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AUTOMATION AND ATTRITION: A REAL CHALLENGE FOR INFORMATION TECHNOLOGY (IT) ORGANIZATION

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ABSTRACT--*Information Technology(IT) companies use various software tools, processes and applications to achieve better results at optimum cost. The world has undergone tremendous technological changes in the recent years and It has become inevitable to automate processes across the organizations. Automation enhances revenue productivity and deliver efficiency, with less manual intervention. Though the emerging technologies improves the productivity and efficiency, still it has its own pros and cons on human force.Initially, IT companies were hiring the employees (Fresh Graduates) in lakhs, which has gradually reduced to thousands. Four out of six Indian IT companies have reported a decline in the head count. Impact of automation and increased digitalization has resulted in reduced resource requirements - Increase productivity by reducing man power. A recent report in Business line has stated 'Automation reduces hiring in big five IT companies by 24%' which drives to massive attrition. This paper aims to figure out the possible ways to retrain the employees in the automated platform and effective methods to manage attrition in the cognitive era.*

Keyworbs—*Information technology it organization.*

I. INTRODUCTION

Attrition is one of the prominent issues faced by the IT companies over decades. A company's internal power and weaknesses is based on the attrition rate. Employees frequently switch the companies for numerous reasons. Sometimes even companies voluntarily send out their employees because of their business requirements. Attrition has become a major problem across the globe and mostly affected industry because of this problem is IT industry. To withstand in this fast phase changing technologies and competitive edge, IT companies are in the urge to show productivity and deliver efficiency with optimum human resource. The biggest driver for these companies to achieve efficient results are Automation and digitalization. Now the problem is how potential skills required for automation by the employees is addressed by the organizations.

II. EMERGING TECHNOLOGIES IN IT INDUSTRY

IT industry develop their own automation tools to complete their process-based jobs. Employees need to have sound knowledge in the areas like big data, analytics, machine learning,design,artificial intelligence, Internet of Things to withstand in the marketfor longer period.Few automation tools used in IT industry are Automated server

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build,Bots,Technical health checkup and so on. Many IT companies create and deploy applications which are faster and simple by reducing redundant jobs.

III. AUTOMATION

Automation in simple – the process which are carried out by the human previously, were done by machines entirely in such a way the accuracy and efficiency will be increased by reducing the man hours and labour cost. The use of automation is considered as big threat in IT industry as they also generate revenue by adding employees every quarter. IT industries has already reaping positive results with advent of automation and other optimisation methods.

IV. AUTOMATION & ATTRITION

People are the valued assets of any organization. They are not machines to simply execute the processes. It indicates that automation has already begun to replace jobs done by humans in the Indian IT industry. This development has not only to increase the productivity, but it should also remain as cost- effective. The IT companies are already feeling the pressure to improve the profitablity by reducing the human force. Automation is bound to impact hiring going forward leading to massive attrition by net additions in every quarter.

V. SIGNIFICANCE OF THE STUDY

In the recent article-Business line, it is stated that, With nearly two lakhs jobs are expected to be slashed in the IT sector in the next two years.'the normal industry attrition is 15-20 percent, which is not geeting replaced and with automation taking over,more than two lakh jobs are likely to be lost in next two years'.Most of the layoffs are taking place in segments like IT infrastructure development,testingang software development. This study mainly focuses on challenges faced by the employees in the automated platform and how to cope up with new skills as per the latest business innovations.

VI. LITERATURE REVIEWS

Anil Kumar Harargi,(2012) did her research titled,"Talent retention in Indian BPO sector, A challenge" He identified, 3 stage process managing the employees retention;1) Identify the cost of employee turnover 2)Understand why the employee leaves and 3)Implement retention strategies. He concludes that has the sector is opened and people has various choice to work, for that, attrition is on the rise to minimize and manage the sector should plan the career path of people and provide them rewards and promotions on time and keep them satisfied and the employees should not think of alternative employer.

N Bharathi and P Paramashivaiah, (2015) did their research titled, "Attrition and Retention the real challenge- the study with special reference to IT and ITES organizations in bangalore". The study provided immense insights for the managers to suitable change their retention strategy to ensure minimal of no attrition. It helped in ascertaining then retention strategy currently being employed by IT and ITES companies.

VII. OBJECTIVES

- To explore how automation causing high attrition rate in IT companies.
- To understand how – Automation leads to employer-initiated Attrition.
- To know how the automation indirectly influence the Employee- layoff's.
- To evaluate the sufficiency of training provided by organization to upskill themselves.

SCOPE OF THE STUDY

- The study will help us to understand the attrition level of employees working in IT companies.
- To understand how the employees are indirectly pressurized to leave the organization in automated platform.
- To study the various steps taken up the organization to retain their employees while automating the process and applications.

LIMITATIONS OF THE STUDY

- In this study sampling area is restricted only to IT industry.
- Participant's bias is possible as this project is qualitative in nature.
- Findings may vary due to some demographic factors and conditions.
- Due to confidentiality some of the information shall not be accessed.

VIII. RESEARCH METHODOLOGY

Convenience sampling method has been used for this study. The total population into groups and the sample are collected randomly from the groups.

SAMPLE SIZE:110 Respondents

Sources for data collection:

a) Primary data: A well designed questionnaire was given to IT employees to collect the primary data.

b) Secondary data: Secondary data was collected through Records, reports and journals.

IX. FRAME WORK AND ANALYSIS

For analysis, percentages, chi-square test, one sample t-test, were used in the study. SPSS (Statistical package for the social sciences) version 20.0 was religiously used for the statistical analysis.

X. HYPOTHESIS

- There is significant relationship between Automation and employer-based attrition.
- There is significant relationship between sufficiency of training and willingness to stay in current organization.

XI. TESTING OF HYPOTHESIS

Relationship between Automation and employer-based attrition:

Null Hypothesis-H0: There is no significant relationship between automation and employer-based attrition.

Alternate Hypothesis-H1: There is significant relationship between automation and employer-based attrition.

One -Sample T-test:

Table 1: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Automation leads to employer based/Initiated attrition	110	1.73	.447	.043

Table 2: One-Sample Test

	Test Value = 110					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Automation leads to employer based/Initiated attrition	40.491	109	.000	1.727	1.64	1.81

XII. INTERPRETATION

Here calculated value is 0.000. since, the calculated value is less than the table value (0.05), so reject Null hypothesis H0 and accept Alternate hypothesis H1. Hence there is a significant relationship between Automation and employer-initiated attrition.

Therefore, if the organization works on automated platform, there are more chances for the organization to reduce their human force.

Relationship between sufficiency of training and willingness to stay in current organization

Null Hypothesis-H0: There is no significant relationship between sufficiency of training and willingness to stay in current organization.

Alternate Hypothesis-H1: There is significant relationship between sufficiency of training and willingness to stay in current organization

One -Sample T-test

Table 3: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean

Willingness to stay in current organization if sufficient training is given	110	1.18	.387	.037

Table 4: One-Sample Test

	Test Value = 110					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper
Willingness to stay in current organization if sufficient training is given	31.990	109	.000	1.182	1.11	1.26

XIII. INTERPRETATION

The calculated value is 0.000. Since, the calculated value is less than the table value (0.05), so reject Null hypothesis H0 and accept Alternate H1. Hence, there is a significant relationship between sufficiency of training and willingness to stay in current organization.

Therefore, even while working in automated platform, if the organization provides sufficient training to employees to upskill themselves, then they are ready to stay in the same organization.

XIV. CHI-SQUARE ANALYSIS

Relationship between Automation and employee lay-off ***by the organization:***

Automation indirectly influence employee lay-off by organization *

Table 5: Automation leads to employer based/Initiated attrition Crosstabulation

		Automation leads to employer based/Initiated attrition		
		Strongly agree	Agree	Total
Automation indirectly influence employee lay-off by organization	Strongly agree	10	20	30
	Agree	20	60	80
Total		30	80	110

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Table 6: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.764[a]	1	.382		
Continuity Correction[b]	.402	1	.526		
Likelihood Ratio	.745	1	.388		
Fisher's Exact Test				.472	.260
Linear-by-Linear Association	.757	1	.384		
N of Valid Cases	110				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.18.

b. Computed only for a 2x2 table

XV. INTERPRETATION

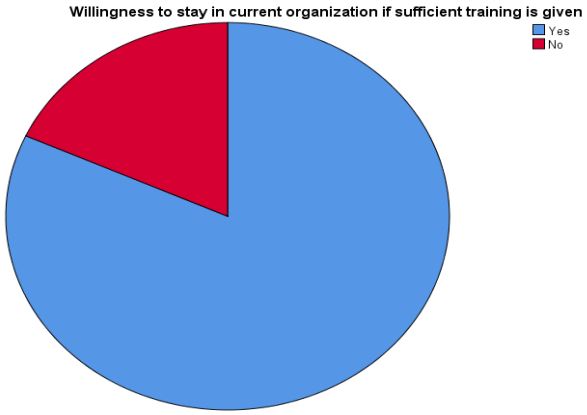
As stated above, it is found that, Automation and employee lay-off by the organization are not statistically significant at 5% level. Hence, there is a significance difference between automation and employee lay-off by the organization. Employers are also not interested in lay-off's, if the human resources are upskilled and equipped with the new technological advancements.

XVI. DATA ANALYSIS & INTERPRETATION:

Percentage Analysis:

Table 7: Willingness to stay in current organization if sufficient training is given

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	90	81.8	81.8	81.8
	No	20	18.2	18.2	100.0
	Total	110	100.0	100.0	

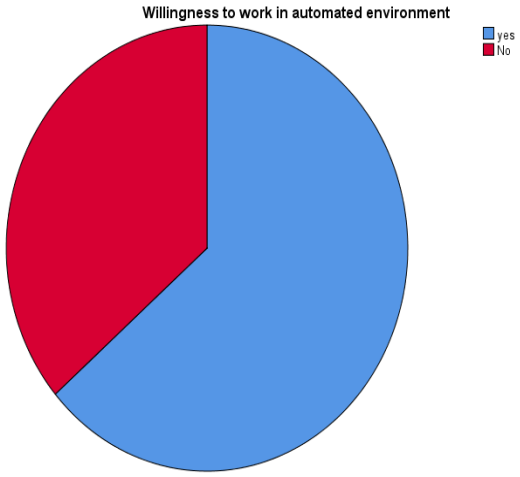


XVII. INTERPRETATION

From the above diagram, majority of the respondents are willing to stay in the current organization, if the organization provides them sufficient training programs to work efficiently in the automated platform.

Table 8: Willingness to work in automated environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	70	63.6	63.6	63.6
	No	40	36.4	36.4	100.0
	Total	110	100.0	100.0	



Interpretation

From the above diagram, majority of the respondents are willing to work in the automated environment, working in the automated environment helps the employees to complete the process on time and efficiently.

XVIII. FINDINGS

- If the organization works on automated platform, there are more chances for the organization to reduce their human force.

- Employers are also not interested in lay-off's, if the human resources are upskilled and equipped with the new technological advancements
- Majority of the respondents are willing to work in the automated environment, working in the automated environment helps the employees to complete the process on time and efficiently.
- Majority of the respondents are willing to stay in the current organization, if the organization provides them sufficient training programs to work efficiently in the automated platform.

XIX. RECOMMENDATIONS & SUGGESTIONS

In the pyramid structure of management, middle level employees are in the risk of becoming unemployable, unless they upgrade themselves. In an article in **ET Bureau**, Chandralekha Mukerji has stated that, "In the IT industry, learning never stops and one has to keep updating themselves as per the latest industry skills. Those who are not able to do that have perished in the past and will continue to do so". There is a strong startup for high skilled workers.

Employees should equip themselves with knowledge of big data analysis, analytics, statistics skills, strong communication skills and a good working knowledge of business intelligence tools. Experienced people with good technical know-how are in high demand. Employees should have working knowledge in different areas, people who are good at cloud computing should also know IT infrastructure risk analysis. Employees who are multi-talented and has urge to learn new things are retained by the organizations.

Fresh graduates and students should also learn new courses and short-term courses on new technologies, as what has been taught in college has becoming redundant over a period. Students should also pick up new skills and technologies by themselves.

In the case of low -skilled employees, they need to upgrade themselves, else they will lose their jobs. They must acquire new skills for the organization to retain them. They can attend courses in advanced excel and advanced techniques. If they failed to do so, they need to find jobs with less skills in some other sectors.

To avoid training costs of new employees, it is important for the organizations to address potential skills gaps of work force related to automation. Retaining employees is always cheaper than replacing employees.

Senior executives must rethink to help the employees to develop right skills at right time. Every employee should also be responsible for upskilling and upgrading themselves. They should also take lead to close the skill gaps. Success of any organization depends on how well it plans to retrain the employees in this cognitive era.

The transition is already in place, many laid-off workers are given training, if they are not capable, they are re-skilled and transferred to other opportunities. All IT companies should run upskilling campaigns and provide opportunities for employees to upgrade.

XX. CONCLUSION

Automation has become the backbone of the Indian IT sector. To reskill the employees based on new technological advancements is the biggest challenge for all IT companies. Venkatesh Ganesh – Business line, states that' Automation is expected to gain further steam in 2020, rendering nearly 70 percent of the Indian workforce

irrelevant. All this is bound to impact hiring going forward. The half of the working force will be irrelevant as they are not skilled to stay tuned to the changing market needs'. It is high time for employees and IT organizations to rebuild their skills and technical requirements to increase the productivity of the organization together with increased employee productivity. The investment made in employees to retain and retrain them will increase the employee productivity. The employees in Indian IT industry has to use the opportunity to optimize their talents by learning Industry relevant skill sets along with their core skills.

Last year IBM had used predictive retention, using artificial intelligence-based pilot program in Indian unit, to identify the employee likely to leave the company and planned to use the information to take counter measures to retain them. IBM had redeployed most of their skilled resources in to the emerging technologies by training them and reshuffling the resources across. As a result, IBM has reduced attrition rate successfully.

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