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HR Metrics- Its impact on Return on Investment : A study on select organizations in Assam.

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Abstract

Recent developments in the field of Human Resource Management has led to the evolution of Human Resource (HR) metrics and Workforce analytics. Without the use of HR metrics, it is observed that organizations measure the effectiveness of HR policies by a trial and error method. Prior to the introduction of metrics, the result of the HR policies and efforts of people involved went unnoticed. But with the introduction of HR Metrics, a new revolution has come into being.

Objective: The present study is thus an attempt to see the impact of metrics on one of the most essential element of organization i.e the Return on investment (ROI).

Methodology: Each organization wants to have a positive ROI. The study was conducted across several organizations in Assam. HR professionals were involved and a questionnaire was given based on the Likert scale. Answers were collected and those were further studied with various statistical tools like Reliability analysis, ANNOVA, Correlation, Regression.

Findings: There is a positive relationship between HR metrics and Return on investment (Trivedi, 2015). The present study is also aligned and in consistency with the previous studies and finds a significant relationship between HR Metrics and Return on investment. The study was done taking into account three variables of research and all of them had an impact on Return on investment.
Novelty: This research takes into account three new dimensions of HR metrics while undertaking the study which were not done previously.
Keywords: HR Metrics, Return on investment, organization, measurement, impact

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Introduction

With the recent developments in the field of human resources, application of Human Resource(HR) Metrics and workforce analytics is growing. Though a relatively new term, a decade back, HR metrics has now been able to find its place amongst one of the best used measures. Metrics help organizations to solve problems more easily. The increasing use of HR Metrics is seen in the fact that majority of the executives are seen using HR metrics in their overall business strategy (Tori Fica,2020). HR metrics help organizations to bring out their human capital and how effective their human resource measures are. In the recent times, it has also been observed that many organizations want to hear more from their HR teams and want detailed HR reports. It is also important to see the impact of HR initiatives in the organization.

Most of the human resource departments in organizations around the globe want to quantify the costs associated with the human resource programmes and also the results associated with those programmes. Metrics also help organizations to develop core competency and develop competitive advantage. Previously, most of the organizations were unaware of how many people they had in their organization. Even, most of the top HR executives were unaware of the success of their programmes. This is because they were unable to value their programmes and were unable to use metrics.

It has also been observed that executives make better decisions when they use facts which have been gathered from organizations. In case of using metrics too the idea of one size fits all cannot be applied. Good metrics for organizations can only be found when we relate metrics with the organizational needs.

A lot of measures has been taken in order to quantify human capital and after that measures were taken to predict future organizational performance based on that, both financial and non-financial. It is often seen that though employees are a source of cost and asset for an organization, organizations are mostly able to measure the cost side and ignore the asset side. These inefficiencies often creates im-balance in human capital management. The most important step in this direction is improving the quality of human capital measurement (Bassi and McMurrer,2006).

The present study thus attempts to study the impact of HR Metrics on Return On Investment (ROI) in organizations in Assam.

Literature review

While conducting the present study the researcher has gone through the following literature

Author	Title	Source	Findings
Bassi and McMurrer (2006)	Human capital and organizational performance: Next Generation metrics as a catalyst for change	White paper	The paper spoke about foregoing the age old methods of HR analytics and encompassing new methods. The paper also identified a broad set of HR analytics like leadership practices, employee engagement, knowledge accessibility etc. Barriers to human

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			capital were also looked upon.
Hila Chatuz Ben Gal (2019)	An ROI Based Review of HR analytics: Practical Implementation tools	Emerald Publication	The review paper found two notable fields in the HR analytics system, namely, empirical and conceptual research. The review also found that despite HR analytics being a popular topic there is absence of high quality evidence based research on the field of HR analytics.
P.M Lakshmi and P.S Pratap (2016)	HR Analytics- A Strategic Approach to HR effectiveness	International Journal of Human resource Management and Research	The study throws light on the multidisciplinary approach to HR analytics which includes determination of critical outcomes, create cross-functional data team, assess measures of critical outcome, conduct objective analysis of key data. The study also revealed that in order to play a more strategic role in the organization HR functions should move beyond mere reporting to correct prediction.
R.Jayanthi (2018)	A Study on effectiveness of HR Metrics	International Journal of Science and research	The study threw light on the characteristics of good metrics, factors considered in developing metrics, approaches of HR metrics, imperative of HR metrics, benefits of HR Metrics, critical factors of HR Metrics etc.
Susmita Ekka (2021)	HR analytics: Why it matters	Journal of Contemporary Issues in Business and Government	Digital transformation across the globe is seen. Organizations should feel the need to move over tradition HR and bring about HR Analytics. Decision making should be based on analytics rather than on the traditional tried and tested methods of HR. Use of analytics will give competitive advantage to both the organizations as well as the employees of the organizations. HR Analytics also help in improving various roles like attrition, retention, workforce planning, talent management etc.

Gap in existing literature:

While going through the previously conducted research, it has been found that though studies has been conducted on the field of HR Analytics but the studies did not pay much attention to empirical study on the topic. Thus, the present study is an empirical take on the topic under study.

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Objective of the study:

The Main objective of the present study is to see whether the HR Metrics taken into consideration for the study has a significant impact on ROI.

Methodology of the study:

The present study is an empirical take on the topic under study.

Data Collection:

The study was based on primary data. The data was collected from 182 respondents working in Human Resource (HR) Department of selected organizations in Assam. The data was collected through a questionnaire which was based on the Likert scale. The Likert scale used was a 5 point likert scale.

Along with primary data, secondary data was also used while conducting the research. The secondary data used were collected from various journals, websites, books etc.

Sample size:

The sample size was selected by the researcher using the Krejcie & Morgan Model. The sample size for the present study is 182. A sample size of above 5 percent is considered to be good in social science research. For the present study, a sample of 182 was selected which represents 53 percent of the total population. The sample size is calculated at 95% confidence level and 5% margin of error.
The sample units of the study were homogenous in nature as only the HR Personnel were selected for the study.

Data analysis

For the purpose of data analysis, tools like regression, ANOVA were used. A reliability test was also conducted using Cronbach Alpha.

Variables under study

The metrics which are used in this research are few of the most used metrics in recent years to know about ROI (Return on investment). The variables are as under:

Turnover Ratio

The Turnover Ratio metrics that is considered as the effectiveness level is calculated as the difference between the departing employees and total employees. However, the reason for turnover is not taken into account.
The Center for American Progress published a report in the year 2012, which concluded that one-fifth of a workers salary is used to replace a worker in the same position. It can come as a problem for most of the organizations
represent significant costs" (Boushey & Glynn, 2012). Highly skilled employees have high It can come as a surprise and unmanageable tasks for organizations
to deal with voluntary exit of employees from the organization and this results in negative effect on the organization.(Park & Shaw, 2013).

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Thus the first hypothesis of the study is : Turnover has a significant impact on ROI

Cost per hire

The variable Cost per Hire in this research measures the costs associated with sourcing, recruiting and other staffing. Cost Per Hire is the ratio of the total amount of money spend to the total number of personnel recruited in a specified time period (SHRM, 2011).

However, it is also believed that organizations that take their decisions based on their recruiting efforts and solely on volume of applicants and the costs and time involved in staffing activities which can cause disastrous consequences. (Boudreau & Ramstad, 2001). It is also seen that there is an apprehension that this metrics does not measure the actual productivity of an employee in case of a successful hire or the losses arising from staff turnover (SHRM, 2012). Though cost per hire has its set of limitations, but it does manage to identify the best available talent in the least cost, which makes it a efficiency driven metrics.

Thus the second hypothesis of the study is : Cost per hire has a significant impact On ROI

Revenue per Employee

The third metrics taken into account for the purpose of the study is Revenue per employee. The revenue earned against each employee has been regarded as a widely used measure of productivity. This metrics can provide the Human resource departments of the organizations with the understanding towards human capital of the organization so that they can become new opportunities of becoming a revenue centre rather than only being a cost centre.

Thus , the third hypothesis of the study is :Revenue per employee has a significant impact on ROI.

Table 1. Reliability analysis

A reliability test was conducted in order to validate the statements given in the questionnaire. Cronbach Alpha test was conducted by using SPSS. The results of the test are given as under:

SI. No	Factors	Reliability Score
1.	Return on investment	.90
2.	Turnover ratio	.81
3.	Cost per hire	.79
4.	Revenue per employee	.87

Source: Derived by using SPSS, Version 20.

As Cronbach Alpha of above .70 is considered to be good, thus, the currently tested variables have met the desired standards.

Table 2. Table showing the descriptive statistics of the variables

Variables	Mean	Std. Deviation	N
Return on investment(ROI)	1.0209	.45628	182
Turnover ratio (TR)	1.0342	.58720	182
Cost per hire (CPH)	1.1181	.49158	182

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Revenue per employee (RPE)	1.1266 .	.42755	182

Source : Researcher's Calculation

The above table shows the descriptive statistics of the variables included in the study i.e the mean and the standard deviation. Revenue per employee is the variable having the highest mean.

The dependant variable is indicated by Return on investment.

The independent variables are indicated by Turnover ratio, cost per hire and revenue per employee.

Regression analysis on the external factors

A Regression analysis was conducted to determine the influence of the variables under study on the dependant variable. The Model summary of the analysis is shown below:

Table 3. Showing the model summary of the variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888	.789	.787	.21082

Source : Derived on Standard Statistical Software.

From Table 3, the model summary, it can be seen that the value of R = .888 which indicates that the variables have a high impact i.e a very strong relationship exists between the dependant variables and the independent variables.

The value of R^2 is the coefficient of determination, which indicates how much variability in the results is caused by the independent variables and its value lies between 0 and 1. In the above table the value of R^2 is .787 which means that almost 78 percent of the variance in Total Corporate Governance is accounted by the above model. (K.Kalita,2020)

Table 4 Table showing the ANOVA of the variables

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	28.627	2	14.764	324.416	.000
Residual	6.956	179	.044		
Total	35.583	181			

Source : Obtained from SPSS.

In regression, the value of F, and the significance level of the F-value is an important part of the output of regression. If a statistically significant value of F is obtained i.e ($p< .05$), it can be concluded that the predictors in the model have a significant relationship with the dependant variable. ANOVA helps in determining if the means of the study are statistically different. (K.Kalita,2020)

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It can also be seen that the value of F is 324.416 which is statistically significant as its significant value is less than .05. Thus, it can be concluded that the independent variables i.e cost per hire, turnover ratio and revenue per employee have a strong impact on the dependant variable, Return on investment, though the impact of all the factors may not be the same.

Table 5. Showing the coefficients of external factors

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.156	.039		4.004	.000
Turnover ratio	.333	.047	.429	7.092	.000
Cost p hire	.465	.056	.501	8.275	.000
Revenue per employee	.365	.66	.401	8.233	.000

Source : Derived using SPSS

Dependant Variable : Total Corporate Governance (TCG)

After the computation of the F value and the R^2, the evaluation of the beta coefficients both unstandardized and standardized becomes important. The beta value helps in determining how strongly the predictor or independent variables influence the dependant variable. A high beta value is an indicator of a stronger impact of the predictor variable on the dependant variable. If the coefficient of B is positive, than that particular variable has a positive relationship with the dependant variable, if the B coefficient is negative than there is negative relationship with the dependant variable and if the coefficient of B is 0 then there is no relationship between them.

From the above Table, it is seen that the predictors have beta values in positives and the significant values are also less than 0.05. Thus, both the factors have significant impact on the dependant variable.

Table 6 : Showing the correlation analysis of all the factors.

		TCG	TPF	TEF	TVS
Pearson Correlation	ROI	1.000	.841	.854	.896
	TR	.841	1.000	.823	.912
	CPE	.854	.823	1.000	.887
	RPE	.896	.912	.887	1.000

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Sig. (1-tailed)	ROI	.	.000	.000	.000
	TR	.000	.	.000	.000
	CPE	.000	.000	.	.000
	RPE	.000	.000	.000	.
N	ROI	182	182	182	182
	TR	182	182	182	182
	CPE	182	182	182	182
	RPE	182	182	182	182

Dependant variable : Return on investment
Independent variable : Turnover ratio
Cost per hire
Revenue per employee

From the above table it can be seen that, all the independent variables have a significant relationship with the dependant variable i.e Return on investment as all the variables have a positive correlation. But, the level of influence is not the same for all the variables. Among all the variables under study, cost per hire has the highest positive correlation with Return on investment.

Hypothesis testing

Based on the above analysis, it can be stated that that all the HR metrics under study, i.e Turnover ratio, Cost per hire and Revenue per employee has a significant impact on the Return of investment as the value of ($p< 0.05$). Thus, in all the three case we reject the null hypothesis.

Findings:

There is a positive relationship between HR metrics and Return on investment (Trivedi, 2015). The present study is also aligned and in consistency with the previous studies and finds a significant relationship between HR Metrics and Return on investment. The study was done taking into account three variables of research and all of them had an impact on Return on investment.

Conclusion

Over the passage of time it has been observed that HR Metrics has become integral part of Human resource department of organizations. Yet it has been observed that this useful tool has been underutilized by managers. They have been more worried about the cost aspect of the system rather than the value. Value addition is one of the key drivers of the HR system. Human Resource metrics can become an effective tool in justifying the Return on investment (ROI).

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