

# Multiple Regression Model Development For Level Of Satisfaction Of Employees Towards Training Programmes In Tamilnadu Civil Supplies Corporation In Tamilnadu

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**Abstract:** *the training helps everyone develop their abilities and confidence, and it provides opportunities for developing themselves. Training gives a clear knowledge about what the employee has and what the job demands. This automatically helps employees improve their performance, which leads to good superior-subordinate relationship. Since the study of training plays a vital role in all organization, it is very important to study and assess the important of training in promoting Industrial Relations. Such studies and assessments certainly help an organization to improve a conducive Industrial Relations Climate. 'Raw' human resource can make only limited contribution towards the achievement of an organization objective, while the demand for developed human resources are constantly growing. In this setting managers cannot escape the responsibility for training and developing human resources they employ.*

**Keywords:** *Multiple Regression, employees, Satisfaction, Training Programmes*

## 1. INTRODUCTION

Human Resource Management (HRM) encompasses many mechanisms and processes that aim at development of the employees and their relationship in and with the organization. One such important component of the HRM is training. Training and development strategy has to be related to the present and future organizational needs as well as to each individual's abilities and potentialities. A well-planned training program can create an environment in which self-development of the employees is stimulated and facilitated. Developing human resource is a critical factor for the rapid development of a country. In this context, training and development plays a very significant role. Today, training has become an integral part of any company's operations. This is because all enterprises understand the need of the hour. Since competition is increasing and technology is developing, it is not possible to get adequately educated and trained manpower.

Most of the Indian organizations have invested in training as per tradition and not as per need. This is the reason why training investment has not provided enough returns. *Odiorne (2005)* states that training endeavours to improve the capabilities of individuals to meet

organizational needs, in terms of knowledge, skills, attitudes and values. However, it has relevance only if it effects behavioral changes that enhance organizational effectiveness.

*Rao and Pareek (2000)* also mentioned, “Correct training plays a critical role in promoting efficiency, changing attitudes of officials and in inculcating a better sense of service and probity in them. In a nutshell, training is an important tool for organizational growth”. Therefore, the organization must give more importance to impart training to the people who are really in need of it.

*Srivastava (2002)* also observed the same thing, “Any training program based on false assumptions or without a sound understanding of the psyche of its target group is not going to make much impact.”

Training helps everyone develop their abilities and confidence, and it provides opportunities for developing themselves. It gives a clear knowledge about what the employee has and what the job demands. This automatically helps employees improve their performance, which leads to good superior-subordinate relationship.

## **2. TRAINING: THE CONCEPT AND DEFINITION**

Training is a process in which learning opportunities are structured in a planned manner, so as to develop knowledge, skills and attitude, necessary for effective performance of work for achieving organizational aims and objectives by the most cost effective means, available for the purpose. Thus the basic theme of training function is to achieve ‘effective performance’ by the employees towards attainment of organizational goals. In an organization the manager’s primary purpose is to ensure that the objective of the organization is achieved. This greatly depends on the manager’s ability to manage the “Performance of his staff”. Formal control systems will in any case be there, but invariably managerial and Organizational success is based not on the Operation of systems but on the interpersonal skills of the individual manager and his ability to get effective performance from his subordinates. The logical conclusion therefore is that managers, being responsible for effective performance by their subordinates, are also responsible for their effective training. Therefore training has to be recognized as an integral part of the whole work system.

*Swanson and Holton (2001)* define “Training and Development is the process of developing expertise for the purpose of improving performance” *Flippo E.B., (1980)* defines “Training as the act of increasing the knowledge and skill of the employee for doing a particular job.” Training is the corner stone of management for it makes employees more effective and production oriented. It is actively and intimately connected with all management activities. In the opinion of *Edwin (1985)* the training is overcoming blocks in the path of effective learning, it is concerned with direct job performance but can also be effective in changing attitude.

Development is a systematic and planned effort, which is oriented more towards broadening an individual’s skills for the future responsibilities. Management Development provides the opportunity to develop a broad base of skills and competencies that can be applied to many jobs in the Organization. Managerial skills broadly cover technical skills that are concerned with knowledge and proficiency employed in methods, procedures and processes, Human skills are concerned with Human Relations Skills, Effective Working and Collaborative Skills

and Conceptual Skills and are concerned with general management skills such as visioning, modeling, formulating strategic planning etc.

In a study made by *Dwivedi (2004)*, he mentioned, “Training refers to the organization’s efforts to improve an individual’s ability to perform a job or organizational role and also it helps to develop good industrial relation.”

*Henemann and Shwab (2001)* define training as, “Training may be thought of as a planned process whose organizational purpose is to provide learning experiences that will enhance employee contribution and employer-employee relationship”.

Training is the act of increasing the knowledge and skill of an employee for doing a particular job. Training makes the employees more interested in their present job. *Subba Rao (2005)* stressed that the employee should be trained in the following areas to increase their interest.

- Company policies and procedures
- Technical skills related to the present and future jobs.
- Human relation skills
- Problem solving/critical areas, and
- Managerial and supervisory skills

Training is by far the most frequently used HRD mechanism in our country, and in addition, it is the most important function that directly contributes to the development of human resources. Training is essential because technology is developing at a fast rate. Many organizations give adequate and appropriate training before an employee is fitted into a harmonious working relationship with other fellow-employees.

Based upon the study made by *Stephen Robbins*, “Almost all employees belong to a work unit. Somewhat, their work performance depend on their ability to effectively interact with their co-workers and their boss. Some employees have excellent interpersonal skills, but others require training to improve theirs. This includes learning how to be a better listener, how to communicate ideas more clearly, and how to be a more effective team player”.

*Lynton and Pareek (2005)* have emphasized that the training recognizes the scientific and technological orientation, it’s application and at the same time it penetrates into the human need for dignity, self-reliance, freedom and moral responsibility to achieve the total participation and conviction.

To acquire better knowledge about their present job and to develop themselves for future responsibilities training helps a lot. Training is a process of learning a sequence of programmed behaviour(*C.B. Mamoria, 1997*).

Training and Development is an emerging function in an organization and investments in and expectations from training and development also rise up. Employees also like to attend training programs, because they want to gain adequate knowledge by way of training. Training gives confidence to employees for handling the job, assigned to him and increases the quantity and quality of output through improved work methods and skills.

In a study made by *Strayton Rex (2002)*, he mentioned that training may operate to modify only in five areas viz., knowledge, skill, attitude, technique and experience which ultimately

leads to behavioral modification. In a rapid changing society, employee training and development is not only an activity that is desirable but also an activity that an organization must commit resources to if it is to maintain a viable and knowledge work force.

Many strategies could be used to develop the technical, managerial, behavioral and conceptual capabilities of an individual. Training is a potential strategy for developing these capabilities. To manage the training function effectively, it is necessary to understand what training can do and what it cannot do. Training contribute both directly and indirectly to develop superior-subordinate relationships in an organization.

### **3. EVALUATION OF TRAINING**

One of the most comprehensive and widely referred modes of evaluation is *Donald Kirkpatrick's (1979)* four level mode, which is as follows:

- Reaction
- Learning
- Behaviour and
- Results

Reaction refers to how well the participants liked a particular training program. Evaluation of participant's reactions consists of measuring their feelings; it does not include a measure of actual learning. Kirkpatrick defines learning as the principles, facts and techniques that were understood and absorbed by the participant. He also warns that evaluation of training programs in terms of on the job behaviour is more difficult than the reaction and learning evaluations. The fourth level of evaluation I result or impact on the organization. Measuring in terms of results is the best way to measure training programs. Training helps the employees to function more effectively in their present positions exposing them to the latest concepts, information and techniques and developing in them skills required in their fields.

### **4. METHODS OF TRAINING AND DEVELOPMENT**

There are various methods of training, which can be divided into cognitive and behavioral methods. Trainers need to understand the pros and cons of each method, its impact on trainees, keeping their background and skills in mind, before giving training.

Cognitive methods are more of giving theoretical training to the trainees. The various methods under Cognitive Approach provide the rules for how to do something, written or verbal, demonstrate relationships among concepts, etc. These methods are associated with changes in knowledge and attitude by stimulating learning.

*The various methods that come under Cognitive approach:*

- Lectures
- Demonstrations
- Discussions
- Computer Based Training (CBT)
- Intelligent Tutorial System(ITS)
- Programmed Instruction (PI)
- Virtual Reality

Behavioral methods are more of giving practical training to the trainees. The various methods under Behavioral approach allow the trainee to behave in a real fashion. These methods are best used for skill development.

*The various methods that come under Behavioral approach:*

- Games And Simulations
- Behavior-Modeling
- Business Games
- Case Studies
- Equipment Stimulators
- In-Basket Technique
- Role Plays

Both the methods can be used effectively to change attitudes, but through different means.

## **5. IMPORTANCE OF THE STUDY**

Since the study of training plays a vital role in all organization, it is very important to study and assess the important of training in promoting Industrial Relations. Such studies and assessments certainly help an organization to improve a conducive Industrial Relations Climate. 'Raw' human resource can make only limited contribution towards the achievement of an organization objective, while the demand for developed human resources are constantly growing. In this setting managers cannot escape the responsibility for training and developing human resources they employ.

As the training plays a vital role in all organization, it is very important to study and assess the importance of training. Future of any organization depends on the creativity and commitment of its next generation of leaders. It enhances the current managerial effectiveness of high-potential executives, while preparing them for future leadership roles within their organizations, provides provocative, stimulating dialog with world class faculty on a wide variety of pertinent issues such as Leaders vs. Managers, core competencies, sustainable advantage, quality and retaining customers and employees, enables participants to gain a greater understanding of the global and domestic forces that can affect the achievement of corporate goals, and improves the bottom line through new concepts. Developing human resource is a critical factor for the rapid development of a country. In this context, training and development plays a very significant role. Today, training has become an integral part of any company's operations. Since competition is increasing and technology is developing, it is not possible to get success without adequately educated and trained manpower.

According to *McCormick and Tiffen (2008)*, 'the training program may be directed towards:

- The development of actual job knowledge and skill.
- The transformation of information, or in orientation training, or the modification of attitudes, for example, increasing the sensitivities of superiors and management personnel to the feelings and reactions of others, or influencing employee attitude towards the organization". Be effective, the training given to the employees must be Need-Based Training. But, the biggest problem faced by the organizations is lack of Need-Based Training'.

*Srivastava (2009)* also points out that any organisation needs training to train employees in four diverse fields such as,

- Technical skills
- Administrative skills
- Human relationships and
- Value training in which they lack

*Rao and Pareek (2007)* also mentioned, 'Correct training plays a critical role in promoting efficiency, changing attitudes of officials and in inculcating a better sense of service and probity in them. In a nutshell, training is an important tool for organizational growth'. Therefore, the organization must give more importance to impart training to the people who are really in need of it.

## **6. STATEMENT OF THE PROBLEM**

The quality of the training in an organization is considered to be the most important factor that determines the success of the organization. It is true that an expenditure on education, Training and development of human resource is not primarily consumption but an investment which increases productivity and the Productive Capacity of labour. When training is effective, its consequences produce many special advantages for the organization, manager and its employees. It is obvious from this statement that the human resources must be developed to perform their tasks effectively for an organization.

Most of the Indian organizations have considered training as per tradition and not as per need. This is the reason why training investment has not provided enough returns. Training and Development are emerging functions in an organization and investments in and expectations from the training and development also rise up. Employees also like to attend training programs, because they want to gain adequate knowledge by way of training. The training gives an employee confidence in handling the job assigned to him and increases the quantity and quality of output through improved work methods and skills. But, the training does not yield fruitful results always. The training programmes are held mechanically and the curriculum of the programme does not match with the training needs.

Many strategies could be used to develop the technical, managerial, behavioral and conceptual capabilities of an individual. The training is a potential strategy for developing these capabilities. To manage the training function effectively, it is necessary to understand what training can do and what it cannot do. Training contribute both directly and indirectly to develop superior-subordinate relationships in an organization. But, the organisations do not realize this fact. In the light of these problems, the present study is held in Tamilnadu Civil Supplies Corporation, Tamilnadu.

## **7. OBJECTIVES OF THE STUDY**

To measure of overall satisfaction of the employees towards the training programmes conducted by the study unit.

## **8. LITERATURE REVIEWS ON SATISFACTION OF THE EMPLOYEES TOWARDS TRAINING**

*Sieburn-Thomas (2005)* was well renowned for his study which revealed a high degree of performance and employee satisfaction considerably linked with the workplace training. However, this field of study remains under a minimized concern in the private sector. Although, exploring this topic will not only be beneficial for the practitioners, but it will also prove to be a great contribution the management research.

Training may influence workplace performance directly by raising output per worker, or be measured indirectly through its impact on the wage on the assumption that this is equal to the marginal productivity of labour. However, this will not be the case if there are imperfections in the product or labour markets. *Dearden et al. (2000, 2006)* were able to measure on productivity directly using a panel of British industries over the period 1983 to 1996. They found that a one percentage point increase in training was associated with an increase in value added per hour of about 0.6 per cent, but an increase in wages of only 0.3 per cent, consistent with employer monopoly power in the labour market, so that using wages as a proxy for productivity would tend to under-estimate actual productivity. Over-education or over-skilling could also moderate any influence on performance.

Satisfaction with training and development is a major factor in decisions regarding people's careers (*Violino, 2001*). It is a factor that prospective employees evaluate in the job-hunting process. It is cited in surveys as to why workers accept or decline jobs with certain employers and why employees leave one employer for another ("*What Drives,*" 2001). A sample of workplace surveys shows the importance of workplace training from a variety of perspectives. Ramstad's 2001 North America Employment Review survey of twenty-six hundred American and Canadian employees found that 80 percent of respondents said receiving training that increases their skills and abilities was a key component of what they looked for in jobs ("*What Drives,*" 2001).

There is a dearth of research on job training satisfaction in general. *Nordhaug (1989)*, studying reward functions that are inherent in training, found that "the extent to which training actually contributes to generating individual rewards has, however, been virtually absent on the research agenda" (p. 374). Although considerable research has been conducted on organizational commitment, satisfaction, coaching, and employee development as individual or organizational outcomes, "very little research has been done on the relationship between organizational commitment, employee development, satisfaction with employee development and coaching" (*Tansky& Cohen, 2001, p. 287*).

The study found a high correlation between job training satisfaction and overall job satisfaction among employees in customer contact positions. The results of this study concur with prior studies conducted on professional occupations (*Ellinger, Ellinger, & Keller, 2003; Tansky& Cohen, 2001*), suggesting that the relationship between job training satisfaction and overall job satisfaction is similar for employees in a variety of occupational categories.

*SarojRana and Hemal Pandya (2016)* investigated the present level of job satisfaction among the employee of Sugar Industry in Gujarat State. Based on a survey, it attempts to gain insights into the satisfaction levels from the perspective of the employee Sugar Industry in Gujarat State. The study concluded with the facts that employee are overall satisfied with their present condition or not satisfied. The researcher summed up with view that employee of Sugar Industry in Gujarat State may give more attention to increase and maintain job Satisfaction of these human resources to make them more contented and to make the most of

their effort by increasing level of job satisfaction. The purpose of this study is to find out the perceived job satisfaction of employee of 17 Sugar Industry in Gujarat State. The study has identified dimensions requiring improvement and the present level of job satisfaction of employee. This study mainly focused on satisfaction level of employee 17 Sugar Industry. From this study it has been found that employees are satisfied in some areas but at the same time dissatisfied in other areas. There is an urgent need of upgrading number of dimensions to improve job satisfaction level of employees in Sugar Industry of Gujarat State. Half of the employees feel emotionally contended but this is not sufficient in long run to extract the best possible performance from employees.

## **9. RESEARCH METHODOLOGY**

### **Sources of Data Used**

Both types of data i.e., secondary and primary data have been used in the present study. The secondary data was collected at first form the text books, web sites, journals and other secondary sources. Since the present study is based on primary data, one Questionnaire were prepared to collect the data from the employees of the Tamilnadu Civil Supplies Corporation employees considered for the study. The employees of the Tamilnadu Civil Supplies Corporation are the population of the study. The term employee includes all categories of staff i.e., floor level workers, supervisory staff and, middle level management staff. From the total number of employees, proportionate stratified random sampling technique is used to select the appropriate sample employees.

### **Questionnaire**

A structured questionnaire is constructed to get the primary data from the sample employees. It includes demography of the employees and all other variables of the study. It was pre tested among 50 employees and appropriate modifications were made in the questionnaire.

### **Measurement Scale**

The employees opinion towards their Training programmes, influenced job satisfaction were measured with the help of 7 point scale such as strongly disagree, disagree, slightly disagree, neither agree nor disagree, slightly agree, agree and strongly agree. Lastly satisfaction of the employees is also measured by means of 7 point scale such as

- Completely dissatisfied,
- Mostly dissatisfied,
- Somewhat dissatisfied,
- Neither satisfied not dissatisfied,
- Somewhat satisfied,
- Mostly satisfied and
- Completely satisfied.

## **10. MULTIPLE REGRESSION MODEL DEVELOPMENT FOR LEVEL OF SATISFACTION OF EMPLOYEES TOWARDS TRAINING PROGRAMMES IN TAMILNADU CIVIL SUPPLIES CORPORATION IN TAMILNADU**

Regression analysis is a mathematical measure of average relationship between two or more variables in terms of original units of data. Regression is used to create an equation (or)

transfer function from the measurements of the system’s inputs and outputs acquired during a passive or active experiment (Kazmier, 2004). The transfer function is then used for sensitivity analysis, optimization of system performance and tolerance the system’s components (Antis et al., 2006). A Path diagram represents the response (Overall satisfaction) and the predictors such as (1) Satisfaction with Training Locations (2) Satisfaction with the various training aids/methods/techniques/types/ followed in the company (3) Satisfaction with the Competent Trainers, (4) Satisfaction with new knowledge / skills that participants learned from the training programs, (5) Satisfaction with sufficient personal importance given to the employees and (6) Satisfaction with the continuous organizational and individual employee improvement.

Multiple regression analysis was conducted using overall satisfaction employees towards training programmes as a dependent variable and (1) Satisfaction with Training Locations (2) Satisfaction with the various training aids/methods/techniques/types/ followed in the company (3) Satisfaction with the Competent Trainers, (4) Satisfaction with new knowledge / skills that participants learned from the training programs, (5) Satisfaction with sufficient personal importance given to the employees and (6) Satisfaction with the continuous organizational and individual employee improvement as the independent variables by using SPSS 20. The below table shows the summary of the regression results. The model has the following form:

$$PAS = f \{ (1) \text{ Satisfaction with Training Locations } (2) \text{ Satisfaction with the various training aids/methods/techniques/types/ followed in the company } (3) \text{ Satisfaction with the Competent Trainers, } (4) \text{ Satisfaction with new knowledge / skills that participants learned from the training programs, } (5) \text{ Satisfaction with sufficient personal importance given to the employees and } (6) \text{ Satisfaction with the continuous organizational and individual employee improvement } \}$$

Figure – 1

Path Diagram for satisfaction of the employees towards training programmes

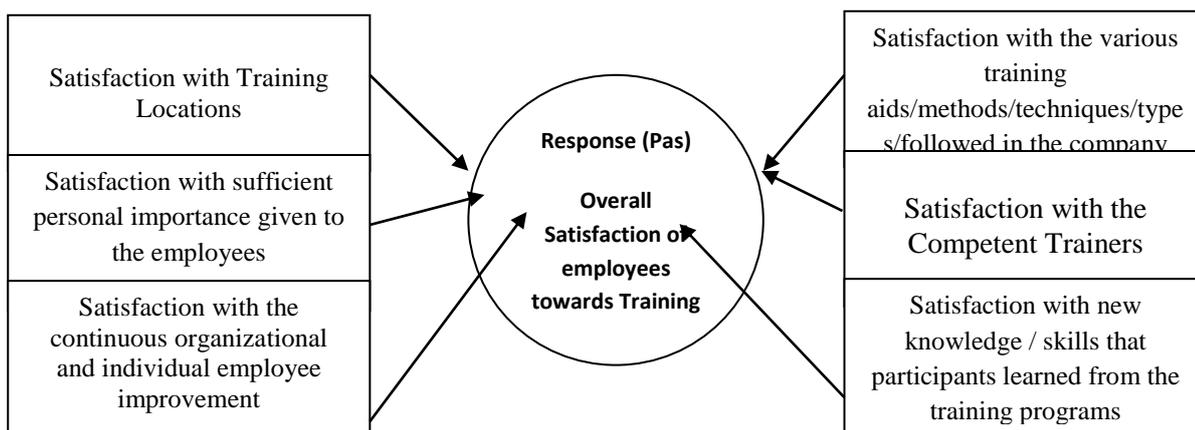


Table – 1

Model Summary of multiple regression models for satisfaction of the employees towards training programme

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
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1	.530 <sup>a</sup>	.281	.264	1.02044
a. Predictors: (Constant), Satisfaction with the continuous organizational and individual employee improvement, Satisfaction with the Competent Trainers, Satisfaction with Training Locations, Satisfaction with sufficient personal importance given to the employees, Satisfaction with the various training aids/methods/techniques/types/followed in the company, Satisfaction with new knowledge / skills that participants learned from the training programs				
b. Dependent Variable: Overall training programme in my organization is satisfactory				

Source: Output generated from SPSS 21

Table – 2

ANOVA table of multiple regression models for satisfaction of the employees towards training programme

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100.596	6	16.766	16.101	.000 <sup>a</sup>
	Residual	257.199	247	1.041		
	Total	357.795	253			
a. Predictors: (Constant), Satisfaction with the continuous organizational and individual employee improvement, Satisfaction with the Competent Trainers, Satisfaction with Training Locations, Satisfaction with sufficient personal importance given to the employees, Satisfaction with the various training aids/methods/techniques/types/followed in the company, Satisfaction with new knowledge / skills that participants learned from the training programs						
b. Dependent Variable: Overall training programme in my organization is satisfactory						

Source: Output generated from SPSS 21

Table 3 Coefficients for multiple regression models for satisfaction of the employees towards training programme

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.472	.453		3.252	.001
	Satisfaction with Training Locations	.180	.055	.196	3.291	.001
	Satisfaction with the various training aids/methods/techniques/types/followed in the company	.090	.070	.083	1.296	.196
	Satisfaction with the Competent Trainers	.169	.071	.165	2.398	.017
	Satisfaction with new knowledge / skills that participants learned from the training programs	-.008	.071	-.007	-.106	.916

	Satisfaction with sufficient personal importance given to the employees	-.078	.063	-.078	-1.225	.222
	Satisfaction with the continuous organizational and individual employee improvement	.361	.064	.346	5.659	.000
a. Dependent Variable: Overall training programme in my organization is satisfactory						

Source: Output generated from SPSS 20

**Overall satisfaction of the employees towards training programme = 1.472 + .180 (Satisfaction with Training Locations) + 0.090 (Satisfaction with the various training aids/methods/techniques/types/followed in the company) + .169 (Satisfaction with the Competent Trainers) - 0.008 (Satisfaction with new knowledge / skills that participants learned from the training programs) -0.078 (Satisfaction with sufficient personal importance given to the employees) + 0.361 (Satisfaction with the continuous organizational and individual employee improvement) }**

..... (1)

**Model validation**

The regression model has explained the variation accounts for 95 percent (R Square 0.578 of the total Variation seen in the experiment (Ng et al., 2004). The F ratio is significant value is less than 0.000 at the 1% level, which means that the results of the regression models could hardly have occurred by chance (Chacker and Jabnoun, 2003). The quality of the regression can also be assessed from a plot of residuals versus the predicted values. The above three points indicate that the model is good and acceptable one. (Antis et al., 2003).

Figure – 2  
 Regression standardized residual for satisfaction of the employees towards training programme

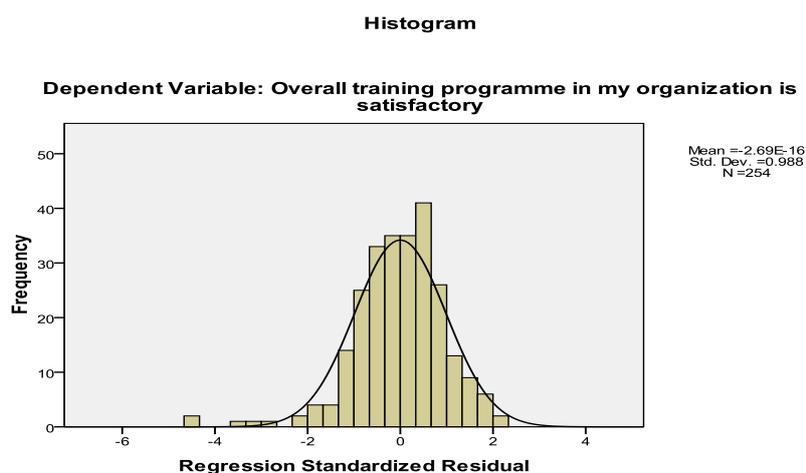
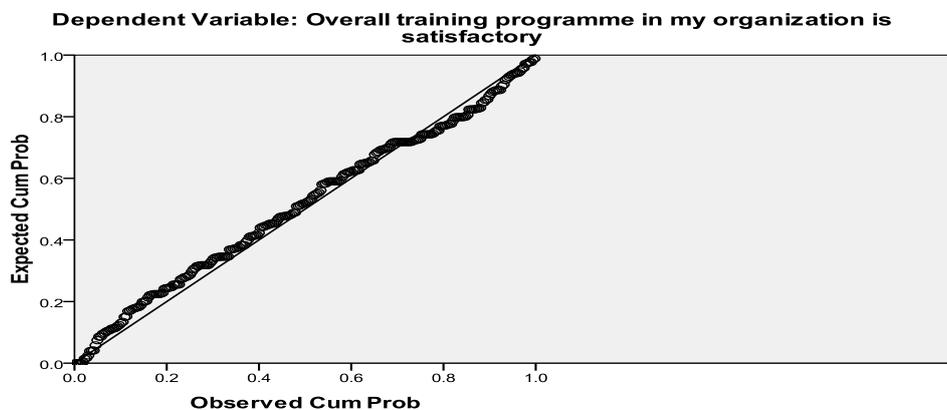


Figure – 3  
 Normal P-P Plot regression standardized residual for satisfaction of the employees towards training programme

**Normal P-P Plot of Regression Standardized Residual**



Overall satisfaction of the employees towards training programme =  $1.472 + .180$  (Satisfaction with Training Locations) +  $0.090$  (Satisfaction with the various training aids/methods/techniques/types/learned in the company) +  $.169$  (Satisfaction with the Competent Trainers) -  $0.008$  (Satisfaction with new knowledge / skills that participants learned from the training programs) -  $0.078$  (Satisfaction with sufficient personal importance given to the employees) +  $0.361$  (Satisfaction with the continuous organizational and individual employee improvement) }

..... (2)

The above output, the predictor variables of Satisfaction with the various training, aids/methods/techniques/types/learned in the company, Satisfaction with new knowledge / skills that participants learned from the training programs and Satisfaction with sufficient personal importance given to the employees are greater than the common alpha level of 0.05, which indicates that it is not statistically significant with overall satisfaction of the employees. The predictor values of Satisfaction with Training Locations, Satisfaction with the Competent Trainers and Satisfaction with the continuous organizational and individual employee improvement are less than the common alpha level of 0.05, which indicates that it is statistically significant with overall satisfaction of the employees.

Satisfaction with Training Locations, Satisfaction with the various training, aids/methods/techniques/types/learned in the company, Satisfaction with the Competent Trainers and Satisfaction with the continuous organizational and individual employee improvement have positive relationship with Overall satisfaction of the employees. And Satisfaction with new knowledge / skills that participants learned from the training programs & Satisfaction with sufficient personal importance given to the employees have negative relationship with Overall satisfaction of the employees.

## 11. SUGGESTIONS AND CONCLUSION

The present study aims to evaluate the effectiveness of training and development of the Tamilnadu Civil Supplies Corporation, Tamilnadu. It has also been endeavored to evaluate the role of training process on crafting the organizational competitive advantage with satisfaction of employees and for the overall performance of organization. Organizations mostly invest a lot on their human capital to fulfill their training needs and improve their

skills generally by organizing training programs/modules to make their competencies in accordance with the needs of changing world which finally contributes to gain the competitive advantage. Findings of this study enlightens the effective and compatible features of employee training by using and modeling quality dimensions with training module to cover the quantitative and qualitative aspects. Training and employee progress of the Tamilnadu Civil Supplies Corporation, Tamilnadu completely are linked with managerial competitive advantage. A good chance of training motivates worker contribution and promotes capabilities.

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