

# Employees' Productivity : Conceptual Framework

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## ABSTRACT

*This study presents the theoretical background of the productivity of industrial setups. The conceptual framework of blue collar productivity has been illustrated in a number of studies available in the literature. But, the concept of white collar jobs is still a debatable issue. In some of the studies officers working on various levels of organizational hierarchy, in particular managerial levels, have been treated as white collar employees. Whereas, in some other studies employees working in office including clerical level employees and their equivalent posts in office setups and officers on managerial levels together constitute the white collar employees. While blue collar productivity has been quantified in a number of studies, the measurement and quantification of white collar productivity have posed a lot of problems due to non availability of quantification tools. This study presents the pioneering works describing the productivity measurement of blue collar jobs and the theoretical constructs of the productivity equation of both the blue collar and white collar employees. It pinpoints the role and relevance of white collar employees in the management of blue collar as well as organization's overall productivity. The study also suggests the relation of job satisfaction and employee stress with the productivity and how the vicious circle of low productivity prevails in organizations if proper control strategies do not exist in the organizations.*

**Keywords:** Blue collar employees, Competitive environment, job satisfaction, productivity, stress, white collar.

## 1. INTRODUCTION

The word productivity has become such a buzz word today that it is almost rare not to find it mentioned in some context or the other, trade magazines, news papers, management briefs, share holders reports, political speeches, T.V. news, consultants' advertisements, conference proceedings – just to name a few. In fact, the term “productivity” often appears to be used to promote a product or service.

Productivity is the quality or state of being productive. It is a concept that guides the management of an organization system, and measures its success. It is the quality that indicates how well HR, capital, materials, and energy are utilized. Productivity improvement is sought everywhere because it supports a higher standard of living, helps to control inflation, and contributes to a stronger national economy.

The Government, the business, the organized labor, the white collar personnel, all advocate higher productivity but ‘more is being said than done’. Because the word productivity is branded about so frequently, it assumes the proportions of a ‘many splendor cure all’. But the productivity can be brought back into its true perspective by considering, ‘what it is not’.

Productivity is an essential part of our urge for self improvement and the achievement of excellence which must be the part of any dynamic society. We must get more out of every acre under the plough, out of every spindle and machine, out of every technologist, blue collar & white collar personnel, out of every rupee spent. Decision making must be expedited, and there should be greater delegation of financial and administrative powers, simplifications of procedures and improvement in work environment. Better maintenance of plant and equipment for increased capacity utilization. Partial productivity is the ratio of output to one Group of input.

### 1.1 Productivity improvement and declining productivity

Increasing productivity is a classic example of trying to achieve a higher speed in the form of higher efficiency and lower unit production cost. There is no denying of the fact, that without a marked improvement in our

productivity in all spheres, our standards of living is bound to slip backward as the present rate of production of goods and services will satisfy only a fewer number of our growing population.

The denominator of demand is continuously outstripping the numerator of supplies. Yet in practice we find that all talks of productivity and incentive payments are getting negative responses from white collar and HR personnel even when it is fairly certain that the fruits of any improved productivity are bound to benefit the common man more than others. It would be liked here to list out the actual factors that are contributing to the declining productivity, inability to measure, evaluate, and manage the productivity of white collar employees.

- Freedom to work independently/suggest/express/Job Satisfaction
- Competitive environment
- Recognition of achievements
- Supportive/Co-Operative (work culture)
- Informal relations and welfare
- Capacity utilization and inventory management
- Production management (Scheduling, Lay outing, Maintenance etc.)
- Process change, Technology change, Waste minimization, Recycling

### 1.2 Stress Dependent Performance and Vicious Circle of Low productivity

Relationship between stress and performance is shown in fig. 1, whereas, the vicious circle of low productivity is shown in fig. 2. Both the figures highlight the issues related to declining productivity.

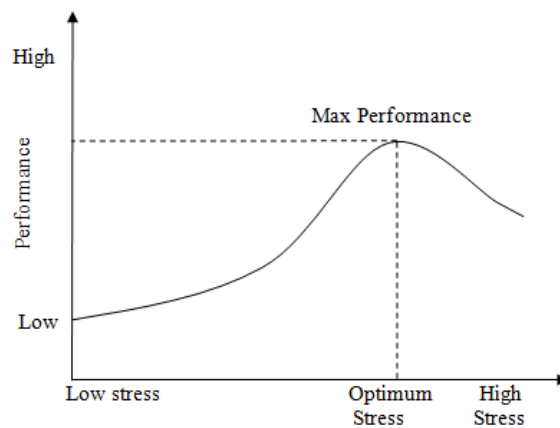


Fig. 1: Stress and Performance

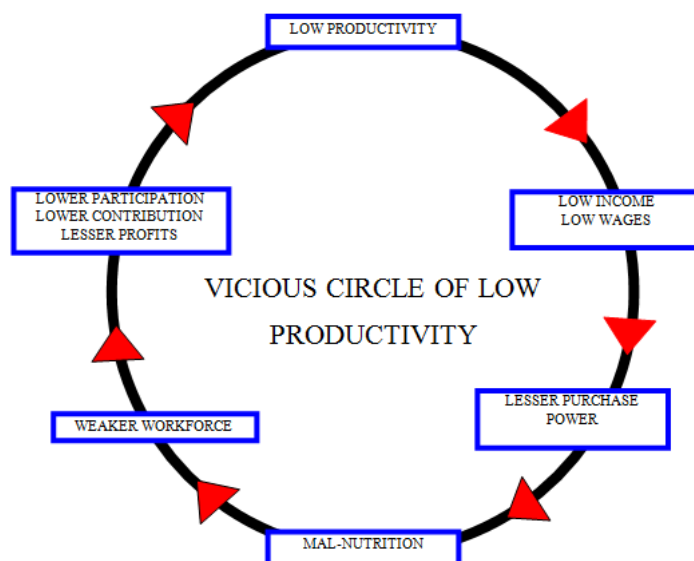


Fig. 2: Vicious Circle of Low Productivity

### **1.3 Problems of productivity measurement at the industrial level**

In a number of studies conducted earlier, researchers have identified the factors that lead to problems in measurement of productivity of white collar industrial employees working at various levels of organizational hierarchy.

- Non-availability of standardized scales for measurement of white collar productivity, rendering it a subjective issue only.
- Appropriate weights also are often not available.
- Quality changes that result from the development of new products, and changing the specifications of existing ones.

### **1.4 Productivity Management**

The earlier studies have revealed the actual factors that contribute to the declining productivity, inability to measure, evaluate, and manage the productivity of white collar employees. A few of these important factors are listed below: -

- Diffused authority & inefficiency in complex organization.
- Organizational expansion and lower productivity growth resulting in soaring costs.
- Low motivations among rising numbers of affluent workers with new attitudes.
- Unresolved human conflicts & difficulties in team work.
- Increased legislative intrusion.
- Specialization in work process resulting in monotony & boredom.
- Rapid technological changes and high costs.
- Practitioner's inability to keep pace with the latest information and knowledge.

## **2. APPROACHES TO PRODUCTIVITY IMPROVEMENT**

The productivity improvement techniques or approaches which have been suggested in available literature on productivity improvement can be classified in to five heads. These major heads along with various activities to be incorporated for managing the balance of productivity equation are listed below. The activities jotted under their respective heads are self explanatory and don not need any detailed description.

- Technology based techniques
  - Computer added designs (CAD)
  - Computer added manufacturing (CAM)
  - Robotics
  - Laser technology
  - Group technology
  - Energy technology
  - Energy conversion technology
- Materials based techniques
  - Inventory control
  - Materials requirement planning
  - Materials management
  - Quality control
  - Material handling system improvement
  - Materials reuse and recycling
- Employee based techniques
  - Financial incentives
  - Profit sharing plan
  - Fringe benefits
  - Promotional schemes
  - Job enlargement
  - Job rotation
  - Workers' participation
  - Skills enhancement
  - Management by objectives
  - Communication
  - Working condition improvement
  - Training

- Education
- Quality of supervision
- Recognition
- Zero defect
- Flexible time
- Product based techniques
  - Value analysis/value engineering
  - Product diversification
  - Product simplification
  - Product standardization
  - Research development
  - Emulation
  - Reliability improvement
  - Advertisement and promotion
- Task based techniques
  - Method engineering/work simplification
  - Work measurement
  - Job design
  - Job evaluation
  - Job safety design
  - Human factors engineering

In recent years, the **KANBAN** or "**JUST-IN-TIME**" (JIT) production scheduling philosophy, developed by the Toyota Motor Company of Japan, has received wide-spread attention from both academic and practitioners. The JIT concept requires that parts and sub-assemblies be available at the work stations only when they are needed. This implies a high-quality level for the parts and sub-assemblies. This concept also requires that the vendors be in relatively close proximity to the assembly plant.

### 3. LITERATURE REVIEW ON PRODUCTIVITY

Organizations, whether private or public, are being severally pressured to ensure their survival. This pressure is due to the present cutthroat ear of competitions. To ensure survival, organizations are now compelled to continuously improve quality, minimize waste, and enhance efficiency. All this exercise is being done only to enhance productivity. 'Productivity' is a hallmark of excellence. And, if one appropriately analyzes this so called excellence work culture would emerge as the single guiding force to achieve excellence. However, individual excellence should not be mixed with organizational excellence. Organizational excellence /productivity are a product of work-culture and a myriad of factors, which are:-

- A. Job-Satisfaction
- B. Motivation
- C. Goal Setting
- D. Employees' Welfare
- E. Co-ordination
- F. Competitions
- G. Autonomy etc.

For a long time, these factors have been the subject of a number of research studies, throughout the world. However, there is acute need of such studies, which involve a large central govt. organization for the purpose. The present study is only an attempt to bridge this gap observed in the literature. A brief account of earlier pioneering studies in this regard is given below:-

#### 3.1 Friedlander's Study:-

In this study, we find the satisfaction supporting the dual factor theory by Herzberg of self actualization and of deficiency motivations. For a better understanding of job satisfaction, one must consider the opportunities for satisfaction that the job itself offers to an individual. Friedlander investigated (1965), fifty government employees as to elicit their responses to the satisfactions or dissatisfaction with the environmental factors, he chose. Their result suggested:

- 1) A "V" shaped distribution between satisfaction and importance but a negative correlation between dissatisfactions and importance.

- 2) A positive correlation between satisfaction and importance but a negative correlation between dissatisfaction and importance.
- 3) Factors giving rise to extreme satisfaction or dissatisfaction. The last factor was considered to be more important than the middle factors.

### **3.2 Hoppock's Study:-**

This was one of the earliest community wide survey conducted in the town of new hope pennsylvania. The survey was carried out on 309 people who were asked to fill out a questionnaire dealing with certain aspects of Job-satisfaction. He found that the degree of job satisfaction was related to the type of job and that job satisfaction varied considerably from person to person. In another study made by him on 80 persons, representing a wide range in age, intelligence, occupation and income, the conclusion he reached that besides financial return, job satisfaction is related to the relative status of an individual within the social and economic group with which he identifies himself, relations with his superiors and associates on the job, nature of work, earnings, hours of work, opportunity for service to others, environment, freedom to live in a place of one's choice, responsibilities, vacations, opportunity for self expression, competition, appreciation of criticism, opportunity of traveling, fatigue, security and ability to adjust oneself to unpleasant circumstances. After completion of his survey, Hoppack (1935) computed an index on job- satisfaction and he showed that the average index was lowest for the unskilled categories and highest for the professional categories.

### **3.3 Jurgensen's Study (1947):-**

The investigation dealt with employees' expectations from his job. Jurgensen asked 3345 male applicants for employment to rank 10 factors in order of importance. This order was found to be job security, opportunity for advancement, type of work, company, pay, co-workers, supervisors, working hours, working conditions and other benefits.

### **3.4 Sinha's Study (1958):-**

This was conducted on a sample of 100 office and 100 manual workers using the questionnaire technique. He found the following factors behind job-satisfaction -- interesting work, social status, good supervision age, number of family dependents, duration of service, etc. Results of this study do not coincide with Hoppocks findings that the index of job satisfaction is highest in managerial and professional groups, a little less in skilled manual and white collared group and lowest in unskilled category.

### **3.5 Palmore Study (1969):-**

A study by Palmore has come to the conclusion that people who like work are likely to live longer. Here the logic behind such results is that people with greater satisfaction tend to have greater benefits, which promote longevity. On the other side of the coin, it was contended that chronic dis-satisfaction with work represents stress which, in turn, eventually takes its toll on the organization. Emotional Stress, as physicians contend has been implicated as a contributory factor in the genesis of hypertension, coronary disease, digestive ailments and even some kind of cancer. Therefore, job satisfaction is essential to maintain physical health also. In one study at the University of Michigan in 1950s it was found that the productive groups showed no greater job satisfaction than the less productive work groups.

The above results are sustained by two other studies, one regarding the railroad workers and second regarding 6000 workers at a tractor factory.

### **3.6 Victor Vroom Study (1964):-**

A review of about 20 studies by Victor Vroom in 1964 disclosed only the barest evidence supporting a direct link between satisfaction and productivity. While job attitudes bear a discriminable relationship such as absenteeism and labor turnover, the available evidence suggests that strong positive relationship with productivity is lacking virtually.

### **3.7 Katz, Maccoby and Morse Study (1950):-**

There are two good studies on this subject. One is productivity, Supervision and Morale is an office situation by Katz, Maccoby and Morse written in 1950 and the other is satisfaction in the white-collar job by Morse written in 1953. The former study was carried on in Prudential Insurance Company employing 10,000 people at the home office. From the population of 419 non-supervisory employees and 24 section heads of supervisors were selected in such a way that there were 12 high productivity and 12 low productivity groups with their section heads. The groups were matched to form 12 high-low productivity pairs, each pair did the same type of work (Parallel Operations), had the same aptitude scores on tests, the same distribution of wages, age, length of service, lived about the same distance away from work, and had the same satisfaction with their

housing and community. This matching, enabled comparisons to be made between high and low productivity groups with all variables except productivity and satisfaction held constant.

In both the studies, it was found that those groups, which were more satisfied with their jobs, the company and with their pay and job status were not necessarily those which were most productive.

### 3.8 Best Employers (2000):-

'Business Today' conducted a study on 1000 companies in India in year 2000 to find out the best 10 employers in India. The traits common to the best employers are as follows:-

- Egalitarian Work Practices
- Stock Options
- Information Sharing
- Open Door Policy
- Ongoing Up-gradation of skills
- Learning Organizations
- Knowledge Management
- Transparency
- Empowerment
- Great Work Content
- Performance-Driven-Culture
- No layoff policy

### 3.9 Effect of Employee Training:-

Statistics extracted from the 'Human Dimensions of Liberalization - A Survey Report' in the year 1998, demonstrated the importance of training and development. The report reveals that 78% of the organizations surveyed have formal training department. It also points out the benefits to organizations by way of imparting training. Following are the derived benefits:-

- Improves Productivity
- Improves the Job Knowledge and skills at all levels of the organizations
- Fosters authenticity, openness and trust
- Aids in Organizational development
- Develops a sense of responsibility to the organization for being competent and knowledgeable.
- Creates an appropriate climate for growth
- Helps employees adjust to change
- Helps individuals in making better decisions
- Helps eliminate fear in attempting new tasks.

### 3.10 Porter and Lawler

They studied about motivation and offered following guidelines to motivate the employee:

- Place the right person on the right Job.
- Carefully explain the employees about their roles.
- Prescribe Performance levels expected from them.
- Make sure that the rewards dispersed are valued by the employees.

These Guidelines should contribute to better understanding of work motivation and the relationship between performance and satisfaction.

### 3.11 Goal Setting, A Motivation Technique:-

A study on motivation techniques by Robert Miles in year 1990 reveals that Goal setting acts as a motivating factor to an employee. Why goals motivate employees?

- They lead employees to compare their present performance with the goal.
- If shortfall is there, they feel dissatisfied and work harder to attain it.
- When goal is achieved, they feel competent and successful. Such feelings are desirable and can serve as a strong incentive to extra effort.
- The existence of a goal clarifies what level of performance is required.
- Goal setting calls attention to the important role of self-efficacy.

### 3.12 Welfare Facilities at ITI, Bangalore:-

In a study by *T.V. Rao* in year 1995 regarding employee welfare, following facilities have been found at ITI, Bangalore. These facilities can be said to be the basic facilities for an healthy atmosphere in an organization.

- Medical facilities for employees covered under ESI Scheme



- Medical re-imbursement at out station/reference to outside hospital
- Township administration
- Welfare funds
- Educational schemes
- Staff Canteen
- Transport
- Crèches
- Uniforms
- Safety
- Employees' Provident Fund
- Gratuity Scheme
- Group Insurance Scheme

#### 4. CONCLUSIONS

Proper autonomy at work should be provided to employees irrespective of cadre as white collar or blue collar employees. Managerial level white they must be asked to take decisions for the department or the unit under them. Top management should pose full confidence in white collar employees. There should be an independent productivity department with efficient productivity planners to evaluate the productivity issues of white collar as well as blue collar employees separately. Job responsibilities of white collar and blue collar employees need to be restructured. The observed high level of stress among both the cadres of employees need to be appropriately given away. Wastage of white collar employees' time on non-productive meetings need to be eliminated. White Collar employees are usually driven by their ego which if beyond the acceptable limit adversely affects the productivity. Ego gram needs to be profiled for each and every W.C. employees so that appropriate training modules can be conceived for them. The organization needs to go for modernization of processes and technological up-gradation of machines. It appears that most of the changes are thrown upon white collar employees through outside or external agencies. However, it is needed that basic innovative mindsets are first crafted in-house through internal agencies and they should be given change agent's responsibilities. Creation of Competitive Environment among the white collar employees with motivating factors like vertical development, performance based incentives should be there. Capabilities of such employees should be properly recognized and suitably put to organization benefits. Also, there should be avenues available for white collar as well as blue collar employees to acquire training and enhance their capabilities.

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