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Power Sector Reforms in Madhya Pradesh and its Impact on Employees

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Abstract:

In last decade, Madhya Pradesh has undergone major reforms in the sector of electricity. There were several reasons due to which the need of change was realised. Large power cuts, Transmission and Distribution (T&D) losses above 40%, power theft, increasing bad debts and dependence on power purchase, increments in tariff for consumers and rising burden on government subsidy were some of the reasons for the same. Several regulations were made by the government in order to curb these problems related to electricity board. With such regulations, both employees as well as the consumers were affected. In this paper, it is a study about the impact of reform was observed in employees and their work efficiency.

Introduction:

Electricity sector of Madhya Pradesh experienced restructuring in early 1990s. Even after a decade of restructuring process certain drawbacks were still visible like large power cuts, Transmission and Distribution (T&D) losses above 40%, power theft, increasing bad debts and dependence on power purchase, increments in tariff for consumers and rising burden on government subsidy. Madhya Pradesh Electricity Board (MPEB) got established under the Indian Electricity (Supply) Act, 1948. Very much like other State Electricity Boards (SEB) in the country, MPEB functioned within the guidance of State Government as a vertically integrated monopoly and communicating with the central power utilities for planning and co-ordination. In early 1990s, MPEB started facing problems of increase in deficit in the balance sheet, increasing Transmission & Distribution (T&D) losses, power shortages and poor quality of power supply. The purchase power dependence from the Central Sector started to rise as peak power deficit reached as high as 25% and as a result the total expenses enhanced. It was revealed that since 1992, MPEB could not even achieve the minimum return of 3% over Net Fixed Assets as stipulated by the Electricity Supply Act, 1948 through its revenues. This caused revenue subsidy from the state government to grow from Rs. 380 Crores in 1993 (19% of revenue) to Rs 1697 Cr in 1999 (40% of revenue). [Planning Commission, 2002] finally the MPEB became handicapped in raising funds for investment in generation, transmission and distribution which was the major impacts of such worsening financial situation. This results to further aggravated sector's poor condition.

These were the major reasons which led to the reformation of prevailing Madhya Pradesh Electricity Board to different companies with their own powers vested with them.

Table 3.3 : Revenue-Expenditure Statement of Madhya Pradesh State Electricity Board

Details	FY 2001 (in crore)	FY 2002 (in crore)
Total Revenue	3707	4029
Total Expenditure	6027	6024
Profit/(Loss)	(2321)	(1995)

Source: Madhya Pradesh State Electricity Board Tariff Petition 2002

The table shows the difference in revenue and expenditure of Madhya Pradesh State Electricity Board for the year 2002. It gives clear indication that Board was experiencing heavy losses because of the inefficiency in working and poor quality service delivery.

Madhya Pradesh Electricity Sector

In the last 50 years, the Indian Electricity sector has made a big leap by increasing the installed capacity of electricity from about 1300 MW at the time of Independence to about installed capacity of 245.394 GW as of end April 2014. This includes the country in the producers

which is the world's fourth largest. Among which the state of Madhya Pradesh share about 4675 MW as on 01-04-2014.[1]

Government of Madhya Pradesh merged the Madhya Pradesh State Electricity Board (MPSEB) with the newly formed company named as Madhya Pradesh Power Management Company Limited (MPPMCL) in order to enhance the effective working and improving efficiency. With such decision, the Board that was around five decade old came to stop and formed a newly made power company. Madhya Pradesh Electricity Board (MPEB) was formed on November 1, 1956. Once it was concerned to be one of the best Boards in the country with a huge financial reserve and no drawbacks concerned with employees or customer satisfaction. Memorandum of Understanding was made between Ministry of Power, Government of India GOI), and Government of Madhya Pradesh (GOMP) to bring about the reform of the power sector in Madhya Pradesh. Also to set the reform measures which Madhya Pradesh has to implement and support from government which is expected to be received. The reform programme included[1]: Memorandum of Understanding between Ministry of Power, Government of India and The Government of Madhya Pradesh

1. Reorganisation of Electricity Board.
2. Rural Electrification Programme.
3. Energy Audit
4. State Electricity Regulatory Commission.
5. Rationalisation of Tariffs.

The Asian Development Bank (ADB) approved loans total to US$350 million to help restructure the power sector in the central Indian state of Madhya Pradesh. The loan was approved to help one of the largest State of India i.e. Madhya Pradesh to create a more efficient, competitive, commercially run, and financially viable power sector to support the economic and social development.

Soon after the new state Chhattisgarh was carved out of Madhya Pradesh, MPEB was renamed as MPSEB (Madhya Pradesh State Electricity Board) on November 1, 2000. Just before the separation of Chhattisgarh state and renaming of MPSEB, the financial condition of the board started to deteriorate. But soon after the creation of Chhattisgarh, the Board's financial health got worst because of the fact that it had to give up with some its power stations to the new state, though the agriculture load remained intact with MPSEB. Overview of newly created state of Madhya Pradesh is depicted in the table:

[1] http://www.mppgenco.nic.in

Table 1 : Power sector in the New Madhya Pradesh State (2004)

Total Installed capacity MW	2,273
T&D infrastructure ('000 circuit km)	583
Energy handled Million Units (MU)*	28,558
Consumers (million)	6.44
Employees	60,028
Number of agricultural pumps energized (million)	1.3
Villages electrified	51,806 (97%)
Electrified households (Rural) million	8.13 (62%)

[Note: All figures refer to financial year 2004]

* This includes power purchase. MU stands for Million Units (Million kWh)

[Source: MPSEB 2005, CEA 2005]

There was legal argument between the two states over what they called inequitable distribution of asset and liabilities of MPEB. Crisis of power crisis continued to plague the state and as a result the state has to witness power cuts ranging from two hours to fourteen hours daily during the Rabi season. The companies so formed within reformation were experiencing huge losses even after a decade of reform in electricity sector. Madhya Pradesh was included among the seven states were the cost of electricity was at higher side.

The inequitable distribution of assets and liabilities between Madhya Pradesh State Electricity Board (MPSEB) and Chhattisgarh State Electricity Board (CSEB) has had a devastating effect on the MPSEB. Madhya Pradesh with 73% of the total population and 785 of energy consumption got only 68% of the total installed capacity and 64% of revenues. CSEB's cost of generation, after the division of the state was only 77 paise /K WH. As opposed to this, MPSEB's cost of generation shot up to Rs. 127paise/K WH.MPEB's annual loss of about Rs. 1100 crore and power shortage of about 1070MW was divided in such a manner that CSEB was born with an annual profit of about Rs. 930 crore and a power surplus of about 758 MW. On the other hand, MPSEB's power deficit rose to a level of about 1,692 MW and losses almost doubled to Rs. 2100 crore.[2]

[2] Infraline/ Madhya Pradesh power white papers by government of India

Consequences of Division of the state are tabulated below:

Table 2 : Comparison of Electricity Status between Madhya Pradesh and Chhattisgarh

Parameter	**MPSEB**	**CSEB**
Population	73%	27%
Power Consumption	79%	21%
Energy Consumption	78%	22%
Installed Capacity (MW)	3000 (68%)	1250 (32%)
CGS share (MW)	2 1116 498	
Peak Demand (MW)	5700	1100
Peak surplus / deficit (MW)	1690	758
Agricultural pumps (million)	1.18 (94%)	0.06 (6%)
Employees	78%	22%
Revenues	64%	36%
Liabilities	78%	22%

Annual profit / loss (Rs Cr) -2100 930

Source: infraline white paper by government of MP, 2001.

Formation of the Commission

The Madhya Pradesh Electricity Regulatory Commission (MPERC) was constituted on 20th August, 1998 by Government of Madhya Pradesh (GOMP) with Gazette Notification under Electricity Regulatory Commission's Act, 1998. Soon, the Madhya Pradesh Vidyut Sudhar Adhiniyam, 2000 came into effect from 03-07-2001. Thus, the State Regulatory Commission was constituted under State Act. After the constitution of Madhya Pradesh Electricity Regulatory Commission, the state did not vest any powers for its regulatory functions. Parliament enacted the Electricity Act 2003 (No. 36 of 2003) came into force w.e.f. 10th June 2003 and the Commission got constituted and functions under the provisions of Electricity Act 2003.

Madhya Pradesh Electricity Regulatory Commission (MPERC) and Institutional Arrangement:

Madhya Pradesh electricity sector became financially non viable with the continuous increase in demand of electricity, shortages of supply, distribution loss and deficit finance. With all these factors the Madhya Pradesh Electricity Board was dissolved and formed in private distribution utilities. Following are the brief description of the companies so formed within Madhya Pradesh Electricity sector:

- **Madhya Pradesh Power Management Company Limited (previously named Madhya Pradesh Power Trading Company Limited)**
- **Madhya Pradesh Power Generating Company Limited (MPPGCL)**
- **Madhya Pradesh Power Transmission Company Limited (MPPTCL)**
- **Madhya Pradesh Paschim Kshetra Vidyut Vitran Company Limited (MPPKVVCL)**
- **Madhya Pradesh Poorv Kshetra Vidyut Vitran Company Limited (MPPKVVCL)**
- **Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL)**

Table 3 : Distribution Losses Reduction Trend by DISCOMs 2013-14

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
East Discom	23%	20%	18%
West Discom	20%	18%	16%
Central Discom	23%	21%	19%

Source: Aggregate Revenue Requirement and Retail Supply Tariff Order 2013-14

Reformation and Employees:

Employees are considered to be the heart and soul of any organization. In electricity sector of Madhya Pradesh, the term employee refers to "Employee shall mean a person in the employment of the Company other than the temporary staff, but includes a person on deputation to the Company."[3] At present there are approximately 42,000 MPSEB employees and 5,000 employees appointed by the company. Apart from this, there are around 22,764 pensioners and 13238 family pensioners (drawing on behalf of pensioner) serving the organization in different levels and cadres.

Classification of Employees[1]:

The Employees of the Company shall be classified as:

(1) Regular Employee shall mean an Employee who carries out and occupies a continuing function in the Company.

(2) Probationer shall mean an Employee on probation. During the period of probation, continuous evaluation of the Employee is done by his/ her supervisor.

(3) Trainee shall mean a learner who is paid a stipend during the period of his/ her training excluding apprentices taken under Apprentices Act, 1961.

[1] Madhya Pradesh Power Trading Company Ltd. "Human Capital Manual" http://www.mppmcl.com/Document/MPPMCL_HCM.pdf.

Service Conditions of Employees on Reformation

These Service Conditions have been presented under the following sections[1]:

(1) Code of Conduct: The Code of Conduct describes the behavior Trade-co expects from its Employees. It shall be viewed as an essential guide and the Employees shall strive to meet the spirit of the principles in the code.

(2) HR Policy Manual: The HR Policy Manual details the HR policies relating to Recruitment and On boarding, Learning and development, Leave rules, Career progression, Wages and benefits, Employee Feedback and Separation.

(3) Misconduct and Disciplinary action: This describes the acts of misconduct and the subsequent disciplinary procedures which shall be followed by the Company.

Modifications in Facilities and Working Conditions of Employees

With the reformation policy implemented, several changes were implemented in the working of the organization. With such change, there is an impact on employees too regarding their service conditions. Following points explain the changes which are implemented after the reform process:

1. According to Section 79 (c) of electricity act 1948 employee's casual leaves, medical leaves experience no change. The policy of promotions has been modified by providing it on the basis of merit as compared to earlier policy of promotion based on seniority and character report. Retirement age of any employee is fixed at 58 years.
2. Pension and Gratuity fund account has been created to provide the employees with the required amount of funds as pension and gratuity on their retirement. State government is also entitled to pay its share to facilitate employees. Till present the account should have reached to the amount of Rs. 20 Crores approximately. But instead it contains a meager amount of Rs. 5 Crores.
3. Regarding the fresh appointments of any employee, the company provides appointment on adhoc basis for 3 yrs.
4. After the year 2005 there are no appointment made in company on regular basis. Temporary or adhoc based appointments are not provided any pension amount after the retirement and promotions are purely based on performance.
5. Provision of free electricity prevailed pre – reform with regular employees receiving 50% rebate in electricity bills and pensioners with 25%. This has been modified with pensioners receiving 0% rebate in electricity bills.
6. Medical facilities are also revised by not providing any reimbursement of medical emergency if faced by pensioners.
7. Sports activities and accessibility to clubs are restricted to regular employees only.
8. With the retrenchment activity, the numbers of employees are reduced and distribution companies have very less technical staff. The existing employees are overloaded with the working hours of 10 hours and more.
9. Working conditions of employees are not satisfactory as compared to pre reform era, where computerization has been incorporated but the training to employees is only provided for 15 days which is not adequate.

10. Other facilities like seating arrangements, canteens etc. are also not satisfactory.
11. Fringe benefits has been reduced after 0 1/01/2006.
12. Leave encashment facility was available for 15 days each year for each employee but now it is modified as 45 days at the time of retirement.
13. Dearness allowances for the year 2006-2008 are still pending to be paid to the employees.
14. Leave travel concession is almost nil after the year 2000.
15. House building advance which use to be provided earlier is also nil.
16. Appointment on compensatory ground is not applicable for all the employees. Rather, it is restricted only for line staff in distribution companies.

Study has been conducted to analyze the impact of several alterations and changes applied in service conditions of employees through collection of their views through a relevant questionnaire constructed to extract best possible outcomes. Below is the hypothesis drawn on the basis of the questionnaire so surveyed.

CHI SQUARE TEST

The chi-square goodness-of-fit test is a single-sample nonparametric test, also referred to as the one-sample goodness-of-fit test or Pearson's chi-square goodness-of-fit test. It is used to determine whether the distribution of cases in a single categorical variable follows a known or hypothesized distribution. The proportion of cases expected in each group of the categorical variable can be equal or unequal.

In our study we have used chi square test for following questions. The results of each question are as follows:

H_{01}: There is a no significant difference between the facilities provided to employees by the companies formed in present time and facilities provided few years back by MPSEB.

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Q1	100	1.62	.488	1	2

Frequencies

Q1			
	Observed N	Expected N	Residual
No	38	50.0	-12.0
Yes	62	50.0	12.0
Total	100		

The first part of the output gives the categories (Yes/No) in the first column, the observed frequencies of the categories in the second column, the expected frequencies of the categories in

the third column, and the residual (the difference of the observed and expected frequencies) in the fourth column. On one hand we can see that 38 employees reported that there was no change in the facilities provided by the companies in present time as compared to MPSEB whereas, 50 employees were expected to be define that there is no change in the facilities provided in present time and difference between the observed (38) and expected (50) is -12. On the other hand 62 employees reported that there is a change in the facilities provided by the companies in present time as compared to MPSEB and only 50 employees were expected to define the change in the facilities provided in present time and the difference between the observed (62) and expected (50) is 12.

Test Statistics	
	Q1
Chi-Square	5.760[a]
Df	1
Asymp. Sig.	.016
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.	

Test statistic table shows that the value of the chi-square statistic (5.760), the degrees of freedom (df) (1), and the p value is 0.016 given on the last line of the output. Here, the p value (0.000) is less than α value/level of (0.05) so we reject our third hypothesis H_{03}. Hence we can conclude that, there is significant difference between the facilities provided by the companies in present time in comparison to what it was provided few years back by MPSEB.

H_{02}: There is a no significant relationship between the advantages received and privatization of MPSEB.

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Q02	100	1.15	.359	1	2

Frequencies

Q02			
	Observed N	Expected N	Residual
No	85	50.0	35.0
Yes	15	50.0	-35.0
Total	100		

The first part of the output gives the categories (Yes/No) in the first column, the observed frequencies of the categories in the second column, the expected frequencies of the categories in the third column, and the residual (the difference of the observed and expected frequencies) in the fourth column. On one hand we can see that out of 50 expected employees 85 employees

reported that they was no significant relationship between the advantage they might receive with the privatisation of MPEB and the difference between the observed (85) and expected (50) is 35. On the other hand out of 50 expected employees only 15 employees reported that is a significant relationship between the advantage they might receive with the privatisation of MPSEB and the difference between the observed (15) and expected (50) is -35.

Test Statistics	
	Q02
Chi-Square	49.000[a]
Df	1
Asymp. Sig.	.000
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.	

Test statistic table shows that the value of the chi-square statistic (49.000), the degrees of freedom (df) (1), and the p value is 0.000 given on the last line of the output. Here, the p value (0.000) is less than α value/level of (0.05) so we reject our thirteenth hypothesis H_{13}. Hence we can conclude that, there is a significant relationship between advantages received and privatisation of MPSEB. Privatisation necessarily does not bring prosperity to the sector.

Conclusion:

Employee's participation should be included in decision making and policy formation especially of highly skilled technical staff. Meter reading should be regulated more and bills must be produced according to the meter reading of electricity consumption especially in rural areas. Faults and maintenance need to be prompt against complaints and special consideration should be taken during rainy season as more electricity faults are recorded then. Much stress needs to be given for compensation to employee's retirement benefits and facilities at working place. Technical staff should be equipped with ample safety and security. Also there should be prompt compensation and appointment on compensation to employee's family in case of their death during working hours. Formation of committee of employees of various levels is recommended for providing better services to employees and solving any kind of disputes and grievances among them. There is a need to bring improvements in working of the sector which can reduce the prevailing gap of demand and supply of electricity and effective service delivery can be implemented in the state. Employee's participation should be included in decision making and policy formation especially of highly skilled technical staff. Meter reading should be regulated more and bills must be produced according to the meter reading of electricity consumption especially in rural areas. Faults and maintenance need to be prompt against complaints and special consideration should be taken during rainy season as more electricity faults are recorded then. Much stress needs to be given for compensation to employee's retirement benefits and facilities at working place. Technical staff should be equipped with ample safety and security. Also there should be prompt compensation and appointment on compensation to employee's family in case of their death during working hours. Formation of committee of employees of various levels

is recommended for providing better services to employees and solving any kind of disputes and grievances among them. There is a need to bring improvements in working of the sector which can reduce the prevailing gap of demand and supply of electricity and effective service delivery can be implemented in the state. In this paper the stress is on the various aspects related to the employees of the electricity sector of Madhya Pradesh. These aspects include employee satisfaction, grievance procedure handling, change experience in working conditions and service conditions post reform. The study reveals that employees have mixed opinion related to the policy reform procedure of Madhya Pradesh electricity sector. Employee satisfaction is visible through the survey made but still there exist few aspects like working conditions, work load per employees, grievance and dispute resolution procedure, gratuity and pension amount etc which needs to be take care of by the new companies formed within electricity sector of Madhya Pradesh.

References:

- Armstrong, Michelle (2006) "A Handbook of Human Resource Management Practice", Kogan Page Publishers, London.
- Aswathappa, K. (2008) "Human Resource Management" V Edition; Tata McGraw Hill. New Delhi.
- Bhattacharya, D. K. (2009) "Research Methodology", Excel Books, India.

Reports:

- "Power On for Madhya Pradesh" IndianPowerSector.com Report, December 2013.
- GOMP, Energy Department, Annual Reports of various years, Madhya Pradesh.
- MOP (2000), Memorandum of Understanding (MOU) Between the Ministry of Power, Government of India and Government of Madhya Pradesh Regarding Power Sector Reforms, Ministry of Power, Government of India, (www.powermin.nic.in).

Web links:

- http://en.wikipedia.org/wiki/Electricity_sector_in_India
- http://powermin.nic.in/acts_notification/pdf/power_compendium.pdf