



A STUDY ON BRIDGING THE HR ANALYTICS GAP WITH REFERENCE TO SELECTED ORGANISATIONS IN BANGALORE CITY

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ABSTRACT

Human resource management is the management of an organizational workforce or human resources. It is responsible for the attraction, selection, training, assessment and gratifying employees, it also manages organizational leadership, culture and ensures compliance with employment and labour laws. The concept of HR is a product of the early 20th century when researchers began documenting ways of creating business value through the strategic management of the workforce. Current study based on analytical approach of Human Resources for the effectiveness of the organization. This study is an attempt to investigate the efforts of Managers and Human resource personnel towards the resultants of Analytics application in Strategic Human resource management. The present study is navigated in direction to explore the current literature about the tie-up between Human Resource analytics and the role it can perform in developing the existing range of managerial and HR-related goals. A well designed Human Resource Analytics activity, as a baseline for the accomplishment of the Strategic Human Resource system being a strategic business partner of the organization by leading its focus from merely Human Resource Management to a full-fledged Strategic Human Resource Management. Current study denotes that by extensive approach by studying the different selected organizations from Bangalore City.

KEY WORDS: Strategic, HR Analytics, Predictive, Decision Making

INTRODUCTION

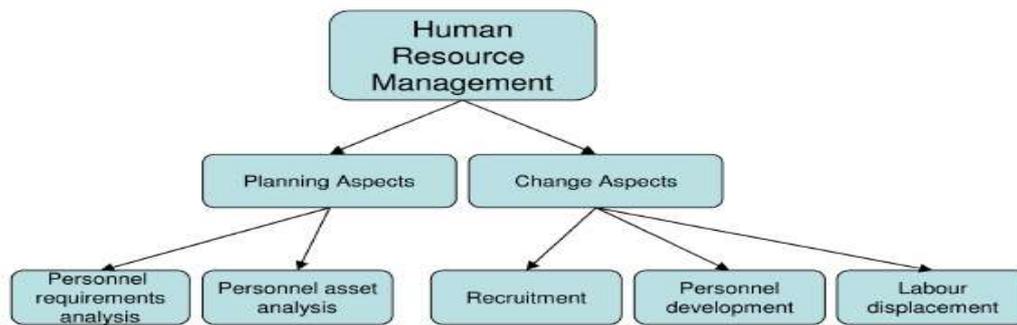
Human Resources function was initially dominated by transactional work such as payroll and benefits, administration, but due to liberalization, privatization and globalisation, business consolidation, technological advancement, and further research, HR now resting on strategic and analytical initiatives like mergers and acquisitions, talent management, succession planning, industrial and labor relations, diversity inclusion. Human Resource Management (HRM) as a concept gains its big breakthrough first in North American literature. This big breakthrough was a result of discussion between personnel and human resource management where one school of thought argued that the Strategic and analytical HRM term actually represented a new philosophy, a new paradigm which was fundamentally different from traditional approach to personnel management. Hence, Prior to the emergence of modern day Human resources management the roots of HRM can be traced back to Manpower management which is the process where

by individuals or persons are put to take part in the active management of a particular organization or company or task, in which at the end of the task there are benefits for both the person concerned in the task and the organisation, while manpower management is the actual analytical utilization of man in the pursuit of a particular goal or objective, whereby such individual does not wander away from the focus or said analytical target.

HR analytics has given a new dimension and roles for Human resource managers in managing the workforce effectively. Accuracy is the key element of Human Resource analytics and its execution itself. The domain of human resource analytics, which could be understood as a data and analytical approach to Human Resources Management

SIGNIFICANCE AND SCOPE OF THE STUDY

The below diagram is the diagrammatic representation of Human Resources Management:



Source: Abecker et al., *Human Resources with Ontologies*, 2004.

HR Analytical Cycle Process

The current HR analytical study based on the process. The total study executed on these five elements process of HR analytics. Step-I Understanding or identifying the goals or objectives or aims of the organization. Subsequently in step-II, Identifying the metrics of respective areas to analyze

to achieve or reach these goals. Next step_III deals with collecting and analyzing the relevant data collected through the effective process. Followed with step-IV, obtaining or finding the insights in to this data process. Ultimately the step-V, dealt with communicating how this data impacts or influences the organization.



Source: *HR Technologist* -2019

After deciding the process the gaps need to be identified from prescribed core areas of Human Resource management. Elements of Core Human Resources, Absence or gaps in respective areas, Elements of Pay roll, Recruitment, Attrition, Performance, Learning, Succession Planning or

second level development in the roles of organization for sustaining and development. Once HR managers clear with these essential elements process can be adopted and implemented successfully.



Source: Recruitment Predictive Analytics, HR Medium.com

OBJECTIVES OF THE STUDY

- To examine into the future of HR analytics if integrated into the organization to assist HR managers in predictive decision-making based on statistical exhibits.
- To examine the current literature and integration of HR analytics within Selected Organizations of Bangalore City
- To understand the Organization and evaluate the current studies qualitatively and quantitatively to identify research gaps if any
- To examine the role of Information Technology and initiatives' in HR analytics' approach from selected organizations in Bangalore city.

REVIEW OF LITERATURE

The effective management of human resources has long been acknowledged by both scholars and practitioners as being a key component to the overall success of the business. Here an attempt is made to present the available literature in the area related to the present research problem to gain insight with analytical research works already conducted. Such a review is important because it indicates the awareness of concept of metrics as well it helps in identifying gaps in the existing literature also. Chris Hendry, Andrew Pettigrew, (1986) in their study entitled "The Practice of Strategic Human Resource Management", explores the developments in United States in the past few years. As with other high-sounding phrases in the management of people, first reactions are likely to divide between "let's have some of it" to "it won't work here", with the latter possibly predominating. K. Bharti (1989) "Human Resource Development practices in central public sector manufacturing sector" in her doctoral thesis researcher identified the key changes in the human resources development practices in the manufacturing sector and also examined HR practices and appraise the same in the light of HR policies. A study by Ostroff (1995)⁹ clearly indicates that when human resource professionals perceive a higher quality of human resource practices, these firms have higher business results. Catherine Truss

(2001) in his study argues that the resource based view of human resource is overly rationalistic, unitarist and internally focused, compared with organizations from the sociological institutionalism perspectives. She contends that the more recent Complex Adaptive Systems perspective constitutes a more promising basis upon which to advance our knowledge in this area, since the I.T industry is an emerging industry and H.R practices in such an industry have to be necessarily strategic, dynamic and flexible in nature, considering the changing business environment. Dahlbom, P., Siikanen, N., Sajasalo, P., & Jarvenpaa, M. (2019) focus on how the HR function takes advantage of human resource analytics (HRA), including big data (BD), and discuss factors hindering HRA and data utilization. Moreover, the authors discuss the implications of the HRA-induced role transformation of the human resource (HR) function. Design/methodology/approach. Jain, P., & Jain, P. (2020). Understanding the Concept of HR Analytics, opined changing business dynamics, HR Analytics seems to be the potent isomorphic factor that the future corporate world is going to adopt. This study interprets the application of HR Analytics, the associated limitations in its implementation and the metrics to be considered to evaluate the readiness of an organization to adapt HR Analytics. Wingard, D. (2019) "Data-driven Automated Decision-Making in Assessing Employee Performance and Productivity: Designing and Implementing Workforce Metrics and Analytics" in this study observed despite the relevance of data-driven automated decision-making in assessing employee performance and productivity, only limited research has been conducted on this topic. Using and replicating data from Bright & Company, Corporate Research Forum, Deloitte, Management Events, McKinsey, and Top Employers Institute, researcher performed analyses and made estimates regarding current data practices at high-performing organizations (%) and the extent to which workers will be affected by hiring, displacing, contracting and retraining (%). The results of a study based on data collected from 4,300 respondents provide support for my research model. Using the structural equation modeling and employing the



probability sampling technique, researcher gathered and analyzed data through a self-administrated questionnaire. Noack, B. (2019) "Big Data Analytics in Human Resource Management: Automated Decision-Making Processes, Predictive Hiring Algorithms, and Cutting-Edge Workplace Surveillance Technologies" analyzed the outcomes of an exploratory review of the current research on big data analytics in human resource management. The data used for this study was obtained and replicated from previous research conducted by Bright & Company, Corporate Research Forum, Deloitte, HR Tech World, IBM, LinkedIn, Management Events, McKinsey, and Top Employers Institute. I performed analyses and made estimates regarding structural design changes to cope with the realities of shifting skill needs (%), levels of analytics readiness (%), and companies applying analytics in human resources by industry (%). Data collected from 4,800 respondents are tested against the research model by using structural equation modeling. Disha Sachdeva, et.al., (2005), "Employee opinion of human resource practices in Indian knowledge process outsourcing companies", International Journal of Indian Culture and Business Management, The study uses a structured questionnaire containing 54 pairs of importance-satisfaction items on select human resource practices and deploys importance-performance analysis as importance-satisfaction analysis. Career planning and development emerged as the top employee priority area demanding thoughtful analysis and consideration. Katou, A. A. and Budhwar, P. S. (2007), "The effect of human resource management policies on organizational performance in Greek manufacturing firms" This research investigates if human resource management (HRM) policies have an impact on organizational performance in the Greek manufacturing context. The research is based on a sample of 178 firms. Castanheira, F. and Chambel, M. J. (2010), in their study "Reducing Burnout In Call Centers Through H R Practices" entitled observed previous research on call centers has demonstrated that Human Resource (HR) practices can be related to employee stress; however, these studies did not examine the linking mechanisms underlying these associations. Ram Ch. Seetha, (2011), "Information Technology is an Effective Tool for Developing Human Resources: A Study on Selected Sections of Society in Visakhapatnam", Information is the most valuable asset for any organization or institute. The growth of the Internet has greatly influenced the case and speed with which information is shared. The outlined model is based on the studies surveyed by Ballinger, Cross and Holtom (2016) whose study posits how data acquired about the network structure of the employees can serve as a predictor for employee turnover rates. Similarly, the proposed model looks at how data acquired through various parameters can

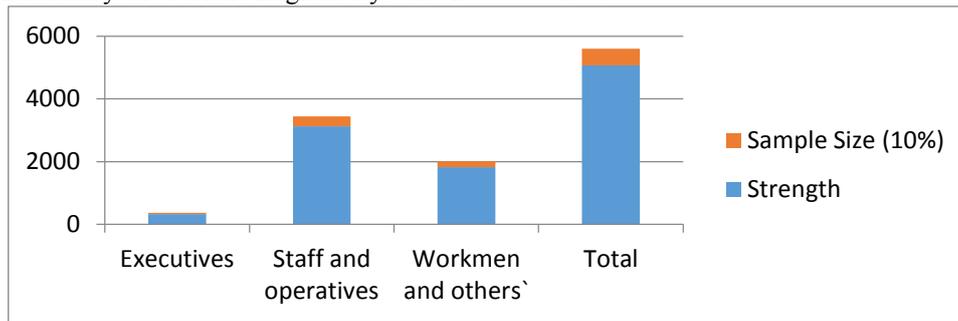
affect employee performance, as outlined in Rich et al' (2010) study, and can be evaluated using analytics tools. As per the literature reviewed earlier, Puhakainen and Siponen's study evaluated the need for employees to be trained in the information systems security policies of the organisation in order to ensure that they comply with the prescribed policies. Roland K. Yeo, Jessica Li, (2011) this research study entitled "Working out the Quality of Work Life: A Career Development Perspective with Insights for Human Resource Management" aims to examine the importance of the quality of work life and its impact on career development from an organizational perspective, and provides insights into human resource management (HRM) practice. The study focuses on the quality of work that resides in the direct experience of organizational dynamics rather than the common understanding of work-life balance. Upasna Joshi., et al., (2012), "Human Resource Accounting System in Selected Indian Companies", Researcher in this study opined human resource may be seen as the most fundamental of all available resources to an economy or an organization. Human resources are energies, skills, talents and knowledge of people that are or can be potentially applied to the production of goods and services. Corporations cannot run by machines or systems alone, however smart those may be. Liu, L., Akkineni, S., Story, P., & Davis, C. (2020) observed Human Resource (HR) Analytics enables HRs to make strategic contributions and support managerial decisions. However, in most of the industry, HRs should have been on board with data analysis. There are several challenges: the HR data is messy and imbalanced, it is hard to harness both structured and unstructured data, some HR managers lack data mining skills and the lack of related empirical research that gives a detailed analytics guideline. The contribution of this study is that we develop a framework to support an industrial aluminum company to make the decisions and to improve strategy execution. The framework includes descriptive analysis, predictive analysis, and entity sentiment analysis. Researchers analyzed an industrial aluminum company's data and found some actionable issues. Then researchers employed machine learning algorithms to predict employees' turnover and found risk factors. Moreover, researchers applied the entity sentiment analysis on the unstructured data collected from employees' engagement survey. Leicht-Deobald, U., et al., (2019) identified an important challenge arising from the efficiency-driven logic of algorithm-based HR decision-making, namely that it may shift the delicate balance between employees' personal integrity and compliance more in the direction of compliance. Authors suggest that critical data literacy, ethical awareness, the use of participatory design methods,

and private regulatory regimes within civil society can help overcome these challenges.

RESEARCH METHODOLOGY

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner's Dictionary of Current English lays down

the meaning of research as “a careful investigation or inquiry especially through search for new facts in any branch of knowledge. Keeping in of the above objectives and methods of study the sample is drawn from different selected organizations i.e. 1. Executives 2. Staff and Operatives 3. Workmen. There are 330 employees in the executive category, 3125 employees belongs to staff and operatives the category, while 1824 employees belong to workmen category.



For HR analytical study purpose five dimensions been adopted, these attributes help to draw an analytical approach before and after process of the metrics involved. Here it is a difficult aspect to measure and study some of the components due to its qualitative nature. Each dimension indicates a directional significance towards a combination of factors. Every item is provided with five alternative responses on the pattern of the Likert's five-point scale.

1. Opinion on Awareness about Organizational Policies and Procedure
2. Opinion on Manpower Practices
3. Opinion on Human Resources Development Practices
4. Opinion on Compensation Management
5. Opinion on Human Relations

Cronbach's` Alpha test is also conducted to find out internal consistency and reliability associated with scores or composite scores which can be derived using a scale or composite score. Cronbach's alpha is

a measure of internal consistency that is, how closely related a set of items as a group. For conceptual purposes, the formula for the standardized Cronbach's alpha is given below.

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Limitations

Establishing rapport with the respondents posed a problem initially. During the collection of information, it was found that some respondents were rather hesitant and unsure in providing the desired information. Employees were hard pressed for time in view of the job demands and rigorous work schedule. Comparison of the metrics available with organization and data acquired from employees is a difficult task during the process of analytical view.



Correlation of dimensions

Correlation						
		Organizational Policies and Procedure	Manpower Practices	Human Resources Development Practices	Compensation Management	Human Relations
Organizational Policies and Procedure	Pearson Correlation	1.00	-.491	.393	.094	-.437
	Sig. (2-tailed)		.263	.383	.841	.327
Manpower Practices	Pearson Correlation	-.491	1.00	-.709*	-.398	.116
	Sig. (2-tailed)	.263		.032	.288	.670
Human Resources Development Practices	Pearson Correlation	.393	-.709*	1.00	.215	-.099
	Sig. (2-tailed)	.383	.032		.578	.799
Compensation Management	Pearson Correlation	.094	-.398	.215	1.00	-.490
	Sig. (2-tailed)	.841	.288	.578		.181
Human Relations	Pearson Correlation	-.437	.116	-.099	-.490	1.00
	Sig. (2-tailed)	.327	.670	.799	.181	

Correlation is significant at the 0.05 level (2 tailed).

Factor Analysis:

Descriptive Statistics

Dimension	Mean	Standard Deviation
Organizational Policies and Procedure	2.2950	0.6064
Manpower Practices	2.1491	0.6063
Human Resources Development Practices	1.9582	0.4938
Compensation Management	2.1550	0.6293
Human Relations	2.0809	0.5463

Sl. No	Statement Description	Mean	Std. Deviation	Number
1	I am aware of Vision, Mission and core values of the organization	2.22	0.533	529
2	I am aware about organizational policies	2.32	0.582	529
3	I am aware of organizational business plan and business model	2.06	0.473	529
4	Human Resource Policies and Practices are aimed at meeting the individual and organizational objectives	2.13	0.601	529
5	Organizational policies ensures transparency	2.78	0.954	529
6	Organizational Policies aim at securing employee contribution for organizational growth	2.14	0.515	529
7	Human Resources planning is done depending upon the size and organizational structure	1.89	0.718	529
8	Manpower practices aim at recruit and retain the best talent	1.8	0.696	529
9	Manpower policy is formulated keeping at view of current and future requirements	2.56	0.803	529
10	Job Analysis is done to asses job requirements	2.43	0.8	529
11	Job Analysis practices consists of all information relating to job	2.02	0.66	529
12	Job description is clearly spelt to all employees	2.24	0.577	529



13	Recruitment is based upon the job specification and job evaluation	2.19	0.541	529
14	Organization believes human resources as vital aspect for its` success or failure	2.12	0.456	529
15	Talent Pools is built to address longer-term recruitment issues	2.06	0.511	529
16	Recruitment practices ensure compliance with Equal Employment Opportunity	2.00	0.712	529
17	Recruitment practice helps in developing positive image of the candidate and organization	1.89	0.616	529
18	Recruitment practices ensure transparency among applicants	2.56	1.021	529
19	Both internal and external sources are taken into consideration in recruitment	2.15	0.734	529
20	Selection of the candidate is based upon the suitability of applicant for the job	2.19	0.623	529
21	Selection is done after the test and interview process	2.05	0.503	529
22	Proper induction of the selected candidate is made after the process of socialization / probation	2.08	0.602	529
23	Organization believe in human resources development as key aspect for its` success	2.19	0.524	529
24	Employees are helped to strengthen their knowledge and skills through training	2.12	0.443	529
25	Organization have a separate training department	1.03	0.172	529
26	This organization provided with training opportunities in order to enable employee to extend range of skills and abilities.	1.94	0.589	529
27	Human resources development is a continuous process in the organization	2.11	0.583	529
28	All possible methods are used in training programs and evaluated at the end of the training session	2.21	0.578	529
29	Training & development programs are conducted at every level to sharpen skills and abilities of the employees	2.06	0.508	529
30	Employee empowerment is encouraged in the organization	1.96	0.608	529
31	When compared to other organizations in the city, the employees in our organization are being paid reasonable wages/salaries	1.93	0.585	529
32	Employees are satisfied with the current practices of compensation	2.62	0.954	529
33	Salary is based on the level of performance	2.07	0.574	529
34	Equitable pay differentials is shown basing upon the nature of job	1.98	0.545	529
35	Pay incentives such as bonus is an important part of the compensation strategy in our company.	2.18	0.636	529
36	Pay incentives are designed to provide a significant amount of an employees' total earnings in this company	2.36	0.762	529
37	Pay incentives such as profit sharing is an important part of the compensation strategy in our company.	2.02	0.534	529
38	Fringe benefits are fair when compared to what staff doing similar work in other organizations.	2	0.469	529
39	Performance appraisal system is effective in the organization	2.2	0.567	529
40	Performance rating is effectively done in the organization	2.05	0.516	529
41	Performance appraisal is based on an objective to asses employees` overall performance and is not based on favoritism	2.1	0.634	529
42	The top management is willing to invest a considerable part of their time and other resources to ensure the development of employees	2.14	0.595	529
43	People lacking competence in doing their jobs are helped to	1.99	0.504	529



	acquire competence			
44	The top management of this organization makes efforts to identify and utilize the potential of the employees	1.99	0.609	529
45	Promotion decisions are based on the suitability of the promotee rather than on favoritism	2	0.577	529
46	Employees in our organization do not have any fixed mental impressions about each other	2.28	0.739	529
47	Employee grievance is identified at the initial phase in the organization	2.12	0.577	529
48	Proper grievance procedure is followed in the organization	1.91	0.545	529
49	Proper disciplinary action is taken according to the procedural norms	2.14	0.512	529
50	Management no longer considers trade union as road blocks	2.16	0.565	529
51	Industrial peace and harmony is maintained in the organization	2	0.496	529
52	Concept of collective bargaining is no longer an issue for management	2.02	0.48	529
53	Working conditions ensure healthy working conditions	2.1	0.522	529
54	Safety measures are satisfactory in the organization	2.01	0.485	529
55	This organization ensures employee welfare to such an extent that the employees can save a lot of their mental energy for work purposes	2.02	0.511	529
56	Health, Safety and Welfare are the prime concerns of the organization	2.12	0.568	529
57	Quality of work life practices ensure the participation from all levels seeking organizational effectiveness through human dignity and growth	2.04	0.471	529
58	Employee separation is linked with employment conditions in the organization	2.05	0.605	529
59	Human resources audit and accounting practices are effective in the organization	2.2	0.588	529
60	Human resources information system enables top management to track information on employees	1.97	0.447	529
Average Mean and Std. Deviation		2.1045	0.5901	529

MAJOR FINDINGS OF THE STUDY

- Findings also revealed that there is a significant difference in opinion score between Managers and Workmen, Staff and Workmen. While, there is significant difference in the opinion score between Managers and staff.
- The workers have expressed a different opinion when compared to executives and staff and operative.
- The average value of Human Resources Development Practices is smaller than the remaining dimensions which show that the respondents opined in a highly positive way with regard to this dimension when compared to other dimensions.
- The dimension of Organizational Policies and Procedure is indicating a greater average value which implies the modest positive opinion of the respondents indicating the managements of both the industries have to communicate their core objectives, policies and procedure to all levels in the respective organizations.
- Further analysis indicates the perceptions of the respondents with regard to the statement that “Human Resource Policies and Practices are aimed at meeting the individual and organizational objectives”. A whopping more than 80% of the respondents are satisfied with the HR policies and practices.
- The results of the study indicate that the organizational policies are transparent and aims at securing employee contribution, transparency of policies are crucial indicator of organizational success.
- Results from analysis suggest that selected industries are able to recruit and retain the best talent and manpower policies and aims at current and future needs. The study further reveals that the in time job analysis is done to asses job requirements and job analysis consists of every prime aspect.



- Regarding the recruitment practices it is evident from analysis that recruitment is based upon the job specification and job evaluation and proper selection process is followed by the selected industries.
- Majority of the respondents are of the opinion that the selected organization believes that human resources acts as a vital aspect for success or failure. Pooling of human resources is an evident in the form of talent pools. The selected organizations do comply with the equal employee opportunities.
- It is evident from the analysis that compensation is fairly based upon the level of performance, justifiable pay differentials are followed by both the companies. A preponderance of respondents is satisfied with the pay incentives and fringe benefits.
- Majority of the respondents felt that the top management is willing to invest a considerable part of its time and other resources to ensure the development of the employees.

SUGGESTIONS

- It may be suggested that proper alignment of individual and organizational goals should be made.
- Misconception about the organizational policies exists in the lower level employees. Hence it is suggested that the senior management should communicate with them in the best possible manner.
- Management is the process of efficiently achieving the objectives of the organization with and through people, hence it advised to align human resources at all levels.
- It should be noted that the human resources or human capital of an organization play a strategic role in its success and are a major source of competitive advantage. Implement effective performance management systems. Highly engaged employees place a great deal of importance on having a performance management process that effectively assesses, recognizes and rewards employees.
- Taking steps to implement key HR practices, companies can add to employee engagement and retention, and, as a result, improve their competitiveness in the growing market, facilitating them to address rapidly changing market conditions and nurture a pool of talent that will give them the capabilities they need in the future.
- The culture of the selected organizations is partly satisfactory. Hence it is suggested that the management should take necessary

steps to make the culture of the organization much better.

- Bonus must be designed in such a way that employees recognize that there is no payout unless the company achieves a certain level of profitability. Never pay out bonus without measuring performance, unless it is a statutory obligation.
- Each employee should have well clear reporting relationships. Self-rating as a part of evaluation process empowers employees. Evaluation becomes fairer if it is based on the documentation of periodic counseling & achievements of the employee, tracked over the year.

CONCLUSION

Over the last twenty years, the workforce has changed dramatically in terms of age, gender, ethnic and racial composition, family structure, and job expectations. Consequently, such social developments have significant impacts on the nature and operations of organizations. In today's business environment human resources emerge to be less committed to their respective organizations. An employer cannot assure the stability and prolonged the existence of corporate career paths or the job security of employees' jobs. Overall, influential and unstable market forces have overwhelmed non-market institutional structures, resulting in decreased employee commitment and increased flexibility of employment. Organizations develop human resource policies that indisputably reflect their beliefs and principles and the relationship between management and employees, or they may merely devise, policies that deal with existing problems or requirements. These practices include recruitment and selection, training and development, performance management, remuneration systems, occupational health and safety, industrial relations, Human Resource Information System, impact of labor legislations. Having right human resources practices in place in time and by focusing on the four 'Cs' – Connect, Communication, Culture and Capabilities, the selected organizations can become the leaders in human resources practices. Human resources is about developing and managing knowledge, skills, creativity, aptitude and talent and using them optimally. It also focuses on managing physical and emotional capital of employees. Considering the details involved, the scope of HRM is broadening with every passing day. It covers but is not limited to HR planning, recruitment and selection, training and development, payroll management, rewards and recognition, Industrial relations, grievance handling, legal procedures etc.



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