# Performance based Incentive Schemes: A Better Alternative over Conventional Point based Schemes

## **Riju Thomas<sup>1</sup> and Biju Augustine P<sup>2</sup>**

<sup>1,2</sup>Government Engineering College, Rajiv Gandhi Institute of Technology, Kerala E-mail: <sup>1</sup>thomasriju007@gmail.com, <sup>2</sup>biju.augustine@rit.ac.in

**Abstract**—Improper incentive schemes can lead to financial problems in the organization as well as affect its productivity and quality. Incentives motivate employees and results in improved firm performance. Incentives reward the competent employees who work hard. Monetary incentive payment plans ties incentives directly or indirectly to productivity standards. A point based incentive system is appropriate when the standards are not clearly defined. But such plans result in the payment of more amount of money as incentives even though there is no hike in production. This paper discusses the scope of introducing gain sharing and profit sharing incentive schemes as an alternative to the conventional point based incentive schemes. How the proposed incentive formula performs over other incentive schemes in increasing the productivity and improving employee's motivation is also discussed.

**Keywords:** incentives, productivity, point based incentives, gain sharing, profit sharing.

### 1. INTRODUCTION

Instrument of investment incentives have been around for over 100 years. In the 19th century they were used in the United States of America, in the 20<sup>th</sup> century governments around the world began to offer direct grants, tax breaks, training funds, free infrastructure and other inducements to attract corporate investments. Moreover the well-known multinational companies take use of them [1].

As competition increases organizations are forced to develop new plans or strategies that will lead them in becoming more productive and efficient. Incentive schemes link the individual motivation and targets with the production goals of the organization. Tully (1995) pointed out that employees are sensing an increased level of anxiety, since they might not know from one year to the next whether they will receive compensation increase or even have a job [2]. The reward system and motivating incentives will determine the level of employees' commitment and their attitude to work [3].

Various incentive schemes are being used in industries depending upon its production. Out of many, two most common methods used are the point based system and profit sharing system. In the point based incentive system employees are able to know their point balances and how much award they will be receiving, so there is a chance that they will just work to increase their points and won't look for the quality of the production.

There are some limitations in the point based system. Firstly, if the point set is unscientific or improper, employees will receive incentive, as the target set will not be proper and they will be able to achieve the target way before their shift time was over. Secondly employees know when they have achieved their target and they do not wish to work more. The variations in the quantity and quality of labor inputs that stem from the complex of financial and nonfinancial inducements also affects the organization's reward system and no other motivation was introduced which would let the employee want to work for the betterment of the organization [4].

The Gain sharing and profit sharing methods are introduced as alternatives for reducing the barriers between the employees and the organization. But these methods prove no good when coming to reward the employees based on their performance. Employees are benefitted when there is a profit but they don't have any control over it. While Gain sharing promotes teamwork and performance, profit sharing method does not allow any control with the employees that deal with the profit of the organization [5].

Employee performance is frequently described as a joint function of ability and motivation, and one of the primary tasks facing a manager is motivating employees to perform to the best of their ability (Moorhead & Griffin, 1998) [6].This paper describes the development of an annual incentive calculation formula by making necessary modifications of the Novartis's annual incentive calculation formula. Incentive should be used to make employees to bring out their best performance at the work place so the new incentive scheme is proposed with a view to motivate the employees who wish to work for the organization and also to improve the productivity [7]. Next section gives a literature review of incentive schemes. The point based incentive system and gain sharing and profit sharing schemes are explained. Problem caused by unscientific point system in a medium rubber mattress manufacturing firm is described in the coming section. Development of a Novartis Index and calculation of the parameters of the Novartis Index is followed in the next section. The paper ends with the listing of the steps for validating the incentive calculation formula and steps to implement it.

### 2. LITERATURE REVIEW

Incentive schemes attract the attention of the researchers and HR practitioners as an important tool for optimizing production in the small and medium enterprises. Two basic types of employee characteristics have been suggested to be determinants of work motivation: employee motives and job satisfaction. While employee motives represent what employees want or expect from their jobs, job satisfaction reflects the employees' reactions to what they receive [8]. An incentive can be defined as the offer of a reward before performance of a behavior, which is designed to induce a desired behavior (Cooke et al., 2011) [9]. Remunerating workers "by the piece" was the rule in industry in the 18<sup>th</sup> century as said by Adam Smith (1776).

There are several types of individual incentive schemes followed such as piecework plan, piece-rate plan, productionbonus, standard-hour plan etc. The problems associated with individual incentive plans are many. Subjective measures of performance are likely to be affected by biases, whether of a personal nature or due to prejudice or favoritism.

As modern production is based on workers acting as a group where teamwork is important or because it is sometimes difficult to measure individual performance, performance bonuses are given based on the group performance. With the general hypothesis regarding how incentives affect performance, it seems natural that incentives will be more effective when introduced prior to processing stages in which performance is most sensitive to effort [10]. The perceived value of an incentive lies in the extent to which it supports an individual's goals (Brendl & Higgins, 1995) and thus the same incentive can motivate individuals differently depending on their personal goals or needs [11]. Organizations tend to introduce incentive plans in which all members can involve themselves. These include profit sharing, gain sharing, and employee-stock ownership plans.

Literature reveals that the following factors influence the success of incentive schemes:

- If the economy of the company is not good then it will be difficult to attain any profit in order to share among the employees as bonuses.
- Government laws affect the incentive as minimum wages are fixed in such a manner that the base target must be achieved first.

- Management must be able to convince the employees that the incentive scheme will benefit them.
- Proper communication should be there between the management and the employees so that the employees can feel confident about the incentive plans.
- The incentive package given to a skilled employee should be more in order to retain them.

#### **3. VARIOUS SCHEMES**

#### 3.1. Point Based Incentive Scheme

A point based incentive system is used as a method to reward points to the employees based on the work done. A specified point is mentioned to be given to a group or individual employees for a specified work. If the employees do their work according to the need then they will be given points. A target is set for the employees and when they cross the specified target limit in terms of points they will get incentives. For getting incentives, the employees need to achieve targets in the time limit provided.

For better understanding the point based incentive system an example is described below:

Consider a manufacturing industry in which a time study is carried out in a particular section. For producing a particular product say "X"

Time study on a particular section "Z"

Total working hours = 8 = 480 min

Non working hours

- i. breaks = 30+10+10 = 50 min
- ii. shift ending / cleaning time = 10 min

iii. entry in the register / feedback =  $5 \min$ 

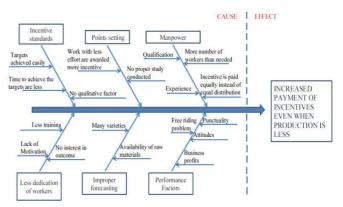


Fig. 1: Fishbone diagram of point based scheme

- iv. Deployment / table / brush / gum arrangement time = 10
  min
- v. Material issue of raw materials =  $3 \min x \ 2 = 6 \min$
- vi. Transport of material issued =  $3 \min x 3 = 9 \min$

Journal of Material Science and Mechanical Engineering Print ISSN : 2349-9095; Online ISSN : 2393-9109; Volume 2, Number 6; April – June, 2015 Total non working hours = 90 min

(In approximation, assuming that they meet a target of 120 to 150 no's, i.e. 120 number of raw materials need two time materials shifting....)

Total working time available in section "Z" = 390 min

Suppose we got that a total of 246 product X can be manufactured in 390 minutes, then to calculate how much points should be awarded to another product "Y" will be;

Time available = 390 min

Time required for one product Y = 5.5 min

<sup>\*</sup>5 min/product

i.e. maximum numbers of Y that can be produced in section Z in a shift = 390/5 = 78

i.e. 78 numbers of Y = 246 numbers of X

i.e. Point for one Y = 246/78 = 3.15 points

On both occasion, we have gone negative side

i.e.  $5.5 \times 5$ ,  $3.15 \times 3$ ; if pressed, we can think of awarding 3.5 points

In this way points are given for the production of different products in different section and maintained. Employees receive incentive when they cross the target points set by company.

Advantage of point based incentive system is that proper points are awarded to the employee on the basis of work done. Employees feel motivated to work more in order to increase their points and thereby get a nice incentive. While working in a group these incentives, get distributed equally among the workers working together.

Disadvantage of point based incentive system is that quality of the product can be ignored in order to attain the target. Improper setting of the target may lead to increased incentive pay even when production is low. Points are given to the work based on certain approximation and so accurate results are not achieved. For certain sections in a company, the points for the work done are given arbitrarily without any base.

#### 3.2. Profit Sharing and Gain Sharing Schemes

Profit sharing and Gain sharing schemes are the distribution of the profit earned by the organization between the employees and the organization itself. The gain sharing method is linked with the productivity as benefits are given to the employees based on the productivity while in profit sharing it is only the achievement of the organization as a whole. Gain sharing is done with the use of savings money and the money generated from the revenue of the organization. In profit sharing the employees are given rewards based on the profit earned by the organization. Advantage of gain sharing method is that employees will be receiving some amount of rewards even when the company is not profitable and in profit sharing there is a chance that employees can receive huge amount as reward if the organization achieves a significant profit.

Disadvantage of gain sharing method of incentive is that employees savings and the revenue generated from production is used for pay which will be less and in profit sharing the main drawback is that if company is under loss then employees won't be receiving anything as a reward.

#### 3.3. Use of Novartis Formula

Novartis formula includes a few factors namely: basic pay, incentive percentage, business performance multiplier and individual performance multiplier.

The basic pay and incentive percentage is decided by the management after negotiations with the employees. Business performance multiplier depends upon how well the organization perform during the time period and based on that, a fixed scale will be given as a multiplier which ranges from 0 to 1.5 of the target amount. Individual performance depends upon factors like attendance, punctuality, attitude, etc. Based on this, a scale will be provided to each employee and will range from 0 to 1.5 of the target amount.

So this incentive calculation formula will help in motivating the employees to work as their individual performance is also valued and no free riding problem will arise as in the case with group point based incentive system.

#### 4. PROBLEM CAUSED BY UNSCIENTIFIC POINT SYSTEM: CASE OF MATTRESS FIRM

Unscientific point system and poor standard setting often create problems. The case of a medium sector rubberized mattress manufacturing firm is illustrated here. The firm makes use of semi automatic process. In each shift, targets are fixed on the basis of production capacity.

#### **PROPORTION OF INCENTIVE AND WAGE**

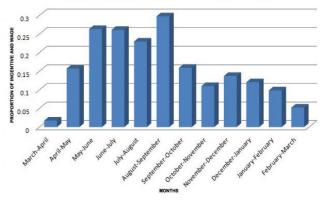
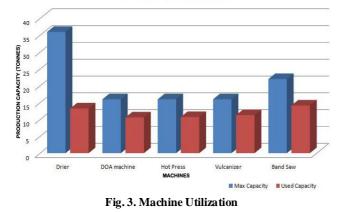


Fig. 2. Incentive Salary ratio

In each stage/process, incentive points are assigned on the basis of each day's production target. As the target is much less than the capacity and the production norms based on capacity are not revised, workmen complete the work much before the expected duration. The workers are getting incentive in most of the time and the firm incur loss. This unrealistic production – incentive pattern is clear from the Fig. 2 and Fig. 3.

#### **MACHINE UTILIZATION**



From Fig. 2 and 3, it is clear that because of the improper incentive scheme, the firm has to pay more amount as incentives, even facing low productivity situation. To make the incentive system more effective and meaningful, a performance based system is recommended. In the next section, an adaptation of the Novartis model, with suitable modifications to suit the specific environment of the firm dealt in this study is described.

## 5. PROPOSED FORMULA FOR INCENTIVE CALCULATION

Novartis aspires to be an employer of choice and to attract and retain best in class talent around the world. The schemes and plans are designed to support the position as a healthcare company. The proposed incentive calculation formula is an adaptation of Novartis formula which is strongly linked to performance [12]. The proposed formula is designed to pay the employees based on performance measured against the target set by the organization, the individual performance and the performance of the organization as well.

Incentive	Incentive		
to be given to the employees	percentage decided by the managemen t	Individual performance multiplier	Business performance multiplier

With the help of this formula it is possible to calculate the percentage of incentive that should be given to the employees

based on the basic salary. The first part of the equation states the percentage to be given, set by the organization, that is if the company decides to give 15 % as incentive then the first part will have the value 0.15. The second part of the equation gives the value of the individual performance based on different factors like attendance, attitude, behavior, etc. According to Novartis the value should range between 0 and 1.5. Similarly the third part of the equation also ranges between the values 0 and 1.5. This depends on the business performance, if business performs poor as compared to previous one then a value of 0.5 is given, when business performs normally or similar to previous then a value of 1 is given and if the business performs well compared to previous then a value of 1.5 can be given. But Novartis mentioned that the combined value of both the multiplier must not exceed 2 unless exceptional performance is measured.

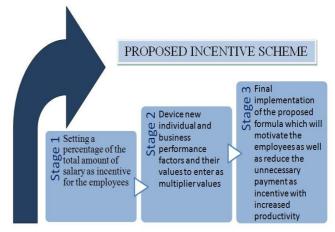


Fig. 4: Proposed scheme

Advantage of this formula for incentive calculation is that the employees will be motivated to see the organization as their own. Each individual will be rewarded based on their own performance and the organization has the liberty to set the incentive percentage. The free riding problem is also avoided as everyone will have to work other than the point based incentive system in which all the employees under a group were awarded equal points based on their achievement. If the employees work less then they will be given only the basic pay but the one who is willing to work for the betterment of the organization will be receiving good amount as incentive due to his individual performance. The business performance multiplier is only one part of the equation so employees will be receiving money in spite the poor performance of the company unlike the profit sharing incentive scheme in which the employees received nothing when the company performance was poor. Once the mentioned target is achieved by the employees then no quantitative measurement is done so there won't be any affect on the quality of the product, and as the individual and business performance is a factor for incentive the workers will be motivated to work with heart.

The drawback lies when the monitoring system fails or the one who monitors the individual performance shows bias on the employees. The factors that are considered to give value to the multipliers also need to be calculated precisely else the better person will be more discouraged and the wrong person will be enjoying the benefit.

## 6. STEPS FOR IMPLEMENTING THE NEW SCHEME

For the preparation of incentive calculation formula and its implementation, following stages are identified. Detailed action plan of the following stages are required, which are not included in this paper, but suggested as extended work, to be done. The steps are listed as follows:

- 1) Preparation of formula
- 2) Selection of indicators and assigning values
- 3) Calculation of index
- 4) Trial calculation for a previous period
- 5) Comparison of incentives of the trials with previous norms from past records
- 6) Validation of formula
- 7) Making plan for applying the same to various processes
- 8) Integration of different sections, such as production, transportation, sales etc
- 9) Evaluation of incentive system
- 10) Detailed implementation plan

#### 7. CONCLUSION

This paper explains that how incentives can help motivate the employees and improve the productivity and quality of the organization's product. We can easily distinguish between the point based incentive system and the proposed incentive calculation formula. From this paper, it is understood that the point based incentive system is not a trouble free one. It is affecting the productivity of the organization and decreasing the quality level of the product. In the case study dealt in this paper subsequent amount (up to 30 percent of salary) has to be given as incentives even after running the firm under loss due to the unscientific point based system followed by the firm. The proposed incentive system will be able to help the organization to increase the productivity along with no compromise to the quality as it deals with the individual as well as the organization's performance. This will inculcate devotion towards the organization in the employees mind. The proposed method can serve as a better incentive scheme with better factors to be considered while valuing the individual as

well as the organization's performance. Results of implementation and its merits will be discussed once the proposed scheme is successfully implemented in the organization.

#### REFERENCES

- Cedidlová Miroslava, "The Effectiveness of Investment Incentives in certain foreign companies operating in the Czech Republic", *Journal of Competitiveness*, Vol. 5, Issue 1, pp. 108-120, March 2013.
- [2] Sravan Kumar Reddy and Sarfraz Karim, "Impact of Incentive Schemes on Employee Performance: A case Study of Singareni Collieries Company Limited, Kothagudem, Andhra Pradesh, India", Science, Technology and Arts Research Journal, Oct-Dec 2013, 2(4): 122-125.
- [3] Falola Hezekiah Olubusayoa, Ibidunni Ayodotun Stephenb and Olokundun Maxwellc, "Incentives Packages and Employees' Attitudes to Work: A Study of selected Government Parastatals in Ogun State, South-West, Nigeria", *International Journal of Research in Business and Social Science*, Vol.3 No.1, 2014 ISSN: 2147-4478.
- [4] Haig R. Nalbantian, Andrew Schotter, "Productivity under group incentives: An experimental study", *The American Economic Review*. Vol. 87 No 3, June 1997.
- [5] "A Guide to Productivity Gainsharing", ISBN 9789814150262, SPRING, Singapore.
- [6] [6] Rajeswari Devadass, "Employees Motivation in Organizations: An integrative literature Review", *International Conference on Sociality and Economics Development*. IPEDR, Vol.10, 2011.
- [7] Edwinah Amah, Christine. A. Nwuchel and Nwakaego Chukuigwe, "Effective Reward and Incentive Scheme for effective Organizations", *Research Journal of Finance and Accounting*, Vol.4, No.13, 2013, ISSN 2222-1697.
- [8] Bradley E. Wright, "Public-Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model", *Downloaded from http://jpart.oxfordjournals.org/ at University* of Georgia on March 6, 2012, J-PART 11 (2001):4:559-586
- [9] Mark Reed, Erica von Essen, Alister Scott, Mark Everard and Diane Mitchell, "A report on Incentive Tools".
- [10] Sarah E Bonner and Geoffrey B Sprinkle, "The effects of monetary incentives on effort and task performance: theories, evidence and a framework for research", Accounting, Organizations and Society 27(2007)303-345, 0361-03682/02/S Elsevier Science Ltd.
- [11] James Shah, E. Tory Higgins and Ronald S. Friedman, "Performance Incentives and Means: How Regulatory Focus Influences Goal Attainment", *Journal of Personality and Social Psychology*, 1998, Vol. 74, No. 2, 285-293
- [12] Novartis group annual report.