

## **Employee Productivity Management through Employee Engagement, Employee Commitment and Human Resource Management Practices in select IT Companies.**

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### **Abstract**

This paper seeks to take a comparative perspective on Productivity Measurement and Management (PMM) in Information Technology sector in order to undercover the performance of Human Resources Management Practices on engaged and committed workforce and reflect relevant lessons and issues about PMM. Factors impacting Employee Productivity/Designing Measurement techniques/methodology/approach – Drawing from a range of documents and experts, three important elements were identified which reflected changing aspects of PMM from the early twentieth century until today. The analysis shows that most of PMM may derive from employee engagement and employee commitment. The general trend shows a movement away from productivity measurement towards productivity management. The paper illustrates how views of PMM have moved in three directions: the broadening of the unit of analysis; the deepening of productivity measures and relationship with HRM practices; and the increasing range of performance measures in implementation of HRM practices. Research limitations/implications – The paper concludes by presenting reflections and challenges including the fact that the drive for productivity still exists and there is a need to continue to develop measures across organizations which are also predictive. Originality/value – The paper argues that in order to evaluate the movement in the three directions effectively it is necessary to differentiate between the terms productivity measurement, productivity reporting and productivity management.

**Keywords:** Productivity Management, Productivity Measuring Techniques, Human Resources Management Practices Employee Commitment, Employee Engagement.

### **Introduction**

Usually, each and every organization establishes certain objectives to achieve in future. The resources like men, machines, materials and money are utilized to achieve the objective of respective organization. Among all these resources the manpower is the most important resource because it plays vital role in accomplishment of tasks for achievement of the desired goals. The main question before an organization is, how these resources are utilized by man for accomplishment of work. Further, the environment of business world is very dynamic and it keeps changing drastically. The factors of environmental change are uncontrollable. Generally, Management of the firms becomes helpless to control the factor of environmental change. They have to adjust with the external factors to ensure existence in respective business world as well as maintain performance in the market. It has been observed that, every environmental factor like economic, cultural, social, political, legal, technology and competition become changed rapidly. The effective working knowledge to deal with these factors is necessary; otherwise the work plan of an

organization would not be executed. Today's market needs highly skilled, committed and engaged manpower that can provide the best productivity. In absence of best productive manpower it is difficult for every organization to take start, survive, stabilize and excel in the business world. An organization can take advantage of competition through its talented and committed manpower and the same will help to lead the market. The development and excellence in business is measured on basis of contribution of employees of an organization. The performance of different Employee in different jobs in an organization depends upon nature of organizational policy and working conditions.

The manpower of an organization is deployed in various jobs like manufacturing, production, transportation, storage, distribution, marketing, purchasing, , promotion of business, human resource, research and public relations, finance and accounting. All these jobs are inter-related activities to achieve the targets set by an organization. The above mentioned different jobs have great influence on the total production, sales, profit, progress and market position of the organization in the respective market. The various Human Resource factors like skills, training, motivation, dedication, welfare, management policies, fringe benefits, salary and packages, promotion, communication etc. motivate the employee to work earnestly and yield their best output. The significance of employees' productivity must be closely understood by the management and honest attempts must be put for increasing productivity. The successful business organization recognizes the importance of productivity of the workforce through employee engagement and employee commitment. For being more productive the business organizations optimally utilize the capacity of the available human resources and try to convert this in committed and well engaged workforce. It is big challenge for organizations to maintain and increase the level of productivity especially when the industry is service oriented. There is model to manage employees' productivity. The Employee Productivity Management model is a guideline for developing any process which is comprise of different interlinked activities.



The Employee Productivity Management model (Gujarathi Rajashree, April 2004)

### **Meaning and definitions of Employees productivity:**

Employee Productivity is the measure of working efficiency of the employee of respective organization. Employee Productivity growth refers to an increase in the worth of outputs produced by employees from a given level of inputs in certain period of time.

“Employees Productivity is an average measure of the efficiency of employees in respect of production or rendering services. In mathematical term Productivity is a ratio of production output and utilized human resource as input (wikipedia).”

### **Factors of Employee Productivity in IT Companies:**

Generally, when an employer deploys people in Information Technology Company, it is quite obvious that he expects results by the end of certain period of time. Because of a hard competitive environment, it is a liability of all companies indulged in IT business to manage the present productivity of the employees and increase for the future. The survival of the IT companies depends upon high production output against less input. This can happen only in that circumstance when the efficiency level of employees is high, because of the labor-centric nature of the IT industry. Before taking steps towards management or enhancement of Employees Productivity of IT Companies, the measurement of Employees Productivity of respective IT Company is required. Some top six factors are kept in attention while measuring productivity of Employees deployed in Information Technology Companies (John, 2001). The six factors are as below:

#### **Foundational Factors:-**

1. **High-performing and ingenious workforces are the foundation of productivity** — Hiring and retaining employees having outstanding potential and self-motivation are the most forceful factors in workforce and team productivity. Working together, managers and HR can attract, hire, develop, and retain individual employees who are lively, high-performing continuous learners and inventors. Sometimes best and talented employees cannot perform their best in absence of best managers, appropriate direction, support, instruments, and resources.

2. **Efficient managers and leaders set direction and execute:** — The second-most important factor of productivity is an efficient management /leadership. Leaders and managers play a decisive function in defining the direction, priorities, purpose, roles and goals of the personnel. The role of the management (with the hold of HR) including expansion plans, hire efficient trainer, motivator, and developing employees are decisive to success. HR must admit the role of developing great leaders/managers and identifying/removing the ineffectiveness because many managers have the weak link with the productivity chain.

#### **Direction and Guidance Factors:**

1. **Business strategy and plan construct commitment:** There are certain steps to achieve the commitment like: - Competitive business strategy and strategic plan boosts the chances of organizational success and success constructs commitment. The clear and well communicated plan and the strategy are, not only bring will motivation among employees, but also meaningful the strategic course will help them to continue their focus. Corporate values are deliberate and recompensed can also support behavior and construct commitment.

2.

3. **Well defined purpose of teams gives clear roles:** The role of every business unit and team should be clear and very easy to understand. Managers and leaders need to build up a clear and communicated reason that is both convincing and ensuring importance of employees. The purpose should be designed with an eye to employee commitment towards the purpose of the unit or team. A

blurred mission will provide outcome of low level of focus as well as low level of “engagement” and commitment toward achievement of above purpose.

**4. Team and individual goals** — If operational outcome lack goals then it’s very clear that everyone don’t know what was expected. If these goals are communicated and assessable, employees will understand accurately what is important and what is not. Employees will be less complacent, if stretch but reachable goals would be set.

**5. Prioritization for impactful resource allocation** — The most important and impactful tasks are setting clear priorities regarding allocation of resources. Employees must be aware of priorities of goals, high and low priorities of tasks, methods and customers. Designing of work process must ensure that resources are allocated excessively towards tasks of high priority.

**6. Performance metrics for Constant improvement** — Effectual metrics and reporting procedures strengthens both goals either team or individual. Metrics render focus, feedback and outcome in continuous improvement which collectively ensure completion of determined work.

**7. Effective rewards drive performance:** Two types of reward are usually prevalent in IT sector monetary and non monetary. When monetary rewards are attached straight to performance and the achievement of each goal, one have to doubly emphasize the message regarding importance of the subjects. Monetary rewards to Individual and team, attached with nonmonetary pleasure factors, can play a most important role in ensuring focus and reliable performance.

#### **Support Factors:**

**1. Support of Team members augment individual performance:** An individual employee may not be able to complete all tasks without support of team. Lack of with matching coworkers, as well as the support of supervisors and employees outside the team leads to decreasing of productivity.

**2. Best-practice sharing and collaboration improve productivity:** Exclusively in IT sector learning by trial and error sluggish the improvement and leads to mass copying of effort and higher rates of error. Concerned expert/ outsiders can be freely collaborating and proactively share best practices and ideas which can improve Productivity dramatically. Its HR department of respective company who develop formal process and procedure to augment cross-function association and sharing.

**3. Significantly increase productivity because of innovation** — To maintain dominancy in the IT industry, continuous increase in the level of productivity is mandatory. At least 10 to 25% annual increments in productivity are required now to sustain in IT industry. For continuous increase in productivity, uninterrupted innovations in both products and in business processes are expected. Only augmented efficiency for constant improvement processes are not enough to yield expected level of profit, therefore HR must develop training, processes, motivational tools / incentives that consequence in continuous innovation in workforce as well as maximization of productivity.

**4. Excess control and authority may augment or hamper decision-making:** undue freedom and lack of control over system can result in waste, replication, and a lack of focus. Straight difference in ideas, micromanagement and unnecessary stringent regulations can sluggish decision-making process as well as employee development. For maximization of productivity there is need of adequate balance so that employees have enough authority, control and permissions to take concerned decisions of operation.

5. **Non-monetary factors can also excite employees:** Nonmonetary factors in addition to formal rewards can increase excitement, energy, motivation, and loyalty among managers, leaders, and teammates. These factors may comprise of praise, exposure, recognition, experience, challenge, feedback, and learning opportunities. The HR branch of company ensure that all managers should conversant about efficiently use of nonmonetary factors.

6. **Barriers to productivity can limit success:** It has been observed that productivity of the IT companies can be sluggish or stopped by actual or unreal barriers. These barriers can include individuals unwilling to change, Power and politics in side organisation, individual jealousies, corporate competition, as well as powerful people. There may be some recognized or imaginative obstacles that keep abstain employees from making effort to increase productivity or innovation. HR professionals develop procedures for identifying and eliminating any actual or imagined hurdles on the verge of productivity.

#### **Communication Skills and Information Factors:**

1. **Continuous revision of Employees' skills and knowledge to maintain productivity:** Because of global competition, the change in IT industry is on pace, which need continuous updating in current skill. Managers of IT companies identify the employees whose skills are not at par. HR branch of the IT companies develop the processes of continuous employee learning, knowledge updating program and skill development while minimizing the span of time that employees are absent from their work.

2. **Effective communications and feedback shrink mistakes and dissatisfaction:** Lack of proper communications can dissatisfy employees and create feeling of unimportance. Ineffective feedback system leads to wasted attempts, augment rates of mistakes, and lower level of productivity. Communications and feedback methods need to be developed with an eye to conjunction with employees. Above system should ensure itself fitness between the needs of the both parties i.e. manager and the employees.

3. **Exact information advances decision-making:** Managers and employees should be empowered to access all pertinent information and data in order to be productive and take useful decisions instantly.

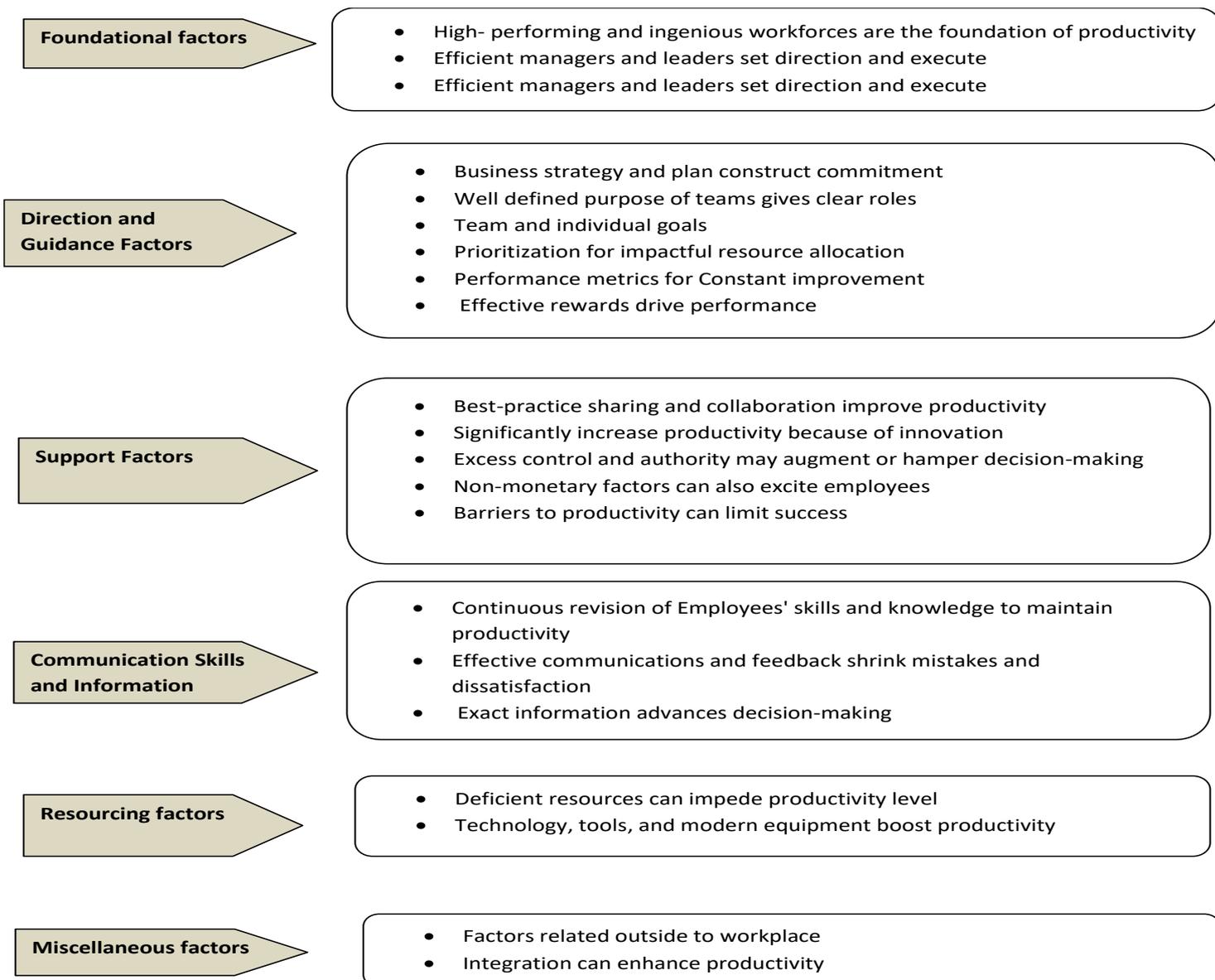
#### **Resourcing Factors:**

1. **Deficient resources can impede productivity level:** It has been observed in several IT companies that, a great team having a great manager but levels of productivity is very low because budget is insufficient to complete the respective work.

2. **Technology, tools, and modern equipment boost productivity:** Some time highly trained, dedicated, motivated, and engaged employees can't be very prolific if they are provided with deficient instruments and apparatus to do their work. In IT industry where technology controls more or less every functional, a malfunction to provide the technology, updates, or inadequate training can slow productivity level significantly.

#### **Miscellaneous Factors:**

1. **Integration can enhance productivity:** If business practice operates independently and not in accord, it can reduce the work flow and increase impediments and error rates in products and services. The productivity endeavor should comprise of integrating mutually supporting processes,



Schematic representation of the factors of Employee Productivity in IT Companies

breaking the obstacles and barriers, and making unified processes emerge “seamless” to those engaged.

**2. Factors related outside to workplace:** Though most of factors that have greater impact upon productivity of IT companies are internal but somehow few external factors may influence the productivity. These may bring the change in employee’s personal life and external economy, social, political, and climate-related factors. Brilliant productivity procedures should be elastic so that they can accommodate when these exterior factors start to influence personal or team productivity.

### Review of Literature:

(Zemguliene, 2012) studied personnel factors of Employee productivity in bank operations. He surveyed retail branch located in Villainous by randomly selecting 102 employees. He used factor analysis to examine the most important self-evaluated personnel factors. The results of factor

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analysis illustrates that Employee productivity: skill, instrumental tools of work processes, intangible and tangible environment of work place, motivation, based on inherent motivation and customer satisfaction are the most imperative factors having 72% variance. **(Haenisch, 2012)** examined the factors which may impact the productivity of state government employees in the United States. The several factors such as energetic and effectual leadership, two-way effective communications, realistic goals and objectives, abolition of bureaucracy, formation of cooperation and teamwork, and positive motivation through regular appreciation of employee success were studied. **(Shivakumar.B, 2012)** made a study on three banks with the purpose of measuring the impact of human resource practices on employee productivity in the Indian context. It is general assumption that HRM practices have extensive positive impact upon total performance of firm. The expectations derived from speculative insights have been confirmed by the outcomes of the study. The links between HRM and firm performance are found same in European and Indian context. Five most critical motivational issues of the banking industry has been recognized as (1) performance management(2) equitable payment demands for same work, (3) training and development,(4) Recognition of individual motivational factors, (5) competitive compensation as per industry standard. As the customer demands are enhancing according to change in technology therefore updated workforce should be kept to enjoy the benefit of competitiveness. With the study it's very hard to retain the best talent in organization. To face the challenge of the employee attrition, banks have designed the experimenting and unconventional reward and benefit programs which include numerous inventive compensation plans. **(Castaneda, 1991)** had carried out a study on job satisfaction and productivity with the relation of behavior of management. They have taken the sample of 94 managers. They conducted performance rating on the basis of satisfaction of subordinates with relation of bosses 'behavior towards them. The Outcomes of the study clearly reveal that good relation towards subordinates is more significant than structural behaviors. High performance ratings from bosses were related with structural behavior.

### **Factors Affecting Productivity**

As per Human resource Branches and Finance Branches of 20 IT Organizations of Punjab and Chandigarh, in broader view there are varieties of factors which can major impact upon productivity, both positively and negatively (Inman, 2010). These factors include:

1. capital investments in production
2. capital investments in technology
3. capital investments in equipment
4. capital investments in facilities
5. economies of scale
6. workforce knowledge and skill resulting from training and experience
7. technological changes
8. work methods
9. procedures
10. systems
11. quality of products
12. quality of processes
13. quality of management
14. legislative and regulatory environment
15. general levels of education
16. social environment
17. geographic factors

### **Measuring Employee Productivity**

It's important to gauge employee productivity as accurately as possible regardless type of products or services offered by an organization. Ensuring employees productivity in the workplace is very difficult task however lack of concern and involvement often leads to low or average productivity. Accurate measurement of employees' productivity is right way to know about skills, knowledge, engagement and productivity of employees deployed in organization. While Measuring Employee Productivity four essentials are kept in mind.

### **Creating High Expectations**

Accurate productivity measurements means more than simple counting the number of products made or sold, or services rendered. Take an example: - An employee of IT Company may complete 100 projects daily. But most of those projects are faulty and not giving income, the productivity level of that employee's productivity level may not at the par, and in such case company is wasting work time and manpower both.

During measurement of employees' productivity, some elements like the expectation of employer to employees, performance of employees, work towards achieving personal goals and alignment towards organizational goals are discussed and analyzed and subsequently finding are prepared. The above process can also reveal the performance of individual employees as well as about the situation of work flow related factors i.e. conditions of equipment and its breakdowns, competency of processes, requirement of job training and communication among other related problems. Moreover it can be said that, productivity measurements can correctly unveil the motion of business/ organization towards its targets, goal and objectives.

### **Business Goals**

Business Goals may be different in nature, but usually it is divided into two kinds' short- and long-term goals. Like a company looking to boost profits, novelty or efficiency. Tap new markets to find out new customers, develop strategies to increase customer retention levels.

Usually, it has been seen that, employees who maintain proper coordination between their productivity and organizational goals are happier rather than better productive man who don't connect their work with organizational goals.

Business goals are very important for organization and same should be clear to employees. The establishment of the proper method of productivity measurement is very important because it reveal accuracy of the closeness between employee output and business goals.

### **Business Drivers**

Before establishing accurate method of productivity measurement, it is necessary to identify Key Performance Indicators (KPIs) that can increase profits and enhance reputation of organization. KPIs must be directly related to biggest goals of organization, and it should relate the controllable aspects of organization.

### **Choosing the Right Methods**

It is very difficult to choose common method for measurement of all tasks in an organization because some tasks are very easy to measure and some are not feasible by same method. Profitability Index of an employee's output, factors those affect profits, cost of overtime, yearly income rates, and general job satisfaction may be the pillars for establishing right method of productivity management.

During finalizing the approaches rigidity will not provides accurate results. Different methods may be adopted at different times to find out the most accurate data, and expose the most important things for organizational business goals.

### **The Top 8 Methods for Measuring Employee Productivity in IT companies:**

1. Management by Objectives
2. Quantitative Measurement of Productivity
3. 360-Degree Feedback
4. Measuring Sales Productivity in IT sector
5. Measuring Service Productivity
6. Measuring Time Management Productivity
7. Measuring Productivity by Profit
8. Measuring productivity on score of the Quality of Tasks Completed

Following Eight top methods are applied for correctly measuring employee productivity in Information Technology sectors:

#### **Method 1: Management by Objectives**

To accurately measure the productivity of individual employee the management by objectives method is used. In this method, productivity of individual employee is relatively measured with company's goals and targets. The main focus of this method is to determine how well an employee's productivity is causative for company's objectives, goals and targets. For correctly use of MBO, firstly employees must be given apparent, individual productivity goals toward their job, as well as all the information and equipments required to meet those goals.

As example : If goal of company to decrease customer attrition by 25 percent over the next year, company need to choose the type of training and incentives will be required to ensure motivated employees to achieve company's goal.

Rendering superior quality of services is the main productivity of company related to customer retention. Employee actions and current customer retention rates have to be noted regularly and evaluated relatively (Ruth, 2018).

There should be regular meeting of employees and their supervisors to discuss their improvement and solutions of problems occur on verge of work. The continuous productivity measurement throughout the year facilitates employees to continue determined towards their goals.

The annual review then discloses how much growth was obtained toward individual employee's as well as company goals. On the basis of above results new goals are then established for the next year.

#### **Method 2: Quantitative Measurement of Productivity**

The productivity of the employee can be measured through quantitative method. In such method employee productivity is measured on the basis of total number of products produced by an individual in a fixed period of time i.e. per hour, per day, per month or annually. Quantitative method is best fit for small organization as well as large companies. Performance measurement through Quantitative method is very simple and less time consuming. Through the help of productivity software or the total performance of an individual employee can be quickly measured by dint of the numbers of products produced or contributed to in a referred period of time. The average of the numbers of products in specific period of time reveals gains or losses of productivity. The output of the specific period of time i.e. the volume or quantity of products or services produced is financially evaluated for the value of output. Average number of working hours, days or Months, working Conditions, no. of product produced or volume of service rendered , Financial value of output are the main factors which are consider while measuring the Productivity of an individual employee. Each and every employee deployed in the production line/ service delivery line is then measured against that ideal (but realistic) level of productivity (Gillikin).

In quantitative measurement, the amount of time spent upon waiting for raw materials, training, fixing of broken equipments and other factors which are not under control of individual are not counted.

### **Method 3: 360-Degree Feedback**

The 360-degree feedback method is an important method of measuring productivity of individual wherein the feedback and remarks of co-workers is used to determine productivity. This method can only be applied in those organizations where employees are supposed to interact with one another very frequently. This method requires the remarks and comments of peers and coworkers including above and below their job level to which an individual interact on daily basis. The remarks of coworker are taken on the different functions of individual employees like overall role, responsibilities and functions, duties, communication skills, professional credentials. This method is the best fit in smaller IT companies or organizations where everybody knows and interacts with everyone on daily basis. Each and every level of employees of the company including executives, IT workers, receptionists provide their opinion on individual employee's levels of productivity, fulfillment of duties, and contribution towards total productivity of company. Another form of 360-degree appraisal is team appraisal wherein only team members evaluate the respective employee in the terms of his contribution towards productivity of team. Employees should take training before evaluation of other staff member in order to get accurate, well balanced and unbiased comments. The feedback of the co-workers should only be based upon professional abilities and should not mix with personal emotions or convictions regarding that employee. The accurateness of this method is stands upon the involvement of number of people, training for making feedback, and employee's productivity meeting their team and company objectives (Ruth, 2018).

### **Method 4: Measuring Sales Productivity in IT sector**

Measuring accurate Productivity of a sales representative is very challenging task. There are several factors that influence a salesperson's productivity. At first different aspects of productivity of a salesperson is recorded within a certain period of time. Those numbers may consist of:

1. The total number of products sold certain period of time.
2. The total value of sold products in amount of currencies / Rs.
3. The number of meetings /calls to present clients
4. The number of products sold to present clients
5. The number of new clients made through salesperson
6. The number of meetings/calls to new potential clients
7. Expenses incurred per sale/new client attainment

These above numbers should be recorded on a regular basis by all the member of sales team, either on a spreadsheet or through software devices. At first the realistic base line for the sales productivity levels is established on score of exacting business size, product type, market type etc. It is to be noted that various latent factors may impact the productivity. Taking an example, if total expense incurred on a sales is Rs. 3000 and it only brings Rs.5,000 as revenue, the work of salesperson is not yielding a high-quality return on investment. Current growth trends of economy and market sifting are also important elements which can influence the sales.

Some factors such as time spent, travel and inner meetings and other non-sales activities are also noted. The sales team may also be involved in re-negotiating conditions & provisions with existing customers for few weeks which allow less time for gaining new clients. For ensuring accurate measurement of sales Productivity some important factors are also taken into account. [<http://www.bizfilings.com/toolkit/news/office-hr/measuring-employee-productivity.aspx> and

### **Method 5: Measuring Service Productivity**

Accurate measurement of service productivity is a tougher task than measuring product output. In service businesses companies the productivity is measured by counting the number of jobs completed or the count of clients dealt in a day or an hour. Productivity can also be measured through noting such factors like the momentum of service delivery, client comment, and individual and department self-assessments. By using technological tools, software, the amount of time spent on service delivery, performance of specific work duty of the individual employees can be recorded for evaluation. In Call centers after the call customer surveys is done to evaluate how fine employees have responded client queries and resolved their problems. Client service productivity can be mapped through various ways, including:

- How long is required for employee to delivery of services to (like waiting times during call or times of in-person waiting)
- How long time takes to completion of order made by customer
- Customer retention rates- the fraction of clients revisit at least once.
- How long those clientele are maintained
- How frequently products are exchanged/ refunded/returned
- Numbers of customer complaints has been received in a certain period of time

At first the baselines are created on the basis of business's top service level under present conditions. Subsequently as per set of criteria, employee productivity is measured against that baseline. The performance of employees is recorded on the basis optimum service delivery of individual employees in fix period of time. It is also decided that which optimal service delivery would be main factor such as quality of deliverable, speed of delivery, good manners, cost-efficiency, or a combination of all. Some circumstances/ situations such as scarcity of staff and equipment breakdowns may be cause of sluggish service productivity (Acllr., 2009).

It is to be noted that after every six to 12 months, new baseline would be created on account of present market and operating situations, performance of the employees would be evaluated according to new standards.

### **Method 6: Measuring Time Management Productivity**

According to time management method the employee productivity is determined on the basis of utility of work time by an employee. Accurate measurement of time spent on accomplishment of work duties, wasting of time because of illness or unnecessary time off, useless conversations, and disturbances. Above method may be helpful in setting goals to stop wasting of time.

With the help of software tools, the volume of productive time spent (or don't spend) by individual employee can be accurately measured in IT industry. Some programs need daily reports regarding development of particular job or project from employees. Some softwares are usually used to measure employee productivity in IT sector as follow:-

1. **I Done This** is a software program that sends an email to all employee at the end of each working day. Employees are supposed to reply to the email, with the daily report of completion of tasks. The start of next day, all the team member receives a list of job accomplished by their team. Through this software the individual productivity of employee is recorded in a public way. The software is very accountable and ensuring the weight of a project is pulled consistently.
2. **Knowledge Sync** is one more productivity-evaluating software program. It sends management alerts, such as an email, fax, pop-up message or mobile phone text message when definite amounts step out of line. The alert might comprise of client grievance, past due, unpaid bills, or employee timesheets not being submitted on time.
3. **Time Corder** is an appliance which is used by managers of IT companies to measure time spent by on a particular task. As example, the employee knocks a specific number into the Time Corder device when calls to potential new customers are started, and also punches other number when

answering of received emails is being started. Through time coder device data is collected for some weeks, then the outputs are analyzed. The manager of the company can measure the time spent against different head and also suggestions to improve productivity can also be made accordingly (Brynjolfsson, 1993).

#### **Method 7: Measuring Employee's Productivity by Profit**

Profit is an effective tool which is used for measuring team productivity. Virtually, many small and mid-size IT companies prefer computing their productivity simply in on the basis of profit gained by them. Rather than involving with data that follows individual employee progress, measurement of productivity on score of profits engages observing only the base line. Only senior level utilities are narrowly observed. According to this method creative working is not deal while measuring productivity of an employee. The punch line "Watch the money and everything will fall in line." is best fit for this method. As per above measurement method amount of gross profit the company is compared against each rupee spent on salary. It's superior to determine profit against time [full-time equivalents], because IT companies generally needs the group to work smarter, not larger (Bloch)."

#### **Method 8: Measuring employee's productivity on score of the Quality of Tasks Completed**

Some IT companies prefers to measure productivity on score of the Quality of Tasks Completed and it is also checked that whether the task allocated to individual has been completed or not. The precursors of this method believe that productivity measurements should be based on completion of tasks, not on count of hours spent at work place. As per this method big jobs are divided in small tasks and same is allotted to individuals accordingly and continued till completion of projects.

The HR managers of IT sector accept that the best measurements of productivity are paying attention on results and employee growth, instead of on-the-job patterns and behavior of an employee.

Some software tools like Productive and Altssian which are used by managers in tracking project status and completion of task. **Asana** and **Basecamp** are the project management software used to prepare outline of project and set targets, then describe individual and group tasks. On the basis of task plan employee productivity on each project is tracked.

Perfect productivity measurements are not done only for greater profits, but also it increase job satisfaction and appreciation of team as well as individual achievements. (Marc J. Epstein, 2004)

#### **Interpretations of Employee's Productivity in IT Companies:**

##### **Productivity index**

Employee Productivity is a relative evaluation and it is compared to something that makes it meaningful or useful. Productivity value of IT firm can compare in respect of other IT firm, department wise comparison of productivity data within a firm, or past productivity data against present value for the same company or department (or even one machine). The outcomes of above measurement give information about productivity improvement with the span of time. It also provide chance to evaluate the impact of some decisions like the opening of new procedures, equipment, and techniques employee motivation (Inman).

With the purpose of a value for evaluation purposes, IT companies calculate their productivity index. A productivity index is the ratio of productivity measured in certain period time to the productivity calculated in a base period. We may consider an instance, if the Employees productivity of the base period is 1.78 and the productivity of its following period is 1.98, the resultant of productivity index is measured as  $1.98/1.78 = 1.11$ . The outcome of above calculation indicates that the productivity of firm had increased by 11 %. If the productivity of following period fell to 1.68 then productivity index would be  $1.68/1.75 = 0.96$  which would indicate that the firm's productivity has go down to 4 percent of the productivity of the base period. Eventually on basis of

calculating productivity indexes eventual, managers of the IT firms can compare the success, or trounce, of decisions as well as projects.

## **Human Resource Management tools to manage Employee Productivity in IT Companies:**

### **1. Organizational Commitment**

Organizational commitment is the feeling of attachment of employees with their respective organization. In broader sense, employees who are committed to their organization normally have a sense of association with their organization, and also have awareness of the objectives of the organization. The such type of employee have added value they tend to be more determined in their work, show relatively high productivity and are more positive in contributing their support. Some Managers describe commitment as both enthusiasms to continue the course of action and unwillingness to change plans, generally owing to a sense of responsibility to stay the course. General People are at the same time committed to several entities, such as familial, educational, economic, political and spiritual institutions. Employees also commit themselves to definite individuals like their children, spouses, parents and siblings, as well as to their employers, colleague, peers managers and customers. Commitment declares itself in distinct behavior. Committed people usually express positive feelings toward a unit or individual to whom they have made a commitment. Commitment is emotional as well as rational element like most of people willfully take decision to make commitments, then they considerately plan and perform the actions necessary to accomplish them. In the world of business, there is a traditional tacit agreement between employees and employers, employers provide value for employees in form of job security and fair compensation against employee's organizational commitment. Remarkable changes in the global/ international economy over the past 25 years have had major implications for commitment and reciprocity between employee and employers and consequently for employee engagement. Most of organizations are restructuring themselves because of scarce and costly resources, rising global competition, high labor charges, and customer demands for ever-higher quality and shareholder pressures for better returns on equity. At some companies, restructuring has inevitable decreases in staff and in level of management.

### **Types of Organizational Commitment**

The explanation given above is a great indicator of organizational commitment, but does only recommend a wide description. John Meyer and Natalie Allen in their article "Three component model of commitment" discussed organizational commitment in grand detail. They classified organizational commitment in three distinct types on the basis of their insightful research which are as under:-

#### **Affective commitment**

Affective commitment show that how much workers get affection with their organization. If an employee is affectively committed to their organization, it denotes that he would like to stay at his organization. Affectively committed employees classically recognize the organizational objectives; they feel fit into the organization and are highly contented with their work. Affectively committed Employees feel valued, perform as ambassadors of their organization and are usually great assets for organizations.

#### **Continuance commitment**

Continuance commitment recounts to how much employees feel the need to stay at their organization. Continuance committed employees have the reason for their commitment which lies in their need to continue with the organization. There might be various reasons to stay with respective organizations, but it is often found that the lack of job alternatives and remuneration are main reasons of Continuance commitment among employees. As example employees admit that current

employer is providing best of industry salary and benefits and no chance of improvement if switching the organization. They are compelled to stay with current organization despite dissatisfaction towards present employer. Employees are unwilling to leave in spite of dissatisfaction with their work, is the real sense of continuance commitment.

### **Normative commitment**

Normative commitment measures how much employees feeling to stay at their organization. Normatively committed employees usually believe that they should continue with their organizations. Normatively committed employees experience a sense of penitence about the possibility of leaving of current organization and also feel that leaving their organization would have terrible end result.

Generally, normatively committed employees think that, subsequent of leaving the current organization their knowledge/skills would be null and void, there would be pressure on their coworkers, and consequently negative impact upon performance of employees as well as organizations.

### **Employee commitment and productivity in IT industry:-**

Employee commitment play important role for employee performance as well organizational performance. All three kind of employee commitment greatly impact upon the length that employees stay with organizations. The most important for IT organizations is to identify each kind of employee commitment, and to plan to promote affective commitment among employees.

### **Employee Engagement: The Key to Improving Performance in IT industry:-**

Employee engagement is an important tool that strongly associated with organizational performance and outcomes. IT companies having engaged employees have lower employee turnover rate, higher employee retention rate as a result trim down intention to leave the company. Engaged manpower also increases business growth like productivity, profitability, and customer satisfaction. On the contrary, IT companies having disengaged employees bear misuse of effort and attrition of talent, receive less employee commitment, counter increased absenteeism and have lower customer orientation, lowest productivity, and decreased profitability. Generally, positive impacts of employee engagement upon the business performance are discussed importantly but cost-benefit analysis of engagement decisions are left behind. Engagement decision should be appraised in both terms qualitatively and quantitatively. Evaluation method of employee engagement should be based upon associated costs and benefits, without giving priority to any one aspect and should be get done through unbiased decision makers.

Hence there is a requirement of revision of the cost part of engagement options. For managers of IT industry, work of employee engagement begins at day first through effectual recruitment, selection and orientation program. As the work of employee engagement begins from the top management of organization, where usually no engagement is found. It is unimaginable that an organization has engaged employees but there is lack of engaged leadership. For best employee engagement program, managers of IT companies should establish two-way proper communication and also make sure that all the job related essential resources is being supplied to the employees. There should be appropriate training program to enhance their job related skills, knowledge and capacity. Reward mechanism should be established in order to reward against good performance through various non-financial and financial incentives. As the IT industry has largest intellectual human capital therefore the need of distinguished corporate culture that promotes hard work and maintains success chronicle alive, a stringent performance management system which brings accountability among managers and employee for the behavior at the workplace, a proper focus on top-performing

employees and ensure their stay inside organization to maintain or enhance business performance (Sridevi, 2010).

### **Employee Engagement Strategies for Indian IT Industry:**

There are some factors that affect employee engagement and explain how it is linked to business outcomes. In order to ensure employee engagement in any IT organization, managers keep watch at the following ten points. It is strongly believed that following ten points will ensure employee engagement in an IT organization.

**1. Start it on day one:** The majority of IT organizations do have comprehensive talent acquisition strategies but they have lack of employee retention strategies that enhance employee attrition rate. The first building blocks of employee management are the Effective recruitment and orientation programs which leads acquisition of new talent. Managers organize the effective recruitment to ensure the pool of potential human talent in form of new employee. The newly hired employee should be given both of orientation trainings i.e. general orientation training comprise of knowledge about company mission, vision, values, procedures, policies and job-specific orientation training which specifically relates to knowledge about job duties, responsibilities, authorities, accountabilities, and current priorities of respective department of company which enable him/her to build up practical job expectations and diminish future job role conflict. Subsequent the hiring decision, the manager has to ensure the link between job role and talent when placing an employee in a certain position and wield all managerial attempt required to retain the respective talent in the organization.

**2. Start engagement from the top Management:** Employee engagement needs top leadership commitment through ascertaining clear mission, vision, ethics and values. In absence of the believe of top leadership in employee engagement, if they don't own it, pass it downward to managers , supervisors and employees, and develop their leadership skills, employee engagement will never be successful. Employee engagement requires committed heart and action-oriented service rather than edge-service from top management of organization. It needs "Leading by Being example".

**3. Enhance employee engagement through effective communication:** Managers of IT companies should encourage two-way communication rather command and order. The issues related to job and life of employees should be understand through proper communication never impose top management idea on employees without knowing practical reality. The clear and consistent communication comprehends the expectation employer from employees. It is suggestion for manager of IT companies to involve your workforces and always show respect towards their inputs. Participative decision making ensure power sharing in organization which leads sense of belongingness among employees and they feel more engaged and realized.

**4. Provide suitable chances for development and advancement:** Job autonomy encourages independent thinking so that employees will have liberty of choosing best way to perform their job and producing the expected outcomes. Ultimately one can say employee engagement stands "Manage through results rather than managing all the procedures through which result is achieved".

**5. Ensure the resources required for jobs:** It is expected to all managers to ensure the supply of all the physical, material, financial and informational resources to employees in order to successfully completion of their jobs.

**6. Provide appropriate training to the employees:** Training program gives chance to employees to update themselves by increasing their knowledge and skills through appropriate trainings. Usually, self-efficacy and commitments among the employee are enhanced if they have adequate

information about their job. Having adequate knowledge about job increases the confidence of employee and curtails the much supervision of immediate managers while working.

**7. Strong feedback system:** Most of IT companies have developed a performance management system which ensures accountabilities of managers and employees at the level of their engagement. Regular survey of employee engagement level highlights the factors that make employees engaged. On score of survey results, all the driving factors of employee engagement have been determined then the list of factors is narrowed down and focus is made on two or three areas. Organizations are supposed to prioritize the factors that will formulate the most difference to the employees and put efforts to improve these areas as it is complicated to tackle all factors at once. Managers should follow such survey results and establish action-oriented plans that are precise, reckonable, and accountable and time bound also.

**8. Incentives play important part:** Payment of incentive motivate employees therefore proper provision financial and non-financial incentives for employees to engagement more towards their jobs. Various management theories also advocate payment of monetary and non monetary incentives, rewards, recognition and praise that encourage employees to exert more effort into their job. The performance management system should be transparent link between performance of employees and incentives provided to the employees.

**9. Role of distinctive corporate culture:** IT companies are supposed to develop a strong work culture enriched with the goals and values of organization and linked across all work sections. IT Companies develops culture of mutual respect by keeping live achievement chronicle. The above success stories will not only continue engagement among present employees but also identify the newly hired employees with his catching courage of work culture.

**10. Focus on top-performing employees:** Top performing organizations are focused on retaining and engaging their top performers. As per current trends of IT industry, high-performing firms are giving preferences top top-performing employees to diminish the attrition rates of high-performing employees and getting excellent business performance as results.

### **Research Methodology:**

#### **Objectives of the Study:**

The present study has been primarily focused on the various Techniques used to measure Employees' Productivity by select Information Technology Companies situated at Chandigarh, Punjab, and Haryana. The objectives for the present study have been framed which are as follows:

1. To study the various prevalent techniques used to measure Employees' Productivity in select Information Technology Companies.
2. To study the Factors Affecting Productivity in select Information Technology Companies.
3. To examine the effect of employee productivity on implementation of HR Practices select Information Technology Companies.
4. To determine the relationship between productivity measurement techniques and strategies of Employee Engagement of select Information Technology Companies.
5. To examine the impact of employee commitment on employee productivity in select Information Technology Companies.

#### **Study Design:**

In this research, the primary data has been collected on independent variable (Training & Skill Development) and dependent variable (Employee performances). The data was collected through

systematic questionnaire from employees of five IT Companies of Punjab & Chandigarh. Secondary data has been collected from different Publications.

**Population:**

The population of this research comprise of Employees IT Companies of Punjab & Chandigarh. For this study 20 IT companies were selected on the basis of convenience and availability of time.

**Sampling:**

Convenience / availability sampling techniques have been adopted for this research. At first phase a formal consent for collection of data has been taken from all 20 IT companies through personal visit. At the second stage pre-informed visit has been made to the all twenty companies.

**Instrumentation:**

To know the prevalence of techniques used to measure Employees' Productivity in select Information Technology Companies., questionnaire was used for survey. This method is best fit on management researches because of its simple quantitative analysis and evaluation procedure.

General Survey has been used to collect information about practical use of various employee productivity measuring techniques and its prevalence and also descriptive study has been used for observation of the current situation.

The survey questionnaire was comprised of 5 Likert scale i.e. Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

**Data Collection:**

Total 500 employees of the 20 different IT Companies situated at Chandigarh & S A S Nagar, Mohali (Try City) has been surveyed. 25 employees have been taken as sample from each company. Total 500 filled questionnaires in the form of hard copy and data was decoded and entered in to SPSS 17.0.

**Data Analysis:**

Reliability Test Cronbach's Alpha Reliability Analysis Test Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Table shows that all the scales were reliable, having an Alpha above the prescribed threshold of 0.6. There was a 88.4% return rate. According to Mugenda and Mugenda (2003) this type of response (88.4%) is —excellent for data analysis.

(a) Reliability Analysis:

Scale	Cronbach Alpha	ITEMS
Factors of Employee Productivity	0.711	13
Techniques for Measuring Employee Productivity	0.731	11
Employee Productivity management practices	0.644	11
Employee Engagement/Employee Commitment Strategies	0.831	12
Human Resource Management Practices	0.618	09
Overall	0.831	05

(b) Bartlett's sphericity test and the KMO index (Kaiser-Mayer-Olkin)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.697
Bartlett's Test of Sphericity Approx. Chi Square	17803.213
Df	2080
Sig.	.000

**Findings:**

This study analyzed respondents' work profiles and various objectives of the study using various descriptive statistics such as frequencies, percentages, mean, standard deviation and central tendencies measurement such as mean and median at length, multiple regression, factor Analysis Test, Multi Dimensional scaling ,Perceptual Mapping , cross tabs , and one way anova was used to generate better results.

**Suggestions:**

**How Information Technology Companies can measure its level of Employee Engagement:**

To assess employees' engagement levels of company, employers typically design attitude /opinion surveys and analysis of collected data gives the measurement of Employee Engagement. Sampling techniques/instruments is designed according to 10 common themes related to engagement:

1. Pride in employer
2. Satisfaction with employer
3. Job satisfaction
4. Opportunity to perform well at challenging work
5. Recognition and positive feedback for one's contributions
6. Personal support from one's supervisor
7. Effort above and beyond the minimum
8. Understanding the link between one's job and the organization's mission
9. Prospects for future growth with one's employer
10. Intention to stay with one's employer

**Conclusion:**

As per above the study, it is found out that measurement of employee productivity in IT companies plays a key role in the implementation of HRM practices and bring employee engagement and employee commitment and finally organization effectiveness. The collected data reveals that employees of the all participating information technology organizations are clear about organizational working system. They are also aware of their goals and objectives, key performance areas and self-appraisal procedures but somehow requirement of employee engagement and commitments. On the basis of employee productivity measurement system, employees may be advised for training if necessary, personal counseling and professional guidance. This system brings employee engagement and employee commitment and also facilitates to achieve business expectations which accelerate an organization towards market expectations and adopt effective HRM practices. It also help outs management in making several decisions like organizational developments, promotions, setting business goals and objectives. Finally, the employer is aware about the efficiency of employees in the organization as well as capacity of the organization and ease to implement innovative Human Resource Management Practices.

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