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The Role of HR Analytics in High Schools of Indore

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ABSTRACT

The purpose of this paper is to find importance of HR Analytics in High schools. The research also examined whether the HR Analytics is related to efficiency of an individual and growth of high School. It will also help in identifying the role of HR analytics in current high School environment with specific reference to focus on higher education and effective handling of HR issues. Further, the study identifies the significant assessment of HR analytics with respect to functions of teaching and learning environment. Study looks up in proposing a model for HR analytics to Academic Analytics for education Sector. The scope of the paper is to understand learning processes of students and teachers with all aspects of HRM program to help them to achieve balance and improve productivity and creativity. A multistage research process is undertaken, beginning with secondary research components. Review of literature through academic journals related to the field of education and HRM is also carried out.

There are many issues with the quality and accessibility of data as well as problems around the outdated IT infrastructure in state board schools. The initial goal of HR Analytics is to capture, store, and make accessible data for the high schools to generate reports. It implies a broad range of motivation among the teachers of high schools. HR Analytics has its practical importance. It is important to achieve a desired goal set by top level management. This will help the employer to make most effective use of HR Analytics and to ensure how teachers get satisfied and motivated and how it affects their efficiency. The study indicates that high schools should facilitate teachers to improve efficiency and productivity after proper HR analytics.

Keywords: HR Analytics, Academic Analytic, Operational Analytics and High school success.

INTRODUCTION

The HR analytics has emerged as a new concept for the people working in education sector .This paper attempts to figure out the theoretical and conceptual framework of analytics in high schools.

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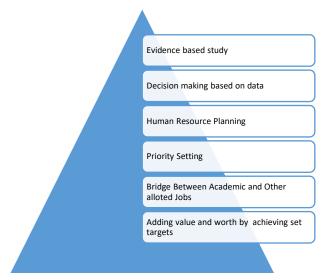
The study used exploratory research design. Further, study came up with categorizing the data analytics of high schools into Academic Analytics, Operational Analytics and special reference is given to HR analytic as its contribution in attaining the excellence for the High schools. Human Resources Management (HRM) is data and information processing, learning, training which are restructuring our environments. The domain of human resource analytics can be understood as a data and analytical thinking-centered approach to Human Resources Management which is fast becoming an important part of High school setups. The present study explored the existing literature in the field of HR analytics and their implications for improving performance of teachers. This also includes reviewing HR analytics in high school setups through the introduction of relevant IT infrastructure .HR Analytics (HRA) got popularity in recent years. It refers to HRA in other terms that is used interchangeably with HR analytics.

Heuvel & Bondarouk (2017) referred analytics as "the use of analysis, data and systematic reasoning to make decisions". More organizations are taking interest in HR Analytics and the various tools and functionalities it encompasses when it comes to data-driven decisions. The idea behind analytics is until and unless they are not measured they are not improved. The analytics trend is growing not only for providing powerful insight for decision making but also to HR leaders for having proper planning about rewards system, decision making, High school designing, allocation of funds to various HR activities, and talent management activity to create more value for developing High school.

HR analytics is a relatively novel intervention in the larger domain of HRM, and it refers to the use of statistical tools, measures and procedures, which can be used in taking the most effective decisions regarding strategies and practices. HR analytics can be understood as being more credible because it provides statistically valid data and evidence that can be used in the process of creating new strategies during the implementation of existing HR strategies.

The possibilities for HRM offered by analytics have been realized, but there remains an immense room for growth in the area and the study of the relevance of analytics within the various categories that fall under HRM. One of the major advantages with HR analytics is that it is an evidence based study, which helps the high schools in bridging the rationality in their decision making process by setting a mark in prioritizing the impact of HRM. HR analytics can help in upgrading the standards of HR professionals working and leveraging the competitive advantages to the High schools.

HR Analytics Dimensions



Source: Author's Research

OBJECTIVES

The aim of the present research is to do an exploration of existing literature with the aim of understanding the relationship between human resource and analytics and understand the role it plays in the improvement of the High school Teachers and HR related research. The present study has following objectives:

- 1. The objectives of the study are to understand the role of HR analytics in high schools for increasing the High school effectiveness and efficiency.
- 2. To investigate and gain insight into the future of HR analytics if integrated into the High school to help teachers to know their own performance based on statistical evidences and relevant HR analytical data and literature
- 3. To examine the existing literature on the integration of HR analytics within High schools and evaluate the existing studies qualitatively and discuss the research gaps (if any).
- 4. To examine the IT infrastructure and technology available in high schools, including those that affect the data and implementation of HR analytics.

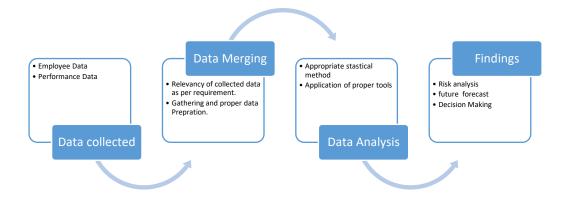
RESEARCH METHOD

In the current study, we used primary data collection and a systematic literature review for HR Analytics, and 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.

• **Sample frame** - The universe of the study comprises 500 teachers working in 20 schools in Indore region of Madhya Pradesh .Out of these 250 teachers

were selected for the study. The sample unit is chosen on the basis of random sampling method.

- **Data collection** Primary data was collected from respondents by administering a structured questionnaire dealing with various aspects of job sequences. This study was carried out through a survey method using questionnaires as the main instrument. This 30 items questionnaire required the respondent to answer each item on a Likert scale format with 5 choices per item ranging from "strongly disagree" to "strongly agree".
- **Statistical tool** Data were collected and tabulated. A pilot study was carried out to revise the questionnaires and for item analysis. The validity and reliability of the questionnaires were measured.
- Theoretical Framework of the study- HR Analytics (HRA) is defined by Reddy and Lakshmi keerthi (2017) as a communication device that paints a cohesive and actionable picture of the current situation and the future outcomes. Heuvel and Bondarouk (2017) discussed the evolution of HR analytics throughout the years from basic automation to the digital age of big data and artificial intelligence. HR Analytics is not the manipulation of HR data nor is it HR findings, but it is the unique mix of unlocking insights from data and the ability to convey thoughts with these findings to solve problems.



The effective HR Analytics help in performing HR functions, such as forecasting the demand and supply of people, assessing training needs of teachers, implementing pay for performance, and maintaining effective teachers' information to decide on rewards and managing teachers' discipline. Overall, it helps to make decisions based on data about recruitment, retention, training, rewards, career planning and High school effectiveness and efficiency.

HR Analytics dimension for High schools

Now a days, HR analytics is playing a major role in education. Specifically to higher schools, which are also looking forward to ensure the success at all levels of academic

operations and undergoing the utilization of all management practices and policies which can lead to academic excellence. Thus, the use of HR analytics is a new technique to take smart decisions. Today, high schools are also implementing calculative decisions to ensure organizational success at all levels to deal with questions about student retention, students admissions, fund raising, and operational efficiency. HR analytics has moved in the higher school as mix of business analytics & Academic analytics in responsibility functionaries as:



REVIEW OF LITERATURE

Sousa (2018) concludes that for analytics to fully support and benefit HRM, the organization needs to first reach a certain level of analytic maturity to enable it to achieve the desired HRM goals and overall strategy. Dahlbom et al. (2020) argue that there are three main factors that affect the adoption of HR Analytics, technology, organization, and people. Much advancements are being observed in the field of analytics and HRA. However, there remains considerable doubt and ambiguity on the impact of these tools and models due to the various factors that hinder the implementation of HRA. Analysis of the policies & practices in teaching education covering the principles of critical race theory used as analytics and explore tools to invade the concept (Derrik, 1980).

Author	Year	Content
Derrik	1980	Analysis of the policies & practices in teaching education covering the principles of critical race theory used as analytics and explore tools to invade the concept
Goldstein, P. J., & Katz, R. N.	2005	Academic analytics: The uses of management information and technology in higher education, Educause.
Campbell, J. P., & Oblinger, D. G.	2007	Academic analytics. EDUCAUSE review.

Dawson, S. P., McWilliam, E., & Tan, J. P. L.	2008	Teaching smarter: How mining ICT data can inform and improve learning and teaching practice.
Milner IV, H. R.	2008	Critical race theory and interest convergence as analytic tools in teacher education policies and practices.
Jac, F. E.	2010	Explains in his remarkable work that analytics defined as the sequential working of logical progress on first phase and use of Statistical tool second phase. Analytical is also explained as science of analytics derived from the Greek word "Analutika".
Mondore, Scott; Douthitt, Shane; Carson, Marisa.	2011	Researcher investigated on various Integrated Analytics for the HR domain used in the High schools as• Succession Planning• HR Strategy Development • CEO People Dashboard
Bassi, L.	2011	Raging debates in HR analytics. People and Strategy,
Bassi	2012	Elaborates the understanding of HR analytics as art and science role of HR, specifying the creative aspect of HR with the knowledge, rationality and quantifying data in decision making of HR. Thus, it is said that HR analytics elevate the status of both HR rationality & creativity simultaneously.
Vinita	2012	Illustrates the use of social media analytics as an effective assessment too for behavior. Higher Education Institutions are also utilizing the outcome of the study in terms of recruitment & hiring practices of faculty and staff members. The study further highlights the role of social media analytics while developing conceptual framework to understand the importance of behavior assessment.

Angela van Barneveld, Kimberly E. Arnold, and John P. Campbell Jac Fitz-enz, John	2012	Researcher investigates the role of Analytics in higher education as a relatively new area of practice and research. The intent of paper is to present the distinct perspective of different types of analytics being observed in the academic sector. It synthesized different definitions for analytics in academic institutional environment. The authors put the focus on the
Mattox, II		application of the fundamentals of predictability and incorporate the framework of logical questions for providing aid to analytic program or project, via the use of clear explanation of Statistical applications.
Reasmusse	2015	Starts with supporting the HR analytics can be of huge potential to bring great value to management leaders. HR leaders can strategically use the data informatics in strong decision making for rightfully utilizing High school capital and serving the intuition with evidence
Thomas Rasmussen, Dave Ulrich	2015	Authors evaluated the talent scorecards which are the resultant of HR analytics as a business drive. They state the contribution of data analytics in HR process while neutralizing the biasness of the traditional systems into succession planning and talent management.
Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016).	2016	HR and analytics: Why HR is set to fail the big data challenge. Human Resource Management Journal.
Laurence	2017	States business world is having a buzz of big data & potential of HR analytics is transforming The High school performance. It has been taken up as an strategic decision by the higher

		institution to follow the approach of HR analytics for delivering high Quality for the High school.
Laurence Collins,	2017	Author emphasizes on the fact that data is
David R. Fineman,		being utilized for High school operational efficiency and analytical tools are being
Akio Tsuchida		entrenched into day-to-day decision making.

Proposed Model for the HR Analytics in High School of Indore

High schools are under huge stress to increase strength, maintain efficiency, ensure maximum utilization of available resources, and ensure the constant learning experience in the school with being competitive in market. These pressures are encouraging the High schools to develop new strategies other than their traditional approaches .Thus, many educators and leaders have stated approaching the tools of data analytics to find effective solution to their emerging problems. To attain their objective, organizations have understood that it does not require a single system reporting rather than exploring the deep institutional data, analyzing, sharing and acquiring the required meaning, full insight and information for all levels.



Proposed Model for the HR Analytics in High School of Indore

FINDINGS AND DISCUSSION

HR Analytics helps us to shift from teaching to a more strategically oriented function adding value and driving academic decisions. Following our review, it must be noted that it is essential to have IT infrastructure that can lead to better academic and operational decision making. High school must be mindful to improve HR analytics capabilities and the fact that it will require investment in HR technologies. Further, our findings show that the more investment put into HRA, the higher the return will be on the HR department and ultimately the high school excellence.

1. Academic Analytics

• Student enrollment: Data analytics becomes most important for high school with respect to student enrollments, as the entry point of school, class in which

admission is done with required documents and completely filled admission form. At the time of admission, all documents must be cross checked and proper fee should be collected.

- Student retention: Student retention rate and reason can also be monitored through the analytics and special focus is given to the reason of leaving the school with a proper explanation so that drop out issues can be reduced over a period of time. Convincing and putting viewpoint, understanding students need must keep in focus.
- Learning engagement: Students' participation in various activities organized by the school to upgrade their intellectual level and to predict their success and future training requirement can help in improving the outcomes. Teachers must be trained for the same from time to time to overcome day to day challenges of their occupation. Their own development also gets affected.
- Success in competitions: Data analytics and research on different competitive exams or competitive events helps to get Success in different competition. Success will motivate students and teachers to do well in future too. At the same time, they will learn to cope up with different challenges and learn multitasking attitude.
- Impact of school environment: Data analytics helps teachers to know about students' perception and to find out the way to motivate them because surroundings play major role in creating positive thought processes. If the student is growing in positive environment, he/she will keep balance in life in a tough situation .Teachers play major role in creating such environment. Rather student must take an exam or competition as a part of life. Teachers should motivate students to do hard work for better tomorrow.

2. HR Analytics

- Recruitment and Selection: HR Analytics helps to forecast future demand of teachers and when to give proper advertisement. It helps in selecting right number of candidates for right job at the right time. HR Analytics helps in the well structured recruitment and selection of the teachers.
- Compensation and Reward: HR Analytics helps in deciding proper Compensation and rewards. When to offer monetary payment such as incentives, various bonuses and performance bonus. Rewards can be non-monetary such as a paid vacation.
- *Training and Development:* HR Analytics helps in deciding proper training and development process for teachers. To whom training is required ,what sort of training is required , when it should be given and what will be its cost .HR analytics helps in deciding future training needs.

• *Priority setting:* This is one of the major aspects of planning. For a successful completion of task, proper planning is required and for proper planning, priority must be set in advance. HR Analytics helps to review and compare past performance and helps in deciding priorities.

3. Operational Analytics

- IT Ability to support school work: In today's environment, teachers are very techno savvy and keep on collecting students' data. School Boards also need to have a huge data base to understand patterns, trends, growth area and opportunities for excellence in academics. This data helps school teachers to have good number of students succeed in their schools and to make their school more effective and competitive. School gains the excellence through data-driven decision making.
- Board affiliation and documentation work: Operational Analytical tool serves a boon for the administration department to have the affiliation, registration and documentation to be done on time and having strong influence in understanding board pattern in admission, result analysis etc.
- Scheduling of school: The optimization in scheduling classes, lecture and time table, planning different activities and conducting different events, preparing different circulars and providing time table to teachers as per their class allotted is best sorted with operation analytics.
- Fee management: One of the most difficult and hectic works which can be handled best only with data analytical tool. Fee management is the sole function which is properly performed by financial leader or an accountant, who can state about the profitability and details about the pending dues, which are to be fixed only under specific time durations.
- Parents and student counseling: Operational Analytical tool helps to keep the
 data regarding students' record, meeting with their parents, reason for meetings
 ,number of sessions done for counseling, phone calls done from school
 ,performance of students in various events and responsibility held.

IMPLICATIONS AND SUGGESTIONS

This paper contributes greatly to the field of human resource management in which HR analytics opens up for tasks in HR and administration. The findings show that success of analytics-based intervention impacts the decision making and helps in improving performance of high school. HR analytics is not a one department problem solution tool rather it is a comprehended data system design to support the Academic learner, administrator & decision makers of the higher education institutions. It helps to handle various challenges and opportunities existing in high school like to manage student demands, liaison with government regulations, meeting the norms of Board

and affiliation. Understand the analytical framework and especially human resource domain can have a significant mark in the high school growth.

LIMITATIONS

The main limitations of the following research predominantly centers on the availability of literature on the issue. There is a gap in the existing literature .Hence, there is a need for existing literature to be sufficiently nuanced, and the present study is limited in the range of literature available for review.

SCOPE FOR FUTURE RESEARCH

Future research studying HR Analytics and variables affecting it could benefit from empirical investigation. We recommend longitudinal data collection from various high schools in order to produce generalizable results. Additionally, studies investigating the impact of HR Analytics on specific High school outcomes have been extremely limited and further research is needed to understand these correlations in depth and identify their significance towards specific HR processes such as talent acquisition, performance management, and compensation.

CONCLUSION

HR Analytics is a road ahead to success of teachers of High school. The objectives of the study are to understand the role of HR analytics for High school in increasing the effectiveness and efficiency of high school teachers. The study has covered various attributes of the HR Analytics and has attempted to find how the HR Analytics has contributed to the growth of high school teachers.

REFERENCES

- 1. Armstrong, M., & Taylor, S. (2014). *Armstrong's Handbook of Human Resource Management Practice*. Kogan Page Publishers.
- 2. Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016). HR and Analytics: Why HR are Set to Fail The Big Data Challenge. *Human Resource Management Journal*, 26 (1), 1-11.
- 3. Bharti, A. (2017). Human Resource Analytics. *South Asian Journal of Marketing & Management Research*, 7 (5), 68-77.
- 4. Ballinger, G. A., Cross, R., & Holtom, B. C. (2016). The Right Friends in the Right Places: Understanding Network Structure As A Predictor of Voluntary Turnover. *Journal of Applied Psychology*, 101 (4), 535–548. doi:10.1037/apl0000061
- 5. Bassi, L. (2011). Raging Debates in HR Analytics. *People and Strategy*, 34 (2), 14-18.
- 6. Coolen, P., & Jselstein, A. (2015). A Practitioner's View on HR Analytics, (web log post) available at: www.linkedin.com/pulse/practitioners-view-hr-analyticspatrick-coolen?trk=prof-pos.
- 7. Davenport, T.H., Harris, J.G. & Morison, R. (2010). *Analytics at Work: Smarter Decisions, Better Results.* Harvard Business School Press, Boston, MA.

- 8. Dulebohn, J., & Johnson, R. (2013). Human Resource Metrics and Decision Support: A Classification Framework. *Human Resource Management Review*, 23 (1), 71–83.
- 9. Fairhurst, P. (2014). *Big Data and HR Analytics*. Institute for Employment Studies.
- 10. Fitz-enz, J., & Mattox, J. R. (2014). *Predictive Analytics for Human Resources*. Hoboken, NJ: Wiley.
- 11. Fitz-enz, J. (2010). The New HR Analytics: Predicting The Economic Value Of Your Company's Human Capital Investments. New York: Amacom Books.
- 12. Goldstein, P. J., & Katz, R. N. (2005). *Academic Analytics: The Uses of Management Information and Technology in Higher Education*. 8, Educause.
- 13. Griffin, R. W., & Moorhead, G. (2011). Organizational Behavior. Cengage Learning.
- 14. Harris, J. G., Craig, E., & Light, D. A., (2011). Talent and analytics: New Approaches, Higher ROI. *Journal of Business Strategy*, 32 (1), 4–13.
- 15. Heuvel, S., & Bondarouk, T. (2017). The Rise (and fall?) of HR Analytics: A study into the Future Application, Value, Structure, and System Support. *Journal of Organizational Effectiveness: People and Performance*, 4 (2), 127-148.
- 16. Ingham, J. (2011). Using a Human Capital Scorecard as a Framework for Analytical Discovery. *Strategic HR Review*, 10 (2), 24-29.
- 17. Jac, F. E. (2010). The new HR analytics: predicting the economic value of your company's human capital investments, AMACOM.
- 18. King, K. G. (2016). Data Analytics in Human Resources: A Case Study and Critical Review. Human Resource Development Review, 15 (4).
- 19. Lakshmi, M., & Pratap, S. (2016). HR Analytics A Strategic Approach to HR Effectiveness. *International Journal of Human Resource Management and Research*, 6 (3), 21-28.
- 20. Ben-Gal, H. C. (2019). An ROI-based Review of HR Analytics: Practical Implementation Tools. *Personnel Review*, 48 (6), 1429-1448.
- 21. Levenson, A. (2011). Using Targeted Analytics to Improve Talent Decisions. *People and Strategy*, 34 (2), 34.
- 22. Marchington, M., Wilkinson, A., Donnelly, R., & Kynighou, A. (2016). *Human Resource Management at Work*. Kogan Page Publishers, Electronic copy available at: https://ssrn.com/abstract=3525328 HR Analytics: A Modern Tool in HR for Predictive Decision Making http://www.iaeme.com/JOM/index.asp 63 editor@iaeme.com
- 23. Mishra, S. N., Lama, R., & Pal, Y. (2016). Human Resource Predictive Analytics (HRPA) for HR Management in Organisations. *International Journal of Scientific & Technology Research*, 5(5).
- 24. Mondore, S., Douthitt, S., & Carson, M. (2011). Maximizing the Impact and Effectiveness of HR Analytics to Drive Business Outcomes. *People and Strategy*, 34 (2), 20.
- 25. Milner IV, H. R. (2008). Critical Race Theory and Interest Convergence as Analytic

- Tools in Teacher Education Policies and Practices. *Journal of Teacher Education*. 59 (4), 332-346.
- 26. Meena, R., & Parimalarani, G. (2019). Human Capital Analytics: A Game Changer for HR Professionals. *International Journal of Recent Technology and Engineering*, 8 (2S11), 3963-3965.
- 27. Mohammed, A. Q. (2019). HR analytics: A modern pool in HR for predictive decision making. *Journal of Management*, 6 (3), 51-63
- 28. Rasmussen, T., & Ulrich, D. (2015). Learning from practice: How HR Analytics Avoids Being a Management Fad. *Organizational Dynamics*, 44 (3), 236-242.
- 29. Reddy, P. R., & Lakshmikeerthi, P. (2017). HR Analytics' An Effective Evidence Based HRM Tool. *International Journal of Business and Management Invention*, 6 (7), 23-34.
- 30. Rasmussen, T., & Ulrich, D. (2015). Learning From Practice: How HR Analytics Avoids Being a Management fad. *Organizational Dynamics*, 44 (3), 236-242.
- 31. Sousa, M. J. (2018). HR Analytics Models for Effective Decision Making. 14th European Conference on Management, Leadership and Governance, *ECMLG*, 256-263
- 32. Sousa, M., Pesqueira, A., Lemos, C., Sousa, M., & Rocha, Á. (2019). Decision-Making based on Big Data Analytics for People Management in Healthcare Organizations. *Journal of Medical Systems*, 43 (9), 1-10. [20].
- 33. Sripathi, K., & Madhavaiah, C. (2018). Are HR professionals ready to adopt HR analytics? A study on analytical skills of HR professionals. *Journal of Advanced Research in Dynamical and Control Systems* (8), 303–308.
- 34. Sharma, A., & Sharma, T. (2017). HR Analytics and Performance Appraisal System: A Conceptual Framework for Employee Performance Improvement. *Management Research Review*, 40 (6): 684-697.