Big Data as a Tool for Talent Management in IT Sector

Dr. M. Chitra

Assistant Professor
Anna Adarsh College for Women
Chennai, Tamil Nadu, India

Ms. B. Punitha

Assistant Professor
Anna Adarsh College for Women
Chennai, Tamil Nadu, India

Abstract-   Big data is important in all sectors to succeed in fast changing competitive environment. Big data plays a significant role in forecast and insights of changes in future which are valuable to organisation. Abundant data, upgrading technologies, talented personnel to handle data are important for an organisation to reach and exceed their goals. Big data is considered as a weapon to manage talent in an organization. Proper Implementation of big data helps to have better talent Management. Big data provide space to have accurate talent acquisition, systematic performance management, effective training &development and succession planning which helps to retain talent. Current economic scenario faced with war for talent which makes big data inevitable for IT sector. This paper aims to study big data as a tool for managing talent in IT sector.

Keywords – Big Data, Talent Acquisition, Training and Development, Performance Management System, Talent Retention

I. INTRODUCTION

Big data is the caption used to describe a collection of data that are huge in size. The need of big data is increasing rapidly in recent times. Big data paves way for organisation to trapping their data. To have a competitive edge, analyzing future trends is essential for an organisation which can be accomplished through proper implementation of big data analytics. Big Data paves way for an organisation to have better operations and also allows them to take speedier and intellectual decisions. Source of data such as emails, mobile devices, applications, databases, servers, social media and other means can be used to collect and store data. Big data can help organisation to take decisions relating from hire to retire of employees for better utilisation of them and to achieve competitive edge.

II. BIG DATA AND HUMAN RESOURCE MANAGEMENT

Big Data refers to the software tools that analyze immense amounts of data across numerous systems in a short period of time. Big data in human resource management refers to the use of many data sources to evaluate and enhance human resource practices. In the present times, talent analytics enables Human resource manager to attain business goals in an effective way through proper implementation of Big Data practices.

III. NASSCOM ON BIG DATA

"India is currently among top 10 big data analytics markets in the world and NASSCOM has set a target of making one among the top three"

Big data analytics sector in India is expected to reach$16 billion by 2025 from the current $2 billion. The Government, industry and academia can collaborate to build an ecosystem to generate sustainable solutions by harnessing the power of big data and digital innovation. The combined power of harnessing big data and digital solutions can drive tremendous results in boosting the nation's economy. If big data can be put to cutting edge for our corporations and clients, it can very well be a catalyst for the economy and the country.

IV. OBJECTIVES OF THE STUDY

1. To study big data as a tool for talent management in IT Sector.

2. To analyze the employee benefits due to big data in IT sector..

V. STATEMENT OF THE PROBLEM

Big data process helps to stay updated with changing dynamics and also allows them to predict future. Customer centricity is the new policy in all sectors. Because of competitive environment, all sectors need to hold back customer which is possible through big data applications. Big Data application helps to have a systematic work and also make employees to work without stress. Big data has emerged as secret of success for any organisation and allows organisation to have better operations efficiency, early identification of risk associated with products and services. Big data assist to predict employee involvement so it helps human resource manager to maintain cordial relationship with employees which is good sign for effective human resource practices. Retention of human resources is possible through well organised Big Data. This has made the researcher to study big data as a tool for talent management and also to study employee benefits in IT sector.

V. REVIEW OF LITERATURE

Siyu Zang and Maolin Ye (2015) opined that Big data paves way for effective recruitment, training and development. Big Data application helps to design attractive pay and performance and proper career management to retain talents. Big data impart innovative information for human resources but valuable usage of big data can service company and also employees to work better.

Chuck Russell et al (2015) said that Decision making process is easy when organisation effectively documented all information. Success of organisation depends on valuable decision making process which was possible through big data applications. Over the next few years, Human resource manager will realize big data has power to build talented employees for organisation.

Pala SuriyaKala et al (2016) observed that Big Data has an immense potential at present as it is modernising the World. Organisation need to concentrate on application of big data in all departments and human resource department has no exemption. Big data paves way for effective talent management which leads to increase performance of business.

VI. RESEARCH METHODOLOGY

The study consists of 60 samples collected from employees in IT sector. Data were collected using Primary data and secondary data. Structured questionnaire was used to collect primary data. Secondary data from Journals, articles, research papers, books, NASSCOM report were collected. Convenient sampling method was used for collecting data. Analysis for the study was done using SPSS. Tools like Percentage Analysis, Descriptive Analysis and Correlation were used for analysis.

6.1 Research Instrument –

The researcher had designed a structured questionnaire. Five point likert scale was used to analyse the opinions of employees regarding Big data as a tool for talent management. Suggestions and comments are also included in the questionnaire. The questionnaire seeks to record responses relating to talent acquisition, training and development, performance management, talent retention, employee benefits.

VII. LIMITATIONS OF THE STUDY

- The study deals with opinion of employees in IT sector which in turn depends on time

- The study is restricted to IT sector in Chennai city.

- Limited sample size for the study.

VIII. ANALYSIS AND INTERPRETATION

Table – 1 Demographic Profile

Variables	Options	Frequencies	%
Gender	Male	30	50%
	Female	30	50%
Marital status	Single	33	55%
	Married	27	45%
Qualification	Graduate	23	38.3%
	Post Graduate	21	35.0%
	Professional Degree	3	5.0%
	Technical Degree	11	18.3%
	Others	2	3.3%
Age	Less than 20	-	-
	20-25	25	41.67%
	26-30	22	36.67%/
	31-35	6	10%
	36-40	7	11.67%
Monthly Salary	Less than 15000	3	5%
	15000-25000	22	36.67%
	26000-35000	14	23.3%
	36000-45000	10	16.67%
	Above 46000	11	18.33%

The above table shows that Male and female respondents are equally considered for the study. In terms of marital status, most of the employees are unmarried. In terms of age, most of the employees (41.67%) are between 20-25 years. In terms of qualification, majority of the respondents are Graduate (38.3%). In terms of monthly salary, most of the respondents (36.67%) are earning Rs 15000-25000.

Descriptive Analysis

Table – 2 Talent Acquisition

Talent Acquisition	N	Mean	SD
Online job portals are available on social network.	60	4.22	.585
Resumes database are maintained.	60	4.08	.743
Pre employment test are available.	60	4.03	.736
Data are collected from social media regarding potential of candidate.	60	3.28	1.027
Job description clearly specified in online job portals	60	3.92	.850
Job specification explicit to employees	60	3.60	1.012

Table 2 shows the talent acquisition variables. Talent acquisition is the first step which is essential for organisation to attract top talents. Most of the respondents opined that IT sectors providing online job portals on social network and also agreed that resumes database are maintained for better talent personnel. Employees agreed that Big Data paves way for effective talent acquisition practices.

Table – 3 Training and Development

Training and Development	N	Mean	SD
Organisation provided opportunity to Learn at any time or anywhere through network.	60	4.13	.623
Training methods as per desire of employees.	60	3.67	.914
Opportunities provided to gain Knowledge sharing of retired employees	60	3.87	.965

Training and development allows employees to strengthen their skills. Training and development is indispensable function. From the above table it is evident that organisations provided opportunity to employees to learn at anytime and anywhere through network .IT sector documenting knowledge database of retired employees which is shared among the present employees for betterment of their knowledge.

Table – 4 Performance Management

Performance Management	N	Mean	SD
Employee performance tracking system is maintained.	60	4.05	.928
Handbook of due dates, evaluation criteria, duration, target is provided.	60	3.72	.691
Open and transparent feedback about employee performance	60	3.75	.895
Linkage of performance with compensation.	60	3.53	.947

Performance management system helps employees to realize their potential. Table 4 shows that organisation are tracking employee performance which create interest among the employees to improve performance. Employees opined that transparency in feedback about performance increase motivation.

Table – 5 Talent Retention

Talent Retention	N	Mean	SD
Stay interviews are conducted and recorded.	60	3.75	1.035
Match salary with Current market demand for his employees.	60	3.53	.929
Organisation are tracking employee accomplishments for recognition and appreciation	60	3.93	.800
Two-way Online feedbacks and suggestions provided weekly by the organisation	60	3.16	1.3064291
Employees career plan well aligned with personal preferences	60	3.52	1.049

Retention is the daunting task for organisation. Table 5 shows that organisation are tracking employee accomplishments for recognition and appreciation which create morale among employees. Organisations are consecutively taking steps to retain employees whereas employees need online feedback and suggestions need to be provided weekly for improvement.

Table – 6 Employee Benefits

Employee Benefits	N	Mean	SD
Automatic reminders that urge up to finish the process.	60	3.83	.942
Transparency in individual development. (promotion)	60	3.55	.872
Employees are clearly exposed to their compensation claims.	60	3.52	1.097
Easy to access past records.	60	3.32	1.097
Big data serve as a reservoir of information	60	3.62	1.075

Big Data yield benefits for employees to work systematically and enthusiastically. Big data help employees to accomplish their work on time by setting reminders. Employees opined that big data serve as a reservoir of information for future purpose.

Table – 7 Interrelationship among Talent Management Variables

H0: There is no significant interrelationship among the talent management variables in IT sector.

Variables	N	r value	p-value
Talent Acquisition- Training and Development	60	.249	.055
Talent Acquisition-Performance Management	60	-.012	.930
Talent Acquisition-Talent Retention	60	.207	.113
Training and Development - Performance Management	60	.224	.086
Training and Development- Talent Retention	60	.256	.048
Performance Management- Talent Retention	60	.125	.342

The above table shows the interrelationships among talent management variables. It is evident that the relationship between training and development and talent retention is significant where as in all other cases null hypothesis is accepted. So IT sector need to integrate big data applications in to training and development to impart innovative and interesting training and development methods to employees according to their needs which in turn paves way to retain talents within organisation.

Table – 8 Correlation Between Employee Benefits and Talent Retention

H0: There is no significant relationship between employee benefits and talent retention in IT sector.

Talent Retention		
Employee Benefits	Pearson Correlation	.495**
	Sig. (2-tailed)	.000
	N	60

The above table shows correlation between talent retention and employee benefits. As p value is less than significant value null hypothesis is rejected. There is a significant relationship between employee benefits and talent retention. Appropriate Big data application is beneficial for employees as it facilitate IT sector to retain employees.

IX. FINDINGS

Demographic Profile

- Male and female respondents are considered equally for the study.
- Majority of the respondents are single.
- Majority of the respondents are graduates.
- Most of the respondents are from the age group of 20-25 years.
- Respondents in the income category of Rs 15000-25000 are more in number

Talent Management Variables

❖ Employees opined that IT sector adapting innovative methods to attract talent such as online job portals, pre employment database and also maintaining resume database. Big data paves way for effective talent acquisition.

❖ Employees agreed that IT sector providing opportunities for employees to learn at anytime and anywhere through network. Innovative training and development like knowledge sharing of retired employees benefit existing employees to gain experience.

❖ IT sector tracking employee performance which assist employees to work better for recognitions. Transparencies in evaluating performance of employees create confidence among employees.

❖ Employees opined that IT sector value employees since they design recognition and appreciation by tracking individual performance to retain them in IT sector.

❖ Employees perceived that big data applications create automatic reminders that urge up to finish their process which helps to create interest and also fear to complete the work.

❖ Big data applications are applied in all variables of talent management such as talent acquisition, training and development, performance management, talent retention. Effective training leads to retain Talent in an organisation.

X. SUGGESTIONS

• IT sector need to preserve Employee Journey Data to keep hold of them in future.

• IT sector need to concentrate on effective training and development to update employees with latest technology.

• IT sector need to design pay structure by linking compensation with performance.

• Two way online feedbacks and suggestions weekly by the employer and employee can create good employer and employee relationship.

• IT sector necessitate employees easily to access past records which leads to expansion of knowledge about their progress and involvement.

XI. CONCLUSION

"Processed data is information. Processed information is knowledge Processed knowledge is Wisdom." (Ankala V. Subbarao)

Big data is playing crucial role for business decision makers. Investing in big data applications facilitate human resource manager to manage talent against Talent Poaching and Talent Hunting. FIVE V'S OF Big Data such as Velocity- Speed of Data, Volume- Vast amount of data, Value- Worth of data, Variety- distinct category of data, Veracity- Quality of data, assist organisation to take precise decisions about the effective utilisation of Human resources. Both Employer and Employee must exploit data in proper way for mutual benefits. On the whole, successful execution of Big Data serves as a tool for managing talent in IT sector.

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