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Impression of Financial Measures in HR Analytics

Weena Yancey M Momin , K. Mishra
School of Management Studies
Babasaheb Bhimrao Ambedkar University, Lucknow, India

Abstract

In today's competitive world, business is all about investments and revenues. Every function of business can be calculated in numbers, then why should HR be left behind. The paper explains how financial measures help the HR mangers to justify every investment made to human resource project. The gap has been filled with the help of HR analytics which transform the raw HR data into insightful information with help of financial measures. HR analytics designed with financial measures helps the Senior HR management to quantify the value of human resources which justifies the investments backing up with the hard reliable evidence. Financial measures along with HR analytics help the HR management to produce net benefits gained from the initiative. This paper gives the overview on how financial measures aids the HR managers to justify the investments made on the human resource projects.

Key Words: HR Analytics, Financial measures, Human Resource Management, Predictive analytics

Introduction

Human Resources are a vital part of the organization. Managing human resources is the toughest challenge any organization has to face. But with the emergence of the new IT based technologieslike HR or Workforce Analytics software, managing and quantifying the value of human resources has become touted to be the panacea of all the problems regarding measuring the attributes of human resources. In today's tough economic scenario, aligning the HR strategy with the overall business strategy is the need of the hour. In order to do that, HR analytics aids the HR managers to align their HR policies and strategy with the current business goals. HR analytics helps the HR managers to make strategic human capital decisions that will optimize the performance of the business.

HR or workforce Analytics can be defined as the integration of quantitative data along with statistical tools and modeling in order to mine the data and transform it into actionable business intelligence to make a fact based decision.

Human Resource Analytics is also a communication tool that brings the data together from different sources to paint a cohesive and actionable picture of current conditions and likely futures. It also gives a better and more precise insight on how various factors impact the workforce and organizational performance.

HR Analytics helps the top management to make a fact based decision based on these absolute data for predicting the future likelihoods like it helps to relate what we know to what we do not know, compares what happens yesterday to what will probably happen tomorrow.

Importance of HR Analytics:

HR analytics plays a vital role in every organization. It helps the Senior HR managers and top management to keep a track of what is going on with the workforce of the organization. The significance of HR Analytics in the organization is

- Helps the top management to make a fact based decision with hard data evidence.
- Integrates the HR strategy with the overall business strategy and helps in better performance of the business.
- Conveys better visibility into workforce and talent data which enables the managers to make better decisions.
- Helps in predicting the future workforce planning and reduce attrition rate by giving opportunity to design better compensation plans
- Helps in analyzing the gap in the workforce requirements and thus aids in designing required workforce planning
- Helps to understand recruitment of right people at the right position.

Perceived Benefits of HR Analytics:

The use of HR Analytics benefits HR managers and top management in various ways. Namely:

- HR Analytics helps in improving overall profitability through more effective workforce cost control.
- The use of HR analytics also benefits the front line managers to improve employee performance and manage headcount.
- HR analytics offers a comprehensive, real time and enterprise wise insight for all users, enabling fact – based actions and intelligent.
- HR analytics streamlines the internal HR systems of the organization.
- HR analytics focuses on improving the performance and productivity of employees
- It also aids to harness talent identification, recruitment, development, retention and workforce planning.
- It helps especially to predict which high performers are at risk of leaving the company before they walk out of the organization.
- HR analytics enables the managers to have better understanding on how staffing levels, pay-for- performance and employee performance correlate to employee retention.

Measures of HR analytics

HR professionals currently need a balanced set of measures and procedures in order to quantify the HR contribution. Measuring HR efficiency in the scorecard helps the HR to give certain value to its immeasurable attributes which in turn will be noticed by the CFO's and the CEO's. In order to justify the investment made to the human resource projects, HR department has to show the actual cause – effect relationship among what you do and calculating the Return on Investment for each project. This will satisfy the top management about their investment. HR analytics thus aids in quantifying the data and structuring a storyline which will be justified by the step by step analysis about the investment made by the organization.

Implementing proper HR analytics is the key advantage in making HR a calculated function in the organization (Mondore S., Dauthitt S. and Carson M.(2011), Strategic Management Decision[1]. HR analytics is being used by the companies to gain competitive advantage and hence HR leaders should track business outcomes versus trying to improve employee engagement scores or increase participation rates.

HR Analytics is the approach for developing advanced insights by linking HR data, survey data,, and business or organization data (financial, client, operational) by applying statistical techniques (correlation, regression, modeling) with a goal of investments in human resource capital on the business or organization.(Smeyers L. , Dr. Delmotte J(2013), inostix.com/blog)[2].

In the blog "search financial application"(Margaret Rouse, 2012) it explains that the aim of HR analytics is to deliver the business with perceptions for successfully supervise the employees in order to achieve business goals quickly and proficiently. The task of HR analytics is to detect what data should be taken and how to use that data to model and predict abilities so that the organization gets an optimum return on investment (ROI) on its human capital.

For HR analytics to work properly certain parameters are needed. These measures help in forming the basis for HR analytics. With the help of these measures certain predictions for the future can be made. Formulating HR analytics includes basic HR parameters itself, then in order to analyze the raw data of HR certain quantitative aspects are also needed and finally in order to give value and quantify these data, few financial measures are also taken.

1. **HR MATRICS**: These are the basic HR parameters which involve recruitment, turnover, compensation, workforce planning, absenteeism, productivity, performance and so on. The basic aim in creating HR analytics is to align HR strategy with the overall business strategy. HR analytics helps the top management to make fact based decision supported by data evidence. With the help of HR analytics, predicting the future HR outcomes has become much easier. By using basic HR matric like performance of the employee, turnover, compensation etc. HR can now determine the relationship between each matric and then develop a better retention plans.

2. **QUANTITATIVE MEASURES**: Another aspect of HR analytics is its quantitative measures. Once the raw HR data has been taken, it has to be mined with the help of various statistical tools like regression, correlation, measures of central tendencies, measures of dispersion, factor analysis, cluster analysis, etc. After testing data with the statistical tools, it will be passed on to the models built to predict certain aspects of HR outcomes. The results thus acquired help the managers to understand and frame a storyline to put up in display to the top management which in turn helps them to make a fact based decision which is supported by the hard data evidence. Quantitative measures plays a crucial role in quantifying the raw HR data and eventually helping in predicting the future outcomes which enables the HR managers to develop better and improved plans and strategies for the employees and business. It also gives the HR managers the hard fact evidence to measure the immeasurable attributes of human resources of the organization.

3. **FINANCIAL MEASURES**: Other important measures for designing HR Analytics are the financial traits of the organization. In order for HR managers to justify the investments on human resources Senior HR management needs to quantify the worth of employees by showing profitable returns on their investments. Financial measures like ROI, Net Present Value, Cost/Benefit Analysis, Pay-Back period, etc. helps the HR managers to produce net benefits gained from the initiatives. Calculating the return on investments for each employee can help the HR department to be held accountable for impacting bottom line the same way the business leaders are held.

Fig 1: Measures of HR Analytics

[1]Mondore S, Dauthitt S. and Carson M.(2011) Strategic Management Decision, Maximizing the impact and effectiveness of HR analytics to drive Business outcomes
[2]Smeyers L. , Dr. Delmotte J.(2013), inostix.com/blog

Financial measures and HR analytics

Importance of Financial measures in designing HR Analytical tool:

While designing the HR analytic software various parameters and measures needs to be incorporated for producing reliable output from the raw HR data. Hence, HR analytics aids the HR manager to develop a storyline while justifying the investments made to human resources initiatives. For creating this reliable and fact based evidence HR analytics is supported by the financial measure which enables to transform the raw data to quantifiable output which shows how the investments have been utilized and how much revenue has been generated for the organization. In the business world CFO's and CEO's only regard financial measures as most significant indicators of viability which results as the critical component for decision making. Thus HR must present its business case corresponding to the financial justification hence must learn to "play the game" and apply this traditional measure to planned programs, initiatives and/or events. Financial measures like ROI, NPV, Cost/Benefit analysis etc. helps the Senior HR management to measure performance which can be used to compare the economic impact of multiple investment activities.

Descriptive of HR Analytic measures and predictive Analytics:

HR analytics software helps in quantifying the raw HR data. But in order to do that, certain measures are required. One of the crucial measures which support the HR to quantify the value of the employees is its financial measures. These financial measures are listed below:

Return On Investment, Net Present Value, Cost/Benefit ratio analysis and Payback Period

With the help of these above financial measures, specific business problem such as absenteeism, turnover, workforce performance, etc. can be used for calculating the investment on the employees.

For calculating the various unquantifiable returns, a step by step process or model is developed. This HR Analytical model will guide the HR to showcase a storyline to the top management justifying the worth of investments in human resources showing them the revenues generated by the employees.

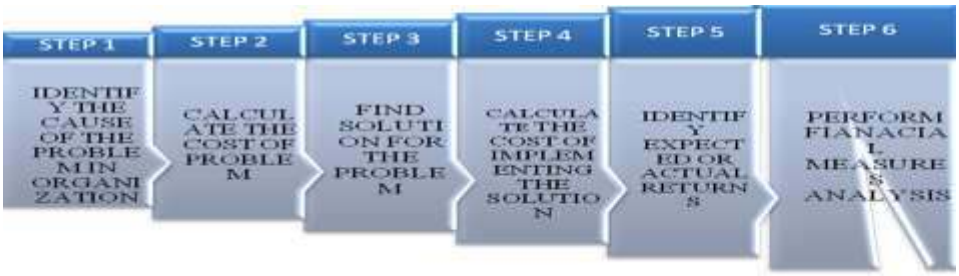

Fig 2:

Determining the justification for investments made

Step 1: Identify the cause of the problem:
Firstly identify the specific business problems especially of turnover, absenteeism; employee performance etc. Clearly stating the business problem isindispensible for obtaining an accurate solution. While stating the business problem it has to as accurate.

Step 2: Calculate the cost of the problem:
Once the problem has been identified accurately, then the cost to the solution is determined. Examination of both direct and indirect cost implications are important and if the actual figures cannot be achieved then using conservatives estimates and industry guidelines cost must be estimated.

Step 3: Finding solution to the problem:
Once the total cost of the problem has been estimated then a solution should be identified based on specific company data/analysis or industry research. But one must keep in mind that while using such research findings every solution may be organization specific.

Step 4: Calculating of cost of implementing the solution:
Once the solution has been identified and decided to be implemented, then its cost of implementing that solution today and in the future must be calculated. Direct and indirect cost must also be estimated using conservative estimates.

Step 5: Identify expected or actual returns:
Next step is to identify the expected or actual returns. For new initiatives, results should be identified that is expected in the next 3 to 6 months or in 1 year. And for existing initiatives, track the impact of the solutions on the business problems during the course of time.

Step 6: Perform financial measures analysis:
As the final step, financial measures analysis should be performed in order to analyze the net benefit returns from the initiative. For performing this financial measures analysis certain methodology can be utilized. Namely:

- **Return on investment**: This is one of the financial measures which assist the HR analytics to quantify the expected returns from an initiative. HR managers after processing the raw HR data with statistical tools like regression, correlation, cluster etc. certain outputs are obtained. These outputs are then calculated with the help of ROI (Return on Investment) in order to justify the investments made to HR projects. The formula used is:

$$\text{ROI} = \frac{Program\ benefits - costs}{costs}$$

After the calculation, it shows the benefit saved per day or per year versus the cost of the program or net benefit per year for the organization. If the translation is positive ROI then it can be said that the investment made will be profitable and will be considered for implementation.

- **Cost/ Benefit analysis**:
  Another method for calculating the sound investment made by the organization is Cost – Benefit Analysis. It comprises of comparing the total expected cost of each option against the total expected benefits, to check if the benefits outweigh the costs, and by how much. For performing the cost benefit analysis the following steps should be followed:
  - List the program
  - Then select measurement(s) and measure all cost/benefit components.
  - Try to predict outcome of cost and benefits over a relevant period of time.
  - Convert all costs and benefits into a common currency.
  - Once the costs are converted to common currency then apply discount rate.
  - Then again calculate the net present value of project.
  - Once the net present value has been obtained then execute sensitivity analysis.

The cost benefit analysis generally attempts to measure the positive or negative consequences of the projects. The result of this financial measures analysis enables HR managers to justify the investment.

- **Net Present Value (NPV):**
  Net Present value is basically used to analyze the profitability of an investment or a project by determining the future value of investment cost today. In HR analytics, HR managers use this financial measure to calculate the investment made to the human resources is properly utilized or not. NPVcompares the present value of money (investments) today to the present value of money (investments) in the future, taking inflation and returns into account because of the time value of money, a dollar earned in the future won't be worth as much as one earned today.

Therefore, Net Present Value can be calculated as:

$$\text{NPV (i,N)} = \sum_{t=0}^{N} \frac{R_t}{(1+i)^t}$$

Where N = total no. of periods
t = time period
R_t = net cash flow (i.e. cash inflow – cash outflow)
i = discounted rate

By calculating the Net Present Value, HR analytics determines the approximate value of the project and hence giving approx. result of estimating if the investment made today will be beneficial or not. If the results are positive then the Senior HR management will be able to justify the investments made to HR department.

- **Payback Period**:
  Payback Period is a tool which is usually used to predict the investments made to certain programs in a short span of time – period. Payback period can be defined as the time, expressed in years, that takes for the cash income from a capital investment to the project to equal the initial cost of the investment. The choice between projects is to accept the one with the shortest payback time.In HR Analytics this financial measure is used to determine the amount of time taken to reach the break even in shortest time. It can be calculated as below:

$$\text{Payback Period} = \frac{Initial\ Investment\ on\ the\ project}{Periodic\ cash\ flow}$$

With the help of this financial tool, HR managers can calculate the time taken to reach break-even period where the capital investment will be fully recovered. Once the time period to reach breakeven point has been determine then it becomes easier for the HR managers to time frame the story to the CFO's and CEO's, hence convincing them to invest in the human resources for future increase in the revenue of the company.

Financial measures and Predictive analytics:

Once the raw data has been quantified, and the given output has justified the investment made by the organization, taking both the outcomes HR managers can put these two together and put them into HR Analytics' predictive modeling which will then predict the future outcomes so that based on these information improved employee betterment plans can be developed. With the help of Predictive analytics many of the future outcomes can be predicted and along-with the help of the financial measures, HR managers can develop better strategies for employee retention programs.

Fig 3: Predictive Analytics and Financial measures

Concusion

The current economic scenario is demanding organizations to align its HR strategy with business strategy in order to have a competitive edge. Hence HR department has restructured its outlook from traditional initiatives to new age digital world. Thus HR analytics is playing a critical role for aligning its policies and strategies to overall business plans.

It can be concluded that designing HR analytics is a crucial part. Financial measures play a vital role in designing HR analytics. HR analytics aims to quantify the raw data but these quantified data also need some justifications. Hence financial measures like ROI, NPV, Cost benefit analysis etc. helps the HR analytics to give better justification for the future investments thus giving the CFO's and CEO's the needed significant indicators to take important corporate decisions. Financial measures aid the HR managers to frame the storyline and make fact base decisions relaying on this evidence. Thus the saying 'if language of business is dollars, then its alphabet is numbers" gets truly justified.

References

People Fluent, Aquire – workforce planning and analytics, Workforce matric dictionary: six steps to measuring HR initiative, Retrieved on 31st October' 2014 from http://www.peoplefluent.com

Mondore S, Dauthitt S and Carson M, (2011) Strategic Management Decision, Maximizing the impact and effectiveness of HR analytics to drive Business outcomes.

SmeyersL ,Dr. Delmotte J (2013) Retrieved on 17thseptember' 2014 from inostix.com/blog.

Workforce Analytics article, Workforce Analytics Academy Part I: ROI of HR Initiatives (2014) retrieved on 15thoctober' 2014 from http://www.aquire.com/workforce_analytics_articles/view?article_id=56120

Workforce Analytics article, Workforce Analytics Academy Part II: Net Present Value, (2014) Retrieved on 15thoctober' 2014 from http://www.aquire.com/workforce_analytics_articles/view?article_id=56123

Payback period Method, Capital budgeting techniques (2014) Retrieved on 5th November 2014 from http://www.accountingformanagement.org/payback-method/

Net Present Value, Article (2014) Wikipedia, the free encyclopedia, Retrieved on 5th November 2014 from http://en.wikipedia.org/wiki/Net_present_value

Silber K. H, (2002) Calculating Return-On Investment, Retrieved on 5th November 2014 from http://www.silberperformance.com