



To Study the Importance of HR Analytics Practice for SMEs in NCR Region

Tanya Nagpal, Akhilesh Kumar Jaiswal, Bobby Singh Panchal

Abstract: HR Analytics play a crucial role and responsible for and assisting in solving HR related issues, ensuring these adhere to the organizations policies and objectives. The study aims to identify the application of HR analytics in human resource practices and also in addition to it to examine the employee satisfaction with HR Analytics. This study adopts Simple Random Sampling method as a research methodology and descriptive research design as a research design. Also adopts different data collection techniques like past records, questionnaires, interviews, observations, etc. The findings reveal that HR analytics increases employment, fastens decision making, improves productivity and so on. The last but not least this study brings clarity over the conceptualization of HR analytics by offering a comprehensive definition. Additionally, it facilitates business and HR leaders in making informed decisions on adopting and implementing HR Analytics. Moreover, it assists HR researchers in positioning their paper more explicitly in current debates and encouraging them to develop some future avenues of research departing from some questions posed.

Keywords: HR Analytics, Small Scale Industries, Future avenues, Research Methodology, Research Design.

I. INTRODUCTION

HR analytics is the process of gathering and use of talent data to improve critical talent and business outcomes. HR analytics leaders enable HR leaders to develop data-driven insights to inform talent decisions, improve workforce processes and promote positive employee experience. HR analysts are responsible for identifying and assisting in solving HR related issues, ensuring these adhere to the organizations policies and objectives. Analyzing and evaluating data and reports, feeding back the findings to relevant managers and advising on changes and improvements. HR analytics doesn't collect data about how your employees are performing at work, instead, its sole aim is to provide better insight into each of the human resource processes, gathering related data and then using this data to make informed decisions on how to improve these processes.

Manuscript received on 14 April 2022.

Revised Manuscript received on 25 April 2022.

Manuscript published on 30 May 2022.

* Correspondence Author

Tanya Nagpal*, Assistant Professor, Lovely Professional University, Phagwara, India. Email: tanya.17437@lpu.co.in

Akhilesh Kumar Jaiswal, MBA (Human Resource and Finance), Lovely Professional University, Phagwara, India. Email: akhileshjaiswal943@gmail.com

Bobby Singh Panchal, MBA (Hospital Healthcare Management & Marketing), Lovely Professional University, Phagwara, India. Email: boby001singhpanchal@gmail.com

©The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](https://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Retrieval Number: 100.1/ijmh.I1479058922

DOI: 10.35940/ijmh.I1479.058922

Journal Website: www.ijmh.org

A. Benefits of HR Analytics

- Improve your hiring process
- Reduce attrition
- Improve employee experience
- Make your workforce productive
- Improve your talent processes

B. Top 5 types of HR Analytics Every Human Resource Manager Should Know

- Employee Churn
- Capability
- Organizational Culture
- Capacity
- Leadership

C. Small and Medium Scale Enterprises (SMEs)

- A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakhs but does not exceed Rs. 5 crores;
- A medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.

D. The role of SMEs in the growth of the Indian economy

The SME sector, according to this FICCI report, has been creating roughly 11.10 crore jobs across the country (National Sample Survey 2015- 16). This sector is rightly known as India's "engine of growth" and consequently, taking an SME loan or availing SME funding has become easier over the years. Despite a glaring lack of infrastructure and various government policies of the past that discouraged people from starting their own businesses, the country has witnessed a remarkable growth in this sector. SMEs contribute 8% of the GDP. By 2020, this figure is expected to reach 22%. Various small business loans schemes are giving further boost to this segment. 40% of the total export from India originates from small and medium-sized businesses. 45% of the total manufacturing output comes from this sector. Small and medium-sized businesses have been a deciding factor in reducing unemployment, eliminating poverty and blurring income inequalities. SMEs can be started with minimal capital investment. SME finance and SME business financing are easily available to small enterprises.

E. Objective of Tthe Study

The research aims at two main objectives, which is given below: -

- To identify the application of HR Analytics in Human Resource practices.



- To examine the employee satisfaction with HR Analytics.

II. REVIEW OF LITERATURE

[1] The objective of this study “An evidence-based review of HR Analytics” is to know about HR Analytics, their working process, cause and effect relationships, Outcomes and their success requirement. The Study set out to identify scholarly research on HR Analytics. The research methodology follows the ‘integrative synthesis’ procedure. We searched 3 major multidisciplinary publication databases: Academic Search Complete, Business Source Complete, and Scopus. We then divided the research into articles published in scholarly peer-reviewed journals and those published in non-peer-reviewed periodicals. Of our original sample of 60 articles, the publication database search categorized 32 as appearing in peer-reviewed journals. For the remaining 14 articles in scholarly peer-reviewed journals, we then Categorized each article by which research question the article addressed and by research approach. The majority, 9 of the 14 articles focused on the company level of analysis. Also, this study is the predominance of non-quantitative empirical evidence. Of the 14 published peer-review articles, 10 do not involve testing of theoretically derived hypotheses.[2] The objective of this study “Examining the determinants of successful adoption of data analytics in human resource management— A framework for implications” is to identify the key aspects related to the technological, organizational, environmental, data governance, and individual factors that influence the adoption of HRA. The study used the integrative review method to recognize the challenges in HRA adoption and to identify mature and new emerging topics in the field of HRA adoption. The study used the “framework synthesis method” to uncover the challenges and propose a framework for the adoption of HRA. The findings in this study include efficiency and effectiveness in collecting and analyzing the data. Another finding is the lack of organization-wide buy-in for HRA and the difficulty in understanding how AI-powered tools should be employed.[3] The Study aims to understand the importance of HR analytics and to gain insight into the barriers that affect the full implementation of HR Analytics among Saudi HR professionals. This study uses a descriptive survey research design. It uses quantitative data. A questionnaire was used to find the reasons affecting HR professionals in adopting HRA. This study has used Steven K. Thompson's, (2012) sampling formula to identify the sampling size from total population. The study finds positive relationships between HR analytics adoption and the other factors. This study has also found that HR professionals who believe that they are capable of learning and performing the required process of analytics are more likely to adopt using it. The correlation coefficient between data availability and the adoption of using HRA was estimated as (.647) which is considered as an indicator of a positive relationship among the two factors. [4] The Study aims for evidence-based decision-making, examining identify why the adoption rate is lagging, to facilitate HR analytics adoption can take action to remove

as many of these barriers to the individual's decision as possible. The Study adopted survey instrument method, data collection method. Also, various tests were performed to assess validity and reliability of reflective constructs. The level of adoption, ADOP, was measured using a progressive scale. This study applies innovation theory, to examine the individual's decision to adopt HR Analytics in an effort to identify why the adoption rate is lagging. In this study, high performing organizations are using analytics for evidence-based decision making. However, the human resource function in many organizations has been slow to adopt this innovation. This study applies innovation theory, to examine the individual's decision to adopt HR Analytics in an effort to identify why the adoption rate is lagging. The Study examined early stages of the individual decision process to adopt or not to adopt the innovation. We found several points in the process that can act as barriers or facilitators.[5] This paper aims to contribute to the literature on human resources (HR) digitalization, specifically on HR analytics, disentangling the concept of analytics applied to HR and explaining the factors that hinder companies from moving to analytics. The authors performed a comprehensive literature review on analytics as applied in HR. The authors relied on two of the major multidisciplinary publication databases (i.e. Scopus and WoS). The study identified 14 different barriers for HR analytics adoption grouped into four categories, namely, data and models, software and technology, people and management. Grounding on them the authors propose a set of 14 key factors to help to successfully adopt HR Analytics in companies.[6] The Study “Current and Future Trends in Human Resources Analytics Adoption” aims to see tremendous opportunities in the use of analytics, businesses are taking big measures, such as creating a culture of making critical decisions validated by data driven approaches and hiring analytics professionals in areas that promises high rates of return. In this paper the authors study the current and the near future states of analytics in Human Resources area. The study modeled trends in hiring analytics professionals in different functional areas of business. The study identified the current and the near future states of analytics in Human Resources area. The authors compared the HR analytics trend with trends in hiring analytics professionals in Supply Chain, Finance, Accounting and Marketing functions.[7] Adoption Issues of HR Analytics aims to identify the adoption issues with HR Analytics, a couple of active HR Analytics professionals from different industries and countries have been surveyed randomly with an online Google Forms questionnaire. The study adopted research methodology as **Research Question:** It is known that some major factors are inhibiting adoption of HR analytics. Vargas. To find out the issues in adoption of HR analytics, a research question is framed. What kind of adoption issues facing/faced by your organization with HR Analytics? The study identifies the key adoption issues with HR Analytics aiming for its successful adoption.

The findings are a mix of beginner issues to advanced issues of HR Analytics adoption. [8] The study “Slow Adoption of HR Analytics: Understanding from the lens of Innovation Diffusion Theory” aims to highlight the reasons behind the slow adoption of HR Analytics in organizations of Service Industry across Pakistan. Also, to examine individual decision-making process. In this paper, researcher examined multiple stages of innovation decision process by in-depth. A quantitative approach is used in this study. Data was collected in two steps, first, a pilot study conducted with 50 employees at junior positions. In this research paper, there are 68.3% of the male respondent, whereas 31.7% of female respondents. Age scales of the majority of respondents are in between 20yrs to 30yrs. Majority of respondents are bachelorette, the experience of the majority of respondents is up to 5yrs. In this study, individual decision-making process has been examined, comprising on three stages, i.e., knowledge, persuasion and the decision. Several barriers and facilitators have been found in the form of independent and mediating variables during the process. Further research has been directing towards best ways and possible outcomes to remove barriers and encourage facilitators and change agents within the organizations to speed-up the adaptability process of innovation HR Analytics among HR professionals. [9] The purpose of this paper “HR Analytics and Organizational Effectiveness” is to conduct a systematic review by collecting secondary data from published journals on Human Resource Analytics in an effort to shed more light on different issues that relate to the topic such as the processes involved, the emerging trends, the antecedents, the consequences (specifically, organizational effectiveness), and the influences impacting the success of its adoption. The Study used secondary data collection and a systematic literature review to investigate the antecedents and consequences of HR Analytics, and specifically the success factors to its implementation. The methodological approach was to review and analyze previous academic research by following three main steps; collecting previous research, categorizing the captured publications, and then classifying them based on a quality assessment. The findings show that despite organizations having high interest in HRA, there is a clear gap between the goals and resources to become analytically mature. There saw a shift from an administrative function to a more strategically oriented function adding value and driving organizational decisions. Further, our findings show that the more investment put into HRA, the higher the return will be on the HR department and ultimately the organizational outcomes. [10] The Study “An ROI-based review of HR analytics: practical implementation tools” aims to provide a return on investment-based review of human resources analytics. The objectives are twofold: first, to offer an integrative analysis of the literature on the topic of HR analytics. Second, to provide practical implementation tools. This Study is a review study in which a four-step review and analysis methodology is implemented. The Study finds that empirical and conceptual studies in HR analytics generate higher ROI compared to technical and case-based studies. Also, the study finds that workforce planning and recruitment and selection are two

HR tasks, which yield the highest ROI. [11] The Study “HR Analytics: Here to Stay or Short-Lived Management Fashion?” applied diffusion of innovation theory and the theory of management fashion to examine the diffusion trajectory of human resource analytics in a U.S Context. And focused on the role mass media plays in influencing the diffusion process and address two research questions. First, does the mass media on HR analytics make observable the positive outcomes of HR analytics and is this related to increasing HR analytics adoption over time? Second, does the mass media on HR analytics show evidence of management trendsetting rhetoric? The Study analyze published popular trade, business press, and peer-reviewed academic articles over a decade using a big data discourse analytical technique, natural language processing. The Study finds preliminary evidence that suggests that although the media has broadcasted positive outcomes of HR analytics, adoption has tailed off. In concert with the tailing off of HR analytic adoptions, the media appears to be recasting HR analytics as solving newer problems such as managing talent. Whether this shift makes a difference has yet to be determined. [12] The Study “Understanding the Concept of HR Analytics” aims understanding the concept of HR Analytics and thereafter identify and prepare an approach detailing key metrics that will assist an organization to consider whether it is required to implement HR Analytics or not and whether it is even prepared to implement HR Analytics or not. The research began with identifying the list of databases that shall be referred to for extracting research material. Thereafter a phased roadmap was prepared indicating step wise approach for performing this study. The study identified certain metrics which evaluates the preparedness of an organization to apply HR Analytics. These metrics need to be corroborated from related studies to be made in emerging markets. Further there lies scope for research in technological aspects dealing with HR Analytics. There is a requirement of innovating technological software which have great computational capabilities and can be implemented at comparably low costs. [13] This study “The Impact of HR Analytics on the Training and Development Strategy -Private Sector Case Study in Lebanon” investigated the impact of HR analytics on the training and development strategy of private organizations in Lebanon. The study relied on a quantitative, correlation al research methodology with the help of an online questionnaire as the data collection instrument. Random sampling was conducted, and the primary data was collected using structured questionnaires that were sent to the targeted respondents through email. The Study finds the importance of comprehending the factors associated with the adoption of HR analytics as well as the factors influencing the effectiveness of HR analytics. However, the results imply that many young businesses with few employees have not yet grasped the importance of HR analytics or perhaps they lack the capacity to apply them. Thus, future research should focus on this area and also on the implementation of HR analytics in the public sector, higher education and Non-profit organizations in Lebanon.

[14] The Study “The rise (and fall?) of HR analytics: a study into the future application, value, structure, and system support” was driven by the rapidly accelerating pace of technology-enabled developments within human resource management human resource analytics is infiltrating the research and business agenda. The purpose of this paper is to explore what the future of HR analytics might look like. The Study use a sample of 20 practitioners of HR analytics, based in 11 large Dutch organizations, the authors investigated what the application, value, structure, and system support of HR analytics might look like in 2025. The findings suggest that, by 2025, HR analytics will have become an established discipline, will have a proven impact on business outcomes, and will have a strong influence in operational and strategic decision making. Furthermore, the development of HR analytics will be characterized by integration, with data and IT infrastructure integrated across disciplines and even across organizational boundaries.[15]

The Study “HR Analytics Conceptualization and Adoption: Key Issues” aims to give vision and direction to both academics and practitioners in particular on the conceptualization and operationalization of HR Analytics. “The Study considers analytics as being about collecting, analyzing and reporting data to improve people-related decisions, and, in turn, improve individual and organizational outcomes.

The findings reveal that, although unexpected in a nascent field such as this one, several lexemes are used to refer to analytics in HR, being 'HR Analytics' the most frequently used. Also, only a few manuscripts offer a clear definition of the concept they are studying. The Study identified 25 different barriers for HR Analytics adoption regarding 4 key success factors: data & models, technology & tools, people, and management. [16] The objective of the study “A sustainability maturity model for micro, small and medium-sized enterprises (MSMEs) based on a data analytics evaluation approach” is to assess the level of implementation of sustainability strategies and practices in the business. The methodology encompasses a four-level qualitative scale and uses supervised classification algorithms to categorize companies through data analysis techniques.

The study shows that 6% of the companies were at an insufficient level, 31% were at a n initial level, 45% at a developed sustainability maturity level, and 18% at a consolidate d level. Also, the decision makers in the latter group have paid greater attention to the strengthening of sustainability progress capabilities.[17] The study “Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria” aims to focus on large firms from developed countries to the omission of studies focused on small and medium enterprises (SMEs) and those from developing countries. The authors investigated the relationship between HRM practices and the financial (FIN) and non-financial performance (NONFIN) of SMEs in Nigeria. A survey design with 236 respondents was used to test the hypotheses. The authors find the relationship between HR M practices and organizational NONFIN and FIN in SMEs operating in Nigeria.[18] This study “Mediating effect of big data analytics on project performance of small and

medium enterprises” aims to investigate the mediating role of “Big Data Analytics” played between “Project Performance” and nine factors including top management, project knowledge management focus on sustainability, green purchasing, environmental technologies, social responsibility, project operational capabilities, project complexity, collaboration and explorative learning, and project success.

A sample of 321 responses from 106 Indian manufacturing small and medium-scaled enterprises (SMEs) was collected. Data were analyzed using empirical analysis through structural equation modeling. The result shows that project knowledge management, green purchasing and project operational capabilities require the mediating support of big data analytics. The adoption of big data analytics has a positive influence on project performance in the manufacturing sector.

III. PROPOSED RESEARCH METHODOLOGY

A. Proposed Research Methodology

In order to realize this study a methodology consisting from a combination of primary and secondary data has been used. A considerable amount of secondary data is gathered from existing literature about the usage and the impact of human resource practices in SME performance. For empirical analysis of the study, a questionnaire has been used. The results include the analysis of 30 questionnaires gathered in regard to research objectives.

B. Simple random sampling

In this case each individual is chosen entirely by chance and each member of the population has an equal chance, or probability, of being selected. As with all probability sampling methods, simple random sampling allows the sampling error to be calculated and reduces selection bias. A specific advantage is that it is the most straightforward method of probability sampling. A disadvantage of simple random sampling is that you may not select enough individuals with your characteristic of interest especially if that characteristic is uncommon.

C. Research Design

As we know, the research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data.

D. Descriptive Research Design

Descriptive research seeks to describe the current status of an identified variable. These research projects are designed to provide systematic information about a phenomenon. The researcher does not usually begin with a hypothesis, but is likely to develop one after collecting data. The analysis and synthesis of the data provide the test of the hypothesis.

E. Data Collection Technique

I will include data collection technique as interviews, observations (direct and participant), questionnaires, past records, and relevant documents. The use of multiple data collection techniques and sources strengthens the credibility of outcomes and enables different interpretations and meanings to be included in data analysis.

F. Sample size and tools to be used

As we know, the sample size is a term used in market research for defining the number of subjects included in a sample size. By sample size, we understand a group of subjects that are selected from the general population and is considered a representative of the real population for that specific study. Sample size measures the number of individual samples measured or observations used in a survey or experiment. Similarly, I select sample size as of 30 respondents, to have the clear outcome of the study. And will use tools as google forms and Gmail.

IV. DATA ANALYSIS AND INTERPRETATION

A) Objectives: To identify the application of HR Analytics in Human Resource Practices.

Q1. Which of the following tools used in your organization to measure HR practices?

In this question, the number of responses given by the employees and their percentage of responses are shown below in the table:

Table 4.1

Tools	Response	Percentage
Power BI	4	25
Excel	10	62.5
IBM Workforce Planning	0	0
SPSS	1	6.3
Other	1	6.3
Total	16	100

Explanation: From the above table, we can see that 25% of the employees uses Power BI, 62.5% uses Excel, 6.3% uses SPSS and 6.3% uses other tools to perform HR Practices in their Organization.

Graphical Representation:

1. Which of the following tools used in your organization to measure HR practices. 16 responses

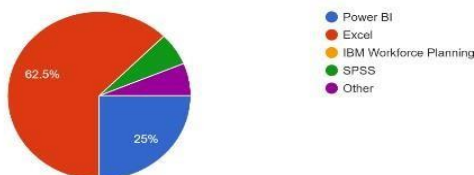


Figure 4.1

Findings: From the above graph and table it is seen that most of the employees of the organizations uses Excel and then after Power BI to carry out HR Practices Smoothly.

Q2. HR Analytics are an effective solution in performing HR practices.

In this question the number of responses given by the

employees and their percentages of responses are shown below in the table:

Table 4.2

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	3	18.8
Agree	4	25
Strongly Agree	8	50
Total	16	100

Explanation: From the above table, we can see most of the respondents think that HR Analytics are an effective solution in performing HR Practices.

Graphical Representation:

2. HR Analytics are an effective solution in performing HR practices. 16 responses



Figure 4.2

Findings: From the above graph and table it is seen that most of the employees of the organizations agree that HR Analytics are an effective solution in performing HR Practices.

Q3. HR Analytics allows us real time updates

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.3

	Response	Percentage
Strongly Disagree	2	12.5
Disagree	0	0
Neutral	4	25
Agree	2	12.5
Strongly Agree	8	50
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics allows us real time updates.

Graphical Representation:

3. HR Analytics allows us real time updates 16 responses

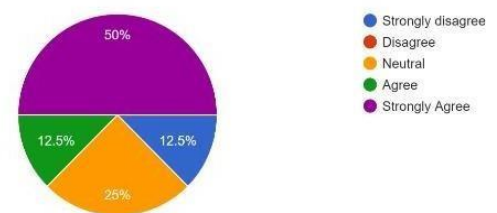


Figure 4.3

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics gives us real time updates.

Q4. Analytics offers secure and reliable connection to your data sources in the cloud or on-premises.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.4

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	1	6.3
Neutral	3	18.8
Agree	5	31.3
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytics offers secure and reliable connection to your data sources in the cloud or on-premises.

Graphical Representation:

4. Analytics offers secure and reliable connection to your data sources in the cloud or on-premises
16 responses

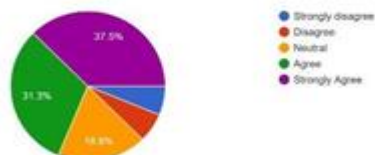


Figure 4.4

Observation: We observed that most of the respondents think that analytics offers secure and reliable connection to your data sources in the cloud or on-premises.

Q5. HR Analytics offers fast deployment, hybrid configuration, and secure environment.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.5

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	4	25
Agree	7	43.8
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics offers fast deployment, hybrid configuration, and secure environment.

Graphical Representation:

5. HR Analytics offers fast deployment, hybrid configuration, and secure environment.
16 responses

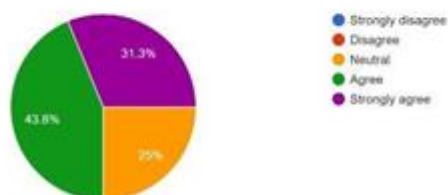


Figure 4.5

Observation: We have observed that most of the respondents think that HR Analytics offers fast deployment, hybrid configuration, and secure environment.

Q6. Analytics helps you in data exploration using natural language query.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.6

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	5	31.3
Agree	6	37.5
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Analytics helps them in data exploration using natural language query.

Graphical Representation:

6. Analytics helps you in data exploration using natural language query
16 responses

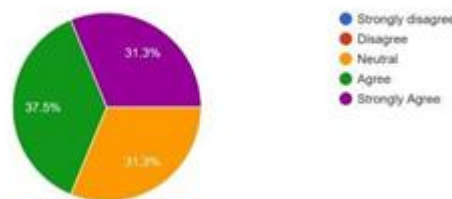


Figure 4.6

Findings: From the above graph and table it is seen that most of the employees of the organizations agree that Analytics helps them in data exploration using natural language query.

Q7. HR Analytics allows you to create various files like web content, images, textbox, and integrate URLs.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.7

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	3	18.8
Agree	6	37.5
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics allows you to create various files like web content, images, textbox, and integrate URLs.

Graphical Representation:

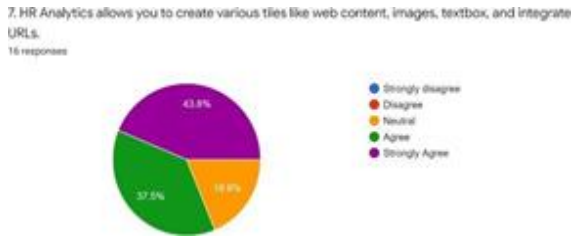


Figure 4.7

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics allows you to create various tiles like web content, images, textbox, and integrate URLs.

Q8. HR Analytics can be accessed from different platforms and can be shared across on- cloud participants.

In this question the number of responses given by the employees and their percent ages of responses are shown below in the table:-

Table 4.8

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	1	6.3
Neutral	5	31.3
Agree	3	18.8
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics can be accessed from different platforms and can be shared across on-cloudparticipants.

Graphical Representation:

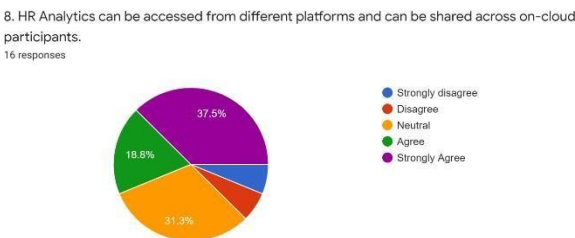


Figure 4.8

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics can be accessed from different platforms and can be shared across on-cloud participants.

Q9. Analytical tools are easy to work with and the data is processed in such a way that it is easy to understand and reliable.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.9

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	3	18.8
Agree	6	37.5
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Analytical tools are easy to work with and the data is processed in such a way that it is easy to understand and reliable.

Graphical Representation:



Figure 4.9

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that Analytical tools are easy to work with and the data is processed in such a way that it is easy to understand and reliable.

Q10. HR Analytics consolidates business analytics with data visualization and helps any organization to make business decisions based on data.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.10

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	4	25
Agree	5	31.3
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics consolidates business analytics with data visualization and helps any organization to make business decisions based on data.

Graphical Representation:

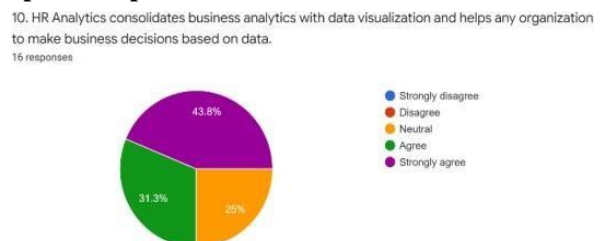


Figure 4.10

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics consolidates business analytics with data visualization and helps any organization to make business decisions based on data.

Q11. HR Analytics are user friendly.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

To Study the Importance of HR Analytics Practice for SMEs in NCR Region

Table 4.11

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	5	31.3
Agree	4	25
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics are user friendly.

Graphical Representation:

11. HR Analytics are user friendly
16 responses

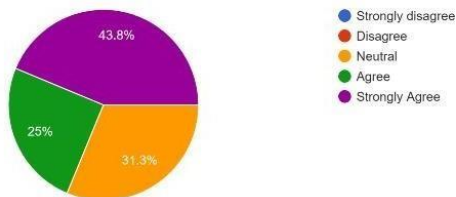


Figure 4.11

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics are user friendly.

Q12. HR Analytics facilitates doing HR practices easily and quickly.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.12

	Response	Percentage
Strongly Disagree	0	0
Disagree	2	12.5
Neutral	2	12.5
Agree	5	31.3
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that HR Analytics facilitates doing HR practices easily and quickly.

Graphical Representation:

12. HR Analytics facilitates doing HR practices easily and quickly.
16 responses

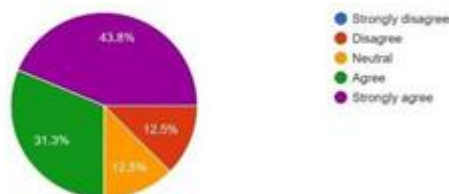


Figure 4.12

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that HR Analytics facilitates doing HR practices easily and quickly.

Q13. Analytics fastens decision making.

In this question the number of responses given by the

employees and their percentages of responses are shown below in the table:

Table 4.13

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	2	12.5
Agree	6	37.5
Strongly Agree	8	50
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Analytics fastens decision making.

Graphical Representation:

13. Analytics fastens decision making
16 responses

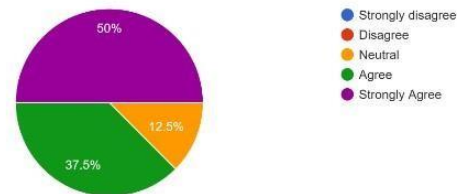


Figure 4.13

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that Analytics fastens decision making.

Q14. HR analytics is complex in nature.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.14

	Response	Percentage
Strongly Disagree	4	25
Disagree	3	18.8
Neutral	4	25
Agree	3	18.8
Strongly Agree	2	12.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents Strongly disagree that HR analytics is complex in nature.

Graphical Representation:

14. HR analytics is complex in nature
16 responses

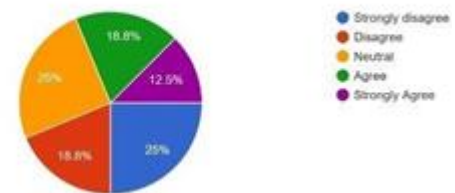


Figure 4.14

Findings: from the above graph and table it is seen that most of the employees of the organizations Strongly disagree that HR analytics is complex in nature.

Q15. Your organization prefers adopting analytical tools to achieve their goal and compete today's scenario.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.15

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	2	12.5
Agree	7	43.8
Strongly Agree	6	37.5
Total	16	100

Graphical Representation:

15. Your organization prefers adopting analytical tools to achieve their goal and compete today's scenario.
16 responses

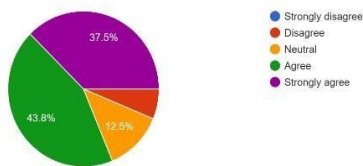


Figure 4.15

Findings: From the above graph and table it is seen that most of the employees of the organizations agree that their organization prefers adopting analytical tools to achieve their goal and compete today's scenario.

B) To examine the employee satisfaction with using HRAnalytics.

Q1. Analytics is easy to use.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.16

	Response	Percentage
Strongly Disagree	0	0
Disagree	2	12.5
Neutral	3	18.8
Agree	5	31.3
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Analytics is easy to use.

Graphical Representation:

Explanation: From the above table, we can see that most

1. Analytics is easy to use
16 responses

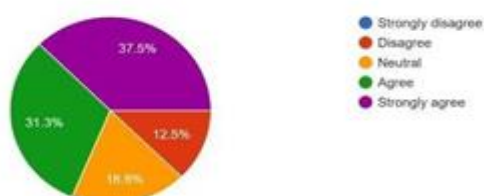


Figure 4.16

Findings: From the above graph and table it is seen that most of the employees of the organizations agree that Analytics is easy to use.

Q2. Analytics facilitates doing work easily.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table: of the respondents agree that their organization prefers adopting analytical tools to achieve their goal and competetoday's scenario.

Table 4.17

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	2	12.5
Agree	7	43.8
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Analytics facilitates doing work easily.

Graphical Representation:

2. Analytics facilitates doing work easily
16 responses

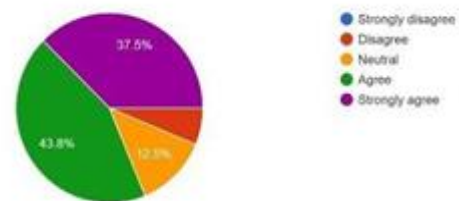


Figure 4.17

Findings: from the above graph and table it is seen that most of the employees of the organizations agree that Analytics facilitates doing work easily.

Q3. Using Analytics enables me to accomplish tasks more quickly.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.18

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	2	12.5
Agree	4	25
Strongly Agree	9	56.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Using Analytics enables them to accomplish tasks more quickly.

Graphical Representation:



3. Using Analytics enables me to accomplish tasks more quickly.
16 responses

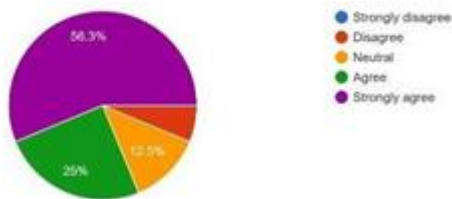


Figure 4.18

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that Using Analytics enables them to accomplish tasks more quickly.

Q4. It would be easy for me to become skillful at using Analytics.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.19

	Response	Percentage
Strongly Disagree	2	12.5
Disagree	0	0
Neutral	1	6.3
Agree	8	50
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that it would be easy for me to become skillful at using Analytics.

Graphical Representation:

4. It would be easy for me to become skillful at using Analytics.
16 responses

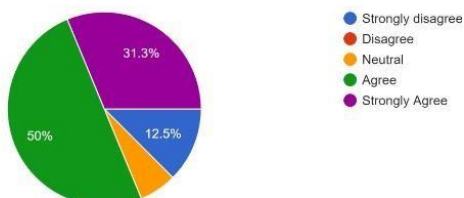


Figure 4.19

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that it would be easy for me to become skillful at using Analytics.

Q5. Using Analytics increases my job performance.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.20

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	0	0
Neutral	2	12.5
Agree	8	50
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Using Analytics increases their job performance.

Graphical Representation:

5. Using Analytics increases my job performance.
16 responses

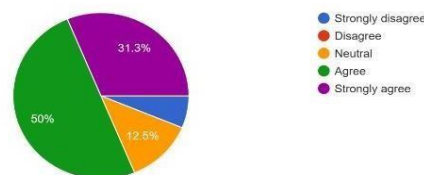


Figure 4.20

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that Using Analytics increases their job performance.

Q6. Because of my use of Analytics, others in my organization will see me as a more valuable employee.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.21

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	6	37.5
Agree	4	25
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that because of their use of Analytics, others in their organization will see them as a more valuable employee.

Graphical Representation:

6. Because of my use of Analytics, others in my organization will see me as a more valuable employee
16 responses

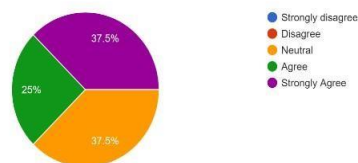


Figure 4.21

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that because of their use of Analytics, others in their organization will see them as a more valuable employee.

Q7. Employees are satisfied with the analytics practices provided by the company.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.22

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	0	0
Neutral	4	25
Agree	6	37.5
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that they are satisfied with the analytics practices provided by the company.

Graphical Representation:

7. Employees are satisfied with the analytics practices provided by the company.
16 responses

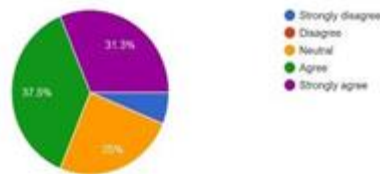


Figure 4.22

Findings: from the above graph and table it is seen that most of the employees of the organizations agrees that they are satisfied with the analytics practices provided by the company.

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that analytics helps taking critical decision.

Q9. Analytics helps in performance appraisal of the employees.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.24

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	0	0
Neutral	3	18.8
Agree	6	37.5
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytics helps in performance appraisal of the employees.

Graphical Representation:

9. Analytics helps in performance appraisal of the employees
16 responses

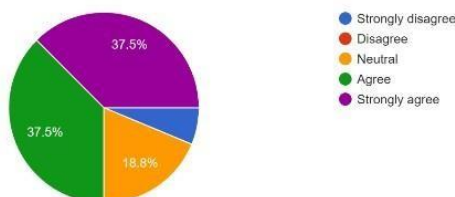


Figure 4.24

Findings: from the above graph and table it is seen that most of the employees of the organizations agrees that

Q8. Analytics helps taking critical decision.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.23

	Response	Percentage
Strongly Disagree	1	6.7
Disagree	0	0
Neutral	4	26.7
Agree	3	20
Strongly Agree	7	46.7
Total	15	100

Explanation: From the above table, we can see that most of the respondents agree that analytics helps taking critical decision.

Graphical Representation:

8. Analytics helps taking critical decision
15 responses

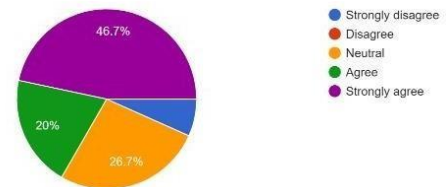


Figure 4.23

analytics helps in performance appraisal of the employees.

Q10. Analytics helps doing work easily, quickly and accurately.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.25

	Response	Percentage
Strongly Disagree	0	0
Disagree	2	12.5
Neutral	3	18.8
Agree	4	25
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytics helps doing work easily, quickly and accurately.

Graphical Representation:

10. Analytics helps doing work easily, quickly and accurately.
16 responses

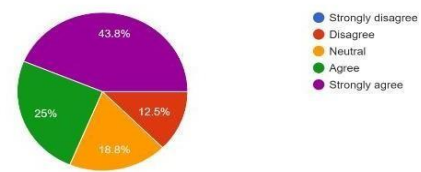


Figure 4.25

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that analytics helps doing work easily, quickly and accurately.



Q11. Organization is able to get benefits by using Analytics.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.26

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	0	0
Neutral	2	12.5
Agree	5	31.3
Strongly Agree	8	50
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that Organization is able to get benefits by using Analytics.

Graphical Representation:

11. Organization is able to get benefits by using Analytics.
16 responses

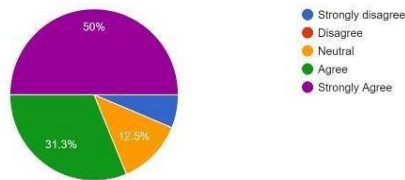


Figure 4.26

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that Organization is able to get benefits by using Analytics.

Q12. Analytic plays prominent role in project management.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.27

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	1	6.3
Agree	7	43.8
Strongly Agree	7	43.8
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytic plays prominent role in project management.

Graphical Representation:

12. Analytic plays prominent role in project management.
16 responses

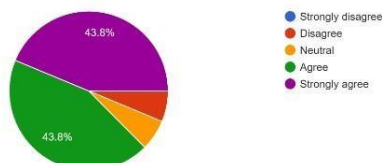


Figure 4.27

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that analytic plays prominent role in project management.

Q13. Analytic will be mandatory for organization in upcoming time.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.28

	Response	Percentage
Strongly Disagree	1	6.3
Disagree	0	0
Neutral	3	18.8
Agree	6	37.5
Strongly Agree	6	37.5
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytic will be mandatory for organization in upcoming time.

Graphical Representation:

13. Analytic will be mandatory for organization in upcoming time.
16 responses

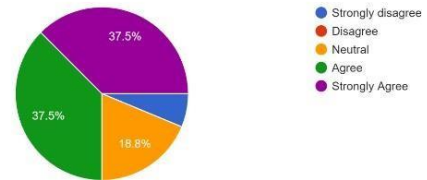


Figure 4.28

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that analytic will be mandatory for organization in upcoming time.

Q14. Application of analytics in HR uncover skill gaps.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.29

	Response	Percentage
Strongly Disagree	0	0
Disagree	1	6.3
Neutral	5	31.3
Agree	5	31.3
Strongly Agree	5	31.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that application of analytics in HR uncover skill gaps.

Graphical Representation:

14. Application of analytics in HR uncover skill gaps
16 responses

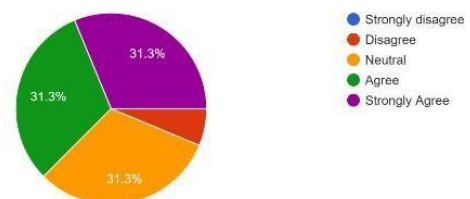


Figure 4.29

Findings: From the above graph and table it is seen that most of the employees of the organizations agrees that application of analytics in HR uncover skill gaps.

Q15. Analytics increases productivity.

In this question the number of responses given by the employees and their percentages of responses are shown below in the table:

Table 4.30

	Response	Percentage
Strongly Disagree	0	0
Disagree	0	0
Neutral	1	6.3
Agree	6	37.5
Strongly Agree	9	56.3
Total	16	100

Explanation: From the above table, we can see that most of the respondents agree that analytics increases productivity.

Graphical Representation:

15. Analytics increases productivity
16 responses

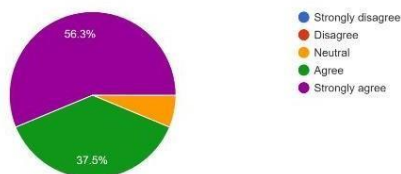


Figure 4.30

Findings: from the above graph and table it is seen that most of the employees of the organizations agrees that analytics increases productivity.

V. FINDINGS, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

A. Findings

The findings in this study include the following,

- The most significant finding in this study includes on HR analytics is welcomed by each and every employee and in coming time it will be one of the prominent factor for every organization due to its various advantages.
- The study finds that analytics help to identify those traits that are predictors of success within an organization or a team, so we can focus our search for talent and avoid making mistakes that can be expensive and time-consuming.
- The study reveals analytics is making a significant contribution to every organization. Every employee is getting success with the help of Analytics. This is a very good time saving system by which employee engagement increases.
- We found that with the help of analytics employment is improving, where hiring process has become more easier according to the HR employees
- We have analysed that 50% of the employees from our respondents list believe that analytics increases the job performance, Productivity of work, critical decision taking, Accuracy of result.
- As per data Users believe that it has proved to be very helpful and it is very important for upcoming time.

B. Conclusions

The conclusion of the study is Analytics has played a vital role in the success of organization & employees. Almost every SMEs using excel Microsoft and some other like, power bi, SPSS etc. With the help of analytical tools these can perform in time saving, performance enhancing, problem solving, quick responding, data visualizing How does It work?

The study has revealed that big data on its own won't do much for the organization. However, the right technology systematically extracts large data sets from various sources, can find patterns, trends, and correlations in this data. We have observed that analytics provide actionable insights into user's behavior but assist with reducing costs, driving revenue, and providing a one-of-a-good experience that makes people stay. From the analysis of data, we can conclude that employees believe that the lack of support from management can create a hindrance for adoption of HR analytics and it comes from the belief that the technology required to do HR analytics is expensive one and difficult to sustain. Also, from analysis we can conclude that there are not much reliable vendors in market which can provide HR analytics solutions and employee's technical ability is at short hence resistance is also there towards the adoption of HR analytics service at IT SME's.

C. Recommendations

On the basis of the research findings the researcher has certain recommendations which are described below:

- Management should hold learning sessions for the entire team on HR analytics for making them understand the pros and cons of HR analytics.
- Management should focus on building data driven culture since it has been observed that management and culture play a significant role in the adoption of HR analytics.
- Employee should be trained on mathematical and statistical skill to understand and analyze the data since it has been observed that they have inclination towards mathematical and statistical learning but get nervous when they actually face the situation.
- There is a good opportunity for SME's to develop HR analytics products for SME's since it has been observed that there are not much reliable vendors in this space and also there is a chance to lower the cost so SME's can get benefit out of this.
- Management should focus on using HR analytics towards hiring and retention since it has been observed that it will help to lower the hiring cost.
- Since currently there is no data driven approach towards understanding the ROI of training and development initiatives where HR analytics can play a major role for the companies.

D. Limitation Of Research

As a natural phenomenon in any research study, several limitations arise due to constraints like limited resources and time. These limitations may affect the findings and conclusions of the research study. The limitations related to this study are given below:



- The limitation was there is a constraint of getting the literature on HR analytics specifically since it's a new phenomenon which is catching up around the world there is limited literature available on this.
- Sometimes researcher has to explain the HR analytics scenario (which is basically looking at HR function from data driven approach) to make them understand about this phenomenon in completeness.
- Since the research study used a cross-sectional design in which the data was collected once (at only one point of time), it leaves the researcher with the inability to capture the long-term effect of the learning and development of HR managers in the usability of HR analytics and its effect on organization.

E. Scope For Future Research

The researcher has several suggestions based on the findings of the current research study for future researchers who wish to focus and study in the HR analytics domain:

- Studies can be conducted on understanding various HR metrics that SME's use and how it is helping them to understand certain phenomenon related to human resource.
- Studies can use a comparative method where the visualization vs analytics perspective can be done since one doesn't involve statistical and mathematical approach and the other one uses it.
- A longitudinal study (rather than cross-sectional study) would help to determine and extend the findings further, as it will help to study the phenomena over a period of time, where researchers can study the long-term effect of HR analytics on organization.

REFERENCES

1. What is the importance of HR Analytics? (n.d.). Retrieved from What is the importance of HR analytics?: <https://www.quora.com/What-is-the-importance-of-HR-analytics#>
2. [https://www.gartner.com/en/human-resources/glossary/hr-analytics#:~:text=HR%20analytics%20\(also%20known%20as,and%20positive%20employee%20experience.](https://www.gartner.com/en/human-resources/glossary/hr-analytics#:~:text=HR%20analytics%20(also%20known%20as,and%20positive%20employee%20experience.)
3. 4 Benefits of HR Analytics. (n.d.). Retrieved from 4 Benefits of HR Analytics: <https://www.talview.com>
4. 10 Ways HR Analytics Can Benefit Your Organization. (n.d.). Retrieved from 10 Ways HR Analytics Can Benefit Your Organization: <https://www.quantzig.com/blog/eight-benefits-hr-analytics>
5. <https://shodhganga.inflibnet.ac.in/handle/10603/315614>
6. <https://www.aihr.com/blog/what-is-hr-analytics/>
7. <https://www.picked.ai/magazine/what-are-the-benefits-of-using-hr-analytics-a-guide/>
8. <https://www.techfunnel.com/hr-tech/5-types-of-hr-analytics-every-manager-should-know/>
9. <https://www.herofincorp.com/blog/role-of-smes-in-indias-economic-growth#:~:text=Role%20of%20SMEs%20in%20the,40%25%20of%20India's%20total%20export.>
10. <https://www.semanticscholar.org/paper/Evidence-based-review-of-HR-Analytics-Marler-Boudreau/614cd088358424fc2a9416e77859201d1d4b536e>
11. <https://ideas.repec.org/a/eee/jbrese/v13i1u2021icp311-326.html>
12. https://www.researchgate.net/publication/351083824_The_Reasons_that_Affect_the_Implementation_of_HR_Analytics_among_HR_Professionals
13. <https://www.semanticscholar.org/paper/Individual-adoption-of-HR-analytics%3A-a-fine-grained-Vargas-Yurova/3804bfa1e50e5aa9fdc448e30667cbfa6161aeff>
14. https://gupea.ub.gu.se/bitstream/2077/62503/1/gupea_2077_62503_1.pdf
15. https://www.researchgate.net/publication/329265118_Adoption_issue_of_HR_analytics

16. https://www.researchgate.net/publication/349625416_Slow_adoption_of_HR_Analytics_Understanding_from_the_Lens_of_Innovation_Diffusion_Theory
17. <https://www.semanticscholar.org/paper/HR-Analytics%3A-Here-to-Stay-or-Short-Lived-Fashion-Marler-Cronemberger/48bec001ae71827877a72914be420ab2c464acca>
18. https://www.researchgate.net/publication/340950833_Understanding_the_Concept_of_HR_Analytics_The_Theory_of_HR_Quantification
19. https://www.researchgate.net/publication/332934836_The_Impact_of_HR_Analytics_on_the_Training_and_Development_Strategy_of_Private_Sector_Case_Study_in_Lebanon
20. <https://research.utwente.nl/en/publications/the-rise-and-fall-of-hr-analytics-a-study-into-the-future-application-3>
21. https://www.researchgate.net/publication/343370663_HR_Analytics_Conceptualization_and_Adoption_Key_Issues
22. <https://www.semanticscholar.org/paper/Human-resource-management-and-organizational-of-and-Ogunyomi-Bruning/6d9c6db6421b6e4deb57aebff9aa43405e81533d>
23. <https://research.nitie.ac.in/publication/mediating-effect-of-big-data-analytics-on-project-performance>
24. HRTAnalyticsTManagementTConcepts.T(2018).TRetrievedTfromTHRTAnalyticsTManagementTConcepts:Thttps://www.managementconcepts.com/
25. HRTAnalytics:TRiseTofTtheTmachinesTinTHR.T(2015,TOctoberT12).TRetrievedTfromTHRTAnalytics:TRiseTofTtheTmachinesTinTHR:Thttps://www.financialexpress.com/

AUTHORS PROFILE



Tanya Nagpal, Mentor (Research). Experienced assistant professor with a demonstrated history of working in the education management industry. Skilled in lecturing, curriculum development, teacher training, faculty development and interdisciplinary teaching in Lovely Professional University, Phagwara, India. Strong education professional with a Master's degree focused in Human Resource Management/ Personnel Administration, General from Punjab university. Recently, delivered content on 'HR Metrics and Analytics & HR Analytics and Employee Mobility' in short term course on HR Analytics organized by Mittal School of Business, Lovely Professional University. And Participant in Five-day Online workshop on HR Analytics by National Human Resource Development.



Akhilesh Kumar Jaiswal, Student (HR & Finance) Pursuing MBA in Lovely Professional University, Phagwara, India. A Confident and Hardworking Individual Good at basics of financial management. Enthusiased, Successful at managing multiple assignments and delivering under tight situations. Enhance the ability to coordinate while working as a secretary for national service scheme. Coordinated many events and learned how to handle things. Solving problems makes me self-satisfaction. Participated in various events for knowledge enhancing. In my free time, learning new activities. Self-Motivator, hard worker and kind hearted. Recently, did as a intern in "Never Give Up Coach Private Limited" in the role of Business Development Team. Specialized in Human Resource and Finance.



Boby Singh Panchal (Hospital Healthcare Management & Marketing) Pursuing MBA in Lovely Professional University, Phagwara, India. Very Confident individual. Good at planning, coordinating, Leading and executing tasks. Hard worker, quickly learning new skills, time management active listener. Problem solving skills Attending seminars and participated in various for knowledge enhancing. I am still enthusiastically grabbing into Learning new things, interesting subjects and programming languages. In free time, doing online courses relating to the subjects. Recently did as a intern in Jaypee Hospital in the role of Quality Manager. Specialized in Hospital Healthcare Management & Marketing.

