

A Comparative Study of Role Efficacy among Employees in Selected Manufacturing and IT Firms

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Abstract

As defined by Pareek, role efficacy is the potential effectiveness of the role of an individual in an organization. It involves role making, role centering and role linking. Studies have shown the significance of role efficacy and its understanding in an organization. Role efficacy has proved to be a factor for organizational citizenship, psychological involvement of the employees etc. The resulting performance of employees signifies the need of the present study. The study focuses on comparison between role efficacy between manufacturing and IT firms. It further attempts to study the relationship between demographic variables and Role efficacy in two types of firms.

Keywords: Role Efficacy, Manufacturing firms, IT firms.

Introduction

Efficacy refers to the ability to produce a desired result or effect. Role efficacy is the potential effectiveness of an individual occupying a particular role in an organization. Role efficacy can be seen as the psychological factor underlying role effectiveness. Bray (1998) gave that role efficacy refers to a specific form of self-efficacy relating to a team member's confidence in his or her capabilities to carry out interdependent role functions. Role efficacy has three subsystems Role Making, Role Centering and Role Linking. An employee can make his/her role meaningful by concentrating on the following three

dimensions:

- **Role Making:** Role Making is an active attitude towards the role, to define and contribute to it while role taking is passive acceptance of responding to others' expectations.
- **Role Centering:** Role centering is an active attitude towards the role to define and make the role central to the organization by increasing its importance as opposed to role entering, which means accepting the role as it is and performing it.
- **Role Linking:** Role linking is an active

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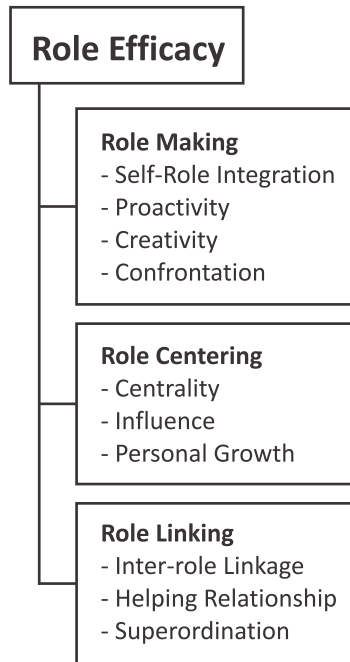


Figure 1: Dimensions of Role Efficacy

attitude towards the role to find linkages with other roles through interaction, while role shrinking is a passive acceptance of narrow boundary of role.

• **Role Making**

Role making has following variables and an employee needs to look forward to making and understanding his own role, rather than waiting for others to tell him what his role is.

- **Self-role Integration:** Integration between self-concept and role demands rather than distancing self from the role. Every person has his strengths experience, technical training, special skills, and some unique contribution that he may be able to make. The more the role a person occupies provides an opportunity for the use of such special strengths, the higher the efficacy is likely

to be. This is called self-role integration. The self or the person and the role get integrated through the possibility of a person's use of his special strengths in the role. Our special strengths are used in the role so that it may be possible for us to demonstrate how effective we can be. Integration contributes to high role efficacy. On the other hand if there is a distance between the self and the role, role efficacy is likely to be low.

- **Pro-activity:** Initiating actions on own rather than reacting to situations. A person who occupies a role, responds to the various expectations that people in the organization have from that role. While this certainly gives him satisfaction, it also satisfies others in the organization. However, if he is also expected to take initiative in starting some activity, the efficacy will be higher. Reactive behaviour helps a person in

being effective to some extent, but proactivity contributes much more to efficacy. If a person feels that he would like to take initiative but has no opportunity to do so in the role that he occupies in the organization, the efficacy will be low.

- **Creativity:** Experimenting and trying new ideas/strategies rather than operating on routine. It is not only initiative which is important for efficacy. An opportunity to try new and unconventional ways of solving problems or an opportunity to be creative is equally important. If a person perceives that he has to perform only routine tasks, it is detrimental towards a high role efficacy. If he feels that the role does not allow any time or opportunity to be creative, the efficacy is bound to be low.
- **Confrontation:** Facing problems to attempt their solution rather than avoiding the problems. If people in an organization avoid problems or shift the problems to the others; their role efficacy will be low. The tendency to confront problems and find relevant solutions contributes to efficacy. When people facing inter-personal problems sit down, talk about these problems, and search out solutions, their efficacy is likely to be higher when compared with situations in which they either deny such problems or refer them to their higher officers.
- **Role Centering**
An employee should look forward to make his/her role important in the organizational system rather than making it unimportant.

Role Centering has following main variables:

- **Centrality:** Feeling important or central in a system rather than becoming peripheral in the system. If a person occupying a particular role in organization feels that the role he occupies is central in the organization; his role efficacy is likely to be high. Every employee would like to feel that his role is important to the organization. If persons occupying various roles feels that their roles are peripheral i.e. not very important, their potential effectiveness will be low.
- **Influence:** Feeling that his role can make some impact in the system rather than feeling powerless.
- **Growth:** Feeling that one occupying the role grows and learns in the role rather than feeling stagnated. If a person feels that he is stagnating in a role without any opportunity to grow he is likely to have a low role efficacy. In many institutes of higher learning, the roles of the staff pose problems of low efficacy. The main factor behind this is the lack of opportunity for them to grow systematically in their roles. Institutes which are able to plan the growth of such people in the roles will have higher efficacy and obtain a great deal of contribution from them.
- **Role Linking**
Its main variables are Inter-role linkage, helping relationships and super-ordination.
An employee needs to look forward to Role Linking and understand that his role is an important part of the system and is based

on mutuality, rather than shrinking his role.

This can be achieved by:

- **Role Linkage:** Linkage of one's role with other's role rather than being and feeling isolated. Linkages of one's role with other roles in the organization increases efficacy. If there is a joint effort in understanding problems, finding solutions, the efficacy of the various roles involved is likely to be high. The feeling of isolation of a role reduces role efficacy.
- **Helping Relationships:** Giving and receiving help amongst roles rather than becoming hostile towards others. If persons performing a particular role feel that they can get help from some source in the organization whenever the need arises, they are likely to have higher role efficacy. On the other hand, if there is a feeling that no help is forthcoming when asked for, or that the respondents are hostile, role efficacy will be low.
- **Super Ordination:** Linkage of one's role with larger entity rather than being deprived. When a person performing a particular role feel that what he does is likely to be of value to a larger group, his efficacy is likely to be high. Roles in which people feel that what they are doing is helpful to the organization in which they work, result in role efficacy. But if a person feels that he does not get an opportunity to be of help to a larger group, the role efficacy is likely to be low.

Review of Literature

The role of personality at work has been increasingly reaffirmed. Earlier the focus was just on the Big 5 Model of personality traits. Unlike the earlier time when performing the

task effectively was considered to be the only factor now the focus has shifted towards performing the role with potential effectiveness known as role efficacy.

The components like integration, creativity, helping relationships and pro-activity of Role Efficacy are the strong predictors of Organizational Effectiveness as compared to the other components. Also the components like creativity, personal growth and helping relationships are strong predictors of group functioning while the components like helping relationships, creativity, personal growth, confrontation and pro-activity are strong predictors of job satisfaction. The study also depicted pro-activity, confrontation, creativity, integration, helping relationships are strong predictors of goal integration. Overall it was concluded that training in Role Efficacy should be given in order to achieve organizational and personal goals (Kaur & Karzi, 2012).

Waddar & Aminabhavi (2012) in another study observed that emotional labour has been seen as major tool that can be used to improve the productivity of workers and researchers. The role based performance expectation includes high emotional labour. In other words, in order to meet the role based performance expectations, naturally the employees undergo some unique experiences and display the emotions which were conducive for the organizations, there by suppress their own feelings.

Women entrepreneurs use Role Stress to increase their Role Efficacy and Role Efficacy leads to optimization of Role Stress. Entrepreneurs with high role efficacy perceive role stress as an opportunity and not a threat. Role Efficacy can be a vehicle for entrepreneurs to become effective in their entrepreneurial role and can help counter stress in a proactive manner (Karve & Nair,

2011).

Sayeed and Kumar (2010) in a study of work attitude, role efficacy and stress analysed the work environment, the attitudes, beliefs and the opinions of the 52 ATCs from a total of 130 working at the Mumbai Airport. The role efficacy of ATCs (Air Traffic Controllers), evaluating the perceptions of their roles across the 10 dimensions showed greater influence in predicting or enhancing work attitude. The various role efficacy dimensions (role making, role centering and role linking) showed significant relationships and impact on attitude towards work, working conditions, co-workers, supervisors, and management. The role making and role centering (global dimensions) as compared with Role Linking were found to be strongly influencing positive work attitude of ATCs. Also it is interesting to note that when role occupants go beyond what is expected from the role (Role Making) and perform jobs with self-induced role behaviour, it is more likely to increase positive work attitude as individuals will have better focus on problem solving behaviour of their own, colleagues, superiors and subordinates (Sayeed & Kumar, 2010).

It was also shown that role efficacy enhances work attitude in some respects. ATCs had high confrontation skills, followed by helping relationship, integration with the job and perceived inter-role linkages. In comparison with positive aspects mentioned above, the poor aspect of their role was pro-activity, which indicated that they were performing more of the reactive functions of their roles and fulfilling other's expectations rather than performing proactive functions in their roles. They cannot initiate any action on their own because of the nature of work which demanded that everything has to be performed in a structured way and as per certain prescribed norms. They also felt that

they have least influence and hold less central role compared with pilots and other functionaries (Sayeed & Kumar, 2010).

The clarity of the role that is to be performed by the employee acts as a catalyst for the relationship of Role Efficacy and role performance. Individuals having more role clarity have higher role efficacy and further are more effective in performing that role (Bray & Brawley, 2002). They examined role ambiguity, role efficacy, and role performance of male secondary school rugby players with sample size of 271. A multidimensional measure was used to assess 4 manifestations of role ambiguity in offensive and defensive contexts. Multiple role ambiguity dimensions explained variance in efficacy and performance. They observed negative relationships between role ambiguity and role performance were mediated by competence (role efficacy) beliefs. The study proved that role efficacy represents a cognitive mechanism that may account for the relationship between role ambiguity and role performance. The results showed that the relationship between role ambiguity and role performance would be mediated by role efficacy for both offense and defense. Although role efficacy fully mediated the relationship between role ambiguity and performance for defense (i.e., it accounted for all of the variance in performance), for offense, partial mediation was observed (i.e., role efficacy accounted for some, but not all of the variance in offensive performance previously explained by role ambiguity). The individuals with high role efficacy have less role stress. But it was also concluded that some level of stress is necessary for motivation, involvement and commitment to the job (Pandey, 1995). It has been found that people with high role efficacy seem to experience less role stress, anxiety and work related tension (Sen, 1982); rely on their own strengths to cope with problems

that come their way (Surti, 1983); persist in solving problems mostly by themselves and sometimes by taking the help of other people (Shingala, 1985).

Research Methodology

The study was undertaken to study the role efficacy for two different industries - manufacturing and information technology. The scope of the study is limited to the employees of 4 organizations in the tri-city :

- SML ISUZU
- M & M Swaraj
- Infosys
- TCS

Manufacturing organizations included were M & M Swaraj one of the India's largest manufacturer of tractors and SML ISUZU manufacturing buses. IT organizations included Infosys Ltd. and TATA consultancy services.

Research Objectives

- a) To compare the role efficacy of the employees of selected manufacturing and IT firms.
- b) To study the differences in the role efficacy based on age and gender in both types of firms.

Hypotheses of the study:

H₀1: There is no difference between role efficacy of employees of selected manufacturing and IT firms

H₀ 1(a): There is no difference between role making of employees of selected manufacturing and IT firms

H₀ 1(b): There is no difference between role centering of employees of selected manufacturing and IT firms

H₀ 1(c): There is no difference between role linking of employees of selected manufacturing and IT firms

H₀2: There is no difference of role efficacy with regard to demographics of employees in selected firms

H₀2 (a): There is no difference of role efficacy with regard to age of employees in selected firms

H₀2 (b): There is no difference of role efficacy with regard to gender of employees in selected firms

Sampling Technique

Snowball sampling has been used for data collection for this study. The data was collected from the references and the same process was continued further. Sample taken was the employees of 4 organizations from the tri city. Sample size taken is 120.

- **Target Population:** Employees of SML ISUZU, M & M Swaraj, Infosys and TCS
- **Sample size:** 120 respondents were taken and 30 from each organization

Role efficacy scale was used to measure the role efficacy of the employees. Role Efficacy Scale is a structured instrument consisting of 20 triads of statement in each triad which describes his role most accurately. A respondent marks one statement in each triad which describes his role most accurately. These three alternatives are pre-weighted. It based on following dimension:

- a. Role Making - Included Items 2,3,4,10,12,13,14,20
- b. Role Centering - Included items

1,8,9,11,18,19

c. Role Linking - Included items 5,6,7,15,16,17

Data Analysis

Data collected using the structured questionnaire was entered into SPSS data file and the analysis of the data was then done using SPSS. In this chapter we will see the results of the various tests that were applied on the data to conduct the hypothesis testing on the basis of which the hypothesis were accepted and rejected.

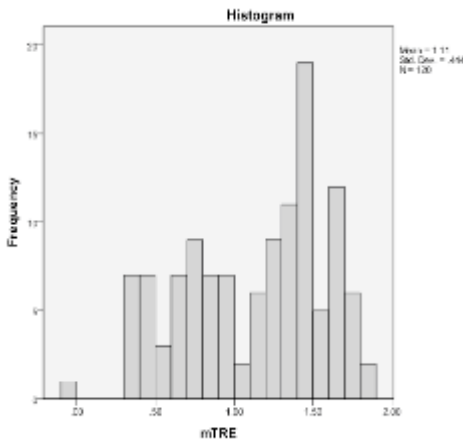
Normalcy of Data

To determine whether to use the parametric or non-parametric tests further for the study, the normality of data is checked. For testing the normality of data the table given below was generated in SPSS and the values of Shapiro-Wilk test were considered to make this decision.

Table 1: Tests of Normality

	Shapiro - Wilk		
	Statistic	df	Sig.
mTRE	.944	120	.000

Figure 2 : Histogram Role Efficacy



As per the table generated in SPSS for Normality Test, it was found that p-value < 0.05 for Role efficacy (mTRE) (Table 1), therefore this showed that data was not normal. Hence the non parametric tests would be applied on the data for further analysis of data. To further check the skewness of the data, the Histograms were generated for each of the items stated above in the table. "Histogram" (Figure 2) shows the normalcy for the dependent variable of the study i.e. Role Efficacy.

Figure 2 shows that the sample data collected for the study is Negatively Skewed for the given item. As the data is negatively skewed and therefore it is not normal, we will treat the data as not normal and further non parametric tests will be applied.

Reliability of scale:

The reliability check was done for all the dimensions of the scale used in the study. The scale taken for Role efficacy was Role Efficacy Scale. The Cronbach's Alpha value for role efficacy was 0.760. For individual dimensions also the cronbach Alpha value was highly acceptable. As indicated by the Nunally 1985, the value Cronbach's Alpha > 0.7 states that the scale is acceptable and reliable. Therefore from this section we concluded that the scale which we used for our study is reliable enough to collect the data.

Table 2: Reliability Statistics

Items	Cronbach's Alpha
Role Making	.751
Role Centering	.765
Role Linking	.752
Role Efficacy	.760

Demographics and Role Efficacy in Selected firms: Kruskal-Wallis Test

To study the relationship between demographic variables and Role Efficacy Kruskal-Wallis test was used.

Gender: In Table 3 the mean rank of male (52.76) respondents is lower than that of female(78.32) we can say that female respondents of the sample have a high Role Efficacy as compared to the male respondents. It can be seen that mean rank of female respondents is higher than that of male in each dimension of Role Efficacy.

Age: In the age variable '1' refers to the age group of < 26 years, '2' refers to the age group of 26-34 years, >34 years. It can be clearly seen from the table 4 that age group of <26 show a higher role efficacy as compared to the age group of 26-34 years and of age group >34 years. Dimension wise similar results were found except in role making.

Comparison of manufacturing and IT firms with regard to Role Efficacy

Table 5 shows the average scores of all the 4 organizations on the Role Efficacy Scale (RES) and Role Efficacy Index (REI).

It can be seen from the above table that the role efficacy (76.14) of M & M Swaraj is very high. TCS also scores good on these variable due to which it has now improved its performance and captured market share more than Infosys LIMITED. The findings of the study also revealed that in case of all the dimensions of role efficacy i.e. Role Making, Role Centering and Role Linking, the manufacturing firms scored higher than IT firms.

A high score in Role Efficacy Index (>70) for M & M Swaraj is basically due to its commitment to its vision and values of continuous improvement which led to many interventions like Kaizen culture, quality circles, TQM practises, Total Productive Management (TPM) activities. It has helped its employees

Table 3: Ranks on the basis of gender

	Gender:	N	Mean Rank
Role Making	Male	99	57.28
	Female	21	75.69
	Total	120	
Role Centering	Male	99	51.17
	Female	21	57.36
	Total	120	
Role Linking	Male	99	59.90
	Female	21	63.33
	Total	120	
Role Efficacy	Male	99	52.76
	Female	21	78.32
	Total	120	

Table 4: Ranks on the Basis of Age

	Age	N	Mean Rank
Role Making	1.0	74	58.45
	2.0	29	57.33
	3.0	17	74.82
	Total	120	
Role Centering	1.0	74	62.34
	2.0	29	71.76
	3.0	17	33.26
	Total	120	
Role Linking	1.0	74	66.16
	2.0	29	58.07
	3.0	17	40.00
	Total	120	
Role Efficacy	1.0	74	60.15
	2.0	29	54.43
	3.0	17	46.08
	Total	120	

Table 5: Average Scores on RES, REI

	Role Efficacy (RES)	Role Efficacy Index (REI)*
TCS	17.71	62.85
Infosys LIMITED	19.58	65.97
SML ISUZU	22.12	70.19
M&M Swaraj	25.68	76.14

**REI = (Score on RES + 20)*100/60*

engage in improvement activities, promote team culture that has increased the performance of the employees in their own role as well as the overall organizational performance.

SML ISUZU also has implemented the similar kind of activities with its employees but to some extent have been unable to obtain perfection and total employee engagement as compared to Swaraj which had 99.2% total

employee involvement in the interventions carried out. On the other hand for IT companies TCS and Infosys they lack such kind of activities due to large and diverse workforce which has led to employee denied of autonomy in their tasks.

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