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COMPETENCY-BASED CORPORATE E-LEARNING SYSTEMS - AN EXPERIMENT WITH OUTSOURCING FIRMS IN BANGALORE

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Abstract *Corporate e-learning initiatives often appear to have been implemented with too little consideration for organisational issues. The potential benefits of e-learning as a tool for creating organisational competencies are usually not realised to a full extent. The focus of the present paper is on integrating corporate e-learning and competency for the BPO environment. This study reveals many areas of work environment including the number of hours of training, their annual income and demographic details. The research is conducted to address the issues of potential of competency-based corporate e-learning (CbceL).The paper gives a microscopic view of the concept. It presents a bird's eye view of how some major IT giants use e-learning. The paper throws light on some important subthemes like individual psychographics, team psychographics, individual learning style, e-learning platform, team learning style, courses delivered through e-learning and individual and team performance. This paper is an effort to analyze the key issues and important concepts to link performance to CbceL.*
The study has identified four factors which are statistically significant at 0% level. Factors such as knowledge, 3600 learning with appropriate psychographics and learning style at the individual level.

Keywords: *Competency-Based Corporate E-Learning (CbceL), Virtual Organisations (VO), Business Process Outsourcing (BPO), Learning Management Systems (LMS), Human Resource (HR)*

Introduction

The business world always looks for new methods for winning customers and impressing markets. The World Wide Web (WWW) has always been of advantage and support to the corporate world by delivering information. Continuous advancements in technology have transformed the workplace into a variety of platforms. The changing demand and requirements have been a greater challenge for corporates to cope withand cater to the expectation of its clients.

In order to address these gaps, organisations have started training employees in different courses and methods. The training costs were overshooting budgets; a time when many businesses looked at IT-based e-learning to train employees. Training is one of the key components of employee development and retention practices. E-learning is being implemented in many corporations for training which saves cost and helps in getting the latest from various sources across the world.

Competency is an important nerve centre for organisational functions to link to the overall performance. It aligns strategies with priorities of the organisation. Corporate e-learning systems can become more successful only if and when it becomes a self-initiated program by each individual at his workplace. Today's organisations are incorporating such competency-based approaches in order to be more successful to utilise human capability at its maximum capacity.

When these tools are used, it provides an opportunity for employees to document and demonstrate their target achievements at the work place.

E-learning

E-learning, is an abbreviation of electronic learning and refers to any material delivered or presented via computer technology. It encompasses all kinds of information, pictures, graphs, diagrams, and any other form delivered through the electronic medium. The main objective is to

address the learning needs of individuals, groups, disciplines and subjects to find the best possible method to enhance their understanding. Through e-technology instant updating, retrieval, distribution, and delivery of required information is possible at a faster pace. Web-based learning, virtual interactions of teams/groups are possible with e-learning.

Competency

Competency is defined as ability based on behaviour, referred to as a competency by Ganesh Shermon[1]. Competencies are differentiated at different levels; behaviours form the basics to make a framework. This phenomenon is a deep understanding of the characteristics required to perform in a superior way. It is themost important success factor for achieving an organisation's objectives.

Competencies represent the knowledge and skills required for performing and supporting the business processes. They represent the basis for creating value in an organisation. Competence factors are observable and measurable.

The term "competency" refers to a combination of skills, attributes and behaviours that are directly related to improvement of performance on the job.

Corporate e-Learning

Any information, data and text material delivered via computer (Internet & intranet) that support an individual's job perspective and create value addition to improve performance is defined as corporate e-learning.

Corporate e-learning is both formal as well as informal. Most e-learning in organisations happens informally. E-learning is not individual learning alone; it is also addressing learning service to large groups. Corporate e-learning is just not about the content, but it addresses on bringing learning people together on one particular platform.

Corporate e-learning train's people in various fields as required. This means it takes care of challenges faced by companies by delivering the right kind of knowledge at the right time. The utilisation of latest communication tools by delivering skills, knowledge and train employees is more apt tone called as corporate e-learning. The corporate has knowledge resource in the form of individual knowledge, group knowledge which comprises of both tacit and explicit knowledge. E-learning helps in capturing this knowledge and frames it for using and reusing them. By and large most organisations believe in the statement: "knowledge is power".

Innovative e-learning Practices

Cisco systems are pioneering organisations which practices e-learning. This company considers and utilises Internetand intranet applications that are the key enablers for work force optimization. Heng (2003) of Cisco Systems Asia Pacific, Singapore states, "Training– Cisco stays competitive by responding effectively to change. They ensure that their employees can quickly learn new skills, update old skills, and assimilate vast amount of information about new products, markets,and the competition." Cisco's e-learning program is a revolutionary step to empower workforce with the competency; it needs to keep pace with a rapidly changing market.

HP (Hewlett Packard) has e-learning programme for channel partners. HP has integrated learning approach for employees. The idea is to deliver right education, right part of organisation at the right time with right delivery method through electronic means. The company has specifically designed Learning Management Systems (LMS) to educate and train employees by reducing time and cost. They have successfully implemented self-paced training and comprehensive reporting/ tracking training results and also monitor course progress.

Motorola is a company, forefront in information technology (IT). It has made Internet applications as the key for its infrastructure development. It is one of the premier destinations for e-learning services and solutions. The e-learning process is supported by Motorola University (MU) learning portal. The e-learning portal caters for the delivery of synchronous (instructorled or mentored) programmes or asynchronous (individual/self-paced) programmes and registration for classroom-based training. The company has networked Virtual Organisation (VO).

Peoplesoft is another high technology industry, which has transformed an entire company's internal training operation into e-learning programmes. E-learning capability is to streamline delivery of learning services to customers worldwide, and design capability to scale easily. The company has successfully implemented end user training through online support with a variety of learning materials.

People soft has launched a program called 'knowledge centre'; a web-based service which provides a variety of learning resources directly to the desktop. People soft e-learning has many different modules; most popular of which are the HR (human resources) modules.

Oracle has extensive e-learning offerings with enterprise learning management system (LMS) and e-business suite. They have a complete infrastructure of online and offline programmes with tracking the progress and reporting the results. They have implemented these programmes

1 Shermon,Ganesh (2005).Competency based HRM –A strategic Resource or Competency Mapping, assessment and development Centres. Tata McGraw-HillPublishing Company Limited.43-44.

with personalized learning, integrated learning, content management for reuse and syndication, customizable knowledge delivery with speed, third party integration, e-commerce integration and total security for all online programmes. Oracle delivers what is wanted in today's business environment by e-channel at a faster pace and in a required manner.

Competency-based corporate e-Learning (CBCeL)

Competency refers to a cluster of skills and abilities needed by a person in order to act effectively in a given situation. Competencies cannot be taught in a single day. They are required to be developed over a period due to changes in job roles and responsibilities. However, conducting such competency based training cannot happen effectively through traditional methods of training due to various factors like time constraints, cost constraints etc. In such a situation, a well-organised competency-based corporate e-learning system would provide immense support to the employees and organisations.

Competency-based corporate e-learning system is a human resource tool, which enables the corporate enterprise to map employee/team performance gap analysis and to appropriately address through learner centric e-learning courses and develop employees for the betterment of business results at a reduced cost across geographical locations.

Study Framework

The BPO(Business Process Outsourcing) industry is growing at more than 35%. There is more demand for job opportunities in this sector. Fresh talent from across the cities is being tapped by thetop ITeS companies for different entry level jobs. In turn, this is creating an employment opportunity for many young aspirants and move the economic cycle forward. Somefactors that have contributed to the growth are the productivity, labour quality, service quality etc. It has been realized that 70% of Indian BPOs are seemingly having bright future. The Indian BPO industry has set an aspiration target of touching $50 billion in revenue by 2012. The sector is expected to experience an additional two million people in the same period. Despite skill shortages, the sectors have grown to this extent. If skill shortages are appropriately addressed, lot of benefits can be realized.

Objectives

The objectives of the present study are

- To identify and analyze the current e-learning practices scenario in BPO sector.
- To examine the correlation between e-learning and performance; and
- To assess the potential of competency based e-learning for employee development in ITeS sector.

The aforesaid objectives led to the formulation of the following hypotheses

- H1: There exists strong correlation between competency and performance.
- H2: There is a significant influence of personal characteristics on individual performance
- H3: There is a significant influence of group characteristics on team performance.
- H4: There is a significant influence of experience on improving job knowledge.
- H5:There is a significant influence of e-learning delivery method on individual performance
- H6: There is a significant influence of e-learning technology and e-learning styles.
- H7: There is a significant influence of 360 degree e-learning oncompetency.
- H8: e-learning increases job knowledge leading to significantimprovement in overall performance.

Data Collection-Instrument

The primary data are collected from the companies concerned as well as from their employees by using questionnaire in a structured manner based on a set of predetermined questions. The questionnaire used for data collection contains close ended questions to measure the various constructs depicted in the research model. This enables respondents to answer questions quickly and yet objectively. The perception of the respondents were captured objectively using 5-point Likert scale thus reducing the complexity involved in collecting subjective data. A personal hand on delivery method has been used to administer the questionnaire.

Sampling unit and Space

The entire set of first level employees/executives who are into the backend support of retail process were chosen for the study. The entire set of employees were 41 concerning several functional activity like floor management, storage management, floor inventory and several such another activities relevant to the process . Since all the employees are covered in the domain, the study covers everyone whose activities in person and in a group would contribute to the organisation. The selected domain employees by activity are involved in semi-techand high-tech functions.

Such a groupwill spill out beans for training and its effect on

performance. E-learning is a part of overall activities. This intervention variable is expected to yield the research for the instrument development.

Statistical Tools Used

In primary data collections, descriptive statistics are used to understand the tendency and spread measures of the sample. The following measures have been computed to assess the central tendency and spread of observations. Mean and standard deviation have been computed to assess the tendencies across statements and consequent spread of these tendencies. The demographics and the function specific results require analysis in terms of demographics and performance. The measures of central tendency and dispersion are used to assess the extent of variation and coherence amongst the target group members. In order to make an assessment of performance the attributes and variables of performance are clubbed together by means of factor analysis. Varimax method is used to reduce 24 variables converging into factors. In addition a construct based on multiple regression equation has been developed for analyses of variance and is performed to examine influence of important factors of performance. R^2 and F statisticswere derived to assess the degree of power predictability of the equations. This is essential to make an assessment of overall tendencies and spreads across groups and overall size of the sample. Pearson correlation coefficient, factor analysis, cluster analysis, ANOVAs, multiple regression test, Reliability test and KMO test were conducted to analyze the results. The data were fed to SPSS -16 (statistical package for social sciences) for statistical analyses.

Details of the Study

In the initial phase, the BPO employee's data collection instrument has 202 statements. There were around 41 BPO employees (first level- proves executives) who responded to the statements. From this,30 respondents whobelonged to the same group, werepost graduates (mostly MBA) andwere handling backend support for retail process. This processis called non-voice process. The 11 executives were selected from handling voice-based process. Most of them were graduates.

From Fig. 1 we observe that out of 41 employees, 30 work as process executives (non-voice process) and 11 work as customer service executives (voice process).

Fig. 1: Process

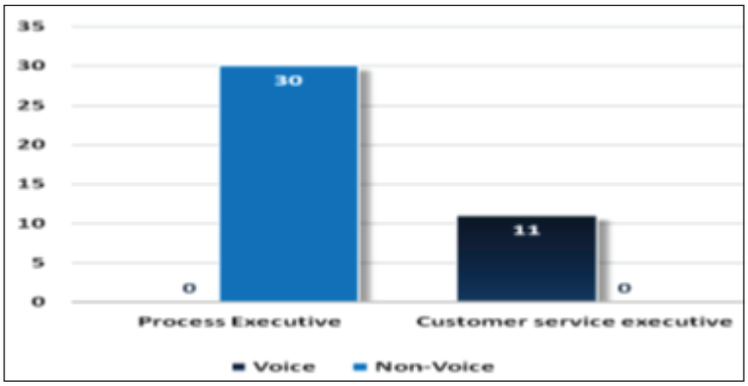


Fig. 2: Male and Female composition

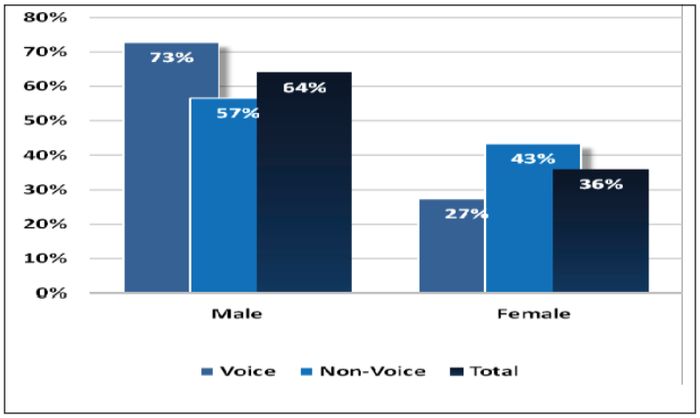


Fig. 3: Education

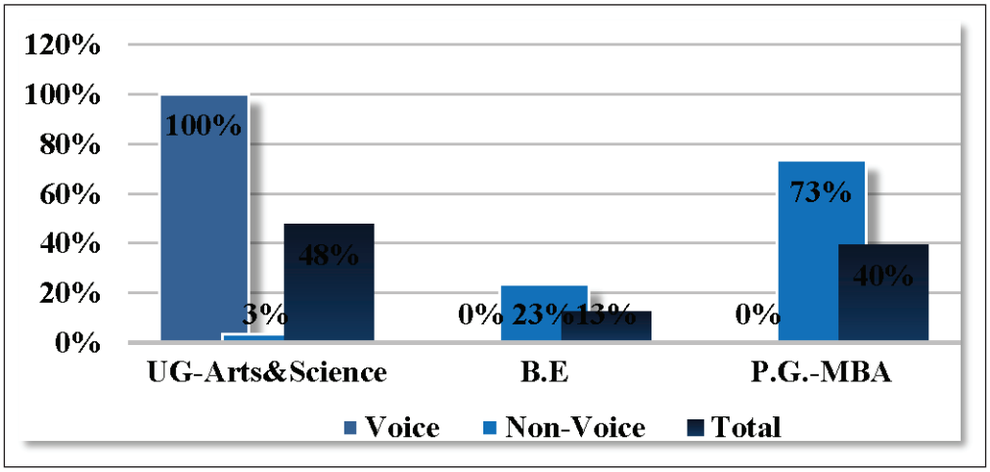
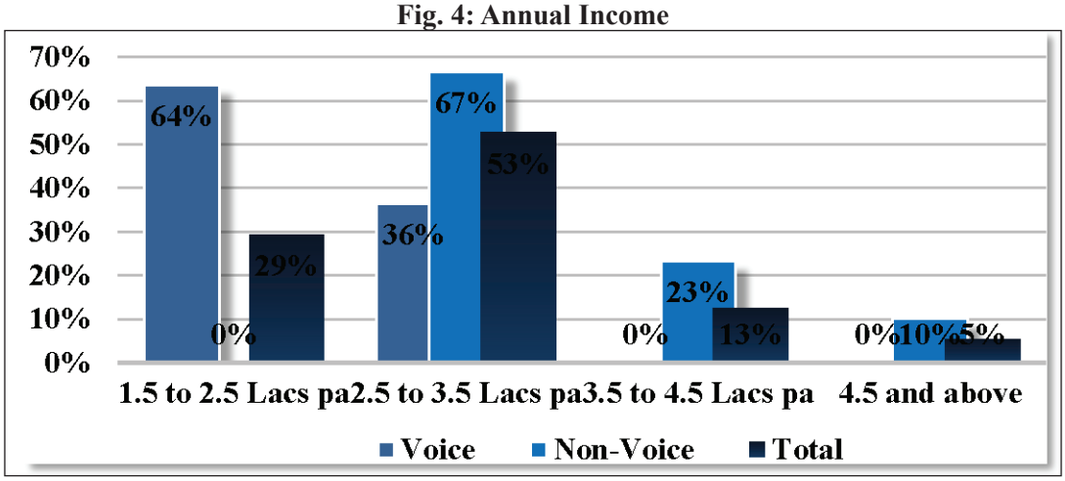


Fig. 4: Annual Income



Gender of Employees

From Fig. 2 we observe that, 73% male employees work in voice process and the remaining 27% in non-voice process. Similarly, 57% of female employees work in voice process and the remaining in non-voice process. On the whole, 64% of employees in the organisation work in voice process and 36% work in non-voice process.

Education of respondents

From Fig. 3 we observe that, 100% of employees who work in voice process are undergraduates, particularly from Arts and Science stream. In the non-voice process, 3% of employees are undergraduates, 23% have completed B.E. and 73% are postgraduates with MBA degree.

Annual Income of the employees

From Fig. 4 we observe that the annual income of 64% of employees in voice process falls in the salary bracket of 1.5 to 2.5 lakh INR p.a. and that of the remaining 36% in salary bracket of 2.5 to 3.5 lakh INR p.a. On the other hand, the annual income of 67% of employees in non-voice process falls in the salary bracket of 2.5 to 3.5 lakh INR p.a., 23% of employees in non-voice process falls in the salary bracket of 3.5 to 4.5 lakhs INR p.a. and that of the remaining 10% in non-voice process falls in the salary bracket of 4.5 lakhs INR and above.

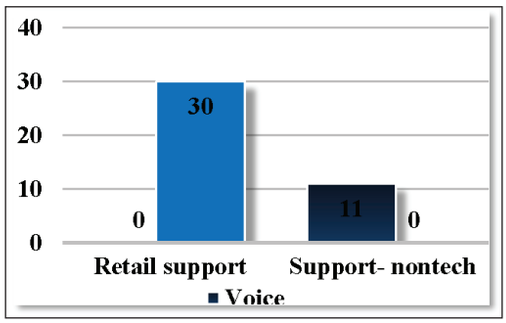
Kind of process

From Fig. 5 we observe that out of 41 employees, 30 work in retail support (non-voice process) and the remaining 11 work in non-tech support (voice process).

Number of Hours of Training

From Fig. 6 we observe that the employees in voice process underwent 119.5 hours of training; employees in non-voice process underwent 120.2 hours of training. On the whole, the employees underwent 119.9 hours of training.

Fig. 5: Kind of Process



Reliability

To assess reliability, the Cronbach's alpha score for each statement was examined. The alpha score was greater than 0.7 (Numally, 1978) in all and hence, they were reckoned as reliable (refer Annexure 1).

Correlation score for overall performance

From Fig. 7, we observe that out of 41 employees, 46.8% gave their preference to learning style, 37.1% chose knowledge, 22.5% felt e-learning platforms to be important, 18.2% gave prominence to team psychographics. Among the employees, 13.1% considered learning time orientation to be important, 12.9% gave importance to general competency and individual psychographics equally. 11.8% felt that learning content type should be given priority. 9.3% gave

Fig. 6: Number of Hours of Training

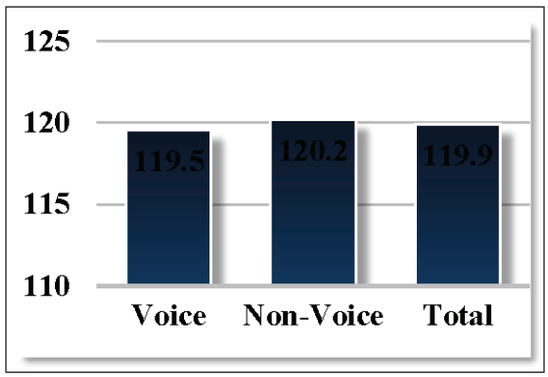
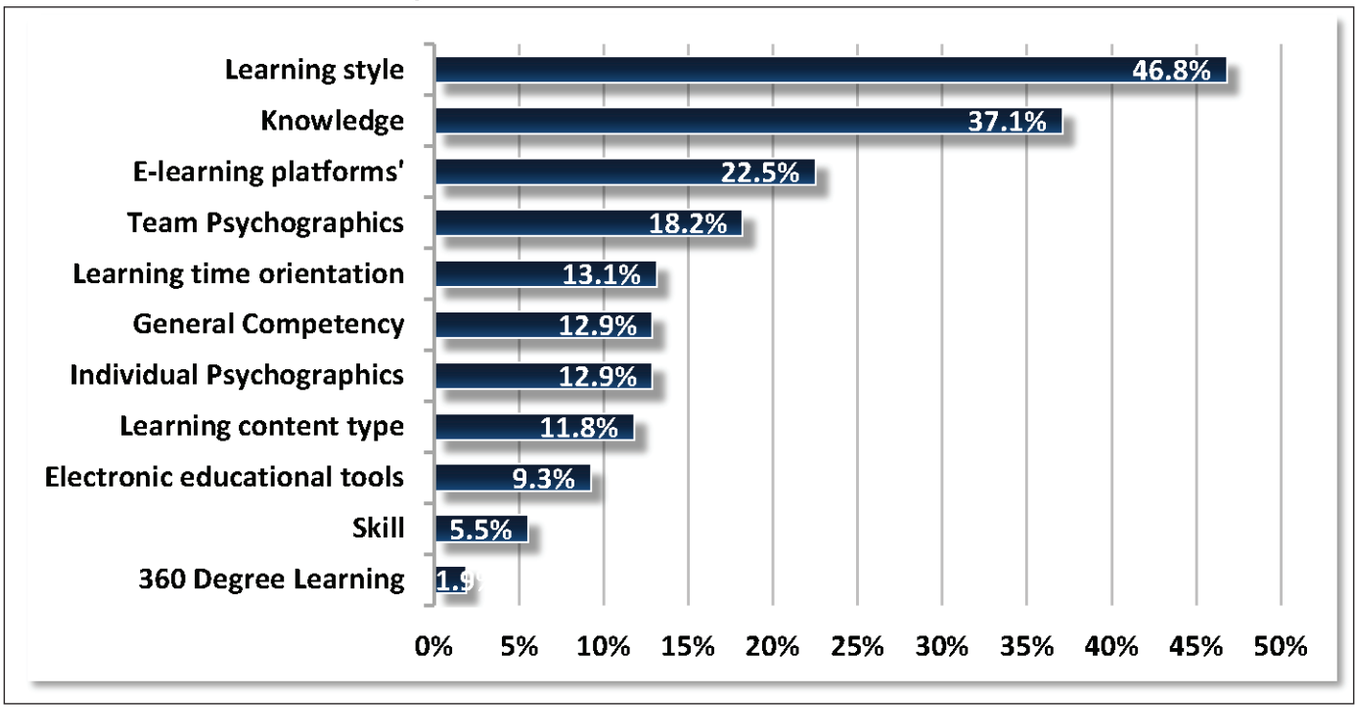


Fig.7: Correlation score of Overall Performance



preference to electronic educational tools. 5.5% gave prominence to skill. Only 1.9% felt that 360 Degree learning to be important.

Table 1: Pearson Correlation Between Aggregated Variables

	Performance Overall	Sig.
Learning style	0.47	0.00
Knowledge	0.37	0.00
E-learning platforms	0.23	0.00
Team Psychographics	0.18	0.00
General Competency	0.13	0.02
Individual Psychographics	0.13	0.02
Learning time orientation	0.13	0.02
Learning content type	0.12	0.03
Electronic educational tools	0.09	0.09
Skill	0.06	0.31
360 Degree Learning	0.02	0.73

Note: N: 41

Table 1 shows the Pearson correlation between aggregated variables of e-learning competency system with Performance Overall. Correlations show the degree of relationship between e-learning competency system variables with Performance Overall.0.47 or 47% of relationship between learning style and performance overall as high relationship. The variables shows significant value <.05, i.e.model is statistically significant @ 5% level.

Factor Analysis

The general purpose of factor analysis is to find a method of summarizing the information contained in a number of original variables to in a smaller set of new composite dimensions (Factors) with minimum loss of information. That is, the Factor Analysis tries to identify and define the underlying dimensions in the original variables.

Factor analysis usually proceeds in five steps:

1. The correlation matrix for all variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The appropriateness of the factor model can also be calculated.
2. Principal Component Method Factor extraction is used, the number of factors necessary to represent the data and the method of calculating them must be determined. At this step, how well the chosen model fits the data is ascertained. Eigen value greater than 1 to extract number of factors from the set of variables.
3. Varimax Method Rotation focuses on transforming the factors to make them more interpretable. (Refer Table 12)
4. Scores for each factor can be computed in each case. These scores are then used for further analysis.
5. Factors are named based on the variables loaded in the respective factors. (Refer Tables1 and 2). Variables loaded below. 5 are suppressed from the table for understanding at ease.

Thus the 24 variables in the data were reduced to 5 factor model and each factor may identify with the corresponding variables as follows:

Table 2: Consolidation Factor Analysis Report

Factor #	Factor	Eigen Values	Total Variance Explained (79%)
Fact 1	learning content type	8.01	24%
Fact 2	learning style	4.37	21%
Fact 3	learning time orientation	2.91	14%
Fact 4	electronic educational tools	2.36	12%
Fact 5	e-learning platforms	1.37	8%
KMO Test	>.5		
Communalities	All the variables >.5		

Multiple Regression Analysis

The Multiple Regression Analysis is used to know the impact of e-Learning variables and other psychographics variables on performance overall. E-learning variables are derived from factor analysis and other analyses such as knowledge, 360 Degree Learning, and Individual Psychographics, Team Psychographics & Learning style. The results of the analysis are shown below. It is seen from Table 4 that the multiple correlation coefficient, i.e. R value is 0.73, which exhibits a fair amount of correlation between the predicted performance overall and the actual performance overall dependent variable. The R square value gives us the goodness of fit

of the regression model. That is, the amount of variability explained by the whole of the selected predictor variables in the model accounts for 54.4 % (R2%=.544) of variation in the dependent variable (Performance overall). (Refer Table 4, Model summary)

From Table 5, ANOVA, with the F-ratio being 76.05 and its associated significance level being small (P<0.01),the regression model is statistically significant at 1% level.

The regression coefficients of knowledge,360 Degree Learning, Individual Psychographics, Team Psychographics, Learning style have indicated that these variables have positive effect on performance overall. All the independent variables on performance overall showed significant results except Team Psychographics,when tested with t-test.

Model Statistics:

- ✓ R : 0.73
- ✓ R Square : 0.54
- ✓ Adjusted R Square : 0.53
- ✓ Std. Error of the Estimate: 0.63

Five factors are considered of which four are significant at 0% and one at 37% levels. The study suggests that knowledge addition, 360^0 learning, individual psychographics and learning styles are statistical significant at high levels. Where appears to be some problem connected with team psychographics, given the nature of individuals is noticed that employees could not learn from team members. This is because as individuals they would like to excel and as team

Multiple Regressions

Multiple Regression Analysis for various constructs:

Table 3: Multiple Regressions

Attributes	Beta	t-value	Sig value
Knowledge	0.29	7.72	0
360 Degree Learning	0.14	3.56	0
Individual Psychographics	0.49	8.19	0
Team Psychographics	0.03	0.9	0.37
Learning style	1.02	26.15	0
Constant		9.63	0

Table 4: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.73	**0.54**	**0.53**	**0.63**
Predictors: (Constant), Learning style, Knowledge, 360 Degree Learning, Team Psychographics, Individual Psychographics			

Table 5: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	148.81	5.00	29.76	76.05	0.00
Residual	128.36	328.00	0.39		
Total	277.18	333.00			
Predictors: (Constant), Learning style, Knowledge, 360 Degree Learning, Team Psychographics, Individual Psychographics					
Dependent Variable: Performance Overall					

Table 6: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	4.48	0.46		9.63	0.00
Knowledge	0.45	0.06	0.29	7.72	0.00
360 Degree Learning	0.17	0.05	0.14	3.56	0.00
Individual Psychographics	0.72	0.09	0.49	8.19	0.00
Team Psychographics	0.04	0.05	0.03	0.90	0.37
Learning style	1.25	0.05	1.02	26.15	0.00
Dependent Variable: Performance Overall					

no identification is there of the employees. Mere induction of CbceL may not help in developing teams some extra efforts are essential to make teams perform better. The R^2 value at .54 points towards the organisational relationships in the form of hierarchy and work culture needs to be developed. Each individual should internalize as a team member for the organisation the learning contents should induce team psychographics along with developing technical and professional competencies.

The overall performance to continue will influence all these factors, whileteam psychographics has made no influence. This calls for special sessions for group members under the progress. There should be a definite influence of the team in performing tasks which in effect must charge the psychographics.

This study points towards courses on adjustability, adaptability and action. Skills of delivery much have a human interfere in making this happen.

Cluster Analysis

The statistical procedure used to form groups that share similar characteristics is called cluster analysis. The choice of variables is crucial to cluster analysis since only those used will determine the clusters or groups. The concepts of Distance and Similarity are key ingredients in this statistical procedure. Distance is the measure of how far apart cases are; whereas similarity measures the closeness of cases. Within a specific group or cluster, distance measures are Small while similarity measures are Large. Within cluster analysis, cases are grouped together on the basis of their "nearness". Cluster analysis usually employs the Distance measure (how far apart cases are) in defining the clusters or groups.

Cluster analysis technique is employed in this study to segment the BPO employees to in two or more similar groups. The e-learning systems variables include learning style, learning time orientation, electronic educational tools, e-learning platforms, 360 degree learning. The main purpose of this classification is to see whether BPO employees can be grouped into similar e-learning characteristics patterns. There are different classification techniques to perform cluster analysis. K-means cluster attempts to identify relatively homogeneous groups of cases based on selected characteristics, using an algorithm that can handle large numbers of cases. However, the algorithm requires specifying the number of clusters. Number initial cluster centres can be specified before if this information is known. Alternatively, the procedure is repeated by increasing the number of clusters from two to the required number of clusters, until the procedure, differentiates well between the clusters and the cases within each cluster is homogenous as far as possible. There are two methods for classifying cases, either updating cluster centres iteratively or classifying only. For the study, the cluster centres are updated iteratively till meaningful clusters arrived at. Once the numbers of clusters are arrived at, then analysis of variance was applied to find whether the clusters significantly differ from their group means. Since the cases or BPO employees were forced to form into similar groups, the ANOVA conducted is seen as method of verification of the cluster procedure.

For the purpose of cluster analysis, e-learning systems variables like learning style, learning time orientation, electronic educational tools, e-learning platforms,360 degree learning were considered for analysis. The classification procedure was repeated to find some meaningful clusters. After repeated iterations and increasing the cluster groups one by one, finally 3 cluster groups were formed. The initial cluster centres (Refer Table 7) are formed by selecting the means of the groups of each variable as centres. Table 7 gives the initial cluster centre values for each variable selected for this purpose.

As the method evolved by adding the cases into the nearest cluster, the cluster centres vary for each cluster. Thus the final cluster centres (Refer Table 8) are arrived when all the cases are grouped into either of the cluster which has nearest distance. Table 8 gives details of the final cluster centres and the BPO employees 'segmented' with cluster name. The variables with highlighted values indicate the highest value

coming under each cluster. That is, after the final clusters were arrived, based on the variables which have high values in the respective cluster centres, the BPO employees were assigned the 'types' under which they fall.

ANOVA was applied to find whether the cluster groups differ significantly among themselves based on the variables selected. The ANOVA (Refer Table 9) is produced below.

The ANOVA table (Table 9)shows the cluster procedure has differentiated the groups significantly on all of the selected factors e-learning systems variables like learning style, learning time orientation, electronic educational tools, e-learning platforms, 360 degree learning. However, it should be noted that the f tests are used only for descriptive purposes to show the effective segmentation of the BPO employees, because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Finally, Table 10 presents the number of employees grouped into each cluster. Among the BPO employee types, many of the employees belong to (49%) to the aggressive type, whereas (39%) of the employees chose to be 'Speculator'. As much as 12% of the employees come under Moderators type.

The cluster analysis points towards learning content type, learning style and time orientation for learning. The

Table 7: Initial Cluster Centres

Attributes	Cluster		
	1	2	3
Learning content type	4.71	4.14	3.86
Learning style	4.71	2.57	2.29
Learning time orientation	4.67	3.67	3.33
Electronic educational tools	4.50	4.00	4.00
E-learning platforms'	2.67	4.33	3.33
360 Degree Learning	4.00	5.00	2.00

Table 8: Final Cluster Centres

Attributes	Cluster		
	1	2	3
Learning content type	3.63	4.09	3.45
Learning style	4.39	3.20	3.32
Learning time orientation	4.60	3.93	3.25
Electronic educational tools	4.25	4.20	3.76
E-learning platforms	3.38	4.07	3.18
360 Degree Learning	3.89	4.80	2.99

Table 9: ANOVA

Attributes	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Learning content type	0.819	2	0.321	38	2.554	0.091
Learning style	5.886	2	0.230	38	25.610	0.000
Learning time orientation	8.165	2	0.132	38	62.069	0.000
Electronic educational tools	1.163	2	0.164	38	7.091	0.002
E-learning platforms'	1.562	2	0.215	38	7.266	0.002
360 Degree Learning	7.996	2	0.309	38	25.903	0.000

Table 10: Cluster Formation

Attributes	1		2		3	
	N = 16	Mean	N = 5	Mean	N = 20	Mean
360 Degree Learning	39%	3.89	12%	4.80	49%	2.99
Learning content type		3.63		4.09		3.45
Learning style		4.39		3.20		3.32
Learning time orientation		4.60		3.93		3.25
Electronic educational tools		4.25		4.20		3.76
E-learning platforms		3.38		4.07		3.18

educational tools must be involved this learning platforms. The study makes an influence on holistic learning wherein any learning content should be examined across several directions. There are only two clusters; the first being learning style time orientation and tools and second refers to content type platforms and 360^0 learning. This division enables us to concentrate on both clusters leading to production of relevant materials for effective delivery. The ANOVA for all attributes makes us to conclude the F statistics are significant statistically from 0% to 9.1% levels.

The second cluster has higher average level tendencies as compared to the first cluster. The formation of clusters is significant enough irrespective of the sample sizes.

The study accepts all the alternate hypotheses at high level of statistical significance. The summary is presented in the next section.

A Summary of Post Analysis

The survey results reflected upon few areas of improvement including the need for consistent communication with the entry level executives. The respondents also revealed that there is a high insecurity in the job that has a direct impact on performance.

Conclusion

Competency based corporate e-learning is important for today's environment in business. This merges e-learning and competency requirement and accordingly delivers the required competency and upgrades the performance levels of individuals for organisational development. The topic emphasizes on training through electronic mode and personal learning plans to the employees which can automatically be tracked by the server managers. Though IT companies most popularly use, the author wanted to experiment with ITeS (BPO) and their usage of the theme.

The study has identified four factors which are statistically significant at 0% level. Factors such as knowledge, 360^0 learning with appropriate psychographics and learning style at the individual level matters the most while the same result is not seen as a team. CbceL must concentrate on team building and delivery for best results. This method learning has its scope in a space for ensuring best competency amongst human resources.

Table 11: Summary of Post Analysis

Path	Hypothesis	Coefficient	Sig 5%	Result
Competency to performance	H1	0.37	0	accepted
Individual characteristics to performance	H2	0.13	0.02	accepted
Team characteristics to performance	H3	0.18	0	accepted
e-Learning skill building to performance	H4	0.23	0	accepted
e-Learning styles to performance	H6	0.47	0	accepted

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ANNEXURE 1

Statements testing Cronbach's Alpha

	Mean	Variance	Total Correlation	Cronbach's Alpha
St59.I am very comfortable with virtual learning environment	179.17	175.10	-0.26	0.85
St105.I strongly feel that relevance of learning to work or future work is important key factor for e-learning.	179.83	172.50	-0.13	0.85
St50.I prefer games and videos mode of learning.	179.76	172.14	-0.12	0.85
St52.I am comfortable with digital learning	179.73	174.10	-0.26	0.85
St49.I prefer presentation method of learning.	179.34	173.08	-0.20	0.85
St56.I understand knowledge orientation is the best personal characteristics for e-learning	179.68	173.47	-0.25	0.85
St83.I strongly feel that characteristics of oneself is most important personal characteristic that influence corporate learning.	179.49	173.01	-0.23	0.84
St11.My organisation creates e-learning content for individual users	179.63	172.89	-0.22	0.84
St93.I strongly feel that orientation+ knowledge skill set application (360 degree) is addressed through e-learning.	179.68	168.07	0.03	0.84
St100.I strongly feel support for learner is the key factor for e-learning.	179.29	169.96	-0.03	0.84
St60.I get into authored web pages for corporate e-learning for specific learning purpose.	179.22	169.73	-0.02	0.84
St103.I strongly feel that content clarity and depth areimportant factors for e-learning.	179.29	171.51	-0.15	0.84
St19.My organisation has e-learning program with self- evaluating system	179.20	165.31	0.14	0.84
St74.I use offline method of e-learning	179.29	170.31	-0.06	0.84
St23.My organisation always ensures on permanent Suavity improvement for e-learning courses.	179.90	166.94	0.11	0.84
St71.I like game based e-learning	180.85	167.13	0.14	0.84
St25. My organisation uses on-line assessment and management of continuous professional education (CPE).	179.71	164.46	0.20	0.84
St65.I use audio and video devices for e-learning	179.68	163.97	0.23	0.84
St68.I like blogs used in e-learning courses	179.46	161.70	0.26	0.84
St21.My organisation regularly assesses learner's performance and feedback on a systematic basis.	179.78	165.98	0.22	0.84
St14.My organisation has a system of changing the content of e-learning based on the requirements.	180.22	166.08	0.23	0.84
St51.I prefer e-learning mode of training	179.68	165.27	0.24	0.84
St102.I strongly feel interesting and engaging materials make an important factor for e-learning.	179.34	164.83	0.26	0.84
St67.My organisation makes e-learning courses very interesting.	179.61	162.74	0.28	0.84
St29.My organisation has a system of using mobile wireless, palm tops and voting system for e-learning.	179.27	166.05	0.33	0.84
St28.My organisation has a system of computer based assessment for e-learning courses.	179.32	165.52	0.31	0.84
St63.I learn through electronic white boards/black boards	180.05	166.40	0.40	0.84
St104.I strongly feel that reliability and ease to use of technology is important key factor for e-learning.	179.20	165.46	0.31	0.84

St15.My organisation practices regular up gradation of e-learning courses.	179.76	165.29	0.31	0.84
St12.My organisation addresses e-learning courses depending on the learning styles of individuals.	179.27	164.65	0.31	0.84
St66.I get customized training for e-learning	179.12	162.41	0.31	0.84
St106.My organisation has specific time frame for completing e-learning course.	179.56	161.85	0.36	0.83
St75.I sometimes use both online and offline e-learning.	179.76	162.99	0.41	0.83
St61.I look into search engines and portals for web based research content	179.22	159.48	0.38	0.83
St101.I strongly feel time and opportunity areimportant for e-learning.	179.29	161.56	0.41	0.83
St69.I like quizzes and puzzles used in e-learning course.	179.63	161.39	0.65	0.83
St24.My organisation uses collaborative learning (application sharing, discussion threads).	179.54	159.10	0.56	0.83
St13.My organisation has integrated assessment system for e-learning courses	179.83	160.40	0.69	0.83
St58.I am extremely familiar with the electronic educational tools	178.85	160.13	0.66	0.83
St62.I get into discussion boards and bulletin boards for online learning	178.85	159.43	0.66	0.83
St73.I require online e-learning	179.73	158.55	0.61	0.83
St64.I use learning tutorials software for e-learning	179.46	155.70	0.54	0.83
St26.My organisation uses various learning management systems to assess employees.	179.44	154.65	0.54	0.83
St94.I strongly believe that competency based e-learning increases job knowledge, and has direct impact on performance.	179.24	153.89	0.64	0.83
St107.My organisation does not limit specific time frame to complete e-learning courses.	179.32	153.42	0.65	0.83
St96.My organisation uses e-learning initiative to measure the performance.	179.22	153.03	0.71	0.83
St98.I prefer self-directed learning style.	179.34	151.58	0.73	0.82
St97.I prefer synchronous learning(real time, instructor-led online learning event)	179.37	151.69	0.74	0.82
St99.I prefer asynchronous (interaction between instructorsand student occurs intermittently) learning style.	179.29	150.96	0.73	0.82
St70.I like case study method for e-learning	179.59	151.70	0.79	0.82

ANNEXURE 2

St#	Statement	Fact 1	Fact 2	Fact 3	Fact 4	Fact 5
St65	I use audio and video devices for e-learning	0.85				
St64	I use learning tutorials software for e-learning	0.78				
St19	My organisation has e-learning program with self- evaluating system	0.73				
St66	I get customized training for e-learning	0.72				
St15	My organisation practices regular up gradation of e-learning courses	0.71				
St75	I sometimes use both online and offline e-learning	0.58				
St63	I learn through electronic white boards/black boards	0.55				
St68	I like blogs used in e-learning courses		0.83			
St96	My organisation uses e-learning initiative to measure the performance		0.74			
St26	My organisation uses various learning management systems to assess employees		0.69			
St98	I prefer self-directed learning style		0.68			
St97	I prefer synchronous learning(real time, instructor-led online learning event)		0.68			
St70	I like case study method for e-learning		0.57			
St25	My organisation uses on-line assessment and management of continuous professional education (CPE)		0.52			
St102	I strongly feel interesting and engaging materials makeanimportant factor for e-learning			0.92		
St101	I strongly feel time and opportunity areimportant for e-learning			0.84		
St99	I prefer asynchronous (interaction between instructors and student occurs intermittently) learning style			0.65		
St28	My organisation has a system of computer based assessment for e-learning courses				0.81	
St58	I am extremely familiar with the electronic educational tools				0.77	
St62	I get into discussion boards and bulletin boards for online learning				0.74	
St69	I like quizzes and puzzles used in e-learning course				0.59	
St21	My organisation regularly assess learner's performance and feedback on a systematic basis					0.78
St73	I require online e-learning					0.59
St23	My organisation always ensures on permanent Quality improvement for e-learning courses					0.53
	Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisatio					
	A	Rotation converged in 21 iterations.				