A Study on the Relationship between Labour Productivity and Motivation; With Special Reference to Hirdaramani Group of Companies

K.M.N.S. Bandara and M. Weligodapola

Abstract - Human motivation is the driving force by which humans achieve their goals and labour productivity is influenced by human motivation. A labour intensive product oriented organization is appropriate to carry out a research study on labour productivity and human motivation. Though a number of programs and activities have been arranged to enhance the human motivation, the organization has not assessed their effectiveness. Maslow’s Hierarchy of needs was used as a tool to perform a research study to monitor the employee motivation and labour productivity. Thereby a questionnaire was designed to monitor the level of satisfaction of the employees over the activities launched by the organization to enhance employee motivation. Being a qualitative aspect, level of satisfaction of the employee was categorized into five levels in the order of descending by using William Stephenson’s Q-sort scale method. According to the sample study, degree of satisfaction of operational level employees was found between “above average level” and “moderate level” which is below the highest level. It emphasizes that further improvements can be arranged to enhance the employee motivation which influence to increase the labour productivity.

Key words- Employee Motivation, Labour Productivity, Degree of Satisfaction, Hierarchy of Needs, Operational level workers

I. INTRODUCTION

Productivity improvement is one of the prime goals of any organization of which all sub departments such as Marketing, Finance, Human Resource, Production, and Quality Assurance are contributing to enhance the productivity of their organization adopting various management strategies. Organizations perform various activities in order to enhance productivity; every organization concerns the fact of human intervention as it is the driving force of each said program or activity. Therefore labour productivity can be defined as the amount of goods and services that a worker produces in a given amount of time while maintaining its quality standards. In quantitative terms, labour productivity is the rate of output per worker (or a group of workers) per unit of time as compared with an established standard or expected rate of output.

Motivation is one of the key factors which determine the level of driving force of the organization against its set tasks. Human motivation can be identified as a never ending process due to the uncertainties of the dynamic environment. From the practical point of view, there should be a strong relationship between labour productivity and motivation for the overall success of any organization. There are number of theories and approaches developed by management experts to assess the degree of motivation of employees in different organizations under different environments. Maslow’s approach through his Hierarchy of Needs addresses five distinct levels for employees’ motivation related with employees’ satisfaction. These five levels are identified as Physiological needs, Safety needs, Love needs, Esteem needs, and need for Self-actualization.

Moreover Maslow explains that these levels need to be accordingly satisfied in order to reach the upper levels of the hierarchy. This research adopts the approach of Maslow’s Hierarchy of Needs to assess the level of motivation of employees.

II. STATEMENT OF THE PROBLEM

According to the today’s context, maximizing profits while satisfying the customer needs in a competitive environment is the challenge of marketing [1] either in the production sector or in the service sector. The productivity of physical resources could be improved through the advancement of technologies. A Garment factory which has been competing in the export market and located at Avissawella under the umbrella of Hirdaramani Group of Companies was selected for the study. In the apparel industry, product type is always typical with different styles. Therefore, job type is rather consistent. At present, the labour strength of the factory is nearly 1000 employees out of which 90% represents the operational category including designating machine operators, sewing staff from the production section, cutters and designers in the design section, supply staff in the stores, sales assistants in the marketing section.

The Garment Industry of Sri Lanka, one of the industries competing in the global market earning foreign exchange, was seriously affected by the world economic recession started in 2008. Apart from that, withdrawal of preferential tariff benefits of GSP+ (Generalized System of Performance) from Sri Lanka was also affected the apparel export industry in Sri Lanka [2]. There is no other feasible option than improving the productivity of the finished goods to keep holds the market share.

The organization had made a tremendous effort to improve the productivity through technology advancement and launched several programs and activities long ago and still continuing to enhance the labour productivity through human motivation. They have not developed any system or method to assess the
impact of such programs though there is a strong need to make such an assessment. Hence, it is necessary to assess the impact of such programs in terms of the degree of satisfaction. In a dynamic environment, the General Objective of this research study was established as:

- To study the relationship between labour productivity and employee motivation.

The study was confined to operational level workers which was 90% of the total. The employee motivation can be assessed in terms of human satisfaction towards their needs. The Specific Objectives were established as follows.

- To identify the approaches adopted by the management to motivate the employees and to compile such approaches in relation to the needs defined in the Maslow’s hierarchy.
- To analyze and evaluate the employee motivation level in terms of degree of satisfaction under the needs defined in the Maslow’s hierarchy.
- To make suggestions to enhance the employee motivation in order to improve the labour productivity.

III. METHODOLOGY

Having studied the various approaches launched by the organization to improve the level of satisfaction of the employees, a questionnaire was designed in such a manner that each question will be representing one of the activities or programs launched by the organization to improve the employee motivation. Moreover, the answer to each question needs to be the degree of motivation of the answerer over the particular program or activity launched by the organization. Since the output level of each indicator should be comparable, the scale needs to be consistent for all indicators. Five levels of the qualitative scale was defined namely highly satisfied, above the average, moderately satisfied, below the average, and not satisfied in the order of descending. In order to maintain the consistency, degree of motivation of the answerer is always confined to the above mentioned qualitative scale. Then the most appropriate answer selected by an employee will represent his/her degree of satisfaction according to the above scale. In this manner several questions may represent one of the needs specified by the Maslow in his theory of hierarchy of needs.

The Q-sort scale method developed by William Stephenson was used for scaling [3] of answers by simplifying the scale into 5 piles by considering the five levels of the qualitative scale. In order to transform the qualitative scale into quantitative scale, numerical weights from 4 to 0 were assigned to the five levels of the qualitative scale in the order of descending. And it was distributed randomly among 150 employees in the operational level of the organization. The results were entered into a spreadsheet and the calculations were done.

- Result base sample separation of each question of the questionnaire under each level of satisfaction (i.e. highly, above average, moderately, below average or not satisfied).
- Determination of individual score of an average employee under each level of satisfaction for each question of the questionnaire (i.e. Sample Total divided by the sample size)
- Weighted score of an average employee under each level of satisfaction for each question of the questionnaire (i.e. Individual score multiplied by appropriate weight assigned for each level of satisfaction according to Q-sort scale)
- Weighted average of each question of the questionnaire (i.e. Weighted score divided by the total score assigned to each question which is 10)
- Weighted average of each need of the hierarchy of Maslow (i.e. Total of weighted averages of the number of questions come under each need of the hierarchy of Maslow divided by the number of questions under each need)

IV. RESULTS

Then the final results were represented in the graphical format and all the five stages of the Maslow’s hierarchy of needs were addressed through various questions in the questionnaire. Under Physiological needs four questions were raised as shown in Fig. 1.

![Fig. 1. Average values of degree of satisfaction assessed on the Physiological needs of the Maslow’s hierarchy](image)

The average value of total satisfaction of the Physiological needs related to the sample test is 2.63 which is above the moderately satisfied level and close to the above the average level. According to Figure 1, employees are satisfied by getting basic needs such as food, health, shelter, education etc. fulfilled through the employments and public transportation provided by the organization. Employees’ satisfaction level over the activities such as providing meals and uniforms by the organization is comparatively low.

Three questions were developed with regards to Safety needs according to the theory of Maslow and level of satisfaction is shown in Fig. 2.

![Fig. 2. Average values of degree of satisfaction assessed on the Safety needs of the Maslow’s hierarchy](image)

The average value of total satisfaction of the Safety needs related to the sample test is 3.04 which is almost at the above average level of satisfaction. According to the Figure 2 employee satisfaction is above the expected average level with regard to the health insurance scheme provided and 5’S concept launched by the organization.
Employees’ satisfaction level over the in-service training programs/educational programs/skill development programs provided by the organization are slightly lower than the others.

Three questions were developed in order to measure the satisfactory level over Social needs of the employees and level of satisfaction is shown in Fig. 3.

The average value of total satisfaction of the Social needs related to the sample test is 2.72 which lie between moderate level and above average level of satisfaction. According to Figure 3, employee satisfaction level over the effects of “Workers Council” concept, Entertainment programs and the programs launched through Corporate Social Responsibilities (CSR) are at the same level and more closer to above average level of the scale. Three questions were developed for the Esteem needs of the theory of Maslow and level of satisfaction is shown in Fig. 4.

The average value of total satisfaction of the Esteem needs related to the sample test is 2.59 which lie between moderate level and above average level of satisfaction. According to Figure 4, employees are satisfied over the esteem needs through the arrangements made by the organization.

Two questions were developed in order to identify the satisfactory level of employees over the Self-Actualization needs and level of satisfaction is shown in Fig. 5.

The average value of total satisfaction of the Self-Actualization needs related to the sample test is 2.48 which lie between moderate level and above average level of satisfaction. According to Figure 5, employees are satisfied over the self actualization needs through the arrangements made by the organization.

V. CONCLUSIONS

The answers to the questions of the questionnaire of the sample study which was developed based on Maslow’s hierarchy of needs; Physiological, Safety, Social, Esteem and Self-actualization, expressed the degree of motivation of the each employee who involved the sample study.

By carrying out the research study, the researcher observed the employees response towards the programs and activities launched by the organization in terms of employee satisfaction. The researcher discussed the research findings with the factory management enabling to furnish appropriate solutions to improve the employee motivation.

The degree of motivation for Physiological needs lie between above the moderate level and close to the above the average level which means that employees are satisfied by getting basic needs such as food, health care, shelter, basic education etc. fulfilled by holding their employments and public transportation provided by the organization.

According to the study it was found that the satisfaction over facilities provided by the organization to fulfill the Safety needs, employees’ satisfaction level over the health insurance scheme facilities provided by the organization and launching 5’S concept are comparatively high.

By evaluating the effectiveness of Social needs provided by the organization, it was identified that further improvements could be arranged for the Workers Council, Entertainment programs and Corporate Social Responsibility program related to the Social needs of the research tool.
The results imply that the employees are satisfied over the Esteem needs fulfilled by the organization. Hence, improvements shall be suggested in a justifiable manner. As to the study it was found that the employees are satisfied over the self actualization needs fulfilled by the organization. The sample study was carried out for the operational level staff and from the discussions it was noticed that these employees did not have any clear vision about their type of contribution in this context. Hence, their capacity for contributing to the decision making process needs to be recognized.

VI. RECOMMENDATIONS

Employees’ satisfaction level over the activities such as providing meals and uniforms by the organization is comparatively low with compared to the other facilities provided by the organization in order to fulfill the Physiological needs. Thereby the organization can carry out a survey for assessing quality of foods concerning goods, processes and services where they can easily adopt to Total Quality Management (TQM) approach. There the management can meet the food suppliers, food processers and consumers in regular occasions. Starting from the food supply destination, food storage techniques, cooking vessels, cleaning methods, and hygienic aspects need to be reviewed. Furthermore the organization can get consultancy service from the Airport Garden Hotel which is under the umbrella of Hirdaramani Group of Company. This would help the organization to improve the quality of entire food department.

Moreover the organization can form a Quality & Safety Circle (QSC) for food with the participation of managers and employees. The QSC can determine critical control points such as location, practice, procedure or process required to assure the quality of food. It would help to minimize or prevent unacceptable contamination, survival or growth of food-borne pathogens or spoilage organisms, or introduction of unwanted chemicals or foreign objects [4]. Tasty of foods and variation of set menus are common factors to be reviewed.

The uniform provided by the organization was the other factor to be considered. According to the statistics 89% of the sample represents female employees of which 66% represents the age group of below 25years, which means the majority of the employees are young females. Young females prefer variation of dresses. The color of the uniform varies on the type of the production process. Therefore the organization can study the possibility of changing of texture of the uniform even after a considerable time period.

As a result of evaluating the Safety needs provided by the organization, it was identified that improvements could be arranged for the health insurance scheme, skill development programs for safety, and to launch advance productivity concepts like 5 S concept under the Safety needs. It is a well known fact that these employees who works under the operational level are not affordable to meet their entire medical expenses. From the discussions had with the General Manager, the researcher came to know that the Hirdaramani Group of Companies has been expanding their market share in Sri Lankan apparel industry. The number of insurance policies shall be increased accordingly. The organization can obtain the competitive advantage of increasing insurance policies for a package with more benefits to their employees.

From the positive response of the employees towards the 5’S concept is a good indicator to assess the productivity of the organization. According to this research study, the 5’S concept is fully utilized to enhance the productivity of the organization while motivating the employees. This study proposes to maintain these standards in the long run. The organization can introduce other productivity methods such as Balance Scorecards, Six Sigma, and Lean Manufacturing which are for measuring the strengths and areas for improvement of an organization across all of its activities [5].

After going through the results it was understood that the employees have realized the importance of such activities which caused their career development. From the discussion with the factory management, it was recognized that training programs on safety has been incorporated with the training programs of capacity building, life style improvement, team work, and environmental protection. By considering the practical difficulties the organization has been arranging such training programs as common programs suite for all employees which is too generalized as safety needs are differ from person to person. However, the organization can consider demographical aspects such as age limit, gender, marital status, and working group while performing training programs.

According to the findings the researcher realized that the employees are satisfied over the Social needs fulfilled by the organization, but can be further improved. Worker’s Council is where the employees get an opportunity to come up with their ideas and issues. However, the organization has not made suitable arrangements to enhance the employee motivation by encouraging the employees. The management can introduce a reward system as a token of appreciation for the employees who make most valuable suggestions in every month or any other suitable duration. Moreover, the management can include this concept in terms of merit in the annual performance appraisal of employees’ which becomes a rational method to make all employees encourage and motivate.

The employees’ level of satisfaction about the entertainment activities provided by the organization needs to be improved. Apart from recreational activities and religious activities which are currently performed the organization can include variety of activities such as a health camp as one of the social activities which can be organized for the employees initially and then for their children and thereafter for their parents etc. This will contribute to improve the safety needs as well. The organization can also introduce library facilities for the employees. The statistics shows that 91% of the employees are in age group of below 35 years which is the middle age and out of them 23% are married. This determines that the children of the married employees’ are probably kids or young teenagers. The organization can include library material by considering their needs. In addition to tradition reading material, they can include library materials in the form of compact discs which is very popular and attractive. By considering the age limits, they can include movies, dramas, music, world affairs, encyclopedia, kid’s talent programs etc.

Under the Corporate Social Responsibilities (CSR) program of the organization, they have carried out several beneficiary
programs within the surrounding social area of the factory. In the recent past they have carried out certain activities such as renovating of Avissawella base hospital, repairs to the Divurumpitiya church, providing scholarships for students of the Eheliyagoda Central Collage etc. It is more effective, if the organization can deviate from these traditional methods and support to solve a social issue which currently exists. The organization can support an “anti-dengue” campaign which is launched by the organization. Also, the organization can incorporate their annual welfare trip to the North-East area and arrange donations to the children of families which were internally displaced.

Through evaluating the effectiveness of Esteem needs provided by the organization, the researcher identified that further modifications could be arranged for the incentive program of the organization and for the born talent enhancing program related to the Esteem needs. Currently the organization has been providing monetary incentives in order to motivate its employees. But due to the financial crisis no longer the organization can provide monetary incentives for the employees. Therefore it is recommended to provide non-monetary incentives such as merit certificates, plaques as token of appreciation, badges in different colours representing different levels of performance to hang on their uniforms etc. Similarly, Job appreciation can be made by assigning more responsibilities to high performing employees. Therefore, such appreciations shall be considered as merits for granting salary increments for the recipients.

From the discussions that the researcher had with the management it was understood that the employees are reluctant to come forward to show their born talents. Though employees are happy about the present arrangements made by the organization to encourage the born talents, improvements can be made. Since this is a time consuming process the organization can include events such as singing, drama, painting, dancing, playing instruments, speeches, poetry, literature, crafting, sports etc to their social programs of annual trip, family day and other recreational functions. Moreover the management can organize a periodic news letter, employees’ notice board for their creative ideas, individual work such as drawings, compositions etc.

According to the research study, operational level employees are satisfied about the personality development programs launched by the organization. Personality is made up of several factors. It is judged by how an individual reacts to situations and to people. The organization has arranged meditation programs, lectures from recognized personals from different disciplines. It would be healthier if the organization can organize such programs continuously by obtaining the service of experts of personality development.

By evaluating the effectiveness of Self-actualization needs provided by the organization, it was identified that further modifications could be arranged for the current program on “participation of employees for decision making process” and employee admiration program related to the Self-actualization needs. At present, the operational level employees are highly involved in the activities of the production floor. The organization can obtain information about the efficiency of the machines, frequently wearing parts, best time for servicing, quality of fabric material etc. from the operation staff. Therefore, they can make suggestion about the production floor re-engineering process such as assemble line modifications, electrification improvements, effluent discharge arrangements, waste elimination techniques, water supply and ventilation systems etc.

Employee satisfaction level about their admiration by the management towards the achieving of organizational goals is above the moderate level. Employee admiration is important to increase individual productivity by reducing the labour turn over, absenteeism, labour grievances etc. According to the past records of the organization employees have been rewarded twice for the success of adopting “Kaizen Concept” which is about continuous improvement. The organization can attempt to obtain ISO standards, National Productivity Award, National Excellence Award, Going Green Award etc. which help to gain the employee ideas and their active participation. Participation of such programs will enhance the recognition and image of the organization and its employees. Thereby, the organization can admire their employees.

VII. VALIDATION OF THE RESULTS

A similar study has not been conducted previously regarding this organization. Due to the limitations of the resources, it is not possible to extend the research for a separate study. Therefore the same questionnaire was distributed among a random sample of the employees who directly involve with the human activities of the production floor. The results provided by them were used for the validation of the study and correlation between the sample study and the validation study was established as shown in Figure 6.

The computed value of the coefficient of correlation (r) was found as 0.94 (very close to 1), which shows a strong relationship between the values determined by validation study and the sample study. Moreover, since the value is positive, the relationship has an increasing trend.

![Fig. 6. Correlation between the sample study and the validation study](image)

VIII. FURTHER STUDIES

The study was carried out with the objective of studying the relationship between labour productivity and employee motivation. The results of the research study assess the level of
employee satisfaction towards the arrangements made by the organization to enhance the employee motivation. The impact of employee motivation towards the labour productivity has to be assessed through a continuous monitoring process. Prior to that, it is required to implement the recommendations made by this study for enhancing employee motivation or any other programs/activities which would be suggested by the management. The same study can be carried out at least after one year time. The organization has been monitoring the overall productivity by using the different methods such as Rate of Target Achievement, Return on Investment, Gross Profit Rate, Net Profit Rate, etc. Significance of the study can be evaluated by comparing the results with past trend of the overall productivity. Moreover, it is recommended to monitor areas such as annual labour turn-over, absenteeism of employees, finish good rejections, damages due to improper material handling and labour grievances which are related to employee motivation and labour productivity.

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REFERENCES


