

Competency Based Training Needs Identification and its Impact on Individual and Organizational Performance A Case Study

Abstract

The research work reported in this paper focuses on Indian Pharmaceutical industry and attempts to study the new HR practices and approaches followed and adopted, particularly the Competency-based Training Needs Identification (CBTNI) and its impact on individual and organizational performance. The findings of the study are based on a case study of a pharmaceutical company that has recently taken up this initiative. Results of the study indicated that the system or the process of Competency-based TNI itself is good as against the traditional Job-Analysis based approach and improves the overall training function but failed to reflect the clear picture showing strong positive relationship between TNI and performance. Though not a very strong evidences were obtained regarding its impact on performance improvement based on the individual performance score of the employees, most of the departmental heads perceived that Competency based Training Needs Identification improved the individual performance and helped make the training function more effective. It was concluded that the organizations that view systematic Training Needs Identification as a serious practice and might achieve more concrete results by improving HR practices and contribution of human resources to business goals. The findings of the present study open up avenues for future research in this area.

Key words

Competitive Advantage; Intangible Assets; Human Resource Management; Competency; Training Needs Identification; Competency-based Training Needs Identification; CBTNU; Pharmaceutical Industry; Organization and Individual Performance.

Introduction

Over the past two decades, a growing number of management and HR professionals have argued that investment in sound HR practices and programmes pays off for an organization through improved productivity and superior financial performance¹. It is the competence of human resource that puts other assets to its proper utilization. Competency is a cluster of related knowledge, skills, and attitudes that affects a major part of one's job (a role or responsibility), that correlates with performance on the job, that can be measured against well-accepted standards, and that can be improved via training and development². Training and Development is the most important HR function and serves as a backbone in creating a well-defined labour force. Today, with training budgets increasing speedily to make employees fit to the changing world, it is essential to see that training resources are spent judiciously. Training programs if designed after thorough identification of training needs will help to make optimal utilization of training resources.

Human Resource as a source of Competitive Advantage

Today companies are looking for Sustainable Competitive Advantage—that distinguishes them from competitors; provides positive economic benefits and is not readily duplicated³. Jeffrey Pfeffer in his book '*Competitive Advantage through People*' discussed about the changing basis of competitive success. There is a shift of source of competitive advantage from conventional strategic analysis based on industrial economies to workforce. Traditional factors of success- product and process technology, protected or regulated markets, access to financial resources, and economies of scale can still provide competitive leverage, but to a lesser degree now than in the past, leaving organizational culture and capabilities, derived from how people are managed, as comparatively more vital⁴. Although the prime sources of competitive advantage in the past decades may have been access to financial resources or the use of technology, these are now viewed as necessary, but not sufficient⁵.

Porter (1980) suggested three routes to establish competitive advantage - Cost Leadership, Product Differentiation, and Focus⁶. It has been observed that though initially these strategies can contribute to competitive advantage, it fails to continue to do so with the change in external business environment. Thus, contrary to product or market based competitive advantage; companies should look into deeper aspects of their internal resources.

Many research studies were conducted from time to time giving due attention to various intangible assets owned by the companies and its role in generating inflows in the new economy [Example: *The Role of Intangible Assets in the new economy* by Dennemeyer & Company]. A variety of books and articles have been published till now highlighting the need for appropriate management of intangible assets for organization's success. [For example by Robert S. Kalpan & David P. Norton; *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*; Drucker, 1988; Aaker, 1989; Hall, 1989; Crawford, 1991; Sakaiya, 1991].

¹ C.M. Siddique, *Job Analysis: A Strategic Human Resource Management Practice*, Routledge- Taylor Francis & Group, International Journal of Human Resource Management, 15:1, 219-244, February 2004

² <http://www.nps.gov/training/uc/whcibt.htm>, retrieved dated 10/20/2008

³ Jeffrey Pfeffer, *Competitive Advantage through People: Unleashing the Power of the Work force*, Harvard Business School Press, 1994, Chp-1, pg-2

⁴ Jeffrey Pfeffer, *Competitive Advantage through People: Unleashing the Power of the Work force*, Harvard Business School Press, Chp-1, 1994

⁵ Lynda Gratton, *Strategic Human Resource Management-Corporate Rhetoric and Human Reality*, Oxford University Press, 1999, Pg-170

⁶ http://www.strategicassets.co.uk/competitive_advantage.htm, retrieved dated 09/03/2007

Human competencies are significant intangible asset that really contribute for organization's performance as a whole. Human resources and their capabilities are the fundamental inputs or real source of competitive advantage that is sustainable in the long run as they can't be copied or duplicated by the competitors. Research studies conducted in the area shows the growing importance of Intellectual Assets. Dennemeyer & Company in its article '*The Role of Intangible Assets in the New Economy*' stated that "By 2007, intangible intellectual assets will account for more than 90 percent of the value of the Global 2000 enterprise, up from 20 percent in 1978 and 70 percent in 1998"⁷. Large enterprises such as IBM, The Dow Chemical Company Philips, Lucent, and Texas Instruments have significantly increased revenues by successfully managing their intellectual assets⁸.

Competency Based approach to Human Resource Management

The primary purpose of human resource management is to efficiently and effectively engage the employees within an organization in a concerted set of actions aimed at facilitating the accomplishment of that organization's goals⁹. Study conducted by Marilyn E. Booth and George Philip to explore the two different approaches [Technology driven and Competency driven] to competitiveness as against the Porter's Five Forces' Model of Competitiveness¹⁰, showed the competency-based approach as more apparent approach as against Technology driven approach. Many companies are attempting to gain competitive advantage using a competency-based approach.

Some important developments put down the early base for the competency movement and contributed appreciably to this field. The concept of Competency has its history falling long back in mid 1950s and early 1970s, with the pioneer efforts done by John Flanagan [1954] and David McClelland [1970] who formerly invented the concept of Competency¹¹. However, the three names viz. John Flanagan, David McClelland and Richard Boyatzis are always largely associated with the concept of competency studies. Studies done by Flanagan and McClelland have been considered as a milestone in the history of Competency while the work of Boyatzis paved the way for further Competency movement. In his article published in 1954, John Flanagan propounded the Critical Incident Technique used in rigorous competency studies. Though his work was not predominantly and purely about competencies but it provided the groundwork for further competencies study. It is Flanagan's Critical Incident Technique that sixteen years later inspired McClelland to discover and develop the term 'Competency'¹². The concept of human competence reached the forefront of human resource development with the concurrent work of the psychologists Robert White and David C. McClelland. White [1959] identified a human trait that he called 'Competence'¹³. David McClelland in his revolutionary article '*Testing for Competence rather than for intelligence*' [1973] argued that traditional tests of academic aptitude and knowledge can neither predict job performance nor any

⁷ Dennemeyer & Company, *The Role of Intellectual Assets in the New Economy*, ipFrontline, Intellectual Property and Technology Magazine, <http://www.ipfrontline.com>, retrieved dated 11/20/2006

⁸ *ibid*

⁹ Joseph J. Martocchio, *Research in Personnel and Human Resource management*, Elsevier, Volume-24, pg-48, 2005.

¹⁰ Marilyn E. Booth and George Philip, *Technology Driven and Competency Driven Approaches to Competitiveness: are they reconcilable?*; Journal of Information Technology [1996] 11, Pg. 143-159.

¹¹ *Competency Development Guidebook*, Produced by www.explorehr.org, retrieved dated 05/07/2007, Pg-3

¹² *Ibid*, Pg-4

¹³ David D. Dubois, William J. Rothwell, et al., *Competency-Based Human Resource Management*, Davies-Black Publishing-a division of CPP, Inc., CA, 2004, Chapter-2

success in life¹⁴. This began the expedition for the tools and theories that really predict job performance. It was Boyatzis [1982] who first presented a comprehensive data collected in USA through 'Job Competence Assessment Method' of McBer & Company. This began the era of competency in Human Resource Development and since then competency has become a significant factor in HR development practices [Simpson, 2002]¹⁵.

Spencer and Spencer (1993) viewed competency as "an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation"¹⁶. A literature to date provides wide range competencies definitions given by different writers and thinkers from time to time. Over the years, many writers, including key thinkers and leaders in the field, have tried to define and refine the 'Competency' and related terms. Several studies were conducted from time to time that contributed significantly to the development of Competency based approach to HRM. Various researchers and authors have written various articles on various ways, methods and techniques for Competency analysis, evaluation and development [For instance, Jim Broome-*Competency Management*, Amit Bhute-*Business and People Competency Management*]. Thus, nowadays competency is the modern mantra for individual performance and so the overall organizational performance. J. Jacob and Roopashree Shankar believe that Human Capital [Competencies] is the ultimate weapon for achieving competitive advantage¹⁷.

The research work reported in this paper focuses on Indian Pharmaceutical industry and attempts to study the new HR practices and approaches followed and adopted recently. The Indian Pharmaceutical sector is the fastest growing sector of the Indian economy. In the last few decades, the Indian pharmaceutical industry has undergone a sea change and it is considered largely as a homegrown sector of the Indian economy. The domestic pharmaceutical output has increased at a compounded annual growth rate (CAGR) of 13.7% per annum. Currently the Indian pharmaceutical industry is valued at approximately \$ 8.0 billion. Globally, the Indian industry ranks 4th in terms of volume and 13th in terms of value¹⁸.

The process of change in Indian Pharmaceutical industry has been widely discussed by different researchers from time to time. A number of pharmaceutical sector studies focused on the drug industry in industrialized or developed countries mainly concentrate on the quality, price and its impact on the society. Surveys and research studies that are been carried out in developed countries and in developing countries like India are mostly on the relevance of the pharmaceutical policies for the health sector in general and healthcare for the poor in general. These studies include studies in Iceland [Alamarsdottir et al., 2000], Italy [Coscelli, 2000], Nepal [Holloway et al., 2002] etc. Available literature shows that the studies done in the area of Indian Pharmaceutical industry were primarily related to changes in regulatory framework/structure. Numbers of studies have been carried out on the effect of change in the Patent Law [for instance, Lanjouw, 1996, Watal, 1996], technological development of the firms [Sequeria, 1998] and the resultant heterogeneity [D'Este, 2001] as well as strategies of firms as a response to change [Madanmohan et al., 2003; Halemane et al., 2003]. This also includes various articles and publications by different academicians and researchers [An article by N.Lalitha, *Indian Pharmaceutical Industry in WTO Regime-A SWOT*

¹⁴ Vichita Vathanophas [2007], *Competency Requirements for Effective Job Performance in the Thai Public Sector*; Contemporary Management Research, Pg. 45-70, Volume-3, No.1, March 2007

¹⁵ *ibid*

¹⁶ Spencer, Lyle M. & Signe M. Spencer, *Competence At Work: Models for Superior Performance*, John Wiley & Sons, Inc.

¹⁷ J. Jacob and Roopashree Shankar [consultants at Feedback Reach Consultancy, an HR Consultancy Firm], *Creating Value through Competency Mapping and Assessment*, HR@ the Heart of Business, National HRD Network, 8th National Conference, India.

¹⁸ FICCI Report [2005], *Competitiveness of Indian Pharmaceutical Industry in the New Product Patent Regime*, National Manufacturing Competitiveness Council [NMCC], Federation of Indian Chambers of Commerce and Industry, New Delhi

Analysis, Dr. Mohd. Afaq Khan, *Impact of the New Patent Regime on the Competitiveness of Indian Pharmaceutical Industry*, a report by National Manufacturing Competitiveness Council, 2005, *Competitiveness of the Indian Pharmaceutical Industry in the New Product Patent Regime*]. All these research literature reveals the strong evidence of systematic study of change in Indian Pharmaceutical industry.

Training is the process of acquiring specific skills to perform a better job [Abdul Halim and Md. Mozahar Ali]¹⁹. Thus, it refers to the process of imparting specific skills. Van Dersal (1962) defined training as the process of teaching, informing, or educating people so that (1) they may become as well qualified as possible to do their job, and (2) they become qualified to perform in positions of greater difficulty and responsibility²⁰. K. Aswathappa points out that Training and Development offers competitive advantage to a firm by removing performance deficiencies; making employees stay long; minimizing accidents; scrap and damage; and meeting future employee needs²¹. The success of an organization depends on the skills and actions of its people and a key determinant of this will be the way they are developed, including the training they receive²².

Organizations spend significant percentage of sales on training and development. It is, therefore, necessary that organizations assess the training needs of their employees. Poor performance may be due to lack of knowledge or skills that can be improved by training. However, there are many other reasons, which may also result into poor performance by an employee. Thus, identification of training needs is very important for proper implementation and success of any training program. Training Needs Identification [TNI] is a gap that shows the lacking areas where individual requires training to improve or increase his/her performance as per the expected standards. Training needs identification helps company to provide focused and targeted training to their employees and thereby helps to improve individual performance and organizational performance. Identification of training needs is important from both the organizational point of view as well as from an individual's point of view²³. From the organizational point of view, it is important as organization strive to achieve its organizational objectives with the abilities of its people, providing them with the opportunities to grow and develop. On the other side, it is important for individual to develop their own skills and capabilities that help them to grow, develop and take advantage of all the available opportunities.

Proactive training needs identification also contributes to organizational performance by providing focused or targeted training and helps in optimal allocation of scarce resources. In addition, proper training needs identification can help in motivating and providing job satisfaction to employees as they are provided with the opportunity to develop their lacking areas. Thus, organizations that implement training programs without conducting needs assessment may be making errors²⁴.

Competency-based approach is a practice in which organizations build their HR systems around the competencies. As suggested by R. Palan, it is a shift from traditional way of managing human resources based on what people have [E.g. Qualifications] to what people can do [capability,

¹⁹ Abdul Halim & Md. Mozahar Ali, *Improving Agricultural Extension-A Reference Manual*, Edited [1998] by Burton E. Swanson, Robert P. Bentz, Andrew J. Sofranko, Ch-15]

²⁰ *Ibid*

²¹ K. Aswathappa, *Human Resource and Personnel Management: Text and Cases*, Tata McGraw Hill Publishing Company Limited, Pg 200, 4th Edition.

²² Harry Barton and Rick Delbridge [2001], *Development in the Learning factory: Training Human Capital*, Journal of European Industrial Training, Pg. 465-472, 25/9[2001].

²³ Mitali Bhattacharya, *Training Need Identification*, <http://www.coolavenues.com>, retrieved dated 04/09/2007

²⁴ K. Aswathappa, *Human Resource and Personnel Management: Text and Cases*, Tata McGraw Hill Publishing Company Limited, Pg 202, 4th Edition.

performance]²⁵. Today, Competency based Human Resource Management is being increasingly recognized as an effective way of talent management over the previously adopted Job-description related approach. Today, organizations are using competencies in virtually every human resource domain²⁶. Well-known HR Consultant Ullhas Pagey states that “*as a result of Competency Mapping, all the HR processes like talent induction, management development, appraisals and training yield much better results*”²⁷. Dr. Devendra Nath, Executive Vice-President, L & T Infotech, asserts that company has a successful competency-based HR system since 1997 and all its HR functions like Recruitment, training, Job rotation, succession planning and promotions are defined by competency mapping. Competencies are enhanced through training and job rotation²⁸. There appears a systematic and substantial literature that supports the Competency-based training [CBT]. As illustrated by Richard S. Sullivan, Competency-based training should be used as opposed to the “medieval” concept of timed-based study [Norton 1987]²⁹. Foyster [1990] argues that using the traditional “school” model for training is inefficient³⁰. This shows that time based approaches are not sufficient to survive in the new competitive business scenario. It was concluded that most of the successful training programs are Competency-based [Paul Delker, 1990 in his study of basic skills education programs in business and industry]³¹.

The review of available literature reveals that in the present competitive global arena, competency is a continuous necessity for any organization to make its own place. However, there appears little systematic evidence that shows the real practical acceptability of competency-based approach in India. In India, barring the competency mapping process used by reputed HR consultants, no in-house initiatives are suggested in the review made from the available sources. HR Consultancy firms are being asked to assist the organization in a competency mapping and assessment exercise³². Major pharmaceutical companies in India are planning to implement the Competency Management, while medium and small sized organizations are either unaware of the concept or find it too expensive to implement.

Research Methodology

For the present study, pharmaceutical firms practicing systematic training needs identification and competency-based approach to HRM were selected. The study was conducted in two phases as described below:

²⁵ R. Palan [2003], *Competency Management: A Practitioner's Guide*, Specialist Management Resources Sdn Bhd., Malaysia.

²⁶ J. Jacob and Roopashree Shankar [consultants at Feedback Reach Consultancy, an HR Consultancy Firm], *Creating Value through Competency Mapping and Assessment*, HR@ the Heart of Business, National HRD Network, 8th National Conference, India.

²⁷ Supita Dev, *Competency Mapping*, , Technology Life [2005], Express Computer, India's only IT Business Weekly, www.expresscomputeronline.com, retrieved dated 12/29/2006

²⁸ *ibid*

²⁹ Richard S. Sullivan [1995], *The Competency- Based Approach to Training*, U.S. Agency of International Development, JHPIEGO Corporation, Paper 1, September, 1995.

³⁰ *Ibid*

³¹ *Ibid*

³² J. Jacob and Roopashree Shankar [consultants at Feedback Reach Consultancy, an HR Consultancy Firm], *Competency Mapping and Assessment: A Case Study at a Fortune 500 Organization*, Creating Value through Competency Mapping and Assessment, HR@ the Heart of Business, National HRD Network, 8th National Conference, India.

In order to fulfil the objectives of the study and to understand and explore the high performance HRM practices by pharmaceutical companies, a pilot study was conducted during October 2006- March 2007, in phase - I. It is significant to note that Gujarat accounts for 45% production of drugs of the country³³. For selecting organizations for the pilot study, Member's Directory [2004-2005], The Indian Drug Manufacturer's Association [IDMA], Gujarat State Board, was referred. According to IDMA Member's Directory, there are some 156 member pharmaceutical companies of large, medium and small size located in the State of Gujarat. Apart from this, there are few other large, medium and small sized pharmaceutical companies, which are located in the State of Gujarat but are not the member of IDMA. Out of these 156 pharmaceutical companies, 80% of the pharmaceutical units fall under the category of small-scale while rest 20% under medium and large sized. It was therefore, decided to select around 10% of these 156 pharmaceutical units for the pilot-study. To gain more clarity about the subject it was intended to study the practice of Training function and the adoption of Competency-based approach during this pilot study. Among these, some 12 pharmaceutical companies were selected on the basis of acceptance of the HR managers/ owners to permit the study or to meet them personally. Personal interviews with the HR managers/owners of the selected organizations who are willing to participate in the study were conducted. Semi-structured interview schedule with few relevant questions like practice of training, pattern of systematic identification of training needs and adoption of competency based approach to HRM was made and asked to the respondents [HR managers/owners].

Inputs from them were recorded and clarifications were made as required. Out of these 12 pharmaceutical units, 6 were small-sized units while other 6 were medium and large sized units. Looking at the areas [Training Needs Identification and Competency-based approach] efforts were made to accommodate maximum number of the large and medium sized pharmaceutical units for the pilot study.

On the basis of the outputs from the pilot study, only one organization practicing systematic Training Needs Identification and adopting the Competency-based approach to HR practices was selected for the present study. (Only this company agreed to participate in the research and share information for the study.)

An in-depth study was conducted covering its demographic profile, its working procedures and systems, its competency based HR practices like recruitment, training, training needs identification, performance measurement system, compensation, etc. It was learnt that Competency-based HR practices was adopted by the organization in the year 2005. Hence, taking the year 2005 as a base year, an attempt was made to study the Pre and Post scenario of the Training function, Training Needs Identification, individual performance and organizational performance. In order to study the performance trends, individual performance score was taken from the year 2003 to 2006, which include pre and post period of the implementation of Competency based approach. In order to study the pre and post competency model implementation scenario, only those employees were selected to measure their performance score, who were in the organization during this period of 2003-2006. Thus, employees who joined after 2004 but are presently working in the organization were excluded from the study.

³³ Chairman, Member's Directory- IDMA [GSB]—*The Indian Drug Manufacturer's Association, Gujarat State Board, 2004-2005*

The Proposed Research Model

1. Independent Variables

- Practice of Training Needs Identification
- Type of Training Needs Identification

2. Moderating Variables

- Training & Development Practice/Pattern
- High Performance or Sophisticated HRM practices
- HR Department/HR Manager

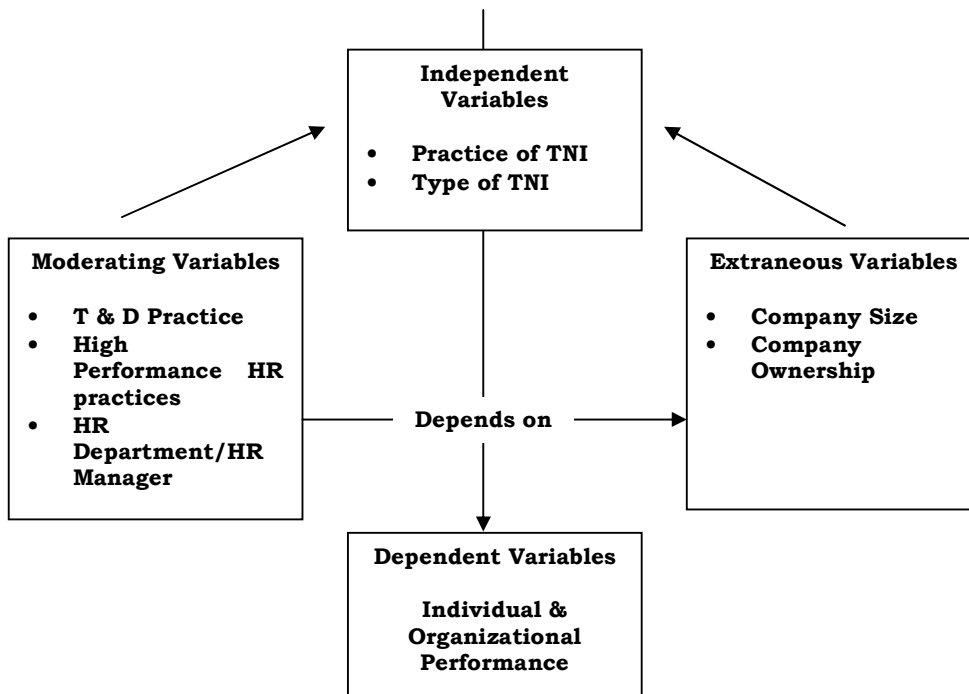
3. Extraneous variable—one which is not related to the purpose of the study but may affect the dependent variable

- Company Size
- Company Ownership

4. Dependent Variables

- Individual and Organizational Performance

Proposed Model for the Study



The above model presents the short list of 'Independent' variables: Practice of TNI and also the type of TNI. These two independent variables together are thought to influence the individual performance and HRM practices of the firm. The proposed model includes the set of three 'moderating' variables. These variables are included in this research because they are believed to have a significant contribution or effect on the original 'independent' and 'dependent' variables. Further, model also includes some 'Extraneous' variables: Company Size and Company Ownership. These are the variables that are not measured or related to the purpose of the study but are included as they may affect the dependent variables.

High performance HRM practices refer to specific HRM practices designed to improve competences and commitment of employees. This concept includes practices such as Competency based HR practices like incentive pay systems, increased emphasis on workforce training and employee participation, career and succession planning, etc.

Systematic practice of Training Needs Identification and the type of needs identification depends upon moderating variables namely Training and Development practice and high performance HR practices. This in turn depends on both the presence of HR department [or manager] and the usage of high performance HRM practices by HR department [awareness about high performance or contemporary HR practices].

The moderating variables can be determined by the organization's structure, which in turn largely depends on firm's size and ownership. Ownership of the firm determines its culture and HR practices. A family owned business is defined as a business that is not only owned by members of one family, but also managed by members of this family³⁴. Family owned businesses are largely company-as an extended family and are managed in the own pattern of owners rather than looking to the contemporary HR practices.

Findings of Pilot Study [Phase I]

During this pilot study, the adoption of the practice of Training Needs and the applicability of Competency-based approach to HRM was particularly looked into. The results of this pilot study provided a number of interesting directions for further exploration. The findings of the pilot study are summarized as follows:

1. It was found that the practice of training function and usage of Competency based approach largely depends upon firm's size and ownership. HR practices in the small-sized organizations were done purely on the own style of owners. No formal initiatives were taken by the owners of such small-sized firms to improve or to adopt any contemporary HR practices in their organizations.
2. No individual oriented training or development programmes are scheduled in small sized units. Training programs that are mandatory are conducted in the organizations studied. No soft skills or behavioural training is given in any small sized organizations studied. All small-sized units are observed to be outsourcing the training function rather than designing a training programs as per individual requirements.
3. No Training Needs Identification is done in any small-sized units. Employees in small units are given direct training as per the statutory requirements. As far as Competency based approach is concerned it remains far away from small Indian pharmaceutical companies as the process or approach being too expensive in implementation. It requires systematic system or HR practices to implement this new approach of competency.
4. Very few pharmaceutical companies in India such as Dr. Reddy's, Ranbaxy, Wockhardt, Aventis, Torrent, etc have adopted this approach.

Findings on the outcome of Individual Performance Score and Questionnaire [Phase II]

In order to study the performance trends, individual performance score of managerial and staff level employees were taken from the year 2003 to 2006, which include pre and post period of the implementation of Competency based approach. In order to know the impact of systematic identification of training needs on the effectiveness of training program and their perception about the competency-based training needs identification, a questionnaire was designed. A total of seventeen

³⁴ Jan De Kok, *High Performance HRM Practices in Small and Medium Sized Enterprises*, Chapter-4 Rozenberg Publishers, 2003.

respondents [departmental/functional heads] were selected and were asked to respond to the questionnaire. Hence, the second phase of the study is divided into two parts:

1. Individual Performance [from the year 2003 to 2006—managerial and staff level]
2. Questionnaire [Heads' (of various Departments) perception about Competency based Training Needs Identification]

Impact on Individual Performance Score

Managerial Level

1. An improvement is seen in 15 employees [58%] out of the total 26 employees selected for the study. Further, 15% employees showed no improvement in their performance after the competency model was implemented. However, there is deterioration in performance of 27% employees after the competency-based approach was implemented in 2005.
2. After competency-based approach was implemented in the year 2005, again an upward trend is seen in the performance score after the serious decline in the year 2004 to the mean score 3.761538. The mean in the year 2005 is computed to be 4.104615 and 4.251923 in the year 2006. This shows the upward trend in the performance score after the implementation of this approach in the year 2005. However, if we look at the performance mean score of the year 2005 and 2006, though the improvement is seen in the mean score, the improvement seen is very little or mere from 4.104615 to 4.251923. Thus, no major improvement is seen in the individual performance score after the implementation of competency-based approach.

Staff Level

1. It was noticed that no improvement is seen in the performance of most of the qualified employees. 60% of the employees showed no sign of improvement in their performance during this period of study. 20% of the employees showed decline in their performance with equal percentage [20%] of employees with improvement in their performance score.

Findings of Questionnaire

1. Training Function

1. After the CBTNI approach was adopted, employees are regularly exposed to training as per their requirements and training planner. As per the training planner, some 66 training sessions were planned for the year 2007. Out of these, 59 training sessions were designed for the Bulk Drug Plant and 7 training sessions were designed for Cephalosporin Plant. These 66 training sessions covered 957 participants from different departments and different levels depending upon their training needs, making it to some 2871 total man hours of training. The training planner showed that every month some training is given to the employees as per their training needs.
2. Out of the total 66 training programs conducted during the year [2007], 62 training sessions i.e. 94% training programs were conducted by the internal trainers and only for 4 sessions [6%] by outside trainers. Most of the internal trainers are experienced and knowledgeable employees having superior performance in their areas.
3. It was found that the functional heads designed 53% of the training programs. While 29% Heads confirmed that their training programs are designed in co-ordination with the HR department and trainers. This shows that most of the training programs are designed with the support of the departmental heads.
4. It was found that out of the total number of training programs conducted during the year, approximately 65% to 70% of the training programs were based on systematic CBTNI approach. Rest of the training programs were compulsory for all the employees as per the regulatory requirements and hence CBTNI was not used.

5. It was found that majority of the departmental heads perceived that implementation of competency based approach in the year 2005 had improved the process of CBTNI.
6. Most of the functional heads [94%] agreed positively that a significant improvement was observed in the trainees after their training needs are properly identified. However, 71% of the heads believed that the improvement was seen only up to a certain extent.
7. More than 50% of the functional heads strongly agreed that identified training needs of each employee should be communicated to the trainers. It was found that around 59% of the Heads agreed that they communicated their respective departments training needs to the trainers prior to designing a training program. This shows that trainers are well aware about the training needs of the employees and are provided targeted training.
8. Pre-training and Post-training tests are conducted to evaluate the effectiveness of training programs. Necessary evaluation is done to see that training is provided to the employees as per their identified training needs. 94% of the functional heads stated that proper care was taken to see that employees get training as per their identified training requirements.
9. 88% Heads confirmed that performance gaps identified after the annual performance review is done is submitted to the HR department so as to consider them for designing training programs for them. This shows that proper consideration is given to the performance gaps identified through annual appraisal so as to bridge such gaps through necessary training.
10. Around 65% of the respondents strongly agreed that proper identification of Training Needs of employees improve their individual performance and so the overall departmental and organizational performance. This confirms that systematic identification of training needs improves individual and organizational performance.

II. Competency based Training Needs Identification.

11. Most of the departmental heads [about 88%] responded positively regarding the awareness about the concept of Competency.
12. It is found that almost 80% of functional heads believe that both technical and behavioural competencies are important for the smooth functioning of the organization.
13. Almost 59% of the functional heads perceive that consideration should be given to employees for self-identification of training needs as given in the competency tool.
14. Almost 88% of the departmental heads believe that Competency based approach to training helps in proper identification of training needs as against the traditional Job Analysis based approach. Out of total 17 HODs surveyed, 15 HODs considered competency-based approach to be very efficient in proper and systematic implementation of training sessions.
15. Around 88% of the respondents concurred that modern competency-based system was more convenient and comfortable in implementation. It is found that though more time-consuming and tedious, new approach is more favoured as it helps to make training function more effective and systematic.
16. Most of the departmental heads agreed that they are satisfied with the present system of Identifying Training Needs as against the previous traditional or job-analysis based. Few respondents [18%] are somewhat satisfied while equal percentage of respondents is highly satisfied with the competency-based approach.

Conclusion

It can be concluded from the study undertaken that, though not a very strong evidence for the improvement in performance was found from the individual performance score of the employees, most of the departmental heads perceived that CBTNI approach improves the individual performance and makes the training function more effective.

The present study attempted to assess the conceptual model in the developing nation India built on the basis of practices followed by the organizations of western countries. In general, the findings of the study are coherent with studies conducted in other nations that show the linkage between practices of training needs identification and performance. It is therefore found that the system or the process of

Competency based Training Needs Identification itself is good but however, it does not reflect the clear picture showing very strong positive relationship between Training needs identification and performance. When study was conducted in the selected organization, the implementation of competencies was still in its beginning stage. Early results studied indicate that the process [Competency based Training Needs Identification] is valuable and very astute and can draw better output in the long run.

Limitations

The present study may be seen as prelude endeavour to set up the relationship between competency-based TNI and individual and organizational performance. It is essential to judge its findings keeping few limitations in mind.

First of all, the present study was undertaken with a single organization practicing competency-based approach to HR practices, as the adoption and implementation of CBTNI is in the nascent stage in India.

Secondly, the time span [2203-2006] available for the study was too short to measure the effect of CBTNI on performance.

Finally, the study is subject to the biases of opinions or perceptions of the respondents to the limited sample size. However, the findings of the study may be viewed as groundwork, and can encourage further research interest in competency-based TNI and performance relationship.

Future Research Directions

The present study provides scope to undertake studies involving a larger sample. One may also take up similar studies in different industrial sectors or may be across the sectors with a larger scope.

Organizations which are willing to adopt this new approach need to spend good amount of time and money. It also requires deep understanding on the part of all the employees regarding usage of competency-based approach. Hence, the research scope is not limited to academic pursuits and can be extensively studied by each organization itself.