

## A QUANTITATIVE APPROACH TO MANAGE HR FUNCTION

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### ABSTRACT

*The HR function in organizations had been playing only a supportive role in achieving the financial goals so far. There had not been much emphasis on the part of HR managers to talk in terms of hard numbers like the core process owners like operations or marketing until recently. The emergence of knowledge economy has placed the emphasis on considering Human Resource as an important investment, going even beyond other forms of capital. People are our greatest asset; this cliché is now becoming reality. Management has now realized and involved in strategy formulation and implementation it has to transform itself. It has to speak the languages of numbers that meet the goals. It has to speak in quantitative and objective terms. Emergence of a separate form of accounting known as Human Resource Accounting also is a measure of this focus on people. This article attempts to provide a quantitative base for the HR function by coming up with various ratios, which can help the organization in making the HR function more effective and evaluate its contribution in terms of benefits provided and return on investment. It is also imperative that the HR professionals are trained to think like business managers so as to be effective in using these quantitative tools.*

**Keywords:** HR, Organisation, HR Functions etc.

#### Introduction:

Till recently HR function was managed using a traditional management approach of a staff function. It was mostly soft approach to ensure workers and other stakeholders happy and be productive. With the on set of knowledge economy the focus is more on human assets and how these assets are managed. Hence the HR function now has the opportunity to move out of the backyard and become a part of the mainstream of business and strategy formulation.

There is also a need for the Human Resource Department to influence the top management and get the maximum inputs and resources for its functioning. If the HR manager can demonstrate business value addition through the numbers rather than words, the department is more likely to be allotted more resources and budget to carry out its activity.

A new area of accounting called Human Resource Accounting has evolved to properly account for the human capital. No organization can own its human capital the way it owns its other assets. And, inevitably, there is a constant 'flight of capital'. Here we have all the trappings of perpetual dynamics when compared to static assets whose tenure can be safely projected. Most of the enterprises which follow Human Resource Accounting spare a

separate section in their annual reports for a detailed account of their human resources. Human asset reporting in India usually includes a profile of human assets, the compensation pattern, training and development, human asset productivity, human asset value, and the total wealth of the organization.

However managers need to go beyond just the accounting entries and need to operate in the realm of 'Here-And-Now', where decisions of strategic nature need to be taken on a day to day basis. To enter the realm, of business and strategy the HR people should talk the language of business. They must learn to talk in quantitative objective terms as organizations are managed with quantitative data. All business people live think and talk in numbers.

#### Managing Hr Function Using Numbers:

With the advent of knowledge economy the traditional management techniques are being re-looked at. Management concepts are veering round to a re-evaluation of that invaluable human factor and its critical contribution to the creation of wealth. In fact, they have gone one step further to stress that people are the wealth. Pundits of today assert that while the other forms of capital, including material, equipment, tools and technology, only represent

inert potentialities, it is the human capital that converts this potential and energizes the creation of wealth.

Since all types of capital needs to be quantified like a financial resource, financial techniques in HRM are being introduced and used in many organizations. This approach also needs to use a quantitative basis for evaluating the quantum of the capital but more importantly how the capital is used, very much like the financial analysis of financial assets utilisation.

These man power ratios provide clues to the management and HR department in making interventions for the development and utilization of the human resources. Large number of manpower ratios can be used to get an idea about the various aspect of HRM in the organization.

**Organization Structure Ratios:**

These days the organizations are becoming lean and mean. The organization structures are becoming flat from the typical traditional pyramidal structure. In this context the teeth to tail ratio can provide important insights. Teeth to tail ratio is the ratio of employees working the support services like materials stores, finance, personnel etc. to the employees working in operational areas or number of employees working in the line function or the number of employees working in offices to the number of employees working in plants or shop floor.

$$\text{Teeth to tail ratio} = \frac{\text{Number of employees working in support services}}{\text{Number of employees working in operational areas}}$$

If the teeth tail is too large it indicates that there is a need to reduce support staff.

Another measure that can indicate the leanness of the management levels is to measure the executives (supervisors on wards to the CEO in an organization structure, who do not directly engage in production) to the workers who do the productive activity.

$$\text{Executive to Non Executive Ratio} = \frac{\text{No. of Executive in the organization}}{\text{No. of Non Executives}}$$

If this ratio is too high it indicates a shortage of working heads or a presence of too many hierarchical levels in an organization very low value indicates a shortage of executives and a high span of control.

**Training Ratios:**

Training helps in increasing the job knowledge and skills of employees at each level. It helps to expand the horizons of human intellect and an overall personality of the employees. The extent of organizations’ focus on this important aspect can be measured in many ways. Since organizations spend both time and money on this aspect the measures also can be made on same counts.

One way is the amount of time invested on the average for each employee by way of the number of trainings given to them.

$$\text{Training cycle ratio} = \frac{\text{Number of employees in the organization/}}{\text{No. of employees imparted training in a year}}$$

This ratio can also give an idea about the average number of years after which an average employee will again get an opportunity to undergo training after attending training once.

The other measure looks at it from the aspect of monetary resources committed by the organization to training.

$$\text{Training commitment Ratio} = \frac{\text{Total expenditure on training in a year/ Total No. of employees}}{\text{Annual sales turnover}}$$

This ratio gives an idea about the importance the organization attaches to the training function. The organization society for training and development (ASTD) Skill maintenance is the repetitive practice of previously learned skills to keep them up to scratch. Skills unless sharpened by some amount of retraining, may become obsolete and out of pace with the current practices. It might be so even because of skills that are used with less frequency. The measure that can monitor this aspect is

$$\text{Skill Maintenance Ratio} = \frac{\text{No. of employees provided refresher training}}{\text{Total No. of employees}}$$

Another factor that might reduce the skill competency is the emergence of new technology and new processes and products that directly impact how the people work. To be in line with the current level of advances it is need to upgrade the skills. The following measure will point the HR on how it is done.

$$\text{Skill Up gradation Ratio} = \frac{\text{No. of employees provided training in recent Development in their field}}{\text{Total No. of employees}}$$

$$\text{Skill Ratio} = \frac{\text{No. of executive possessing professional qualifications}}{\text{Total No. of executives}}$$

These ratios provide an idea about the employ-ability of the employees in the organization. A high value of the above ratios ensures that the employees’ skills are enhanced and the problem of skill obsolescence can be avoided.

**Turnover Ratios:**

In a knowledge economy where the Human capital is very important the impact of attrition is important in this respect. Hence measurements relating to attrition should be a key indicator of the Human Resource Management efficacy. Organizations suffer from human capital depletion primarily through turnover, as intellectual capital walks out of the door.

The following ratios will be very useful in this regard.

$$\text{Employee Turnover Ratio} = \frac{\text{No. of Resignations in a year (Exe/Dept/exp/)}}{\text{Total no. of employees}}$$

This ratio can provide many clues about the effectiveness of the organizations HR practices like recruitment and selection, placement, training and development etc. A

high turnover ratio results in hiring and training costs to the organization.

Since this aspect is very important in knowledge worker organizations, this factor can be further analyzed by using three more measures. Since attrition is of either voluntary or involuntary nature, the ratios also should measure:

1. Voluntary turnover
2. Involuntary turnover
3. Total separation rate.

**Voluntary Turnover:**

The voluntary turnover rate describes the percentage of individuals that leave an organization by choice. This measure has a significant negative impact on human capital management, since it demonstrates an employee vote for leaving an organization due to potentially better circumstances elsewhere. In case of companies which have introduced voluntary retirement schemes, this includes people who opt for VRS.

$$\text{Voluntary turnover} = \frac{\text{Voluntary separations}}{\text{Total number of employees}}$$

**Involuntary Turnover:**

The involuntary turnover rate describes the percentage of individuals who were terminated without choice.

$$\text{Involuntary Turnover} = \frac{\text{Involuntary separations}}{\text{Number of employees}}$$

This measure describes individuals that were dismissed, laid off, disabled or dead. The reasons for this rate may include poor hiring practices but typically reflect economic conditions.

**Total Separation Rate:**

The total separation rate describes the percentage of individuals who were terminated without choice as well as the individuals who left of their own accord. This measure is a combination of the two previous metrics and represents the whole rate of human capital depletion regardless of reason.

$$\text{Total separation rate} = \frac{\text{Total separations}}{\text{Number of employees}}$$

**Promotion and Transfer Ratio:**

Employees may get frustrated after they have been on the job for some time. Once a person has successfully navigated the hierarchy of needs thus satisfying all their basic needs, they then travel “a path called growth motivation (Maslow 1971). Hence we need to cater to these needs also by way of both horizontal (skill enrichment) and vertical (promotions) movements for people.

The upward growth opportunities are measured by

$$\text{Career Growth Ratio} = \frac{\text{Total No. of promotions in a year}}{\text{Total No. of employees}}$$

A very low career ratio indicates lack of growth avenues in the organization leading to stagnation. This may result in frustration and dissatisfaction in the employees and may lead to high turnover. A very high ratio may also be a cause of concern for an organization. It may be ok for a rapidly growing and expanding organization, but for a

normal organization it may lead to problem in the future. Organization pyramid may take strange shapes and the span of control may become very low. It also indicates the average number of years it will take for a n employee to get promoted.

Similarly the horizontal movements or the job rotations can be measured by

$$\text{Movement Ratio} = \frac{\text{No. of Transfers in a year}}{\text{Total no. of employees in transferable grade}}$$

This ratio indicates the availability of managerial talent in the organization. A high value indicates a shortage of managerial talent and inadequacy of a sound career planning system.

Since movement by executives who are setting the people’s direction is also important we need to measure that by

$$\text{Volatility ratio} = \frac{\text{No. of executives who have done job hopping in the past}}{\text{Total no. of executives in the company}}$$

A high ratio indicates the possibility of the employee leaving the organization.

**Organizational Climate Ratios:**

The organization needs to provide a conducive climate in terms of less job related grievances as well as foster the employee involvement and initiatives. The aspect of employee’s irritations can be one measure as follows.

$$\text{IR Climate ratio} = \frac{\text{No. of grievances generated in a year}}{\text{Total no. of employees}}$$

In a knowledge centered organization, it is highly important that employees take major initiatives to grow the knowledge capital. These moves cannot be dictated by top management always.

The employee initiative and involvement on the job can be measured by:

$$\text{Creativity climate ratio} = \frac{\text{No. of ideas generated by employees for improvement in a year}}{\text{Total No. of employees}}$$

These ratios provide an idea about the general organization culture and climate prevailing in the organization

**Tips for Using Ratios:**

1. Select or device ratios relevant to the company depending upon the needs of the company and conditions prevailing within and outside the company
2. Make correct and proper interpretations
3. Analysis the trends over a period of time
4. Compare the ratios with other companies in same industry
5. Ensure accuracy of the data used for the top management
6. Highlight abnormal ratios to the top management

Thus the proper use of these ratios will help the organization to enhance the quality of HR function and improve defectiveness of the organization.

**Managing Hr With Financial Ratios:**

The above ratios help the HR managers in managing the HR functions like business enterprise and take timely decisions in the best interest of the organization. However as stated earlier if the HR function wants to be a business partner it must understand the goals and objectives of business. The goal of business is generally to achieve certain profit objectives. There is a growing shift in measuring the profitability of business in terms of economic value added (EVA)

EVA is calculated as: Net operating profit after tax / Cost of Capital

Another important parameter employed by the organizations is ROI

If the HR function is to become partner it should move from being a cost centre to a profit centre. It should move from performing activity to adding value to the business. The effectiveness of the HR investments can be evaluated in terms of the Benefit to Cost ratio (BCR)

$$BCR = \text{Benefits of HR program} / \text{Cost of HR program}$$

In simple words the BCR compare the annual economic benefits of the program. For example a BCVR of two written as 2:1 indicates that for each rupee spend on the program two rupees were returned as benefits.

Another important formula for evaluating the HR investments is the ROI usually expressed in percentage

$$ROI\% = \frac{\text{Net HR program benefits}}{\text{HR program cost}} * 100$$

Net program benefits are program benefits minus program cost. For example a chemical organization conducted a one week safety awareness program for its operating personnel. The total expenditure for the programmer incurred as Rs. 50000. The annual saving for the company due to decrease in accidents was Rs. 250000. Thus the return on investment becomes.

$$ROI = \frac{250000-50000}{50000} * 100$$

Using the ROI formula places HR investments on a level playing field with other investments. The ROI calculations are easy to understand by managers and financial executives.

**Conclusion:**

While we talk of human resource as an asset, it is important that we measure how the asset is being utilised also. The HR functional managers and executives can use the different ratios discussed in this article to talk business in terms of hard numbers to get things done. However these ratio analyses are equally useful to managers of other functions also to make decisions on the Human Resource functions they perform.

Similarly it is also required that the HR personnel are well trained in the techniques and even more in terms of how thinking in terms of business impact will guide their day to day activities in HR functions. Because without the conviction that HR does make a difference, HR professionals will not, and cannot, be motivated to develop HR measures that drive business performance.(Yeung and Berman 1997).

Also it is essential for the HR managers not to just look at a few ratios in isolation, but also to look at the overall picture from a long term perspective before taking decisions based on these ratios.

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