

CHAPTER 7

CONCLUSIONS AND SUGGESTIONS

7.1 INTRODUCTION

This chapter presents a conclusion to the research into the status, procedures and policy considerations relating to training needs assessment (TNA) within the power distribution companies in the central India. The aim is to present conclusions regarding the actual practice and determining training needs (TNA) of frontline managers (FLMs) in the DISCOMs at central India. The chapter reviews the discussion on main findings arrived at throughout this study as per the research problem. In addition, this chapter contains a presentation of the major contributions of the study, along with their implications on business problem spelt out in chapter one. These are followed by some suggestions for future research road map on this topic and finally, the limitations of this research are outlined.

7.2 SUMMARY

The intention of this study was to provide a more holistic understanding of the nature of the practices of TNA at power distribution companies in central India. The following paragraph reviews the discussion on main findings reached throughout this study as per the research problem. As presented in Chapter two, this thesis presented an overview of the research problem. It has been identified and confirmed in both the literature and empirically as, ‘identification of training issues is to be incorporated at the organisation-task-person level for training needs assessment (TNA) of frontline managers at DISCOMs’. Specifically, it was found from previous studies that in existing theoretical models of TNA, the organization-task-person model (O-T-P TNA model) has been mainly taken up by the utility sector. Further, organization-task-person (O-T-P) Model is preferred over the performance based model for the present study owing to following four reasons: i) O-T-P Model focuses on training opportunities for continuously improving performance beyond expected levels or that of exemplar individuals or groups; ii) Performance based model assumes that causes of performance discrepancies are either lack of knowledge, skills or work environment variables, but not both, which is often the case (Alkinani,

2013); iii) Performance based model fails to distinguish between job behaviour and the organizationally-relevant results of job behaviour (Mishra, 2011); iv) Performance based model fails to specify how information can be collected for analysing the causes of performance problems and determining whether training is needed. Therefore, it was decided that the training needs assessment of frontline managers in the power distribution companies under study would be based on O-T-P model of TNA. In order to make TNA more effective it should be based comprehensively on all three levels: analyses on the levels of the organization, tasks or jobs and personal needs; not just on one source of analysis. Training and development should be based on the organization, jobs and the real needs of individuals. The literature indicates that in order to make companies competitive in the current market after reforms, they must also have competitive employees. Therefore, it is most important that skills and knowledge are kept up-to-date to help larger customer base.

In order to understand the whole of the TNA process in power distribution companies in central India, participating middle and front line managers were asked various important questions regarding the following: Power distribution companies (drivers of TNA) regulating training need process and organizational work environment ; technical and commercial indicators to assess training needs as per middle managers on frontline managers performance on task ; the determination of training needs on areas of knowledge, skills and abilities that the frontline managers need more training in.

Tables 6.4 – 6.11 in Chapter 6, show that overall there were significant difference of opinion between the middle managers and frontline managers at organization-task-person level. It is evident from the discussion on findings that DISCOMs under study are serious on training and competency building of their frontline managers. They do undertake training need assessment at the companies. Frontline managers' training needs are being forwarded periodically by their immediate superior middle managers to the top management for further consideration. This confirms that DISCOMs are concerned on competency development of frontline managers. Top management is also aware that determination of their training needs has an effect on performance. The analysis of organisational items indicated that frontline managers experience difficulties in transferring the learnt skills at work place due to lack of colleagues' support. They

are not getting enough support, resources, time, and relevant tasks to use the learnt skills. In the absence of good networking opportunities, mentoring-the-colleagues and train-the-trainer practices are getting impeded at the operational level. At times, there is pressure on them from within and outside the company, to change work-related decisions. A lack of planning in organizing training with adequate budget has also been revealed. A clear charter of training is probably not being followed to determine who exactly needs training at the frontline management, and what kind of type of training. Most of the tasks revealed from task analysis relate to meet the changing customers' expectations and ensuring improved services. Advising them on efficiency measures, safety, efficient usage, tariff, penalties on theft, shortcomings in the installation, disadvantages of low power factor, unbalanced installation, Bureau of Energy Efficiency's role, and various governmental schemes for their benefits are raised as important technical tasks. Advising customers on their responsibilities, understanding their problems, addressing grievances, good communications, customer relations, team spirit and focussed approach are raised as important commercial tasks. Person analysis findings also include managers' inability to operate the utility related software.

7.3 CONCLUSIONS

The aim of this study is to present conclusions regarding the actual practices and determining training needs (TNA) of frontline managers (FLMs) in the DISCOMs in central India. This chapter reviews the discussion on main findings reached throughout this study as per the research problem, 'Identification of training issues to be incorporated at the organisation-task-person level for training needs assessment (TNA) of frontline managers at DISCOMs'.

Identified training issues for determining training needs at the organisation level of power distribution companies under study:

1. Training charter: The findings of organisational analysis show that the power distribution companies under study undertake training need assessment for training. The training needs for frontline managers are passed to the top management by middle managers; indicating, follow-up of the hierarchical processes. Hence, these DISCOMs are concerned with competency

building of frontline managers and are aware that training needs determination has an effect on performance.

2. Transferring the learnt skills at the real work setting: The learnt skills are not being effectively transformed at the work place due to few work environment reasons which are internal and external to the organisation. The internal reasons are; less-supporting work environment, lack of resources, mismatch of present tasks with learnt skills, less support from colleagues, weak intra-organisational networking. The external reasons are; pressures on the work related decisions by the political groups and trade union.

3. The commitment towards training objectives and building a supportive climate towards training implementation: Findings have shown that there are inadequate resources and tasks to utilise the learnt skills; unplanned training with inadequate budget; lack of opportunities to use learned skills; and lack of networking possibilities for frontline managers at power distribution companies under study.

4. Integration of training facilities available in the sector to optimize their utilization: organizational work environment holds critical role while determining training needs for the employees. The findings reveal that pressure from within and outside the company influences the work related decisions of frontline managers. This finding corresponds with the recommendations made by industry observers to develop mechanisms to insulate both the regulator and the utility from daily political pressures.

Identified training issues for determining training needs at the task level of power distribution companies under study:

1. Matching training system with current strategies and functional requirements: The overall findings of technical-task analysis show that the frontline managers under study are aware of their job description. The impact of competition and role of customer's services are symptomatic of strategical implication for the power distribution companies under study as frontline managers focus only on redressing customer grievances for developing better customer base. They do not

consider mandatory job responsibility to aware customers on energy efficient appliances, installation shortcomings and finding future customer expectations from power distribution companies. Therefore, the researcher can state that merely taking up field work is not sufficient for the front line manager. The responsibility of FLMs, who are the interface between the power distribution company and its customer, is that of a torch bearer. Thus, FLM should turn up to anticipate their customers' future expectations. Therefore, organisation should make arrangement to align these functional requirements with performance demands from frontline managers and customer needs. This call for the strategic task analysis i.e. the training system should be fitted with functional requirements, performance demands and customer needs. The strategical and functional symptoms are as follows:

i) Strategical symptoms: Managing Company lies first and foremost on a team spirit and an effective work; based on their results on the needs of customers, their business system has improved (Djoudi and Rome, 2014). The frontline managers do not hold team spirit and fellowship at their workplace to serve customers. Lack of thorough and precise approach to work and personal activities as a finding is a sensitive issue which can adversely impact on the professionalism of any individual. This underprops the strategical implication for the power distribution companies under study.

ii) Functional symptoms: In power distribution companies, anticipating customers' future expectations should be aligned with functional requirements and more closely with performance demands and customer needs (Bhatnagar et al. 2011). The findings on the technical task items underline the non-fulfilment of this alignment. The prerequisite to ensure the success of power sector reforms is by increasing revenue collection (Tripathy and Thakur, 2007). The power distribution companies under study also put emphasis on increasing revenue. These findings reinforce the impact of competition and role of customer services and are symptomatic of strategical implication for the power distribution companies under study. The frontline managers are not making efforts on increasing revenue through better customer services; they do not build their company's image as customer friendly company. This non-congruence is a communication gap which needs to be addressed in organisation strategy and an important finding at the need assessment phase of training

2. Performance Gap: The task analysis determines exactly what a worker must know and do. By this, task analysis establishes standards for performance (Rothwell and Kazanas, 2004). Ostensibly the frontline managers are aware of their job description. Therefore, with this assumption, middle managers do not ask the frontline managers for pitching up top management vision on branding the company image as quality customer service provider. Thus, the middle managers should explain the task as per company expectation on frontline manager's performance towards enhancing their customer base. If the target jobs are defined beforehand, then methodological options, participants, points of contact can be defined more easily (Goldstein, 1993). For this reason, the middle manager should beforehand communicate to the frontline managers, what they should be doing in order to contribute to company results. Consequently, it can be said that 'SMART technologies and communication can be a reason for the gap in performance. These are further deliberated as follows:

- i) Performance gap due to SMART technologies Power companies are shifting to more complex, data driven, "SMART" technologies (Deloitte, 2015). With updating of technology the knowledge of installation of modern switchgears and protection devices in the network is of prime importance. As the power industry evolves, utilities will have to focus on promoting distributed generation in remote areas expanding the electricity network in the areas which are currently not integrated with the grid. Power distribution sector is now a days using software for utility applications including billing, data analysis, network modelling, protection, coordination, system studies, and commercial solutions. The frontline managers are not using utility software, especially for system analysis and exploring technical solutions. They are also not developing need based templates for resolving technical and commercial difficulties using software. This shows they are either not interested using these new technologies or they are not updated on the usage of update technology; another reason to this can be their outlook towards technology as a substitute to manpower affecting their future employment.

Performance gap due to communication: Customers' opinion of overall service quality is very much influenced by the impression, when they encounter front-line staff (Bencsik, 2006). The effect of customers' expectations on power distribution company's service is

evident from the findings that the frontline managers redress customer grievances and are delegated to redress the grievance at the offset only. Though most of the grievances in general are related to bill since frontline managers do not advise their customers on different categories and slabs of electricity tariff. Hence, it seems frontline managers may be undertaking the tasks listed in their job description and redressing customer grievances for developing better customer base. To make the customer aware of energy efficient appliances, installation shortcomings and finding future customer expectations from power distribution companies is not considered by FLMs, as is required to be the responsibility of their job, and also a prerequisite towards organisation's growth.

Identified training issues for determining training needs at the person level of power distribution companies under study:

1. Knowledge gap: The technical know-how on setting up and calibrating the digital relays is one of the basic functions of power distribution. As the power industry evolves, utilities will have to change profile of their professionals from technical experts focused on technical excellence to new professionals who possess management, analytical and commercial capabilities. The findings on knowledge items are in conformity with findings on few task items suggesting one of the reasons for performance gap at task level is non-congruence to the technological up gradation of the field officers under study.

2. Skills gap: The findings mainly relate to lack of skills to use modern technologies and practices. The frontline managers are not using utility software, especially for system analysis and exploring technical solutions. Most of the utility software has been developed locally in India. Frontline managers are also not skilled in developing need based templates and using technological solutions in customer services. Findings have revealed that frontline managers do possess skills to investigate reoccurrence of faults in same area or circuit. This analysis

These findings on skill items endorse observations of Ghoria (2012) which state that, in the corporate and field level, there is a distinct skill gap which has arisen due to lack of knowledge

upgradation of experienced staff or absence of skill transfer to the newly employed staffs. Both existing employees and new recruits therefore need update on technological scenarios.

3. System losses and demand side management: The front line managers are unable to assess system losses which are important to check for any power distribution company. They are also not able to promote demand side management at DISCOMs or customers' end. Demand side management can enable the energy users to act as virtual power plants and empower the utilities and grid operators to treat this virtual capacity as a dispatch resource which can be called upon as and when needed through demand response measures

7.4 IMPLICATIONS OF THE STUDY

This section recommends on the conclusions of this study addressing the business problem, 'Inadequate training of frontline managers at Indian DISCOMs in new technologies and commercial practices is resulting in inefficient operations'. The result of this thesis is useful to the subject of training needs analysis (TNA) and has expanded knowledge of the subject. Using a similar approach, the study can also contribute in determining training needs in other power distribution companies for skills and knowledge management purposes. Nevertheless, the key contributions and novelty of this research are explicated in the following sections:

7.4.1 Academic contributions:

A significant contribution of this research is an in-depth understanding of the TNA practice in the Indian power distribution companies. The review of the literature in the field of the quality of training programmes figures out the need for more empirical research on TNA practice especially in Indian power sector after reforms, and therefore, this study integrates and extends the studies conducted in this area especially in the utility sector which address the issue of determining the training needs in general and quality of training in particular. Training needs assessment in Indian power sector has to precede the design and delivery of training (National Training Policy, 2002). Little attention has been devoted to the training needs assessment practices in the context of the public and private sectors (Akhorshaideh, 2013; Phillips and

Phillips, 2002). Moreover, no attention has been paid to skills and knowledge assessment (Alikinani, 2013). Accordingly, this study could be the first study that has been identifying the training needs matching the frontline manager's function, performance demand and customer expectations specifically to the power distribution companies at central India. Consequently, this study contributes to knowledge as being the first empirical study carried out into TNA and makes a contribution to fill the gap between theoretical constructs and practical evidence of TNA models within the context of the Indian power distribution companies. This study could be useful to scholars, as it is a step towards model-building in relation to TNA for the power distribution companies. This study has responded to the recommendations of many researchers such as Clark et al. (1993), Agnaia (1996), Mendonca et al. (2001), and Tracey et al. (2001), who have emphasised the need for more studies in the field of training. Furthermore, this study has laid the groundwork for addressing the problems associated with the skills and knowledge deficit in the power distribution companies not only at the task but person level as well; it is, therefore, highly recommended that researchers and scholars should conduct more empirical work to expand our knowledge on this subject.

7.4.2 Recommendation for practice:

The present study identifies the deficit as an indicator to determine training needs at the power distribution companies (DISCOMs) in general and DISCOMs under study (the four power distribution companies distributing power in central India). The recommendations are based on the findings of the O-T-P analysis made at three levels-organisational, task, and person level; for the assessment of training needs at DISCOMs under study as indicated in Fig. 7.1

The research enlists below the shortfall items at the organisational, task, and person level of OTP analysis for TNA for the DISCOMs under study. The management of Indian DISCOMs may consider these O-T-P items while conducting TNA of frontline managers.

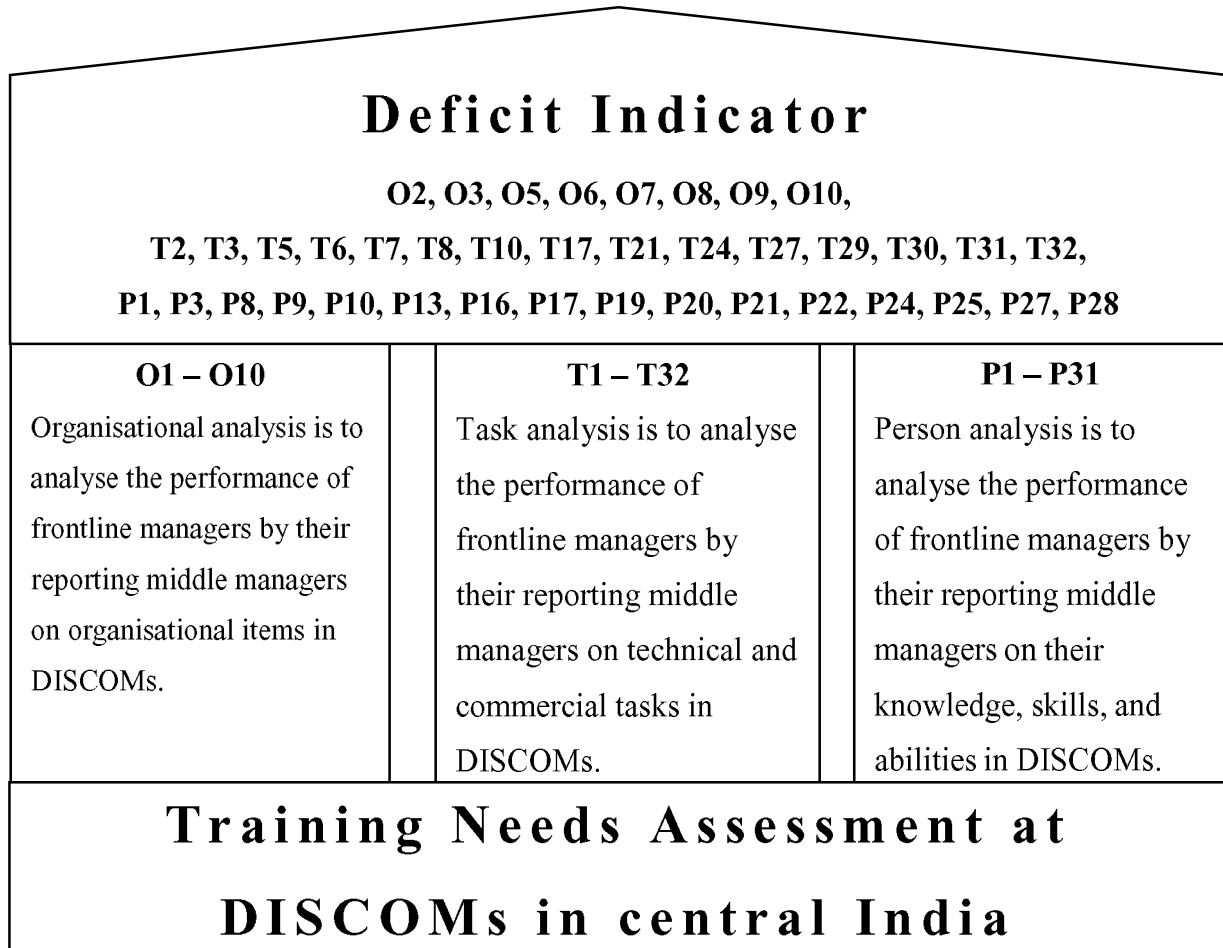


Fig. 7.1: Indicators to determine training needs at the DISCOMs under study

Shortfall as per the findings of O-T-P analysis at organization, task and person level along with the recommendations for practices following findings of past researches are:

1. Organisation level

- i. O2: Supporting approach by colleagues in learning and using new skills at workplace is found missing at the DISCOMs under study. Though, the effective implementation of training needs support from colleagues, and an encouraging work environment (Oade, 2009).

- ii. O3: As per the findings, the management of the DISCOMs under study do not have a clear charter on training. There is a need that the top managers need to be committed to, and supportive of TNA activities, by being involved in the formulation of T&D strategies, plans and objectives (Kihongo, 2011).
- iii. O5: The learnt skills are often not supported at frontline managers' workplace as per findings. The middle managers need to ensure application of knowledge-enabling methods at their work place (Smith, 2000).
- iv. O6: The finding is that there is non-availability of resources and allotment of relevant tasks to frontline managers to use the skills learnt at training. Management should ensure that FLMS perform such tasks which utilise their learned skills and gain learning satisfaction (Liu, 2007).
- v. O7: It is found that the training for frontline managers is not well planned with enough budgets. Managements need to ensure enough funds and meticulous planning in designing training and development systems (Tracey, 1992).
- vi. O8: The finding on the frontline managers networking possibilities to interact and share skills show feeble likelihood for FLMS to share their learnings from the training programs with fellows. Effective communication bridges any possible gaps arising from inexperience, unfamiliarity, and mismatched placement (Quinlan et al., 2001).
- vii. O9: The finding at organisation level indicates that there is pressure from political groups which forces change on the front line manager's work related decisions. Therefore, in such situations management's support to FLMS is anticipated in order to deal with such stressful working conditions (Lowe and Northcott, 1995).
- viii. O10: The findings also indicate that there is pressure from internal groups (union and peers), which forces change in the front line manager's work related decisions. Management's support to FLMS is anticipated to deal with such stressful working conditions as well (Lowe and Northcott, 1995).

2. Task level:

- i. T2: Assessing increase in customers' expectations for services from DISCOM in the past few years. Emphasis on aligning functional requirements more closely with performance demands and customer needs at DISCOMs is needed (Bhatnagar et al. 2011)
- ii. T3: The findings show that the frontline managers do not make customers aware about the different categories and slabs of electricity tariffs. With the advent of reforms and private players in power distribution, the customers compare the tariff and services offered by different distributors. Today's customers not only expect quality electricity supply but also expect DISCOMs to educate them on energy efficiency, energy savings, and safety issues (Vishwakarma and Dwivedi, 2016).
- iii. T5: The findings show that the frontline managers do not make customer aware on the disadvantages of low power factor in their installation. DISCOMs' management should train their frontline managers on this task since they are the best fit at DISCOMs to educate people on these issues (Singh, 2014). When there is a rise (from 25% to 35%) in the estimated requirement for semi-skilled and skilled workers, such as engineers, project managers, and technical staff (IEA Report, 2015) the importance of determining training needs of frontline managers at power distribution company is of utmost importance.
- iv. T6: The findings show that the frontline managers do not make customer aware on the disadvantages of unbalanced load in their installation. DISCOM management should train their frontline managers on this task since they are the best fit at DISCOMs to educate people on these issues (Singh, 2014).
- v. T7: The findings show that the frontline managers do not make customer aware on the benefits of using energy efficient appliances in their installation. DISCOMs' management should train their frontline managers on this task since they are the best fit at DISCOMs to educate people on these issues (Singh, 2014).

- vi. T8: The findings show that the frontline managers do not make customer aware on their electrical installation and any shortcomings in that. DISCOMs' management should train their frontline managers on this task since they are the best fit at DISCOMs to educate people on these issues (Singh, 2014).
- vii. T10: The findings show that the frontline managers do not make customer aware on energy efficiency measures in their installations. DISCOMs' management should train their frontline managers on this task since they are the best fit at DISCOMs to educate people on these issues (Dalal et al 2005).
- viii. T17: The findings show that the frontline managers do not make customers aware of the responsibilities of electricity customer. Training frontline managers on this will contribute in developing a good public image of DISCOM.
- ix. T21: The findings show that the frontline managers do not put enough efforts to increase revenue. The customer grievances can be reduced by demonstrating trust and empathy in listening to customers' facts and understand their feelings. (Bencsik, 2006).
- x. T24: The findings show that frontline managers do not possess enough skills to resolve grievances. Influencing customers positively to be loyal and responsible DISCOM customer. (Bencsik, 2006).
- xi. T27: Frontline managers need to be trained on public relations skills. The training on how and what to communicate to customers is important for frontline managers. Most often front line managers need to participate in unscripted and challenging interactions with customers (Sony and Mekoth, 2012).
- xii. T29: Another finding is lack of developing deep collaborative relations between DISCOM and customers to create a win-win situation. Management needs to train their frontline managers in these tasks since power sector professionals now need to focus on

communication skills, lifelong learning, problem solving, professionalism, teamwork, updating one-self learning (Chawla, 2012).

- xiii. T30: The findings show that the frontline managers do not put efforts on building DISCOMs image, as a customer friendly company. Management needs to train their frontline managers in these tasks since the frontline employees are the most critical link in the provision of superior service to customers (Alexandrov et al., 2007).
- xiv. T31: The findings show that the frontline managers exhibit team spirit and fellowship when it is on personal front but not at the workplace in order to serve customers better. Management needs to train their frontline managers in displaying companionship in customer redressal because the strength of company lies first and foremost on a team spirit and an effective work. (Djoudi and Rome, 2014).
- xv. T32: The findings show that the frontline managers lack thorough and precise approach to work and personal activities. This finding underpins that the findings on items T30 and T31 are due to T32.

3. Shortfall at person level:

- i. P1, P13, P16 and P17: The findings show that the front line managers are not able to properly set and calibrate modern digital relays. Frontline managers need to gain expertise in using utility related software for commercial solutions and maximizing revenue. They should develop need based templates and programs for commercial and other works; this will make them confident in using many other complex and SMART technologies (Deloitte, 2015).
- ii. P3: The findings show that the frontline managers do not undertake simulation study in medium and low voltage networks using power system software. DISCOMs' management needs to train their frontline managers on using power system software as the power industry evolves, utilities' technical experts focused on technical

excellence are now expected to possess management, analytical and commercial capabilities. (Deloitte, 2015).

- iii. P8: The findings show that the front line managers' numerical and analytical reasoning for higher performance are feeble. Management needs to develop these skills in their technical and managerial competency is now critical due to the technology intensive nature of the business (IEMR Report, 2011).
- iv. P9: The findings show that the frontline managers need to be trained on tracking progress and quality of work of the team to achieve effective output.
- v. P10: The findings show that the frontline managers' understanding on financial procedures and practices to monitor malpractices is weak. Top managers need to improve their FLMs' knowledge on them because modern practices are being widely employed by DISCOMs to keep their system as well as manpower updated with latest developments (ADB, 2014).
- vi. P19: The findings show that the frontline managers are not able to assess most of the commercial and technical losses in the system. Top managers need to develop FLMs' skills on assessing losses because the study of losses in the distribution system, and initiating schemes for their progressive reduction is of prime importance at DISCOMs (Vishwakarma and Dwivedi, 2016).
- vii. P20 and P21: The findings show that the frontline managers do not promote demand side management on DISCOM side. Management needs to strengthen FLMs' abilities on demand side management because this virtual capacity as dispatchable resource to be called upon when needed through demand response measures (Gupta and Bhattacharya, 2013). DISCOMs should also develop their frontline managers to encourage demand side management at customers' end because demand side management can enable the energy users to act as virtual power plants (Gupta and Bhattacharya, 2013).

- viii. P22: The findings show that the frontline managers do not promote energy efficiency measures in the system. This finding further reinforces the findings at 'T10'. Customer awareness on energy efficiency measures in their installations can be best done by field managers since they are the interface between the power distribution company and its customer (Singh, 2014).
- ix. P24: This finding reinforces the findings at 'T21', 'T27' and 'T29'. DISCOM managements need to build up FLMs' competency to understand customer behaviour, with a focus on addressing customer problems (Szmigin, 2003).
- x. P25: The findings show that the middle managers do not identify tasks, assess their importance, and prioritise them to get better performance of the front line managers. This finding reinforces the findings on 'O3'.
- xi. P27: The findings show that the middle managers do not influence others in a way that results in acceptance, agreement, or behaviour change. This finding reinforces the findings on 'O9' and 'O10'. Middle managers should encourage these abilities in their FLMs since customer's experience originates from a set of interactions between the customer and company (Asubonteng, 1996).
- xii. P28: The frontline managers are not committed for preparing future base of DISCOMs. This is further justified with the findings on 'T17'.

The present study on the bases of above discussion recommends the need of strategic TNA to take critical decisions for matching the organisation goals with the training.

7.4.3 Managerial implications

This study raises and improves the understanding of current TNA practices and management in the utility sector more generally in the Indian power distribution sector. This study enriches and fills the gaps in the literature of TNA in the power distribution companies, formed after power

sector reforms started in India from 1992 onward. Moreover, this study provides an assessment for the effectiveness of frontline management function-performance demand-customer expectations. From this study, the discrepancy areas are highlighted as implication for practice. It is very important that the top management plays the leadership role for transferring the learnt skill to job (Bennis, 1969). Consequently, the DISCOMs' management need to further their role in determining training needs by not only sanctioning the conduct of training but taking feedback of these training in terms of performance and return on organisational investment. The findings also suggest that DISCOMs under study are concerned with competency building of frontline managers. They are aware that training needs determination has an effect on performance but lack strategic TNA as for this the training system should be fitted with organizational goals (Ostroff and Ford, 1989), which is found missing in power distribution companies under study. The impact of competition and role of customer services are indicative of strategical implication for the power distribution companies under study. Organisation should make arrangement to align the functional requirements with performance demands from front level managers and customer needs. This calls for the strategic task analysis i.e. the training system should be fitted with functional requirements, performance demands and customer needs. Further, as per the findings the commitment of the frontline and middle managers towards the company goals is adapted to action in concern to company rules and work ethics. Thus, it is important to know whether any deviation from company rules and work ethics have any repercussions on their payment and promotion. In view of this, it can be determined that the existing process of conducting training needs assessment to foresee the functional requirements with performance demands. The frontline managers' present skills and abilities have performance discrepancy on the count of technological know-how and inability to transfer the learnt skills. The study recommends that merely conducting training needs assessment is not sufficient the organisation should turn up to take the strategic training needs assessment i.e. the training system should be fitted with organizational goals. The training need assessment is no more an HR function it has strategical implications. The present study on the bases of symptomatic findings stresses the need of strategic TNA to take critical decisions for matching the organisation goals with the training to fill the gaps related to communication, knowledge, technical know-how, skills and performance.

7.4.4 Recommendations for policy:

Ministry of Power, Govt. of India is addressing skill upgradation by training around 100000 subordinate staff at DISCOMs by March 2017 through Central Institute for Rural Electrification (CIRE). Effectiveness of these ongoing programs on individual performance and DISCOMs' development is still to be found out. Findings of this study can help in studying effectiveness of these programs. Further this study recommends policy formation for the training of the frontline managers on the same line as subordinated staff has been trained to support its dynamic goal of expanding electricity base. Thus, findings of this study can also help to study the effectiveness of Ministry of Power' skills upgradation training programs.

The report on "Training Needs Assessment and Recommendations for Capacity Building in State Level Public Enterprises" of the Department of Public Enterprises, Ministry of Heavy Industry & Public Enterprises, Government of India (Nov, 2012) recommends that the training needs in the electrical sector must be assessed, designed, implemented, monitored and reviewed to achieve desired deliverables.

7.4.5 Recommendations for research:

The present research can be taken as a base for future TNA studies based on the O-T-P model for the feedback of training of other categories of employees at DISCOMs. The future researchers can further work on institutionalization of training need assessment for success of training programs conducted by DISCOMs. Findings of this study can be used to connect them with performance, efficiency, and job-satisfaction. Similar study may be undertaken for TNA at other management levels in DISCOMs. The future researchers can also address cost benefit analysis as, "what is the difference between the cost of no training versus the cost of training".

7.5 LIMITATIONS OF THE RESEARCH

Every research study is limited by the constraints placed on the researcher (Yin, 2009) and accordingly this study is no exception. These limitations would negatively affect its

generalisation till further replications with larger samples. In this study, it was not possible to cover all training needs and work performance associated items that affect the quality of study undertaken, since some were inherent within DISCOMs while some are still in inception stage.

One of the major limitations of the study was the inability to cover DISCOM managers from a bigger geographical region and ensuring equal representation of managers working in different regions. Another major limitation was non-availability of enough published researches in the field. As reforms in Indian power sector are a recent phenomenon, not much research has been done on employees' training needs in their changed job profile. Researcher attempted his best to access the relevant literature available online as well as print mode. He could hardly find any academic study or research publication focussing exclusively on the training requirements of the frontline managers at the lately formed DISCOMs. Most of the work undertaken on this topic formed a part of the studies undertaken by international funding agencies or consultants for certain specific objectives. Those studies by and large have focussed on a single DISCOM. Even in those studies, neither collective opinions were collected nor were the specific training requirements at different levels assessed. Few DISCOMs and electricity departments did undertake in-house training needs assessment however; they were also not exclusively for their frontline managers. Researcher could also not get many references to compare the results of his study undertaken using O-T-P Model of Training Need Assessment. The researcher further did not intend to measure the present status or the training needs of the entire power distribution sector. The study was therefore focused on the training needs of the frontline managers. Besides, it adequately serves researcher's purpose.
