



Locus of Control Influence the Managerial Effectiveness of Managers in the Telecommunication Industry of West Bengal

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Abstract

The objective of this study is to find out the relationship between locus of control and managerial effectiveness among the managers of telecommunication industries of West Bengal, India. The sample consisted of 200 managers from four telecommunication industry [Reliance Jio Limited (50), Bharti Airtel Limited (50), Vodafone Idea Limited (50) and Bharat Sanchar Nigam Limited (50)] of West Bengal. Research tools include Locus of Control Scale test designed and developed by Julian Rotter (1966) and the Managerial Effectiveness Scale developed by Prof. S. Gupta (1996). The sampling procedure used is stratified random sampling under probability sampling technique. Data analysis (t- test, correlation and regression analysis) was done using Statistical Package for Social Science (SPSS) version 20. The results revealed a statistically significant positive correlation between locus of control and managerial effectiveness. The results expressed that Locus of Control is a significant predictor of Managerial Effectiveness. The results also indicated that there is no significant mean difference within the managerial effectiveness of managers of four telecommunication industry.

Key Words: Locus of Control, Managerial Effectiveness, Organizations, Telecommunication Industry.

Introduction

Managerial Effectiveness

Managerial effectiveness defined as achieving the organizational goals and objectives effectively. Managers have to develop some qualities and skills to perform their jobs in effective manner in addition to some of the qualities managers have to develop emotional intelligence which refers non-cognitive skills, capabilities and competencies that influence manager's abilities to succeed in coping with environmental demand and pressures. According to Reddin (1970), managerial effectiveness is nothing

more than the output, and it is dependent upon the output with regards to one's position in the organisation. He emphasized upon the output without any mention of morale and satisfaction of group members. According to Black and Edward (1979), the best way to measure effectiveness is by obtaining difference between the quantity actually produced and the quantity planned. Likert (1961) had emphasized that a manager must be adaptive to a specific situation and needs of his / her followers resulting in. high degree of effectiveness in meeting the personal and organisational goals. According to Langford (1979), effectiveness is contingent upon the situation - the situation being the manager himself, his position, tasks assigned to him, the organisation and the socio-economic environment.

Locus of Control

The locus of control refers to an individual's perception of what controls his or her fate. It refers to the degree to which people believe that they can control their fate or any situation. In other words, who or what is responsible for what happens. Expectancy is a critical aspect of locus of control which predicts future events. The Locus of Control is a concept in Psychology, originally developed by Julian Rotter in the 1950s. The two 'locus of control', as established by the theory, are the internal and external locus of control. The Locus of Control represents how a person's decision making ability is influenced; essentially, those who make choices primarily on their own are considered to have internal locus of control, while those who make decisions based more on what others desire are said to have external locus of control. People with external locus of control are generally more apt to be stressed and suffer from depression as they are more aware of work situations and life strains. Internal locus of control appears to protect one against unquestioning submission to authority (Lefcourt, 1982). Internals are more resistant to influences from other people. They make more independent judgments and try hard to control the behaviour of others. They tend to assume more responsibility for their own behaviour and attribute responsibility to others. As a result, they are more likely to be punitive and less sympathetic than externals.

Review of Literature

Managerial Effectiveness

Dayal (1984), identified four important factors that are relevant for managerial effectiveness and these factors are clear understanding of the mission, shared organizational values, concern for customers and concern for developing the capabilities of employees.

Baron (1986), in his study, concluded that managers are perceived to be most effective by their members and succeed in exerting great influence on them when they behave in ways closely matched with the needs and values of members.

Balaraman (1989), in his study, suggested that personal characteristics of an individual manager is predictive of his effectiveness.

Judge et al., (1999) in their study hypothesised that managerial responses to organisational change are influenced by seven dispositional traits (locus of control, generalised self-efficacy, self-esteem, positive affectivity, openness to experience, tolerance for ambiguity, and risk aversion). In their study, the

seven traits were reduced to two factors: positive self-concept and risk tolerance. Both of these trait factors significantly predicted the self-report and independent assessments of coping with change.

Langford (1979), identified that the effectiveness is contingent upon the situation - the situation being the manager himself, his position, tasks assigned to him, the organisation and the socio-economic environment. According to Black and Edward (1979), the best way to measure effectiveness is by obtaining difference between the quantity actually produced and the quantity planned.

Hersay and Blanchard (1977), suggested that since the situation and needs of people keep changing one must be highly adaptive in order to be -an effective manager.

Margerison (1981) proposed that situation is important and if manager behaves appropriately in tune with the situation, then he is highly effective

Locus of Control

Locus of control theory was first articulated by Julian B. Rotter (1954). According to him locus of control is a theory in personality psychology suffering to the extent to which individuals believe that they can control events that affect them.

Mallik & Sabharwal (1999) indicated that externally controlled subjects perceived more stress in three areas viz Role expectations conflict, Role over load, and Role ambiguity.

Locus of Control (LOC) measures individual differences in the tendency to believe that environmental events are within one's control, as opposed to being outside one's control (Rotter, 1966; Kren, 1992).

Rotter (1966) LOC comprising Internal and External (I-E) reflects the extent to which people believe they exercise control over their lives or work (internally controlled) or the degree to which they feel their destinies are beyond their own control and are determined by fate, chance, or powerful others (externally controlled).

S. K. Nair and S. Yuvaraj (2000) supported the view that internality of locus of control is positively and significantly related with overall managerial effectiveness. The findings suggested that internally controlled managers were significantly higher on overall managerial effectiveness as compared to externally controlled managers.

Muhonen and Torkelson (2004) examined several studies in one of their writings and found positive relation between internal WLC and different organizational outcomes such as motivation, job performance, job satisfaction, perception of organizational climate and organizational commitment.

Shalini Srivastava (2010) conducted a study to explore the relationship between Job Burnout and Managerial Effectiveness as moderated by Perceived Organizational Support and Locus of Control and in his research study found that Job Burnout was negatively related to Managerial Effectiveness and Perceived Organizational Support and Locus of Control moderated Job Burnout and Managerial Effectiveness relationship.

Objectives of the Study

The objectives of the study are:

- to find out the managerial effectiveness among the managers of four telecommunication industries.
- to estimate the locus of control of the managers of different telecommunication industries.
- to find out the relationship between managerial effectiveness (ME) and locus of control (LOC) within telecommunication industries.
- to identify managerial effectiveness between two levels (external and internal) of locus of control of telecommunications industries.
- to estimate the effect of locus of control on managerial effectiveness .

On the basis of review of literature, the following hypotheses are formulated.

Hypotheses:

- H₁: The Managerial Effectiveness of different telecommunication industry such as (Reliance Jio Limited., Bharti Airtel Limited, Vodafone Idea Limited and Bharat Sanchar Nigam Limited) will differ significantly.
- H₂: There will be a significant difference of mean scores between male and female managers.
- H₃: Managerial Effectiveness will be positively correlated with Locus of Control (LOC) in four telecommunication industries.
- H₄: The mean of Managerial Effectiveness of externally controlled managers will be significantly different from internally controlled managers.
- H₅: Locus of Control will be significant predictor of Managerial Effectiveness.

Methodology

The study aimed at studying the managerial effectiveness of managers in the telecommunication industry considering the variables such as managerial effectiveness as dependent variable and locus of control as independent variable. The data is gathered randomly from the different categories of managers of four leading telecommunication industry of West Bengal, through survey questionnaire. The telecommunication industry selected for the study are: Reliance Jio, Bharti Airtel Limited, Vodafone Idea Limited and Bharat Sanchar Nigam Limited (BSNL). The study used both primary and secondary data sources of data. The primary data was collected by the investigator from the managers of the telecommunication industry. The sampling procedure used is stratified random sampling under probability sampling technique. The questionnaires were distributed among 280 managers of four leading telecommunication industry and from each industry 70 managers were given the questionnaire. However, only 212 of them have responded, 12 have been rejected due to incomplete fill up the questionnaire and finally 200 managers were used in the study.

The questionnaire was divided into three sections. Section A dealt with demographic information of the respondents. Section B dealt with Managerial Effectiveness of the respondents. The Managerial Effectiveness Scale was designed and developed by Prof. S. Gupta (1996) consisting of 45 items (35 items are positive and 10 items are negative) considering 16 dimensions. The items were measured on a 5-point Likert rating scale (where 1= Never, 2 = Sometimes, 3 = Undecided, 4 = Usually and 5 = Always) was used to anchor all above managerial effectiveness items. A few items (10 items) were worded negatively for which the scoring was reverse. A high score indicates high managerial effectiveness. Both Test-retest and Split-half reliability were found to be 0.73. The item correlations with the total score of Managerial Effectiveness Questionnaire (MEQ) were found to be high ($r = 0.73$) and statistically significant. Section C dealt with Locus of Control of the respondents. Locus of Control Scale developed by Julian Rotter (1966). The scale is consisted of a 29 pairs of items out of which 6 filler items and 23 items constituted the true scale and were used for the analysis. Items have measured by two alternate statements one loaded on externality and the other on internality. The items were a pair of alternatives lettered a or b. The participant has to make a choice between a or b. Scoring involves one point for each item. Hence the scores range from 0 to 23. The scale's internal consistency is adequate, ranging between 0.65 and 0.79, only its test-retest reliability varied between $r = 0.49$ and 0.83 (Rotter, 1966).

The sample details of managers studied from telecommunication industry of West Bengal are given below in Table- 1

The description of sample for the study is given below in Table - 1

Sl.No	Name of the Industry	Manager
1	Reliance Jio Limited	50
2	Bharti Airtel Limited	50
3	Vodafone Idea Limited	50
4	Bharat Sanchar Nigam Limited (BSNL)	50
Total		200

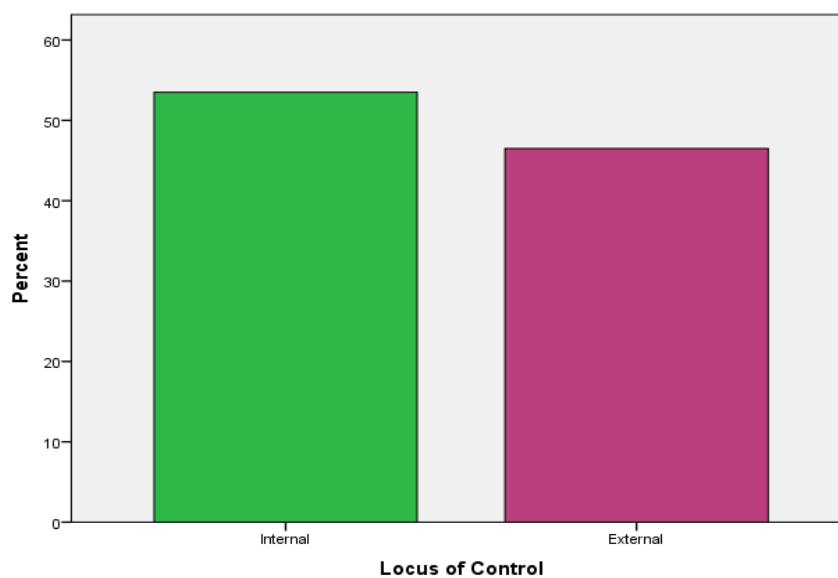
I. Data analysis and Interpretation

In this study relationship between locus of control and managerial effectiveness is studied in four telecommunication industries. The analysis of the collected data has been carried out with the help of SPSS (ver.20). All the hypotheses were tested using suitable statistical tests like t- test, ANOVA, correlation and regression. The statistical inferences have been drawn at 5 % level of significance ($p = 0.05$).

i) **Locus of Control:****Table 1: Locus of Control of Managers**

Locus of Control		Total
Internal	Count	107
	% of Total	53.5 %
External	Count	93
	% of Total	46.5 %
Total	Count	200
	% of Total	100.0 %

Table 1 reveals that the majority of managers 107 (53.5 %) had an internal locus of control, and 93 (46.5 %) managers had an external locus of control (See figure 1).

**Figure 1: Graphical representation of Locus of Control of Manager**ii) **Gender:****Table 2: Gender**

Gender		Total
Male	Count	163
	% of Total	81.5 %
Female	Count	37
	% of Total	18.5 %
Total	Count	200
	% of Total	100.0 %

The above Table 2 shows that in West Bengal, female managers are less in number as compared to the male managers in telecommunication industry. Gender-wise distribution of the sample shows that 163 (81.5 %) are male managers and 37 (18.5 %) are female managers.

The gender composition of the managers included in this study is shown in Figure

2.

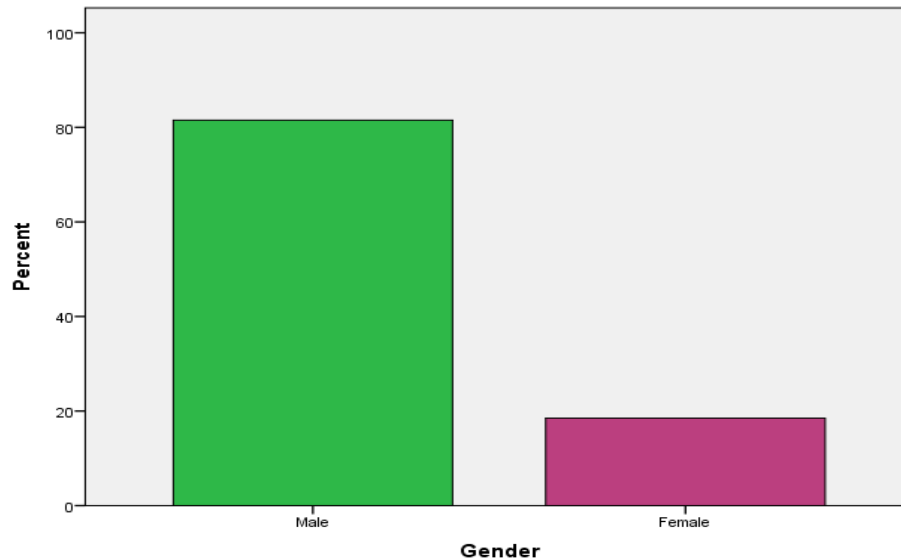


Figure 2: Graphical representation of Manager with Gender

Results:

Results according to the formulated hypotheses are given below.

H₁: The Managerial Effectiveness of different telecommunication industry such as (Reliance Jio Limited., Bharti Airtel Limited, Vodafone Idea Limited and Bharat Sanchar Nigam Limited) will differ significantly.

In order to test the difference in managerial effectiveness within different telecommunication industry, following analysis has been done and the results are reported below.

Table 2.1: Descriptive Statistics of Managerial Effectiveness within Managers in Telecommunication Industries

Groups of Managers	N	Mean	SD
Reliance Jio Limited	50	164.48	24.14
Bharti Airtel Limited	50	164.24	23.88
Vodafone Idea Limited	50	160.88	23.56
Bharat Sanchar Nigam Limited (BSNL)	50	160.10	22.89
Total	200	162.43	23.52

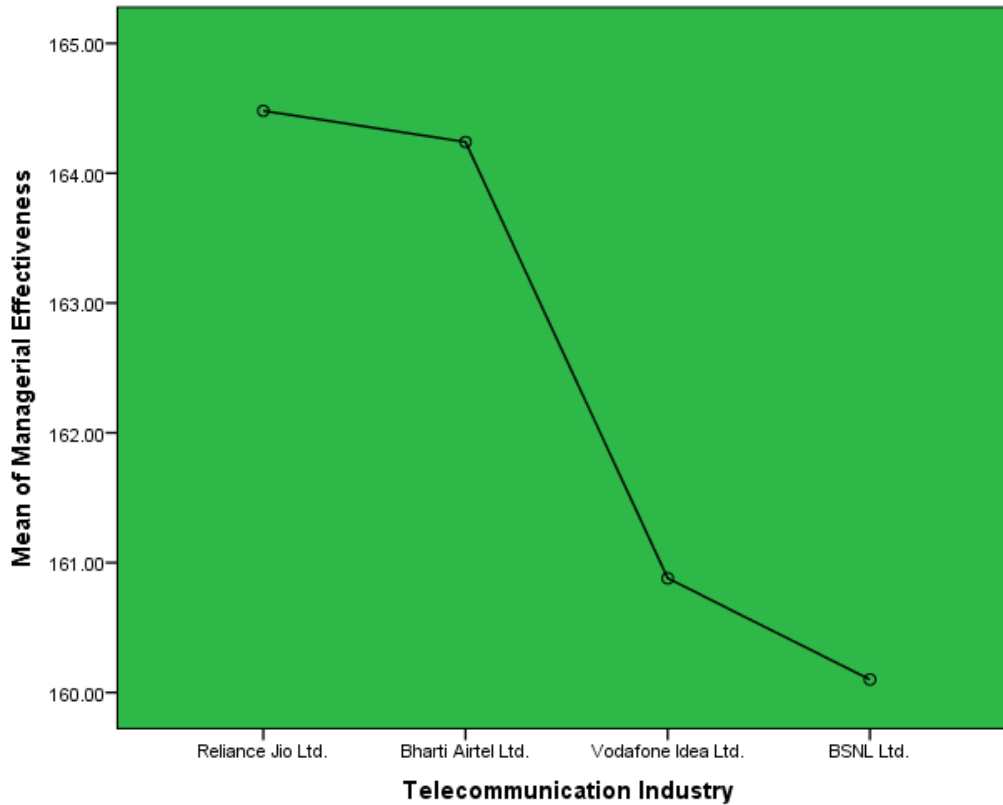


Figure 3: Graphical representation of ME of Managers within Telecommunication Industry

Figure 3 indicates that the Managerial Effectiveness is higher of Reliance Jio than that of Vodafone and BSNL, and the differences are statistically significant.

Table 2.2: Results of ANOVA comparing Managerial Effectiveness of different Telecommunication Sector

	Sum of Squares	df	Mean Square	F	Level of Significance
Between Groups	765.495	3	255.165	.457	.712
Within Groups	109355.380	196	557.936		
Total	110120.875	199			

From the above Table 2.2, it was found that the calculated value of F is .457 and the corresponding significant value is 0.712 which is higher than 0.05 ($p > 0.05$). Hence the alternative hypothesis (H_1) is rejected. Therefore it can be concluded that, in the sample though Reliance Jio managers are more effective in comparison to Vodafone and BSNL, there is significant mean difference of managerial effectiveness within these telecommunication industries.

H₂: There will be a significant difference of mean scores between male and female managers.

In order to test the hypothesis, t-test has been applied. The result is shown below in Table - 3

Table 3: t-test comparing means of Managerial Effectiveness of male and female Managers

Groups of Managers	N	Mean	SD	t	Level of Significance
Male	163	161.57	24.40	.245	.807
Female	37	162.62	23.39		

Table 3 reveals that the value of $t = .245$, statistically which is not significant at 0.05 level. Thus the alternative hypothesis is rejected. The result leads to infer that the mean of the managerial effectiveness of the female managers are higher in comparison to mean of the managerial effectiveness of male managers.

H₃: Managerial Effectiveness will be positively correlated with Locus of Control (LOC) in Telecommunication Industry.

In order to know the degree and nature of relationship between ME and LOC, the correlation coefficient has been calculated. The results are reported below.

Table 4: Correlation between ME and LOC Scores of all Managers of Telecommunication Industry

	N	Mean	SD	r	Level of Significance
ME	200	162.43	23.52	.344**	0.000
LOC	200	11.06	3.33		

**Correlation is significant at the 0.01 level (2 - tailed)

From the above Table 4, it was found that the correlation coefficient (r) is 0.344 with a p (significance level, two-tailed) = 0.000. As the table showed $p < 0.05$, the H_3 is accepted.

H₄: The mean of Managerial Effectiveness of internally controlled managers will be significantly different from externally controlled managers.

Table 5: t-test of ME of Internally and Externally controlled Managers of the Telecommunication Industry

	LOC	N	Mean	SD	t	Level of Significance
ME	Internal	107	163.78	23.64	.870	0.385
	External	93	160.87	23.42		

From the above Table 5, the observed result showed that the calculated value of $t = .870$, with a p (significance level, two-tailed) = 0.385. As the table showed $p > 0.05$, the H_4 is rejected.

H₅: Locus of Control may be a significant predictor of Managerial Effectiveness

Table 6.1: Model Summary of LOC

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.344 ^a	.119	.114	22.4039

a. Predictors: (Constant), LOC

Table 6.1 shows that the correlation co-efficient (R) between ME and LOC is 0.344 and the adjusted R^2 is 0.114 meaning that 11 % of the variance in managerial effectiveness can be predicted from the locus of control. Adjusted R^2 is lower than the unadjusted R^2 .

Table 6.2: Results of ANOVA^a in terms of LOC

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13061.862	1	13061.862	26.646	.000 ^b
	Residual	97059.013	198	490.197		
	Total	110120.875	199			

a. Dependent Variable: ME

b. Predictors: (Constant), LOC

From the Table 6.2, it was observed that $F = 26.646$ with a $p = 0.000$. As the table showed $p < 0.05$, hence the alternative hypothesis is accepted. Therefore, it can be concluded that locus of control is a significant predictor of managerial effectiveness of managers.

Table 6.3: Results of Coefficients of ME and LOC

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	135.532	5.440		24.915	.000
	LOC	2.432	.471	.344	5.162	.000

a. Dependent Variable: ME

Table 6.3, reveals that the value of $t = 5.162$, which is significant at 0.05 level. As the Table showed $p < 0.05$, the alternative hypothesis is accepted. The result leads to infer that the locus of control is a significant predictor of managerial effectiveness of managers in telecommunication industry of West Bengal. The predictor equation would be as follows:

$$\text{Managerial Effectiveness (ME)} = 135.532 + 2.432 \text{ LOC}$$

Findings and Suggestions

The objectives of the study were to examine the relationship between managerial effectiveness and locus of control in case of telecommunication industry in West Bengal. The relationship between the managerial effectiveness and locus of control were analysed using correlation analysis. Five hypotheses were stated prior to the study and all of them were analyzed with suitable statistical tests. The statistical inference were drawn at 5% level of significance ($p = 0.05$). From the analysis of data under study, following major or specific findings are given below to verify the objectives and hypotheses identified in this study.

Major Findings:

- i) The difference between the mean scores of the managerial effectiveness within the telecommunication industry (Reliance Jio Ltd., Bharti Airtel Ltd., Vodafone Idea Ltd., and BSNL) managers are not statistically significant.
- ii) Significant correlation was found between managerial effectiveness and locus of control.
- iii) The difference between the mean scores of the managerial effectiveness of two levels of locus of control (External LOC vs. Internal LOC) are not significant in telecommunication industry of West Bengal.
- iv) Locus of control has a strong positive correlation towards managerial effectiveness.
- v) Locus of control is a significant predictor of managerial effectiveness in telecommunication industry of West Bengal.

I) Discussion of Major Findings:

The hypotheses formulated in the study are tested statistically.

Table 2.1 depicted that there was no significant mean difference of the managerial effectiveness of the managers within private banks as $p > 0.05$ level for the four telecommunication industry [F (3,196) = .457, $p = 0.712$]. The F-test failed to reveal a significant difference between the mean ME scores of Reliance Jio (M = 164.48, SD = 24.14), Bharti Airtel (M = 164.24, SD = 23.88), Vodafone Idea (M = 160.88, SD = 23.56) and BSNL

(M = 160.10, SD = 22.89). The result suggests that there is no significant mean difference of the managerial effectiveness of the managers within the telecommunication industry of West Bengal.

The t-test result shown in Table 3 indicated that there is no significant difference in the means of the managerial effectiveness of the male and female managers in telecommunication industry. Though the mean of managerial effectiveness of the female managers are higher than the male managers, the mean difference is not statistically significant. Managerial effectiveness of the managers in telecommunication industry does not differ according to gender. The mean score for managerial effectiveness of the male manager was 161.57 and it was 162.62 in the case of female managers. It is found from the Table 3 that the calculated value of t is 0.245 and the corresponding significant value of

.807 which is higher than 0.05 ($p > 0.05$).

Table 4 shows the correlation of the locus of control with managerial effectiveness. There was a positive correlation between managerial effectiveness and locus of control in telecommunication industry ($r = .344$, $p = 0.000$). Data represented in this table are indicative of a good correlation between the two test parameters: Locus of Control and Managerial Effectiveness. Thus, in order to achieve managerial effectiveness at highest level, locus of control should be monitored. Hence high level locus of control leads to high level of managerial effectiveness in case of telecommunication industry. This implies that locus of control helps the managers for the enhancement of their managerial effectiveness in telecommunication industry.

It is found from the Table 5 that the calculated value of t is 0.870 and the corresponding significant value of .385 which is higher than 0.05 ($p > 0.05$). The t -test result indicated that there is no significant difference in the means of the managerial effectiveness scores of the internally and externally controlled managers in telecommunication industry. The impact of locus of control on managerial effectiveness was studied by dividing the sample into two groups based on the median score of LOC and the t -test was conducted to measure the significance of the difference of the mean of ME score of the managers in telecommunication industry. There were 107 managers in the internal LOC groups ($M = 163.78$, $SD = 23.64$) and 93 in the external LOC groups ($M = 160.87$, $SD = 23.42$).

Hypotheses five stated that locus of control can predict the managerial effectiveness. The regression equation states that

$$\text{Managerial Effectiveness (ME)} = 135.532 + 2.432 \text{ LOC}$$

Hence to measure the managerial effectiveness of the managers the parameter locus of control plays a crucial role. The locus of control affects the quality of managerial effectiveness, and hence sustainability in managerial effectiveness might be maintained / monitored by improving the locus of control.

Managerial effectiveness of the manager is related with the locus of control of manager. Higher the internal LOC, higher is the effectiveness. To become an effective manager, one must have high internal LOC.

Conclusion

Based on empirical data generated by the study, it is reasonable to conclude that locus of control is a significant predictor of managerial effectiveness of managers in telecommunication industry of West Bengal. There is no significant mean difference within the telecommunication industry such as Reliance Jio Ltd., Bharti Airtel Ltd., Vodafone idea Ltd., and BSNL. This helps to conclude that high level of internal LOC could lead to high managerial effectiveness. The findings of the study ensure the need for the development of locus of control among managers for enhancing their managerial effectiveness. This conclusion of the present study supported by few earlier studies (e.g., Daftuar et. al., 2000 and Shipper et. al., 2003).

Suggestions

There is scope for further research on other dimensions of managerial effectiveness. Demographic parameters such as income, age group, educational qualification, area of activity (rural, urban and semi-urban), gender (male & female), & experience of sampled managers may be taken into consideration for further evaluation of managerial effectiveness. Apart from locus of control, other independent variables can be identified and studied to predict managerial effectiveness more accurately. This study may be worked out within a particular district or between two districts taking into consideration the census data related with the above mentioned demographic parameters. This study may be conducted only taking the branch managers of public and private sector banks.

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