

## Competency Based Training – A Study With Reference to Gulf Petrochemical Industries Company Kingdom of Bahrain



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Competency based Performance Training is one of the strategies for Total Quality Management in the recent past and now it has been realized that Individual personal value systems with institutional competency framework can only invigorate the organizational development. Several researches have revealed that Competency-based training helps to bridge the gap between what is taught in training and what tasks will be performed on the job. Training employees to perform actual job functions helps to ensure that front-line workers have the skills, knowledge and abilities required to perform their jobs properly, safely and effectively. In addition to competency-based training, assessment based on the performance of actual work competencies helps to ensure that employees are performing their work tasks as safely as possible that performance gaps are recognized prior to serious incidents and that training can be implemented to improve competency.

Competency Based Training to its employees in the organizations is considered to be an important area for research as little previous attention has been paid to it by researchers. Yet the Competency Based training processes are considered to be vital for the effective functioning of the organizations. Many factors contribute to this phenomenon and require further examination. The problem is more pronounced in manufacturing industries in general and petrochemical industries in particular as they have to operate in a turbulent environment. Performing and surviving in such dynamic environments without appropriate Competency Based Training is a daunting task. Research outcomes are urgently needed to provide support to decision makers in the organizations in order to help them to successfully overcome challenges posed by dynamic environments. This research is an attempt to address this problem with a focus on Gulf Petrochemical Industries Company in Kingdom of Bahrain.

### Need for the Study:

- » Lack of research on Competency Based Training in petrochemical sector yet literature supports the view that it is critical.
- » Most research has focused in the area of Competency framing, Competency models, Competency mapping and neglecting consideration of HR factors such as Attitude, Motivation and Awareness of Employees more particularly in petrochemical sector.
- » Need for research addressing success of CBT with specific reference to employee attitude, motivation and awareness in petrochemical sector.
- » Selected organization has implemented CBT. Though regular feedback is obtained after each training program, a comprehensive opinion survey among the employees is not carried out. This is true for all the petrochemical industries in the gulf region.
- » To bridge the gap in the research area.

This study specifically focuses on the above mentioned aspects with respect to Gulf Petrochemical Industries Company in gulf region.

### Aim:

The overall aim of the study is to examine the effect of HR factors Attitude, Motivation and Awareness of the employees on the perceived impact of CBT on the organization in the petrochemical sector with reference to Gulf Petrochemical Industries Company, Kingdom of Bahrain.

### Objectives:

To achieve the overall aim, the following constituted the key objectives of the research

- » To study and understand appropriateness of CBT policy, procedures, and practices in GPIC.
- » To analyse Competency Based Training process and methods used in GPIC.
- » To examine the effect of HR factors; Employees Attitude, Motivation and Awareness on impact of CBT on the organization.
- » To offer suggestions from the observations of the study.
- » In order to achieve the aim and objectives, a theoretical framework was developed for this research.

## Research questions:

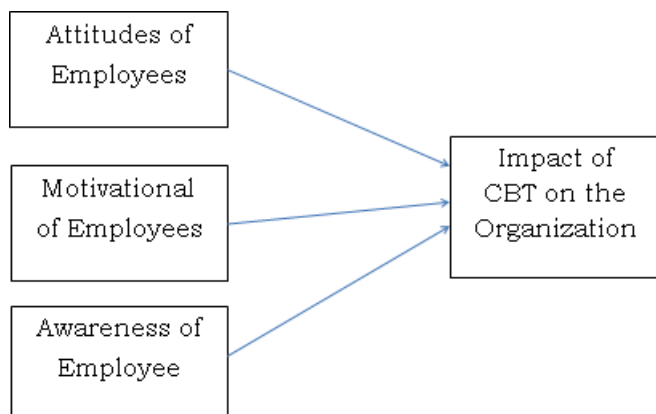
The following research questions are derived from the objectives:

- » What are the Competency Based Training process and methods used in GPIC?
- » Are the CBT policy, procedures, and practices in GPIC appropriate?
- » What is the relationship between the factors; Employee Attitude, Motivation, Awareness with the impact of CBT on organizational performance?

## Hypotheses of the Study:

- » Employee Attitude towards Organization positively affects the Impact of CBT on the Organization.
- » Motivation of the employees towards work positively affects the Impact of CBT on the Organization.
- » Employee Awareness of CBT positively affects the Impact of CBT on the Organization.

## Conceptual framework:



Impact of CBT (as perceived by employees) on the Organization is a dependent variable whereas Attitudes of Employees, Motivation of Employees and Awareness of Employee are the independent variables that are affecting the impact of CBT.

## Source of information:

The study is based on both primary and secondary sources of data.

### • Source of primary data:

- » Collected with a structured questionnaire.
- » Personal interviews to validate questionnaire
- » Responses from 206 out of 570 GPIC employees of 10 nationalities was selected based on nature of work and position of the employee
- » Data from various GPIC departments

#### 1.Non-Technical departments

(Executive Management, General Management, Finance, Human Resources, IT & Knowledge , Marketing ,Public Relations)

#### 2.Technical departments

(Maintenance, Plants Operation, Technical Services and Safety, Health &Environment)

### •Source of secondary data:

- » Various sources in Bahrain and other GCC states
- » Books, Journals, Magazines, Reports, Internet
- » Literature available in the subject
- » Established libraries in Kingdom of Bahrain
- » Works of the organization studied i.e. GPIC

## Methodology:

The research work is focused on the conceptual and behavioral aspects of the employees towards CBT, because they are the direct beneficiaries of CBT as it provides them with the appropriate skills set useful for their efficiency in the job thus for their carrier growth. Therefore, in order to obtain employees' perception on behavioral aspects, namely Attitude, Motivation and Awareness of employees towards the impact of CBT. Inductive approach is followed using mixed methods.

First to understand the implementation of the CBT in company under study and to verify with the practices, a review of CBT in GPIC is made using content and document analysis. Then a survey method with a structured questionnaire is used to obtain the perceptions and opinions of employees on CBT. The data obtained is analyzed using descriptive analysis, Regression analysis and Structural Equation Modelling. SPSS and AMOS software were used for the data analysis.

## Data Sampling:

Gulf petrochemical Industries Company selected as the universe or population of the study. The departments constitute the sample units of the study. Employees working on those sample units are considered as samples for the research study. The primary data was collected by conveniently picked employees working in various departments within Gulf Petrochemical Industries Company in Kingdom of Bahrain. A convenience sampling methodology is used to select for performing this study and analysis. Every employee in the selected organization has been considered to carry an equal chance for being selected as a sample irrespective of nationality, position, age, experience and qualification. The justification for this is, the objective of study is to understand the 'individual perception' of any employee about the Attitude, Motivation, Awareness and impact of CBT which are purely based on one's own opinion and experience. Hence the only qualification to be selected as a potential sample is to be an employee within the company. Therefore any employee working in GPIC has been given equal opportunity to be selected as a sample which are picked on a convenience basis from each of the selected sample units.

## Scope of the study:

- Limited to Gulf Petrochemical Industries Company, Bahrain.
- Study is based on the survey of employees
- Survey was done during April 2015 to June 2015
- Study is restricted to measuring the most important specified HR factors – Attitude, Motivation and Awareness.

## Questionnaire Structure:

Questionnaire: Deals with Competency Based Training in GPIC consisting of 24 questions.

The survey of 30 employees, using personal interviews, across Gulf Petrochemical Industries Company was done before finalizing the Questionnaire. Questionnaire is broadly divided into 2 parts.

- Part 1: Deals with the profile of the respondents. This part covers 3 questions to know the gender, age group and the length of service of the respondents.
- Part 2: Is broadly divided into 4 sections namely Attitude of the employees, Motivation of the employees, Awareness of the Employees contains 5 questions each and Impact of CBT on the organization contains 6 questions.

Comprehensive questionnaire has been designed for the purpose of the study. The questionnaire contains 24 items including the items eliciting the personal information of the respondents. Out of 24 items, 3 items are related to personnel information and the remaining 21 items related to CBT.

## Research work survey instrument

No.	Number of items	Variable measured	Scale
1	5	Attitude towards Organization	5-point Likert scale
2	5	Motivation of the employees	5-point Likert scale
3	5	Employee Awareness of CBT	5-point Likert scale
4	6	Impact of CBT on the Organization	5-point Likert scale

## Tools and Techniques used:

- Questionnaires and personal interviews are basic tools for primary data collections.
- GPIC Company policy documents, internal reports, books, journals, website etc. would be the secondary source.
- Use of survey techniques, refined observations and in-depth interviews
- Statistical tools like descriptive, regression, structural equation modeling etc.

## Data Analysis and Interpretation:

Analysis of the data collected through main survey was done as follows:

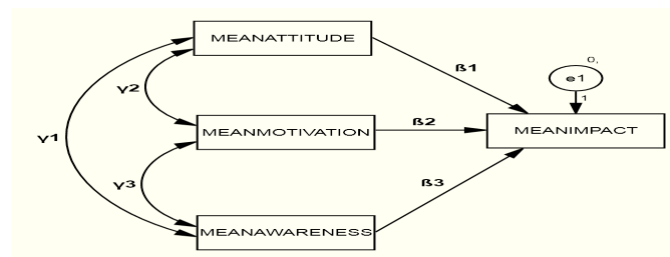
- Preliminary analysis including descriptive statistics, testing of the reliability of the instrument using Cronbach's alpha and testing the validity using the internal consistency of the measures, inter-item and item-total correlation.
- Main analysis which includes statistical testing of the relationship between independent and dependent variables using regression, structural equation modelling and path analysis.

Structural equation modelling is used to conduct path analysis using which hypothesized relationships between independent and dependent variables were tested. AMOS software was used to conduct SEM.

## Regression tests conducted:

- » Causality is checked between independent and dependent variables
- » All relevant variables have been taken into consideration
- » Dependent and independent variables are on interval scale
- » Linear relationship between dependent and independent variables
- » Additional relationship between dependent and independent variable
- » Residuals (3 tests)
- » Sufficient number of responses
- » No multicollinearity
- » Outliers

## Path analysis of the Structural equation modelling



## Results of Hypothesis tests:

No.	Hypothesis	Result
1	Employee Attitude towards Organization positively affects the Impact of CBT on the Organization.	Rejected
2	Motivation of the employees positively affects the Impact of CBT on the Organization.	Accepted
3	Employee Awareness of CBT positively affects the Impact of CBT on the Organization.	Accepted

## Conclusion:

This research work is conducted in Gulf Petrochemical Industries Company in Kingdom of Bahrain. GPIC has implemented CBT.

The research is carried out to understand and identify the relationship between the impact of CBT on the organizational performance and three selected HR factors namely Attitude, Motivation and awareness of the employees.



It has used inductive approach. The study has used content analysis and document analysis for review of the policy, procedure and practices of GPIC in implementing CBT and compared with that of same foreign organizations who have implemented CBT. This review revealed that the GPIC competency framework is in line with the National qualifications framework of Singapore as well as the CBT model established in UK, Australia and New Zealand. GPIC has learned from the best practices of other countries and adopted a holistic form of competence to overcome the challenges identified in interpreting CBT across GPIC. Thus it can be concluded that the CBT used in GPIC has clear policies and procedures which are appropriate and in line with CBT in foreign countries.

Questionnaire survey is used to elicit the opinions of employees on CBT and relationships described above. Regression and Structural Equation Model are used to analyze the data in addition to the descriptive analysis. Both models have established that there is positive significant relationship between motivation and impact of CBT, as well as between awareness and impact of CBT but the relationship between attitude and impact of CBT is not significant. However, SEM reveals that relationship in between the independent variables attitude, motivation and awareness.

Attitude is not found to be significant factor that influences impact. We may interpret that if employees are motivated and well aware of Competency Based Training then the significance of attitude is immaterial. If Motivation changes then impact changes. Highly motivated employees can have more impact of Competency Based Training on success of the organizations. Similarly, if awareness changes, then impact changes. If the employees are aware of the Competency Based Training then the impact of Competency Based Training will be high there by organizations will be more successful. The results point out that when tested concurrently the two independent variables Motivation and awareness are strongly associated with each other although other independent variable attitude is not of much influence on the impact of Competency Based Training.

## Limitations of the Study

- Ø The analysis is based on the responses given by the respondents and the literature available
- Ø Findings are limited to the Gulf Petrochemical Industries Company cultures only.

Ø Research has not considered the influence of demographic aspects in terms of gender, background and nationality of employees.

Ø A smaller population size

Ø Employees are of many nationalities and it might have led to different results in different contextual settings.

## Scope for future research:

Ø Findings of this research raise questions on reasons for not finding significance of attitude of employees as a significant construct. Perhaps, adding more items on attitude may give different results.

Ø The Framework of CBT in GPIC suggests other challenges such as competency catalogues, job skills requirement, profile match up, change management, training feedback mechanism, update the competencies after successful training that can be further explored as factors that could act as mediators between Competency Based Training practice and Competency Based Training effectiveness.

## References:

- 1.Coens, T and Jenkins, M (2000) Abolishing Performance appraisal and what to do instead, Berrett-Koehler
- 2.Craig C. Lundberg (1970). Planning the Executive Development Program, California Management Review.
- 3.Delamare Le Deist and Winterton Jonathan, (2005). Typology of knowledge, skills and competences: clarification of the concept and prototype, Cedefop Reference series; 64, European Communities.
- 4.Gilbert F. Thomas, (1978). Human competence engineering worthy performance.
- 5.GPIC Academy Of Leadership and Learning Standard Operating Procedure (SOP-TRN-00-26)
- 6.GPIC Training Manuals
- 7.GPIC Website [www.gpic.net](http://www.gpic.net)
- 8.Gonczi, A (1995). Competency based education in Understanding Adult Education & Training Foley, G. (Ed) Allen and Unwin p 175-188.
- 9.Gonczi, A. (1994). A competency based approach to initial and continuing professional education in Training and Professional Development in Adult and Continuing Education. Benn, R. and Fieldhouse, R. (Eds) University of Exeter pp 22-33.