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ROLE OF MANAGEMENT SKILLS IN ELECTRIFICATION OF GADCHIROLI DISTRICT

Suresh R. Ladke* Dr. Niyaj S. Sheikh**
**Ph.D Scholar, Gondwana University, Gadchiroli.*
***Assistant Professor, Ph.D Supervisor - Gondwana University, Gadchiroli.*

Abstract
The reason for selecting this subject for the research is that though the Maharashtra Government & Maharashtra State Electricity Distribution Company is trying for 100% electrification of Gadchiroli District ,they have not succeed so far.

The Government authority is taking efforts with the help of other agencies such as MEDA to achieve the goal. In addition to above the help of other agencies such as Forest department, local people is essential for the development of Tribal community residing in inner part of dense forest, the electricity is most essential amenity.

The main aim of our Government is to provide electricity in the hut of every poor population which is residing in the rural & inner part of India. The central Government had launched Rajiv Gandhi Gramin Vidhyutikaran Yojana throughout the country. Also the work of electrification is started from the year 2008.Near about 90% electrification work is carried out successfully in rural area, but due to local geographical condition the 10% electrification is still remain in inner rural area. The opportunities available for Tribal people in Gadchiroli District but these classes are not equipped to be chosen for the same. Due to lack of electrical facility large number of population is not compatible in the modern habitation.

Keywords: Electrification, Gadchiroli, Management skills.

Introduction

There is large gap between generation and need of electricity. There are two ways to cope up the gap. One is supply management (Increasing the power availability as per demand) and the other is demand side management (Decreasing the demand as per power availability). Accordingly for supply side management Government is taking necessary steps for increasing the generation but it is the time consuming and costly solution. The other alternative is to reduce the demand by reducing the consumption. Between these if we have 40 % to 50 % energy loss between transmission and distribution of electricity then by minimizing these with proper energy management we can reduce the power crises. M.S.E.D.C.L. is distributing power to about 211 Lac consumers all over the Maharashtra. Due to power crises consumer faces load shading. So the need is to go for better situation by participation at each level, i.e. Government, M.S.E.D.C.L. Management and Employees, consumers and consumer associations. It is also observed that these people requires proper training in order to enhance their Managerial Skills & in turn enhance contribution in energy saving. This thesis basically analyses relationship between uses of management skills & constraints removal for electrification. Again with this study, Government will be benefited by lowering the financial burden for generation of energy. Organization will be benefited by demand side management of energy and can cope up with the energy crises up to great extent. Society will be benefited by reduced use of fossil fuels for energy generation which will reduce the emission of greenhouse gasses contributing the global warming. Consumer will be benefited by more availability of power and reduce interruption.

Restoration of the financial health of SEBs and improvement in their operating performance continues to be a critical issue in the power sector. The Electricity Act of 2003 contains provision for securitization of accumulated SEB dues. One per cent reduction in T&D loss can save additional capacity of 800 MW. Reduction of technical losses by 6,000 – 7,.000 MW is expected to obviate the need of fresh capacity addition to an extent of 9,000 to 11,000 MW avoiding investments to the tune of Rs. 40,000 crore to Rs. 60,000 crore. These all things encourage researcher to carry out research in the areas of electrical energy management.

Objectives of the study

The objectives of study are as under.

1. To study the Human Resource Management practices for speed up of 100 % Electrification.
2. To suggest ways & means for effective Human Resource Management skill in the 100% electrification of Gadchiroli District.
3. To study role of M.S.E.D.C.L. management and employees in 100% electrification of Gadhchiroli District.

Scope and Significant

1. The research will help to analysis the effect of Government policies to electrical power distribution companies for electrification process in Gadchiroli District.
2. The research will help to focus the attention of M.S.E.D.C.L. management and employees towards electrification by proper human resource management.

Hypothesis

Hypothesis for the study is given as under:

1. M.S.E.D.C.L. management is not focusing towards enhancing managerial skills of employees about electrification according to line staff representative.

According to Line Staff Representatives

Statistical Hypothesis:

H0: M.S.E.D.C.L. management is trying best for focusing towards enhancing managerial skills of employees about electrification according to line staff representative.

vs

H1: M.S.E.D.C.L. management is not focusing towards enhancing managerial skills of employees about electrification according to line staff representative.

Step 1: Cranach's Alpha Reliability Test

To test this hypothesis total 11 variables are considered and for conducting the pilot survey initially first 5 samples of Line Staff Representatives were tested to find the internal consistency among the variables as to support the objective of the hypothetical statement under consideration. The result using SPSS software is given as

Reliability

Scale: All Variables

Case Processing Summary			
		N	%
Cases	Valid	5	100.0
	Excluded[a]	0	.0
	Total	5	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.712	11

Inference: The variables under this model are acceptable to carry the investigation without changing any of the constraints. The total samples size of 30 Line Staff Representatives is required for testing this hypothesis.

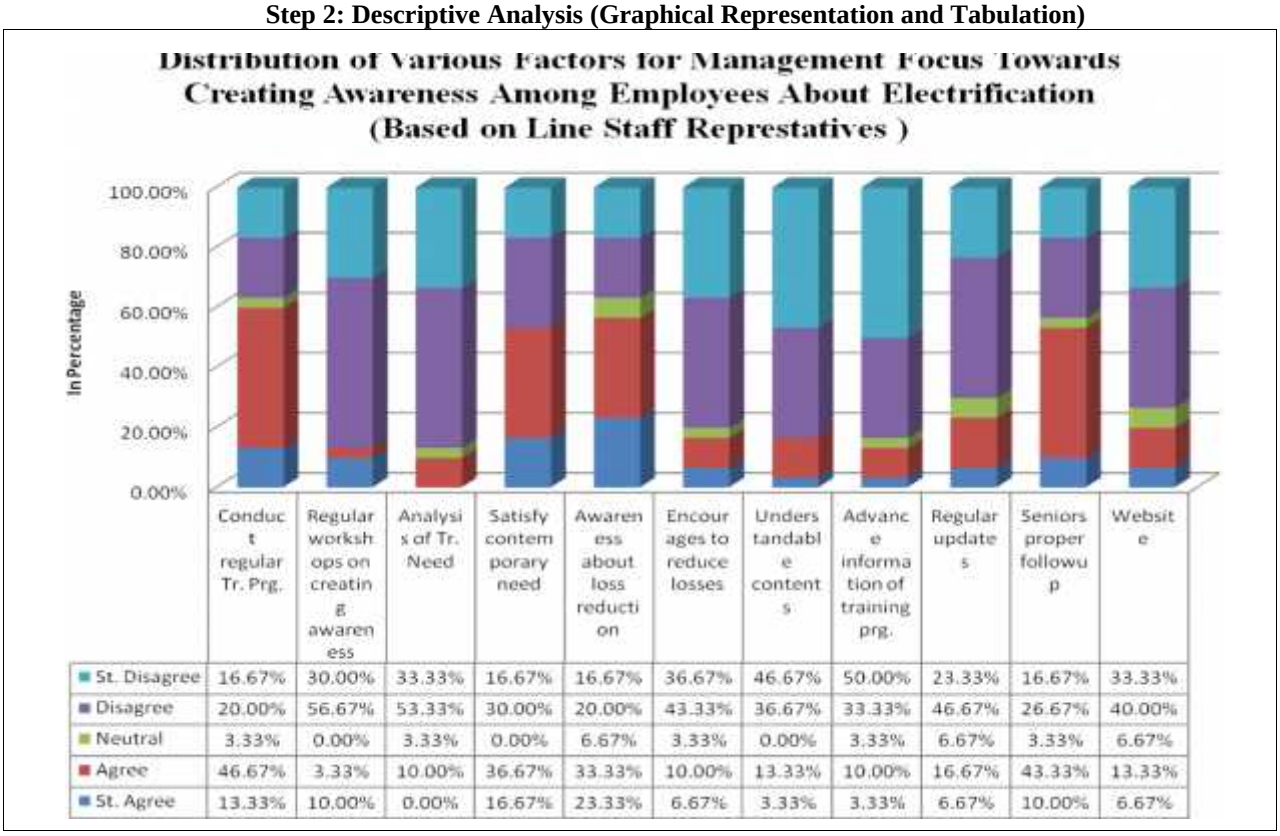
Item Statistics			
	Mean	**Std. Deviation**	**N**
Conduct regular Tr. Prg.	2.20	1.643	5
Regular workshops on creating awareness	3.00	1.871	5
Analysis of Tr. Need	4.00	1.225	5
Satisfy contemporary need	2.00	1.225	5
Awareness about loss reduction	2.40	1.517	5
Encourages to reduce losses	3.20	1.643	5
Understandable contents	4.20	1.304	5
Advance information of training prg.	3.40	1.817	5

Regular updates	3.40	1.342	5
Seniors proper followup	2.40	1.140	5
Website	3.80	1.304	5

Observation

At the initial stage it can be observed that the variables having Mean < 3 are in favour while Mean >=3 are not in favour of the optimistic fact that M.S.E.D.C.L. management is focusing towards creating awareness among employees about electrification**.** Std. Deviation indicates the spread of scale point among the variables.

Step 2: Descriptive Analysis (Graphical Representation and Tabulation)



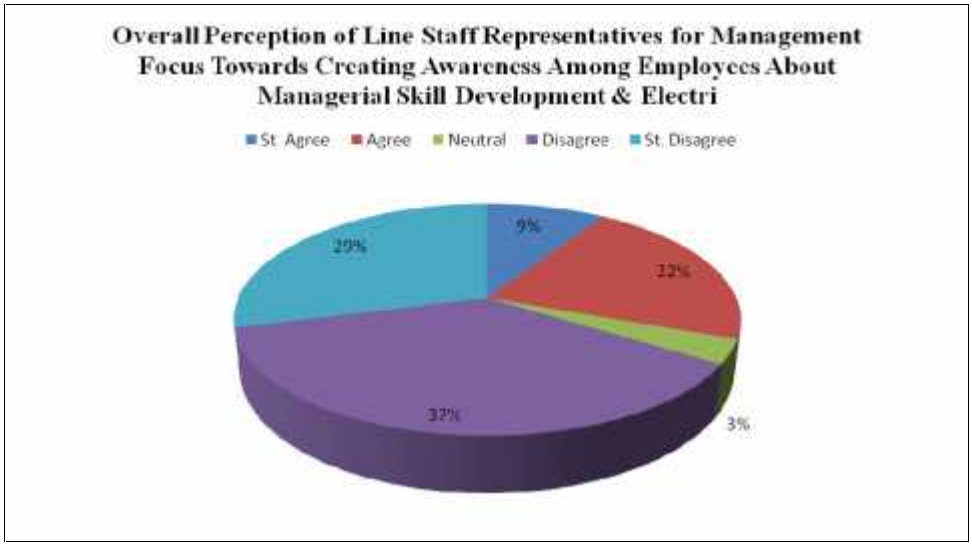
Based on the given graph following facts can be observed:

1. Conduction of regular training program is agreed by 60% of the Line Staff Representatives.
2. Line Staff Representatives are having an average opinion that the training program is designed to satisfy contemporary need to reduce losses.
3. They also have an average opinion that the training program spreads proper awareness about loss reduction mechanism.
4. Seniors are most of the time supportive to check whether the loss of reductions is under controlled.
5. For remaining all other variables the Line Staff Representatives are having negative opinions.

The summary of the stated facts is tabulated and graphically represented in the pie chart as follows:

.Sr.No.	LSR Factors	In favor	Not in favor	Remark
1	Conduct regular Tr. Prg.	60.00%	40.00%	Focused
2	Regular workshops on creating awareness	13.33%	86.67%	Not Focused
3	Analysis of Tr. Need	10.00%	90.00%	Not Focused

4	Satisfy contemporary need	53.33%	46.67%	Avg. Focused
5	Awareness about loss reduction	56.67%	43.33%	Avg. Focused
6	Encourages to reduce losses	16.67%	83.33%	Not Focused
7	Understandable contents	16.67%	83.33%	Not Focused
8	Advance information of training prg.	13.33%	86.67%	Not Focused
9	Regular updates	23.33%	76.67%	Not Focused
10	Seniors proper follow-up	53.33%	46.67%	Avg. Focused
11	Website	20.00%	80.00%	Not Focused
	Overall Result	30.61%	69.39%	Not Focused



Only 31% among the Line Staff Representatives are in positive opinion where as 69% have their opinion that the A) M.S.E.D.C.L. management is not focusing towards enhancing managerial skills of employees about electrification

Step 3: Predictive Analysis

A regression model is build to determine the impact and significance of each of 11 input variables. The dependent (output) variable is the derived variable taken as the mode (maximum) of each response given by the 30 Line Staff Representatives. The use of statistical software SPSS determines the following facts.

Regression

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.796[a]	.634	.410	.819

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a. Predictors: (Constant), Website, Regular workshops on creating awareness, Analysis of Tr. Need, Encourages to reduce losses, Seniors proper followup, Understandable contents, Awareness about loss reduction, Advance information of training prg., Conduct regular Tr. Prg., Satisfy contemporary need, Regular updates

ANOVA[b]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	20.903	11	1.900	2.835	.024[a]
	Residual	12.064	18	.670		
	Total	32.967	29			

a. Predictors: (Constant), Website, Regular workshops on creating awareness, Analysis of Tr. Need, Encourages to reduce losses, Seniors proper follow-up, Understandable contents, Awareness about loss reduction, Advance information of training prg., Conduct regular Tr. Prg., Satisfy contemporary need, Regular updates

b. Dependent Variable: Max_Response

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.831	1.385		-1.322	.203
	Conduct regular Tr. Prg.	.237	.143	.306	1.665	.113
	Regular workshops on creating awareness	.084	.174	.092	.480	.637
	Analysis of Tr. Need	.227	.187	.188	1.215	.240
	Satisfy contemporary need	-.082	.153	-.110	-.532	.601
	Awareness about loss reduction	.043	.120	.058	.355	.727
	Encourages to reduce losses	.124	.151	.139	.820	.423
	Understandable contents	.379	.149	.410	2.537	.021
	Advance information of training prg.	.236	.162	.247	1.458	.162
	Regular updates	.284	.192	.324	1.479	.156
	Seniors proper followup	-.191	.135	-.242	-1.414	.174
	Website	.152	.176	.177	.862	.400

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.796[a]	.634	.410	.819
a. Dependent Variable: Max_Response				

Observations

1. The Model summary table indicates that the model is capable of determining 41% of the prediction.
2. The ANOVA Table states that the model is significant to determine the fact under consideration i.e. $H1_{1a.LSR}$.
3. In Coefficients Table the negative sign of the constant (intercept) support the fact under consideration of non focus.
4. The variables like Satisfy contemporary need and Senior proper follow up have negative coefficient adds to the fact under consideration but are not significant and support $H0_{1a.LSR..}$
5. The significant variable to support $H1_{1a.LSR}$ Understands the content of the training program by the Line Staff Representatives.

Step 4: Inferential Analysis

The significance of 11 variables is tested for their responses measured on 5 point scale using Chi-square Statistics. The use of statistical software SPSS determines the following facts.

Chi-Square Test

Test Statistics											
	Conduct regular Tr. Prg.	Regular workshops on creating awareness	Analysis of Tr. Need	Satisfy contemporary need	Awareness about loss reduction	Encourages to reduce losses	Understandable contents	Advance information of training prg.	Regular updates	Seniors proper followup	Website
Chi-Square	15.667[a]	20.667[b]	18.800[b]	3.600[b]	5.667[a]	20.667[a]	14.533[b]	26.000[a]	16.333[a]	14.667[a]	14.667[a]
df	4	3	3	3	4	4	3	4	4	4	4
Asymp. Sig.	.004	.000	.000	.308	.225	.000	.002	.000	.003	.005	.005
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0.											
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5.											

Note: In some variables df =3 is due to non existence of neutral response.

Interpretation: Only variables like Satisfy contemporary needs and Awareness about the loss reduction support the Null hypothesis. Since maximum of the variables has their p value <0.05 indicate that they are significant to reject the Null Hypothesis $H0_{1a.LSR}$ and accept the Alternative Hypothesis $H1_{1a.LSR}$ under consideration.

Hypothesis Testing Result

The Line Staff Representatives are in opinion that the M.S.E.D.C.L. management is not focusing towards enhancing managerial skills of employees about electrification according to line staff representative.

Conclusion

Power sector is the driver of growth of the country. India has an inadequately developed infrastructure in respect of electrical energy. About two billion population of the world is reported to have no access to enjoy the benefits of electrical energy. In India, about 360 million people are still deprived of enjoying direct benefits of electrical power. The overall power shortage in the country is 7.2 percent and the peak load power shortage is about 11.2 percent. This is likely to have a worsening trend because the ever increasing demand is more than what we are able to add to the power generation capacity.

Line Staff Representative feels that there should be proper training program to enhance managerial skills of employees so that the complete electrification target can be achieved. These programs should educate various stakeholders at various levels

in the area of complete electrification. The biggest challenge in these training programs is the attitude of the stakeholder. With negative attitude people will not be able to learn complete electrification techniques & loss reduction techniques. The administrative staff of the MSEDCL also feels that the employees are reluctant to adopt new techniques to reduce the losses & for complete electrification.

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