IMPACT OF HUMAN CAPITAL CHALLENGES ON ORGANIZATIONAL COMMITMENT: AN EMPIRICAL STUDY IN TANGEDCO

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ABSTRACT

In the current scenario, the human capital and strategic management of human resources are very common in the organizations in terms of philosophy and technique. The term of “human capital” is considered as a key element in improving the assets of an organization, since it is a sustainable competitive advantage and increases the employees’ efficiency. Some organizational theorists apply the rules of human capital theory to prove the ability to create useful competitions between companies by means of developing individual human resources. While large scale investments in government sectors have been planned and numerous projects are underway, the scarcity of man power is increasing day by day and unless an urgent action is taken, it has the potential to become a major bottleneck to the rapid growth in the sector that has just begun. Hence, it is essential to study the various human capital challenges currently being faced by Tangedco (Tamil Nadu Generation and Distribution Corporation) in order to lay out certain strategies to meet out these challenges. The present study has made an attempt on these aspects in order to formulate future policy implications.

KEYWORDS Human Capital Challenges, Employees Efficiency, Organizational Leaders, Managerial Competencies, & Organizational Commitment

INTRODUCTION

Electrical energy is one of the most basic and critical input for stimulating the economic activities of various sectors. Sustained growth of all the sectors is possible only when the availability of quality and reliable power is ensured. India’s power sector is one of the largest power sectors in the world and its commendable growth was facilitated with a slew of Central Government’s proactive policies. Enactment of Central Act viz., Electricity Act, 2003 (E Act, 2003) is seen as a catalyst for introducing the much needed reforms and competition in this sector. Tamil Nadu Electricity Board (TNEB) which came into being from 1957 is catering to the electricity requirement of the State of Tamil Nadu. It has been restructured in 2010 in line with the provisions of E Act, 2003 into TNEB Limited, TANGEDCO Ltd (Tamil Nadu Generation and Distribution Corporation Ltd) and TANTRANSCO Ltd (Tamil Nadu Transmission Corporation Ltd). TANGEDCO is engaging in the business of both generation and distribution of electricity in line with the provisions of E Act, 2003. TANGEDCO is planning massive generation capacity addition and also undertaken distribution reforms in the 12th Five year plan (2012-2017), requiring a large number of manpower to handle the projects. TANGEDCO is now facing key challenges in identifying the right person for the right job.
STATEMENT OF THE PROBLEM

TANGEDCO with its ambitious plan of massive generation capacity addition and distribution reforms undertaken is facing more human capital challenges. These are: finding the right employees, maintaining high level of employee engagement, retaining the highest performing employees, finding employees with increasing specialized skills, developing the next generation of organizational leaders, maintaining competitive compensation offerings, managing change due to shifting business strategies or market volatility, creating a collaborative corporate culture etc. The required factors to meet these challenges are not satisfactory in TANGEDCO. All these factors affect the performance of TANGEDCO and are highly questionable in the future which needs to be analyzed to find out a strategic solution.

KEY CHALLENGES IN TANGEDCO

As the power industry grows rapidly, it faces challenges across TANGEDCO. While the initial growth may be spanned by investment, timely execution of projects and its long-term performance would require addressing different challenges the industry is now facing. The challenges may range from attracting fresh talent to updating skill sets of existing personnel, to bringing about attitudinal and behavioral shifts, building managerial competencies and improving the Training and Development infrastructure in TANGEDCO.

The Training and Development wing in TANGEDCO is catering to the advanced training needs of all Executives and Non-Executives in Technical & Managerial needs of TANGEDCO. It shall serve as a Knowledge Dissemination Centre for TANGEDCO as a whole.

STRATEGIES FOR DEVELOPING HUMAN CAPITAL

The most significant and challenging changes have been introduced in the power sector. There should be a sustained attempt at designing an appropriate policy to create human capital and competency in the electricity supply chain. This may be achieved by i) Attracting the talents by showing the various opportunities, improving the brand image and changing the working environment; 2) Devising the training programmes to cover behavioral & attitudinal changes; 3) Strengthening curriculum and developing certification standards; 4) Expanding the existing training facilities and creating new infrastructure; and 5) Ensuring proper allocation and utilization of funds.

Need For The Study

While large scale investments have been planned and implementation of numerous projects are under progress, the scarcity of required manpower is increasing day by day and unless an immediate action is taken, it has the potential to become a major bottleneck to the rapid growth in this sector that has just begun. Hence, it is essential to study the various human capital challenges currently being faced by TANGEDCO in order to lay out certain strategies to meet out these challenges. The present study has made an attempt on these aspects in order to formulate future policy implications.

At this juncture, the present study answers the following research question.

• What is the linkage between the existence of human capital challenges and its consequences?
OBJECTIVES OF THE STUDY

The objectives of the present study are confined to:

- To measure the level of existence of human capital challenges at the organization;
- To examine the various outcomes of human capital challenges in the organization; and
- To evaluate the impact of human capital challenges on the various outcomes of human capital challenges.

Chen et al., (2014) found that the human capital have a significant positive impact on the productivity of general insurers. Bose and Thomas (2007) found that there is a significant positive impact on employees and organizational performance because of intellectual capital. Garavan et al., (2001), noticed the positive developments in HRM at the companies due to the human capital accusation in the companies. Wang et al., (2013) identified the investment on human capital have a significant positive impact on the banks performance and productivity.

Bontis et al., (2000) revealed that, human capital had significant positive effect on employees performance. Santos et al.,(2013) identified the positive and significant relationship between human capital and innovativeness in the organization. Ogras (2010) has found that, human capital had positive significant impact on the financial performance of banks. Sharder (2007) showed that the relation between human capital and employees performance was confirmed in technology based companies and its influence through employees performance. Rehman et al., (2011) showed significant positive influences of human capital on the financial performance. Bontis and Serenko (2009) found the significant positive relations, among intellectual capital, employees commitment, motivation, relational capital and business performance. Bontis and Fitz (2002) indicated that human capital has positive impacts on employees turnover. Secil and Seyed (2015) found that there is a significant impact of human capital challenges. Wright et al., (1994) argued that the human capital have a significant gain in organizational and individual performance.

Kemboi et al, (2014) found that, the incorporation of human capital results in higher employees performance, sustainable competitive advantage, higher organizational commitment, and enhanced organizational employees retention. Seleim et al., (2007) revealed that, the human capital indicators had a positive association on organizational performances. Youndt et al., (2004) demonstrated that, the human capital had positive effects upon corporate financial performance. Sarita (2014) identified the important strategy for human capital management like SWOT analysis, risk identification, competency mapping, merger and acquisition. Neenu and Sebastin (2014) stated that, the human capital management practices has a good impact on acquiring knowledge and application for performing tasks. Mavondo, et al., (2005) suggested that HR practices, and innovation are impact mechanisms for transmitting the benefit of learning orientation and market orientation into performance outcomes. Currie and Kerrin (2003) identified the importance of knowledge management, for the development of human resources in the organization. The investment on human capital has a significant impact on knowledge sharing.

MEASUREMENT OF THE CONCEPTS

Core Human Capital Challenges (Chec)

The core human capital challenges are the challenges related to loss of key workers (Carameli and Schaubroec, 2005) and attraction of new talented and competent workers (Nordhaug, 1993). The core human capital challenges may
be connected with the period of current challenges (Burud and Tumolo, 2004) and future challenges (Weatherly, 2003). It may vary as per view of the HR professionals (Stiles and Kulvisaechana, 2003) and non-HR professionals. The present study identify seven important core human capital challenges (Namasivayam and Denizci, 2006).

ORGANISATIONAL COMMITMENT

Organizational commitments among Women Employees measure their loyalty to their organization. An individual who has high organizational commitment is willing to exert effort on behalf of the organization, and has a strong desire to remain with the organization (Mowday et al., 1979). Organizational commitment refers the individual’s affective reactions to the characteristics of the employing organizations (Cook and Wall, 1980); (De Cotiis and Summers, 1987). The organizational commitment has been measured by the scale developed by Mowday et al., (1979). The variables related to organizational commitment have been identified with the help of previous researches (Bateman and Strasser, 1984); Liou, (1995); Steers, (1977); and Williams and Hazer, (1986).

In the pre-study, the objectives were pre-determined whereas the methodology was designed to fulfill the objectives. Hence, it is descriptive in nature.

The sample size of the study was determined by $n = \frac{N}{N_e} + 1$ whereas n-sample size, N-Population, and e-error of acceptance. The determined sample size in the grade of Chief Engineer and above; Superintending Engineer; Executive Engineer; and Assistant Executive Engineer and Assistant Engineer are 40, 119, 272 and 296 respectively. The lottery method was adopted to select the sample. Hence the applied sampling procedure of the present study is random sampling.

The required data to fulfill the objectives of the present study are collected with the help of the questionnaire.

A pilot study was conducted among 25 top level management (Chief Engineer and above; Superintending Engineer) and 25 middle level management staffs (Executive Engineer; Assistant Executive Engineer and Assistant Engineer). Based on their feedback, the alternations in questionnaire were made. The instrumentation was adopted to test the reliability and validity of variables in each concept. The final questionnaire was prepared to correct the data from the respondents.

INSTRUMENTATIONS

It represents the instrument to be used to collect the data, its contents and also its validity and reliability. The questionnaire used in the present study consists of 8 concepts. The results are shown in Table-1.
Table 1: Result of Pretest on the Variables in the Concepts Generated for the Study

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Concepts</th>
<th>Ist Attempt</th>
<th></th>
<th></th>
<th>IInd Attempt</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. of Variables</td>
<td>Cronbach alpha</td>
<td>Split Half Run Test</td>
<td>No. of Variables</td>
<td>Cronbach alpha</td>
</tr>
<tr>
<td>1.</td>
<td>Attract Fresh Talents</td>
<td>6</td>
<td>0.3109</td>
<td>0.4177</td>
<td>9</td>
<td>0.5699</td>
</tr>
<tr>
<td>2.</td>
<td>Updation of Skills among the Existing Personal</td>
<td>7</td>
<td>0.3096</td>
<td>0.4226</td>
<td>10</td>
<td>0.5804</td>
</tr>
<tr>
<td>3.</td>
<td>Attitudinal Change</td>
<td>7</td>
<td>0.3394</td>
<td>0.4084</td>
<td>10</td>
<td>0.5811</td>
</tr>
<tr>
<td>4.</td>
<td>Behavioural Shift</td>
<td>8</td>
<td>0.3811</td>
<td>0.4209</td>
<td>10</td>
<td>0.6042</td>
</tr>
<tr>
<td>5.</td>
<td>Building Managerial Competencies</td>
<td>9</td>
<td>0.3905</td>
<td>0.4411</td>
<td>12</td>
<td>0.6296</td>
</tr>
<tr>
<td>6.</td>
<td>Utilization of Training Facilities</td>
<td>9</td>
<td>0.3996</td>
<td>0.4506</td>
<td>13</td>
<td>0.6818</td>
</tr>
<tr>
<td>7.</td>
<td>Allocation and Utilization of funds</td>
<td>4</td>
<td>0.3307</td>
<td>0.4667</td>
<td>6</td>
<td>0.5894</td>
</tr>
<tr>
<td>8.</td>
<td>Organisational Commitment</td>
<td>8</td>
<td>0.4584</td>
<td>0.4204</td>
<td>10</td>
<td>0.7118</td>
</tr>
</tbody>
</table>

The questionnaire was sent by post to all sampled staffs.

The total responded staffs are 676. Out of the 676, the first two grade of staffs are treated as top level management (TLM) and the remaining two are treated as middle level management (MLM) which consist of 147 and 529 staffs respectively.

The statistical tools have been administered to analyze the data. It depends upon the objectives focused and the nature of data to be processed.

RESULTS AND DISCUSSIONS

The respondents view on core human capital challenges are examined with the help of the mean score of all seven core challenges. The score of each core challenge is measured by the mean score of the variables in each core challenge. The mean score of each CHCC among TLM and MLM have been computed separately along with its ‘t’ statistics. The results are shown in Table 2.

Table 2: Respondents view on Core Human Capital Challenges (CHCC)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>CHCC</th>
<th>Mean Score Among</th>
<th></th>
<th>‘t’ Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TLM</td>
<td>MLM</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Attract fresh talents</td>
<td>3.7732</td>
<td>3.2353</td>
<td>2.5044*</td>
</tr>
<tr>
<td>2.</td>
<td>Updation of skills among existing personal</td>
<td>3.7834</td>
<td>3.3432</td>
<td>2.1179*</td>
</tr>
<tr>
<td>3.</td>
<td>Attitudinal change</td>
<td>3.9055</td>
<td>3.4447</td>
<td>2.4542*</td>
</tr>
<tr>
<td>4.</td>
<td>Behavioural Shift</td>
<td>3.6578</td>
<td>3.5957</td>
<td>0.3089</td>
</tr>
<tr>
<td>5.</td>
<td>Building of managerial competencies</td>
<td>3.7824</td>
<td>3.6772</td>
<td>0.2973</td>
</tr>
<tr>
<td>6.</td>
<td>Utilization of training facilities</td>
<td>3.6489</td>
<td>3.1792</td>
<td>2.1084*</td>
</tr>
<tr>
<td>7.</td>
<td>Allocation and utilization of funds</td>
<td>3.9069</td>
<td>3.4418</td>
<td>2.4272*</td>
</tr>
</tbody>
</table>
The highly viewed CHCC by the TLM attitudinal change and; allocation and utilization of funds since its mean score are 3.9055 and 3.9069 respectively. Among the MLM, these are building of managerial competencies and behavioural shift since its mean score are 3.6772 and 3.5957 respectively. Regarding the view on CHCC, the significant difference among the TLM and MLM have been noticed in the case of view on five out of seven of CHCC since its ‘t’ statistics are significant at five per cent level.

**ORGANIZATIONAL COMMITMENT AMONG THE RESPONDENTS IN THE ORGANIZATION**

One of the important expected outcomes from the human capital is to enrich the organizational commitment among the respondents at organization. The organizational commitment among the respondents is essential to increase the productivity and profitability of the organization. The higher human capital is one of the causes for the better organizational commitment among their respondents. Hence, the present study includes it as one of the outcome of human capital. The organizational climate in the present study has been measured with the help of 7 variables. The respondents are asked to rate these variables at five point scale from highly agree to highly disagree. The assigned scores on the scales are from 5 to 1 respectively. The mean scores of the variables among TLM and MLM have been computed and shown in Table 3.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variables in Organizational Commitment</th>
<th>Mean Scores in 't' Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TLM</td>
</tr>
<tr>
<td>1.</td>
<td>Emotionally attached with my organizations</td>
<td>2.1234</td>
</tr>
<tr>
<td>2.</td>
<td>Hard to leave my organization right now</td>
<td>2.3396</td>
</tr>
<tr>
<td>3.</td>
<td>Leaving from my organization requires sacrifice</td>
<td>2.0865</td>
</tr>
<tr>
<td>4.</td>
<td>Parental feeling in my organization</td>
<td>2.6361</td>
</tr>
<tr>
<td>5.</td>
<td>Loyal to my organization</td>
<td>2.5884</td>
</tr>
<tr>
<td>6.</td>
<td>Moral obligation to remain in my organization</td>
<td>2.8544</td>
</tr>
<tr>
<td>7.</td>
<td>Believe in the value of remaining loyal to my organization</td>
<td>2.6667</td>
</tr>
</tbody>
</table>

*Significant at five per cent level.

The highly viewed variables among the TLM is ‘moral obligation to remain in my organization’ and believes in the value of remaining loyal to my organization since its mean scores are 2.8544 and 2.6667 respectively. Among the middle level of management, it is also the same but with the mean scores of 2.9168 and 3.0845 respectively. Regarding the view on organizational climate variables, the significant difference among the TLM and MLM have been identified in the view on emotionally attached with my organization, had to leave my organization right now, leaving from my organization requires sacrifice, and believe in the value of remaining loyal to my organization since their respective ‘t’ statistics are significant at five per cent level.
The level of human capital challenges in the organization may have its own influence on the organizational commitment at the organization. The present study has made an attempt to examine the relative importance of the human capital challenges in the determination of the organizational commitment with the help of multiple regression analysis. The fitted regression model is:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e \]

Where as

- \( Y \) – Score on organizational commitment among the respondents
- \( X_1 \) – Score on the Core Human Capital Challenges among the respondents
- \( X_2 \) – Score on the Talent Management Challenges among the respondents
- \( X_3 \) – Score on the Knowledge Management Challenges among the respondents
- \( b_1, b_2, b_3 \) – Regression co-efficient of independent variables
- \( a \) – intercept and
- \( e \) – error term

The impacts of human capital challenges on the organizational commitment among the TLM and MLM and also for pooled data have been examined separately. The results are shown in Table 4.

**Table 4: Impact of Human Capital Challenges on Organizational Commitment**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Human Capital Challenges</th>
<th>Regression Co-efficient among</th>
<th>TLM</th>
<th>MLM</th>
<th>Pooled data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Core challenges</td>
<td>-0.2117*</td>
<td>-0.1456*</td>
<td>-0.1841*</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Talent management challenges</td>
<td>-0.1418*</td>
<td>-0.0997</td>
<td>-0.1024</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Knowledge management challenges</td>
<td>-0.0997</td>
<td>-0.0519</td>
<td>-0.0762</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-0.4782</td>
<td>-0.2882</td>
<td>-0.3891</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( R^2 )</td>
<td>0.7841</td>
<td>0.7179</td>
<td>0.8117</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F-Statistics</td>
<td>8.6608*</td>
<td>7.5684*</td>
<td>8.5007*</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at five per cent level.

The significantly affecting human capital challenges on the organizational commitment among the TLM are core and talent management challenges, since its regression co-efficients are significant at five per cent level. A unit increase in the level of existence of above said challenges result in a reduction of organizational commitment by 0.2117 and 0.1418 units respectively. As per the view of TLM, the changes in the view on human capital challenges explain the changes in organizational climate to an extent of 78.41 per cent since its \( R^2 \) is 0.7841.

Among the MLM, it is to an extent of 71.79 per cent since it’s \( R^2 \) is 0.7179. A unit increase in the existence of core challenges result in a reduction of organizational commitment by 0.1456 unit. The analysis of pooled data reveals the relative importance of core challenges on the determination of organizational commitment in the organization.

**CONCLUDING REMARKS**

The present study concludes that the levels of existence of human capital challenges are higher in TANGEDCO. The top level managers view these problems as higher than the middle level managers. The important Human Capital Challenges in TANGEDCO are attitudinal changes, behavioral shifts, building managerial competencies and utilization of
the resources allocated for human capital. The above said Human Capital Challenges significantly affect the organizational commitment to a higher extent. All these findings reveal that even though, TANGEDCO allocate funds for human capital, it is not properly used by the concerned authorities. The highly expected outcome from the investment on human capital is the behavioral shift and attitudinal change among the employees. Then only, the organization can enrich their performance.

**POLICY IMPLICATIONS**

This challenge may be met by the provision of adequate recruits, salary, welfare provision, and training to the freshers. The organization is advised to conduct many need based skills development programmes to enrich the productivity of their personnel. It should be a continuous process. The organization is advised to focus many personality development programmes and counseling to their employees in order to change their mindset. Most of the staffs are subjected with red tapism, immobility, lack of adoption and participation. These will be eliminated with the help of appropriate administration and also the behavioral shift among the staffs.

Most of the staffs are not having and believing on their capability to manage the events. Hence, they are always led by other unwanted elements which are outside of the organization which result in poor productivity. This can be removed with the help of giving various motivational training programmes and confidence building exercises for the top level management.

The organization is advised to use the outside talents to design the training contents, materials, trainers and period of training which will be highly useful to provide need based training to their staffs.

The organization is advised to create a learning culture among their employees and create an environment of organizational learning and development.

The important measures to retain the talents in the organization are career development and performance based rewarding.

These challenges may be solved by frequent brain-storming sessions among the employees and continuous evaluation of acquired knowledge among them. There should be a proper motivation and facilities to provide for developing the knowledge among the employees by the organization.

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