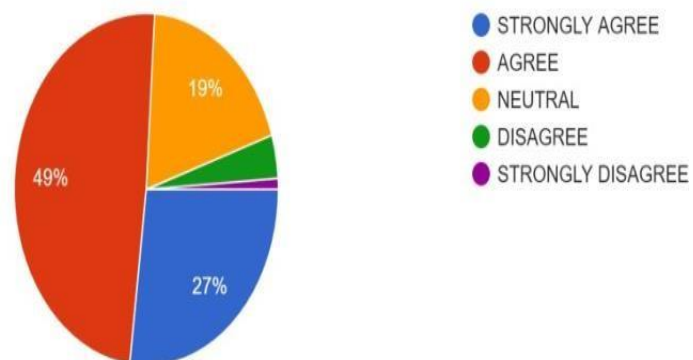
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	27	27
AGREE	40	40
NEUTRAL	19	19
DISAGREE	4	4
STRONGLY DISAGREE	1	1
TOTAL	100	100

SOURCE: PRIMARY DATA

4.14 CHART

IN THE BUSINESS, HR ANALYTICS PLATFORM DELIVERS ACTIONABLE INSIGHTS ?

100 responses



INTERPRETATION

- 1% from the category of strongly disagree
- 4% from the category of disagree
- 19% from the category of neutral
- 27% from the category of strongly agree

INFERENCE

Here the majority of the respondent from the category of agree

4.15 WHAT ARE THE FOUR KINDS OF HR ANALYTICS TO GET INSIGHTS ABOUT A COMPANY'S WORK FORCE?

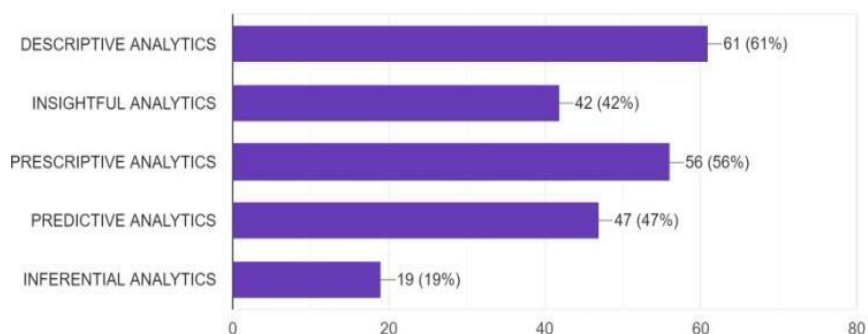
PARTICULARS	NO OF RESPONSE	PERCENTAGE
DESCRIPTIVE ANALYTICS	61	61
INSIGHTFUL ANALYTICS	42	42
PRESCRIPTIVE ANALYTICS	58	58
PREDICTIVE ANALYTICS	47	47
INFERENTIAL ANALYTICS	19	19
TOTAL	100	100

SOURCE: PRIMARY DATA

4.15 CHART

WHAT ARE THE FOUR KINDS OF HR ANALYTICS TO GET INSIGHTS ABOUT A COMPANY'S WORK FORCE?

100 responses



INTERPRETATION

- 19% from the category of inferential analytics
- 42% from the category of insightful analytics
- 47% from the category of predictive analytics
- 58% from the category pf prescriptive analytics

INFERENCE

Here the majority of the respondent from the category of descriptive analytics

4.16 DID YOU AGREE THE TERM "ANALYTICS" IS CHANGING THE HR WORLD?

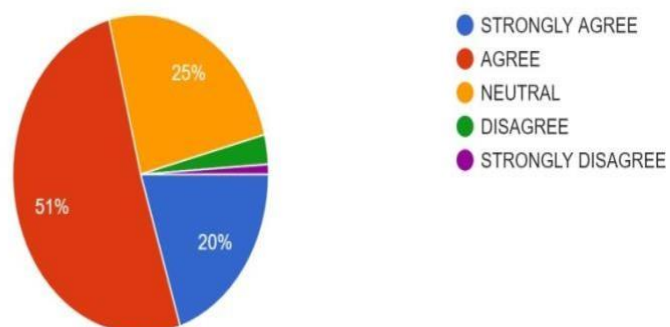
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	20	20
AGREE	51	51
NEUTRAL	25	25
DISAGREE	3	3
STRONGLY DISAGREE	1	1
TOTAL	100	100

SOURCE: PRIMARY DATA

4.16 CHART

DID YOU AGREE THE TERM "ANALYTICS" IS CHANGING THE HR WORLD?

100 responses



INTERPRETATION

- 1% from the category of strongly disagree
- 3% from the category of disagree
- 20% from the category of strongly agree
- 25% from the category of neutral

INFERENCE

Here the majority of the respondent from the category of agree

4.17 ORGANIZATION HAS TO CONCENTRATE ON HR ANALYTICS

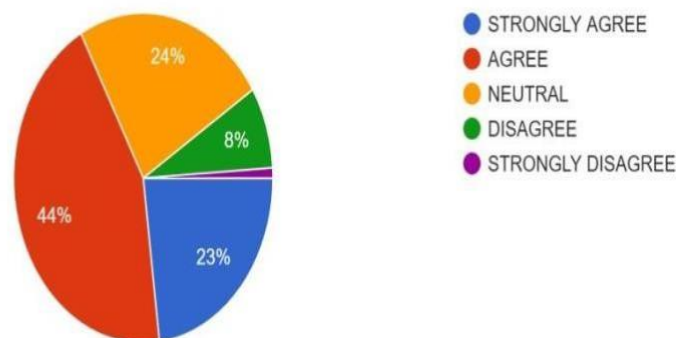
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	23	23
AGREE	44	44
NEUTRAL	24	24
PARTICULARS	8	8
STRONGLY AGREE	1	1
TOTAL	100	100

SOURCE: PRIMARY DATA

4.17 CHART

ORGANIZATION HAS TO CONCENTRATE ON HR ANALYTICS?

100 responses



INTERPRETATION

- 1% from the category of strongly disagree
- 8% from the category of disagree
- 23% from the category of strongly agree
- 24% from the category of neutral

INFERENCE

Here the majority of the respondent from the category of agree

4.18 DO YOU AGREE HR ANALYST IS THE RESPONSIBLE FOR THE HR ANALYTICS IN BUSINESS?

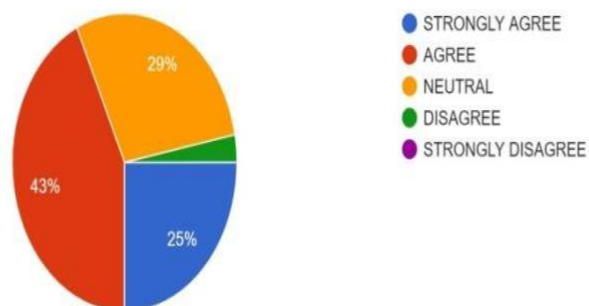
PARTICULARS	NO OF RESPONSE	PERCENTAGE
STRONGLY AGREE	25	25
AGREE	43	43
NEUTRAL	29	29
DISAGREE	3	3
STRONGLY DISAGREE	0	0
TOTAL	100	100

SOURCE : PRIMARY DATA

4.18 CHART

DO YOU AGREE HR ANALYST IS THE RESPONSIBLE FOR THE HR ANALYTICS IN BUSINESS?

100 responses



INTERPRETATION

- 0% from the category of strongly disagree
- 3% from the category of disagree
- 25% from the category of strongly agree
- 29% from the category of neutral

INFERENCE

Here the majority of the respondent from the category of agree

4.19 GIVE YOUR RATINGS FOR HOW THE HR ANALYTICS ARE USEFUL IN THE BUSINESS ?

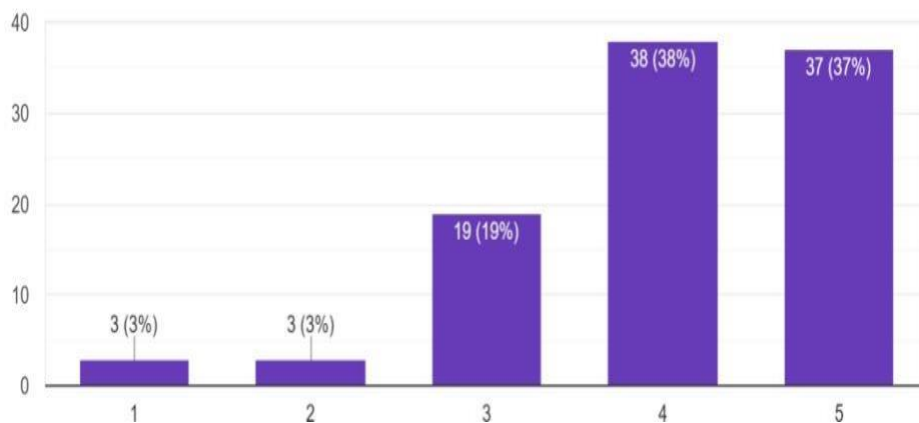
PARTICULARS	NO OF RESPONSE	PERCENTAGE
1	3	3
2	3	3
3	19	19
4	38	38
5	37	37
TOTAL	100	100

SOURCE : PRIMARY DATA

4.19 CHART

GIVE YOUR RATINGS FOR HOW THE HR ANALYTICS ARE USEFUL IN THE BUSINESS

100 responses



INTERPRETATION

3% from the category of 1 & 2

19% from the category of 3

37% from the category of 5

INFERENCE

Here the majority of the respondent from the category of 4 is 38%

HYPOTHESIS TESTING ONE WAY ANOVA

Descriptives								
GENDER	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Always	34	1.206	0.410	0.070	1.063	1.349	1.00	2.00
Sometimes	30	1.133	0.346	0.063	1.004	1.262	1.00	2.00
Rarely	8	1.000	0.000	0.000	1.000	1.000	1.00	1.00
Never	14	1.071	0.267	0.071	0.917	1.226	1.00	2.00
Often	14	1.143	0.363	0.097	0.933	1.353	1.00	2.00
Total	100	1.140	0.349	0.035	1.071	1.209	1.00	2.00

ANOVA					
GENDER		df	Mean Square	F	Sig.
	Sum of Squares				
Between Groups	0.372	4	0.093	0.756	0.556
Within Groups	11.668	95	0.123		
Total	12.040	99			

CHI SQUARE

Case Processing Summary						
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE * HR ANALYTICS HAVE POSITIVE IMPACT ON BUSINESS	100	100.0%	0	0.0%	100	100.0%

AGE * HR ANALYTICS HAVE POSITIVE IMPACT ON BUSINESS Crosstabulation								
		HR ANALYTICS HAVE POSITIVE IMPACT ON BUSINESS						Total
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
AGE	18-25	Count	25	34	11	0	1	71
		Expected Count	23.4	33.4	11.4	1.4	1.4	71.0
	25-35	Count	6	11	5	1	1	24
		Expected Count	7.9	11.3	3.8	0.5	0.5	24.0
	35-45	Count	2	1	0	1	0	4
		Expected Count	1.3	1.9	0.6	0.1	0.1	4.0
	Above 45	Count	0	1	0	0	0	1
		Expected Count	0.3	0.5	0.2	0.0	0.0	1.0
Total		Count	33	47	16	2	2	100
		Expected Count	33.0	47.0	16.0	2.0	2.0	100.0

C			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.812 ^a	12	0.157
Likelihood Ratio	11.757	12	0.465
Linear-by-Linear Association	1.504	1	0.220
N of Valid Cases	100		

CHAPTER -5

SUMMARY OF FINDINGS, LIMITATION & CONCLUSION

5.1 FINDINGS

- Here the majority of the respondent are from the category of 18-25 Age (71%)
- Here the majority of the respondent are from the category of Male (86%)
- Here the majority of the respondent are from the category of UG (54%)

- Here the majority of the respondent are from the category of 10000-15000 (30%)

- Here the majority of the respondent are from the category of Agree (47%)
- Here the majority of the respondent are from the category of work force statistics (67%)
- Here the majority of the respondent are from the category of To help Take decision which are UNBIAS (60%)
- Here the majority of the respondent are from the category of Agree (40%)
- Here the majority of the respondent are from the category of NEVER (30%)
- Here the majority of the respondent are from the category of RECRUITMENT & EMPLOYEE VALUE & PERFORMANCE (61%)
- Here the majority of the respondent are from the category of AGREE (45%)

- Here the majority of the respondent are from the category of SOMETIMES (31%)

- Here the majority of the respondent are from the category of AS SPREAD SHEET /DATA IN TABLE (54%)

- Here the majority of the respondent are from the category of AGREE (40%)
- Here the majority of the respondent are from the category of DESCRIPTIVE ANALYTICS (61%)

- Here the majority of the respondent are from the category of AGREE (51%)
- Here the majority of the respondent are from the category of AGREE (44%)
- Here the majority of the respondent are from the category of AGREE (43%)
- Here the majority of the respondent are from the category of NUMBER 4 (38%)

LIMITATION OF THE STUDY

Research has been done by going through previous researches being done. This research shows only the theoretical concept of HR analytics and no practical understanding has been done to understand the opportunities and challenges of using and implementing it.

CONCLUSION

With the technological development and advancement in industries, business has developed the use of HR analytics that improves organizational effectiveness. HR analytics quantifies and provides data-driven decision making by using statistical models and techniques. HR analytics handles all relevant data related to HR and interpret better result. Through this paper, it is analyzed that implementation and usage of HR analytics in business has been challenging as the HR professionals may lack the required skills and knowledge of using the HR analytics tool or there may be data quality or data governance issues. Due to such an issue's organization may not get the support of top management. Despite such challenges, HR analytics has been helping businesses in gaining competitive advantage, solving HR related problems, improving organizational performance, and has improved HR function. Knowledge and skill gap can be filled by learning and adopting certain knowledge and skills. Data can be used and maintained ethically and legally if the organization follows relevant policies and norms. The study explains that HR analytics usage and implementation have both pros and cons but if analyzed on a broader concept then opportunities of using HR analytics diminishes the challenges and lead to tremendous growth of the organization. It is analyzed that if an organization understands the right purpose of implementing HR analytics than they can get a better return on investment and businesses will accept and start involving HR analytics in HR departments. Soon HR analytics usage will rise and help the organization in getting evidence-based results and will transform the working of HR department from traditional to statistical decision making. The right use of HR analytics at the right time and in the right business can lead to tremendous growth of HR analytics in an organization providing them to grow faster.

REFERENCE

1. A Study on the Acceptance of HR Analytics in Organisations by Lije George and T. J.Kamalanabhan. (January 2016) www.ijird.com, Vol 5 Issue 2.
2. Blogs and article given by AIHR academy
3. Conceptualizing HR Analytics Practices for Healthier Organizational Performance –A Framework Based Analysis by Dr. A.Narasima Venkatesh (2017) International Journal of Engineering, Business and Enterprise Applications (IJEBEA).
4. HR Analytics - Extent of its Utility in Making Strategic Business Decisions in its Sector by L Ravikiran and Kambam Vedanta.
5. Overview of HR Analytics - Past, Present, and Future by Surabhi Gupta (July-December 2017) ETHOS Volume 10 No. 2 Pages: 1 - 6 ISSN: 0974 – 670
6. Evolution of Human Resource Analytics: An Exploratory Study by Dr. Indranil Bose and Dani Jose (2017-18) AIMA Journal of Management & Research, February 2018, Volume 12 Issue 1/4, ISSN 0974 – 497 Copy right© 2017 AJMR-AIMA
7. The Rise of HR Analytics: A Preliminary Exploration by Dag Oivind Madsen, University College of Southeast Norway and Kare Slatten, University College of Southeast Norway.
8. Human Resource Analytics Market by unit of component, Application Area in Workforce Management, Recruitment, and Employee Development, Organization Size, Deployment Type, Vertical (Industry like Banking, Financial Services And Insurance, Manufacturing, and IT and Telecom), showing Region to Global Forecast from 2019- 2024. Published Date: Jun 2019 | Report Code: TC 7162 states.
9. Workforce Analytics Market Analysis by Type (Solution, Services), By Services (Managed, Consulting, System Integration), By Deployment, By Organization, By Application, By Region, And Segment Forecasts, 2018 – 2025.
10. Global HR analytics market to grow by 12% by Anushree Sharma on People Matters
11. HR Analytics - is it just a management fad or a way of supporting better decision-making? What are some important areas related to HR Analytics within organizations and in society? By Astrid Yorke [2018]
12. The role of HR analytics in creating data-driven HRM. Written text analysis of online blogs of Human Resource professionals. By Krista Jensen-Eriksen (2016).

13. HR Analytics Transforming Human Resource Management by Dr. Allam Joseph and Praveen Kumar (November 2018) JKIJMS @JK Business School Volume 2, No.1, November 2018 Pages: 49-56 ISSN 2581-7337

14. The Role of HR Analytics in the Global Village by Dr. Mrs. Prajyakti Bakre (Jan-feb2019) International Journal of Trend in Scientific Research and Development (IJTSRD) Volume: 3 | Issue: 2.

15. HR Analytics - A Strategic Approach to HR Effectiveness by P. Madhavi Lakshmi & P. Siva Pratap (Jan 2016) International Journal of Human Resource Management and Research (IJHRMR) ISSN(P): 2249- 6874; ISSN(E): 2249-7986 Vol. 6, Issue 3, Jun 2016, 21-28 © TJPRC Pvt. Ltd.

16. 'HR Analytics' - An Effective Evidence-Based HRM Tool by Dr. P. Raghunadha Reddy and P. Lakshmikeerthi (Oct 2016-July 2017) International Journal of Business and Management Invention ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X www.ijbmi.org || Volume 6 Issue 7 || PP—23- 34

17. HR Analytics: A Modern Tool in HR for Predictive Decision Making by Dr. Abdul Quddus Mohammed (May-June 2019) Journal of Management (JOM) Volume 6, Issue3, pp.51-63, Article ID: JOM_06_03_007.

18. HR analytics white paper by cgi.com © 2016 CGI GROUP INC