A study on performance appraisal system practiced in sugar mills, and its impact on employees’ motivation. A case study of Simbhawli sugar limited, India
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ABSTRACT
Performance Appraisal System (PAS) has been observed by intellectuals and human resource professionals as a valuable implementation for human resource management (HRM). Hitherto effective PAS remains a hardheaded challenge to management and employees, due to reasoning, intuition, perception, motivational and behavioral factors. An ideal Performance Appraisal System should be free from prejudice and cronyism which can replace objectivity. A study through survey was conducted among executives and managers of Simbhaoli Sugar Limited. It is one of the biggest Sugar Mills in UP, and considered as an icon in the manufacturing capacity of sugar in northern India. A survey questionnaire was administered among 42 managerial and subordinate staff. Data collected were analyzed quantitatively using both descriptive and inferential statistical tools. Z-test was used to understand the impact of PAS on employee motivation and it was revealed that PAS has a significant impact on employees’ motivation at Simbhaoli Sugar Limited. It was also observed in survey that Simbhaoli Sugar Limited put extra emphasis on setting Key Result Areas (KRAs) and performance of employee is measured based on the achievement of set KRAs. Emphasis on training is required after the completion of Performance Appraisal procedure at SSL. Some recommendations were also suggested for increasing the motivation level of SSL employees.

Key words: Performance appraisal system, motivation, employees.

1. Introduction
In a period where there is a requirement for wide-ranging development, the sugar industry is amongst the few businesses that have effectively contributed to the rural economy. It has done so by commercially using the rural resources to meet the huge indigenous demand for sugar and by producing surplus energy to meet the mounting energy needs of India. In addition to this, the industry has become the bastion of the liquor industry. The sector chains more than 50 million farmers and their families, and brings value addition at the farm side. In common, sugarcane price accounts for approximately 70 percent of the ex-mill sugar price. The segment also has a noteworthy reputation in the global sugar world. The Indian domestic sugar market is one of the prevalent markets in the world, in capacity terms. India is also the second largest sugar producing geography. India constitutes a major growth driver for world sugar, rising above the Asian and world consumption growth average.

1.1 Simbhaoli Sugar limited in brief
The Simbhaoli Sugar Mills (SSML) was established in Jun.'36 as a private limited company, it was changed into a deemed public limited company in 1975 and a public limited company in Jul.'89. Its plant is in Western Uttar Pradesh. SSL was promoted by Sardar Raghbir Singh Sandhanwalia, Sardar Pritam Singh Sandhanwalia, Sardarni Mahindra Kaur, Sardar Naunihal Singh Mann and SBS Joginder Singh. Gurmit Singh Mann is the Chairman and Managing Director. Other group companies are Dholadhar Investments, Highland Gardens and Hotels, etc. SSL floored a public issue of 22.64 lac 14% PCDs a total of Rs 21.08 crore in Jan.'95. SSL is one of the biggest sugar producing units in Uttar Pradesh. The core finished products of SSL are white crystal sugar and alcohol. The products are sold to different government organizations and to the canteen provisions of the Armed Forces. During 1993, Simbhaoli Industries Private Limited was merged with the company because of its synergies in function and propinquity to the sugar unit. The company has signed a MoU with Econergy International Corporation (EIC), US, for investigating the practicability of setting up a global standard biomass-based power plant. It has also signed a MoU with Soli, Israel, for setting up a tissue culture facility at Simbhaoli. In 2001-02 the Chilwaria Sugars Ltd a subsidiary company was amalgamated with the company with the approval of shareholders and Honorable High Court of UP. The projects which are under completion stage are: Conversion of Simbhaoli manufacturing facility into a sugar refinery under the Sugar Development Fund, increasing the capacity of distillery division to 90 KL/day from the existing 60 KL/day, setting up a co-generation facility at its distillery division. Out of the above Co-generation facility is under implementation stage and conversion of sugar refinery is also nearing completion. The company had set up a new unit (a 30 KL per day capacity) at its existing distillery division (at Simbholi, Ghaziabad) for manufacture of Ethanol, its production was started in Jan 2004

The sugar business of SSL has an absolute integration with distillery and cogeneration of power; leading to maximum use of by-products. It had three distilleries adjacent to the sugar plants with an aggregate capacity of 210 kilo liters per day (KLD), including 180 KLD ethanol capacity. The Company has hived-off its potable alcohol distillery at Simbhaoli vide Hon'ble High Court order dated September 17, 2012, to its subsidiary company, Simbhaoli Spirits Limited. The hiving-off is effective from October 1, 2010. The Simbhaoli distillery is capable to produce up to 5.0 mn cases of IMFL and Indian Made Indian liquor (IMIL) annually. The power generation units of Simbhaoli Power Private Limited (SPL), located within the Simbhaoli and Chilwaria complexes of the Company are capable to generate biomass based power aggregating to 64 mwh. The Simbhaoli and Chilwaria units of SPL are supplying the surplus power to the UP State grid under the Power Purchase Agreements.

SSL is one of the rare sugar companies in India, which has potential to manufacture and export EC grade refined sugar for straight consumption to developed nations, both under bulk and branded segments. During the year, a range of forte sugars including white refined sugar in consumer packs, Sunhera (Mineral Sugar), Coffee Brown Sugar, Icing Sugar, Sachets and Cube Sugar under TRUST Brand; has been exported to countries like Canada, Mauritius, Bahrain, Kuwait and Oman. During the year, the Company has also accomplished the export of refined sugar against it expenditure commitment under the Advance Authorization Scheme (AAS) and open general license (OGL). For the optimum utilization of the production volumes the Company has imported 30,214 MT of Brazilian origin raw Sugar for processing in sugar season 2012-13.

2. Literature review
Performance appraisals are one of the most important requirements for successful business and human resource policy (Kressler, 2003). Rewarding and promoting effective performance in organizations, as well as identifying ineffective performers for developmental programs or other personnel actions are essential to effective to human resource management (Pulakos, 2003). The ability to conduct performance appraisals relies on the ability to assess an employee’s performance in a fair and accurate manner. Evaluating employee performance is a difficult task. Process in evaluating the performance of employees is one of the most important determinants of organizational justice (Greenberg, 1986; Folger et al., 1992). Further review in the literatures indicates that fair practices in human resource management, particularly in terms of performance appraisal has a predictive role in the employees’ attitude such as the organization’s commitment (Jehad et al., 2011). Performance appraisal is viewed as an important mechanism for changing employees’ attitude and behaviors such as affective commitment (Morrow, 2011). According to Stephan and Dorfman (1989) outcomes of effective performance appraisal are improvement in the accuracy of employee performance and establishing relationship between performance on tasks and a clear potential for reward. Dobbins, Cardy and Platz- Vieno (1990) told five outcomes i.e. use of evaluations as feedback to improve performance, reduced employee turnover, increased motivation, existence of feelings of equity among employees, linkage between performance and rewards.

Motivation is an important issue in any organization because it is involved in energizing or initiating human behavior, directing and channeling that behavior and sustaining and maintaining it (Steers and Porter 1987). Herzberg (1987) argues that in order to motivate employees through performance appraisal, the system should be used for reward and recognition. There is no doubt, however, that extrinsic incentives can boost performance (Herzberg, 1987). Hamner (1987) cautions that these systems can fail for a number of reasons including if pay is not related to performance, if ratings are seen to be biased, if rewards are not viewed as rewarding, if there is more emphasis on satisfaction with pay than performance and if there is a low level of trust and openness about the merit raises. Again, some merit pay schemes may encourage poor work practices as individual employees attempt to maximize their personal gains to the detriment of the entire organization (Hickey and Ichter, 1997).

The employer prefers an appraisal system or a mix of methods to appraise the performance of employees. The employee is either motivated or convinced high to perform depending on how the appraisal was governed. Whether employees are enthusiastic or apprehensive, it affects their intensity of performance which in turn affects output (productivity). The owner receives output as feedback on the effectiveness or else of the appraisal procedure.

2.1 Human resource at Simbhaoli Sugar Limited

“Our HR programme is designed to nurture a work culture that attracts and sustains exceptional talent and helps them realize their full potential as professionals” quoted in Seventieth Annual Report SSL 2005-06

The Company's strength is consequent from employees' association and espirit-de-corps. SSL trusts that unswerving and motivated personnel constitutes the most important factor in achieving business goal.

The Company is committed to maintain the primary values of individual and workplace rights in all its businesses and considers that the proper measure of a well-organized business is not simply whether it is economically successful, but how it attains that achievement. It
performs management practice intended to enhance the quality of life of its employees, build up their potential and get the most out of their output. The present manpower is being trained and allocated diverse works at different places and departments of the Company's business. For the duration of one year, the manpower cost has raised by 11 percent on because of general inflation. This is after regulating reallocation of human resources resulted from hiving-off of certain business. The Company has imparted 1980 man days (previous year 1750) off the job training to its employees. The relation between the organization and workforce continued to remain genial at all the locations. Annual recreational and educational tours are organized for employees and their families. Other than this, employees are being trained on specific areas by dedicated mentors/facilitators on regular basis.

Source website: http://www.simbhaolisugars.com

**Figure 1:** Organization Chart of Simbhaoli Sugar Limited

### 2.2 Some HR initiatives

1. Quality Circles have taken valuable role at Simbhaoli Sugar. The design is to create a chain of independent groups that are proficient at proactive initiatives, out-of-box thinking and problem solving skills.

2. Competency Mapping is a constant endeavor to recognize skill strengths and weaknesses of managers and workforce. The objective is to help people nurture in competencies crucial for optimum performance.
3. Imperative initiatives have been taken in Human Resources which SSL believes to be the key reasons to lure and retain them from competitive head hunters. A Simbhaoli Sugar employee is technology savvy, innovative and adept at problem solving. The Company has been conducting out ample of social welfare schemes through Simbhaoli India Foundation (SIF), a non-profitable institution established to execute programmes in the fields of education, healthcare, clean water, social welfare, village infrastructure development in reserved areas of its sugar mills. The Company's workforce is vital stakeholder in the Foundation, and has contributed to position the corpus fund. The activities carried on by the Foundation with dynamic support from the Company during the year include participation in the activities for raising funds, health based activities for employees and farmers, blood donation camp etc.

“We have one of the most technology-literate and committed workforces in the industry. Many of our workers are third generation employees, upholding a family tradition of lifelong loyalty and service.” quoted in Seventieth Annual Report SSL 2005-06

2.3 Performance appraisal at Simbhaoli Sugar Limited

A systematic performance appraisal system has been in place. Objective of performance appraisal system is to measure the performance of employees, identify their individual improvement areas, and give them performance feedback so that they can further improve themselves. Employee welfare is taken care of by providing various facilities like residential houses, fully operating dispensary, school, school bus, canteen, club, fair price shop, bank and post office. Performance appraisal assesses an individual's performance against previously agreed work objectives. Performance appraisal is normally carried out once a year. They assess key result areas of their employees, workers and supervisors. Since it is a joint responsibility of the individual and the supervisor; every individual in Simbhaoli Sugar Limited Ltd, are co prime to each other.

It also enables management to compare performance and potential between employees and subordinates of the same rank. Rating of employees is done by their performances. It is given as per ranks very good, average, and average to medium and below average. On the basis of these rankings highest reward of the year is given to best suitable worker. The better performing employee gets the majority of available merit pay increases, bonuses, and promotions. The study revealed that PAS of SSL greatly relies on identifying KRAs and rating the performances based on the achievement of set KRAs. “Key Result Areas” or KRAs refer to general areas of outcomes or outputs for which the department's role is responsible

2.4 Strengths of KRAs observed by senior personnel of SSL HR: -

Identifying KRAs helps individuals: -

1. Clarify their roles.
2. Align their roles to the organization’s business or strategic plan.
3. Focus on results rather than activities.
4. Communicate their role’s purposes to others.
5. Set goals and objectives.
6. Prioritize their activities, and therefore improve their time/work management.

7. Make value-added decisions.

2.5 Opportunities of KRAs observed by senior personnel of SSL HR: -

1. Increased focus on the outcomes
2. Improve the competencies of Key Result Areas.
3. Focused responsibilities
4. Being made accountable
5. Responsible for the deliverables
6. Fine tuning of the measurable more effectively

(KRAs) are the key result areas which constitutes most of the department's work role. The remainder of the role is usually devoted to areas of shared responsibility (e.g., helping team members, participating in activities for the good of the organization).

Source website: http://www.simbhaolisugars.com

Figure 2: Performance Appraisal System of Simbhaoli Sugar Limited

3. Objective of the study

1. To study company’s performance appraisal system.
2. To study in detail the impact of performance appraisal as a motivational strategy on the employees of Simbhaoli Sugar Limited Ltd.
3. To analyze the effectiveness of the performance appraisal feedback system of Simbhaoli Sugar Limited Ltd.

3.1 Hypothesis

H1: Performance appraisal has a significant impact on employee motivation.

4. Research methodology

The methodology of the study is based on the primary as well as secondary data. The study depends mainly on the primary data collected through a well-framed and structured questionnaire to elicit the well-considered opinions of the respondents. The study is confined to the Director, HR Manager and 42 managers and executives of Simbhaoli Sugar Limited, Simbhaoli, Ghaziabad. A z-test is used by first calculating the population standard deviation, sample mean and standard error of the mean. The variables are denoted as below:

Direct Variable: Performance Appraisal

Indirect Variable: Employee Motivation

4.1 Empirical analysis

For developing and using analytical skills, and to reach towards the findings we followed the following steps:

Step 1: Selection of Z-test as a statistical tool to be used in the research.

Step 2: Level of significance is 5% which is a commonly used level of significance by the researchers.

Step 3: Calculations done for the sample statistics

n: Size of the sample i.e. 42(employees working at managerial level)

σ: Population standard deviation

σ: Standard error of the mean

σ = \sqrt{\frac{\sum (X-\bar{X})^2}{n-1}}

µ: \frac{\sum f*X}{n}

\bar{X}: Sample mean

Z = (\bar{X} - µ) / σ

Step 4: For determining the critical values the test used is a two tailed test in which we reject the null hypothesis if the standardized sample mean or the observed Z value is greater than the upper critical value or lesser than the lower critical value.
Step 5: For the conclusion the null hypothesis is rejected as the value of Z falls in the rejection region and accept the null hypothesis if the value of Z falls within the acceptance region.

Table 1: Computation of by the description of ranks given by employees

<table>
<thead>
<tr>
<th>Performance parameters</th>
<th>Ranks Given By Employees according to the framed parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
</tr>
<tr>
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<tr>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>27</td>
</tr>
</tbody>
</table>

Total 237 226 140 25 2

Calculations of mean according to the ranks given by the employees: -
Mean of 5th Rank = 237/15 = 15.8
Mean of 4th Rank = 226/15 = 15.06
Mean of 3rd Rank = 140/15 = 9.33
Mean of 2nd Rank = 25/15 = 1.66
Mean of 1st Rank = 2/15 = 0.13

Table 2: Determination of the critical value

<table>
<thead>
<tr>
<th>X</th>
<th>f'</th>
<th>F</th>
<th>d = (X-X)</th>
<th>d²</th>
<th>f*d²</th>
<th>f*X</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>15.8</td>
<td>16</td>
<td>2</td>
<td>4</td>
<td>64</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>15.06</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>3</td>
<td>9.33</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>1.66</td>
<td>2</td>
<td>-1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>0.13</td>
<td>0 i.e. 0.13&lt;1</td>
<td>-2</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total 42 0 \(\sum d^2=10\) f*d²=81 171
4.2 Calculation analysis

\[ \sigma_x = \sqrt{\frac{\sum d^2}{n-1}} \]

Where \( d^2 = (X-X)^2 \)

\[ = \sqrt{\frac{10}{41}} \]

\[ = 0.493 \]

\[ \mu = \frac{\sum f^* X}{n} \]

\[ = \frac{171}{42} \]

\[ = 4.07, \]

\[ \bar{X} = 3 \]

\[ \mu = 4.07 \]

\[ \sigma_x = 0.493 \]

\[ Z = \frac{(X - \mu)}{\sigma_x} \]

\[ = \frac{(3 - 4.07)}{0.493} \]

\[ = -2.17 \]

![Diagrammatic presentation of two-tailed test](image)

From the calculations done above the findings of the Z-test confirm that the null hypothesis is rejected due to the value of Z lying outside the acceptance region that is within the rejection region \( Z = -2.17 \) which is < -1.96 , Hence the alternate hypothesis is accepted

4.3 Key findings

1. Performance Appraisal system being practiced in SSL assess key result areas of their employees, workers and supervisors.
2. Based on the KRA based procedure of SSL a parametric questionnaire was framed and it was found that Performance Appraisal System has a significant impact on employee motivation, hence proving the alternate hypothesis.

3. KRA objectives of Performance Appraisal System in SSL focus on outcomes, rather than activities.

4. Prior framed questionnaire acted as supporting tool to extract information regarding Performance Appraisal Assessment Procedure (i.e. Scope of Balance Score card and Performance Score card, KRA formulation, Behavioral parameters and performance rating.)

4.4 Recommendations

1. Endeavors can be made to plan for providing increments on department basis rather than hierarchical basis

2. Flexible working hours may be facilitated by SSL to increase employee performance

3. Intervention of more HR executives can be provided aiming to facilitate all departmental activities in more organized manner.

4. Certain emphasis on training is required in SSL performance appraisal system.

5. Conclusion

Performance appraisal of SSL is a supportive pillar to compare actual performance and potential of employees with the established standards, aiming to act as motivational equipment for enhanced employee performance. Various rewards are attached with the star performers for a stipulated duration of a year. The performance is measured on the methods of BARS, behavioral parameters and performance scorecard based on set KRAs. The better performing employee gets the majority of available merit pay increases, bonuses, and promotions.

The detailed study with the sample size of 42 middle level managers, and executives, revealed that the Performance appraisal has a significant impact on employees’ motivation, and several parameters like clarity, increments, job role, incentives, QWL, employee productivity etc. were taken into consideration. Performance Appraisal System of SSL has a profound effect on levels of employee motivation and satisfaction- for betterment and improvement of employee and organizational performance as also shown in employee turnover figures of SSL.

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