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# Impact of training programs on skill development of executives in facility management companies: An empirical study in Bangalore

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## Abstract

The research titled "Impact of training programs on skill development of executives in facility management companies- An Empirical study in Bangalore" has been carried out with executives who are associated with facility management organization operating in Bangalore. The population has been segregated based on the services offered by facility management companies such as housekeeping, property management, and catering and security services. Further the population includes executives from firms such as proprietorship, partnership, private limited and multi-national companies. Non-probability sampling design is adopted in which convenience sample method is adopted to collect the data. Questionnaire designed in structured with undisguised way is employed to collect data from the above said target population. The data intended to be collected consists of variables namely gender, age, designation and departments of the executives who are part of facility management companies. It also consists of organization variable such as type, nature and size of the organization. Other section consists of about training, reaction, learning objectives, behavioral changes which are measured using Likert scale. Skill augmentation before and after the training program is also measured.

**Keywords:** Skills development, productivity facility management: ANOVA: empirical study

## 1. Introduction

Human resource is significant and is the pillar of every single organization. Accordingly organizations spend enormous amount on the human resource capital since the performance of employees will eventually surge the performance of the organization. Productivity is a major multidimensional construct intended to accomplish outcomes and has a robust link to strategic visions of an organization.

It is very essential for the FM organization to design the training very carefully and to execute it in an effective way. The blueprint of the T&D should be according to the needs of the executives and should be customer centric. Those organizations which develop a good training design according to the need of the employees, organization and customers will always get good results. Measuring the usefulness of training programs consumes valuable time and resources. Nevertheless, it is very significant in facility management companies since the accomplishment of the firms is reliant on the service rendered by executives in the client site and it all relies upon the quality of training provided; these things are in short supply in Facility Management organizations today. Many T&D fall short to provide the anticipated organizational benefits. In order to predict the gap, it is essential to have a structured instrument to gauge the outcome.

The Indian FM market has been pierced with high competition arising from existence of both international and domestic players in the market. So far, the focal point of FM is towards the organisational earnings.

The infrastructural expansion has been directing towards the increase in requirements of services like housekeeping, security, front elevation cleaning etc. This has resulted growth in soft facility management services. The soft FM services has evidently ruled the FM market mainly because of the reason that these kind of offerings have been demanded in almost every commercial organization, residential apartments in urban areas and other spaces.

The study tested the impact of T&D programs on the skill improvement of executives by evaluating the executive's reactions, learning objectives, behaviour change and finally the skill augmentation from the training programs.

The overall study involves the decision making criteria in implementing the training programs in facility management companies for future prospects of imparting skill to executives.

The research study understands the necessity of skill enhancement of executives working in facility management organisation which will facilitate companies to translate the talents into highly customer centric and over the time it will benefit the FM organizations to have competitiveness over the services to its customers. The study will also ensure FM organisation to have the training outcome measured for the enhanced ROI of training programs.

## 2. Statement of the Problem, Objectives and Limitations.

### 2.1 Statement of the problem

Bangalore stands out for the size and dynamism of its Facility Management services. Bangalore represents an excellent example of manpower environment where numbers are plentiful but where skills are in shortage for FM sector because of lack of proper approach to training and development programs. The nature of employment in the Facility Management and the absence of an established training culture do little to facilitate those already in work. The Facility Management companies are too engaged with work and other ancillary preoccupations and hence their involvement in the cause for training is generally half-hearted and often negligible. Obsolescence among Facility Management employees and the need to cope with the technological, organizational and social changes make continuous learning and updating of skill is indispensable. There is a growing realization in Facility Management industry that the training holds the key to unlocking potential economic growth opportunities to achieve and competitive advantage in service industry.

### 2.3 Objectives of the study

The following are the objectives of the study:

1. To analyze the types of training program conducted by the facility management companies  
This question is raised to find out, whether facility management companies conducting inbound or outbound training, whether training content is more on work related or soft skill, frequency of training and level of training.
2. To identify the general perception of employee towards training  
This question is formulated to know whether training is conducted on based on objective, what is the reaction of the employee towards training, to know the level of endorsing the training based on the background variables such as demographics.
3. To investigate the existence of relationship between learning objective and behavioral changes  
Researcher wants to prove there is positive relation existed between learning objective of employee and changes in behavioral aspects of the employee
4. To study the level of skill augmented when learning objective is met via behavioral changes, keeping key demographics controlled.

### 2.4 Limitations of the study

Facility management companies operating in Bangalore region are considered for the study. Other cities were not considered for data collection. The responses from

executives were recorded during a particular time period, hence there might be chances that information collected might change with time. Data collected with regards to behaviour, reaction skill augmentation etc can have a influence by demographic variables. The data collected, analysis, results and findings of the research study is exclusive to Bangalore region. It might not be appropriate to draw a common inference nationally or globally. The method of sending the questionnaire by e- mail or post was not possible since majority of the facility management executives will be working at client's location. So it was necessary for the researcher to personally visit and collect data. This process of personal visits was time consuming but it increased the genuinely and authenticity of the data.

## 3. Review of Literature and Hypothesis

### 3.1 Review of Literature

Review of literature has very essential inference in any of the research work. A literature review throws light on the material which is published in the individual area of the research. Literature review has meaningfully contributed to my research by providing large scope for interpretation of related work done in the past and my present study. It has added value to my study by providing new judgments which was foundation for my research. Nevertheless, it has helped me to summarize and synthesis the point of view of other researchers in the area of training and development. Literature review was very useful and had provided information in depth and breadth of the study.

The literatures referred for my study are isolated into four different areas i.e.

1. Review of Literature related to "Impact of training and development".
2. Review of Literature related to "Skill Development".
3. Review of Literature related to "Facility Management".
4. Review of Literature related to "Training Need Analysis".

Getha *et al.* (2015) <sup>[1]</sup>, have studied influence of time in government training assessment with orientation to leadership development. The researchers analyzed the training effects over a period of time in local government departments. Also, the study focused on individual self-assessment pertaining to leadership skills. The results of the study showed that leadership training is an important factor in developing theoretical and interpersonal leadership. Also there was no training effect decay during the course.

Anike *et al.* (2014) <sup>[2]</sup>, studied the organizational effectiveness by training and development programs with reference to public sector companies in Nigeria. The researches have made an effort to uncover the implication of T&D programs and its impact on organizational effectiveness. It was found that there exists a strong link between training & performance output in the organisation. There was remarkable reduction in the employee turnover due to the existence of training and development programs as a result of job satisfaction and higher job performance. The investments made on training gave higher return on investment.

Fardaniah (2013) <sup>[3]</sup> in her article related to measuring effectiveness of training taking evidences from Malaysia has made an attempt to propose a general instrument for measuring the training effectiveness. She adopted Kirkpatrick and quinnes model of training effectiveness for

the construct. She has considered performance dimension like satisfaction, learning, individual and organization. Series of tests were conducted and analyzed using reliability, confirmatory factor analysis and structural equation modeling. It was suggested to use this instrument to measure the training usefulness.

Janaki *et al.* (2012) <sup>[4]</sup>, had made an attempt to measure the usefulness of the training conducted at a retail industry in metro cities. The objectives of this article were to find out the perseverance of workforce about old and new training programs, to explore the effectiveness of the training programs conducted through analyzing the related factors, to check if there was any gap existed and to make recommendation to improvise the training programs. Kirkpatrick evaluation model was made use of and all the four levels were considered for the study. It was found that satisfaction level for the training program was good, majority of the trainees felt the increase in confidence level through training and felt that training program would help them to have access to their superiors.

Warr *et al.* (1999) <sup>[5]</sup>, conducted a study to foresee three levels of training assessment and differentiated measure of trainees. The major concern was huge investment for training organized for new joiners. The goal of training was to have smooth functioning of the organization. But the major question was what the areas of training are and how to determine the efficiency of the training programs? Is it on reactions, learning or job behavior? The result indicated that the training outcome was positive and association between evaluations level of

Reaction and learning was positive compare to job behavior. The study suggested that pre training is important to get better evaluation results post training.

### 3.2 Research gap

The focal point of the contemporary study is to find out the impact of training programs on the skill development of executives functioning in facility management companies in Bangalore. The gap has been recognized for the current study by comparing former studies through secondary data. The preceding studies mainly originate from the case studies, articles and research work. The extensive literature undertaken indicates that ample information is obtainable on training & development, impact and outcomes of T&D, employee perception about T&D, facility management best practices, skill development and application of Kirkpatrick's model for training assessment. The above studies are conducted at macro level. However, there are no focused and detailed studies available at micro level with regards to impact of T&D, skill development in facility management sector. In other words, scarcely any reviews were found on impact of T&D at facility management companies. Consequently, there were no much of work identified on the areas of facility management in relation to impact of T&D and Skill development. Therefore, it calls for meticulous empirical study that shows the evidences of analyzing the impact of T&D on the skill development of executives in facility management companies. For this reason, the present study is a sincere attempt made in the direction of identifying dimensions contributing to effectiveness of T&D program for employees associated with facility management companies.

### 3.3 Need for the study

The present study highlights about the impact of training programs conducted at facility management, general perceptions of executives towards training, to check if there is any relation exists between learning and behavioral changes, and also to identify the level of skill augmentation when learning objective is met via behavioral changes. Facilities continue to age, facilities technology advances continue to spread, and older workers continue to leave departments, often taking valuable institutional knowledge with them. The need for training and its measurement on the skill development has never been greater.

The facility management companies and its executives must contend themselves in training programs with a specific vision to stay competitive in business by acquiring required skill sets. This will help facility management companies to stay abreast in the business and meet challenges in the market. This study tested the impact of training programs which was employed by facility management companies to impart skill to their executives. It helps facility management companies to make decisions to understand the need and execution of training programs which is crucial in today's competitive environment where there is acute shortage of skill sets in facility management industry. For this reason, savvy managers do everything in their powers to find time and money for training. So even as the economy continues to falter — though the near future looks a bit brighter, finally-managers need to continue their efforts to plan for training and education.

## 4. Research Methodology

### 4.1 Method and design of the study

Researcher made the research questions and formulated the hypothesis in scrupulous way; however without proper method and design, it is difficult to execute the research in systematic way. As aware, numerous methods are prevailing in the business research from quantitative point of view: experimental and survey from qualitative point of view: grounded theory, ethnography, archival etc. Case study method can combine both qualitative and quantitative. In the current study, research is more concerned about external validity, which is meant for generalizability of research outcome especially among the facility management companies in Bangalore. So study has chosen survey research method, which taking sample as representation of target population. The result pertain to sample will be generalized to the rest of the population. Keeping objective and chosen method, descriptive design is adopted for the study, descriptive is describing the constructs and their relations or associations. Through descriptive design good number of high end statistical techniques has been used in the previous studies such as regression and PLS-SEM. However, establishing causality is more possible through experimental method and design, where manipulation of independent variables, controlling the extraneous variables is possible, but not through survey research method. In nutshell, study used survey research method and descriptive research design to prove the above said hypothesis.

### 4.2 Data Source

**4.2.1 Primary Data:** In the present study, a structured questionnaire has been a major source of data which

consisted of demographic variables like gender, age, designation departments, and years of experience. It also consisted questions on training, reaction, learning objectives, behavioral changes and skill augmentation. The questionnaire was administered to the executives working with facility management in Bangalore. The survey was conducted with 398 executives from organizations which are involved in facility management business like property management, housekeeping, catering and security services. Nevertheless, the study also been extended by having informal discussion with the top level management in facility management companies.

**4.2.2 Secondary Data**

Secondary information has been sourced from articles, text Books, Online Digital references (EBSCO and J Gate), E-Books, E-journals, IFMA, Facility Management magazines, and company’s website.

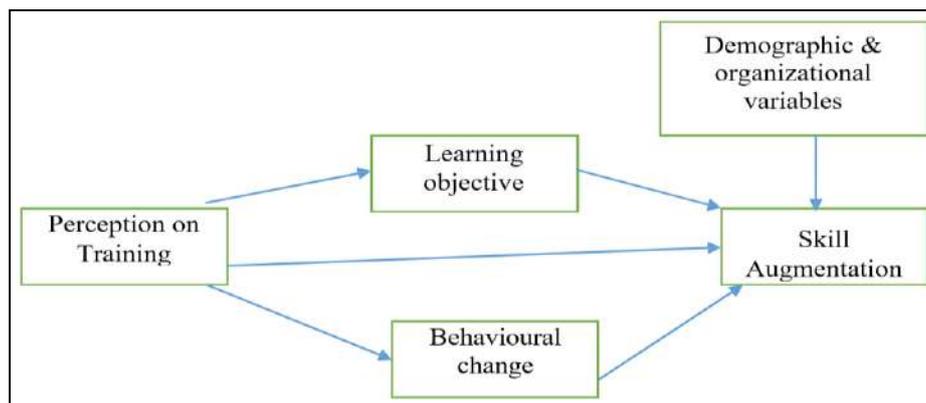
**4.3 Sample Size**

Sample size states the quantity of things to be chosen from the universe. Research should be careful while selecting the sample size in such a way it should not neither excessively large not too small. An ideal specimen is on which satisfies the necessity of effectiveness, representativeness, unwavering quality and adoptability (C.R. Kothari, Research methodology, 2006). With the ultimate goal of the current study, the Krejcie & Morgan (1970) and Echardt (Social research methods, 1978: 400) the sample size charts were considered the sample size determination. It shows that to the finite populace i.e if population size is more than 10 lacs, then the sample size would be 384 (Krejcie & Morgan, 1970: 400) and (Echardt, 1978) respectively. Hence, the current study considered 398 sample sizes to achieve

consistency and accuracy in the responses of the sample respondents.

**4.4 Research Instrument**

Concepts are intangible by nature; it can be converted into tangible in the form of items which is part of standard instruments or customized questionnaire. Researcher developed the questionnaire keeping objective and hypotheses in the mind. The questionnaire contains four sections. Section 1 dealt with demographic variable namely gender, age, designation and Department etc., and also organizational variables such as Type of Organization, Nature of Business (Services), Size of Organization. Section 2 dealt on About training, which measures types of training, method, frequency of training and where training is conducted, and measures are in the form of Yes or No, or nominal scale. Section 3 has 3 sub sections which contains 1. Reaction 2. Learning objective and 3. Behavioral changes all these constructs are measured in the form of 5 point rating Likert scale, this section is the most vital things for research concern Section 4 is dealt with skill augmentation, this construct measured in the form of 5 point rating Likert scale, and study considered this construct as dependent variable. About training, items are measured through dichotomous scale such as Yes or No. Key constructs like training reaction, learning objective, behavioural change and skill augmentation all are measured in 5 point Likert scale. Skill augmentation is measured twice, as before and after training programme, for all the constructs, with help of item parcelling method. Mean score is computed, this score ranged between 1 to 5. Score close to 1 indicate the less endorsement and score close to 5, indicate high level of agreement or endorsement from the respondents.



**Fig 1:** Theoretical model

**Table 1:** Data analysis plan

Sl. No	variables	Hypothesis	Test applied
2	Organizational variables	NA	Frequency distribution
2	Organizational variables	NA	Frequency distribution
3	Study construction	NA	Cronbach alpha, Composite reliability and Average variance extraction
4	General perception and Organizational variables on various study constructs	Type of training is conducted by the facilities management companies are different based on Type of Organization(h1a), Nature of Business (Services) (h1b), and Size of Organization (h1c)	Frequency distribution
5	General perception and demographics on various study constructs	H1: the general perception of employee towards training is differs between or among level of Gender (h2a), Qualification (h2b), Age (h2c), Total Years of Experience (h2d) and Types of organization (h2e)	T test and one way anova
6	Reaction and behavioural	H2: There is relation existed between Reaction and behavioral changes	PLS SEM

	changes	among the employees or managers of facilities management companies	
7	Reaction and Learning	H3: There is relation existed between Reaction and Learning among the employees or managers of facilities management companies	PLS SEM
8	Learning and Skill augmentation	H4: There is relation existed between learning objective and Skill augmentation among the employees or managers of facilities management companies	PLS SEM
9	Behavior and Skill augmentation	H5: There is relation existed between Behavior and Skill augmentation among the employees or managers of facilities management companies.	PLS SEM
10	Reaction and Skill augmentation	H6: There is relation existed between Reaction and Skill augmentation among the employees or managers of facilities management companies	PLS SEM
11	Reaction, Learning and Skill Augmentation	H7: Learning is enacted as mediator between Reaction and Skill Augmentation among the employees or managers of facilities management companies	Multiple linear regression and Hayes process regression analysis
12	Reaction, Behaviour and Skill Augmentation	H8: Behavior is enacted as mediator between Reaction and Skill Augmentation among the employees or managers of facilities management companies	Multiple linear regression and Hayes process regression analysis
13	Skill Augmentation Before vs. After training	H9: After training programme, the employees skills are augmented while compared to before training programme	Paired sample t test

#### 4.5 Statistical tools and techniques Employed

**a) Frequency distribution:** Frequency distribution is a depiction, either in a graphical or tabular format that displays the number of observations within a given interval. The intervals must be mutually exclusive and exhaustive, and the interval size depends on the data being analyzed and the goals of the analyst. Frequency distributions are normally used within a statistical context.

**b) Chi-Square Test:** Chi-square is a statistical test generally used to compare experimental data with data we would presume to obtain according to a specific hypothesis. The Chi-square test is proposed to test how probable it is that a pragmatic distribution is due to chance. It is also named a "goodness of fit" statistic, because it measures how well the observed distribution of data fits with the distribution that is predictable if the variables are independent.

**c) T-test:** A t-test is an investigation of two populace's means through the application of statistical examination; a t-test with two samples is generally used with small sample sizes, testing the difference between the samples when the variances of two normal distributions are not known. A t-test is directed at the t-statistic, the t-distribution and degrees of freedom to regulate the probability of difference between populations; the test statistic in the test is known as the t-statistic.

**d) Analysis of variance (ANOVA):** The one-way analysis of variance (ANOVA) is adopted to check whether there are any statistically significant differences among the means of three or more independent (unrelated) groups. The one-way ANOVA compares the means between the groups of the study and determines whether any of those means are statistically significantly different from each other. Specifically, it tests the null hypothesis. It is used to find out the relationship between general perceptions, demographics and organizational variables.

**e) The paired sample t-test:** The paired sample t-test, which is also known as the dependent sample t-test, is a statistical method used to decide whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured two times, which results in pairs of observations. Common applications of the paired sample t-test include case-control studies or repeated-measures designs. A paired t-test can be further influential than a 2-sample t-test since the latter comprises extra variation happening from the independence of the observations. A paired t-test is not subject to this variation because the paired observations are dependent.

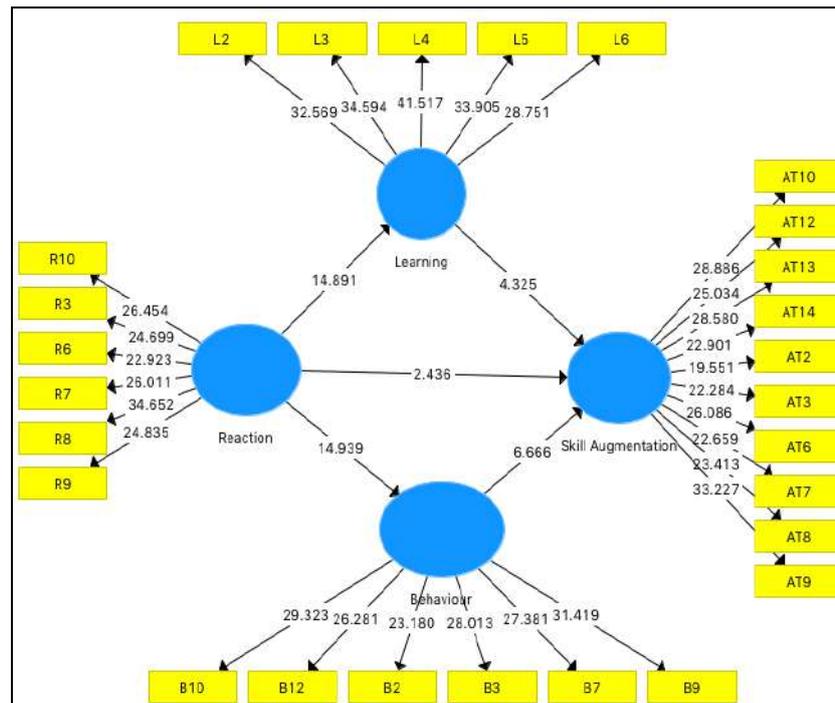
**f) Reliability test:** Cronbach alpha is the measure which is used to measure dependability i.e. inner consistency. It was firstly inferred by Kuder & Richardson (1937) for dichotomously scored information (0 to 1) and later summed up by Cronbach (1951) represent any scoring strategy.

**g) Simple Linear Regression (SLR):** Simple linear regression is a statistical method that allows us to summarize and study relationships between two continuous (quantitative) variables: One variable, denoted  $x$  is regarded as the predictor, explanatory, or independent variable. Simple linear regression is a method that enables you to determine the relationship between a continuous process output ( $Y$ ) and one factor ( $X$ ). The relationship is typically expressed in terms of a mathematical equation such as  $Y = b + mX$ . Suppose we believe that the value of  $y$  tends to increase or decrease in a linear manner as  $x$  increases.

**h) Multiple linear regressions:** Multiple linear regressions is the most common form of linear regression analysis. As a predictive analysis, the multiple linear regressions is used to elucidate the relationship between one continuous dependent variable from two or more independent variables.

## 5. Data Analysis

### 5.1 Evaluating Structural Model



**Fig 2:** Parallel mediation of Learning and Behaviour in the relationship between

## 6. Conclusion

In today's competitive environment, there is no doubt that for any organization, customer satisfaction is the key. When it comes to service sector, especially with facility management companies, satisfaction of the customers plays a major role as it affects the reputation of both the client and the Facility management company. In order to provide a better service, the employees should have enough knowledge, skill and attitude, which can be enhanced by means of training. Training is well understood as the method of imparting specific skills, knowledge and attitude on a defined population. Such training should yield better results, which not only help the employees in increasing their competencies, but also helps the organization in increasing the productivity. The current study is an attempt to find the general perception of employees working in facility management organizations towards training. Other than identifying the perception on training, the research was also intended to find the types of training conducted and the relationship among the training and its outcomes. It is concluded based on the study that, the facility management companies are performing better in terms of conducting periodic and frequent training, linking pay with the level of skills exhibited, providing opportunities for employees to take ownership of their job, providing better work environment. Employees also felt that, their skill has got improved after attending training programs conducted by their companies. Still there are certain areas, where the facility management companies have to concentrate like partnership firms can go with unity in command and direction, Medium sized organizations have to concentrate on reaction of the respondents after training. Apart from the specific conclusion stated earlier, the facility management organizations as a whole may concentrate on training their workforce through apprenticeship, job rotation and internship in on- the job training method and through role

play, management game, vestibule, sensitivity training and in-basket exercise in off-the job training methods. Reaction of the respondents is the key for any training program which has to be concentrated by every organization as it has its implication towards learning, behaviour and the overall skill development of the participants in training.

## 7. Recommendations for future research

**7.1 Several recommendations for future research are:** Present study has been focused on the impact of training on skill development of employees working in facility management companies which belongs to service industry. Further investigations can be undertaken to explore and establish training and skill development with other industries. The future research can be done in other metropolitan cities or industrial hubs by expanding geographical region to have wide understanding and practices of training. Further, the study can extend on different dimensions of training in facility management to enhance productivity. The present study recommends the future research on policy, customization of training offerings, skill measurements techniques and relation between employer and employee. The research study for future can be conducted on specific to the segmentation on respondent's demographic profile as the characteristics which provides clear picture on training quality at Facility management companies.

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