Perceptual Analysis of Induction Processes in Major Indian IT Firms

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Abstract

This study is a comparative analysis of induction practices in nine major Indian IT firms. The study also attempts to identify the perceptual factors of the induction practices in the IT industry using factor analysis and TOPSIS analysis.

The results of the study suggest that IT companies should focus on improving the infrastructure and quality of the speakers to improve the satisfaction of inductees towards the induction process. Further, there are significant differences in satisfaction of the induction processes in different IT companies, with inductees at Wipro having the highest overall level of satisfaction with the induction process, followed by Infosys, IBM, and TCS, and inductees at Oracle having the lowest overall satisfaction with the induction process.

Keywords: induction practices, perceptual factors, factor analysis, TOPSIS analysis.

Introduction

The Indian Information Technology (IT) industry contributes about 6.1% of the country's GDP as of 2010. One of the main reasons behind India's rapid growth in IT industry is a labor intensive growth and effective human capital management. India possesses an abundant supply of engineers, which not only gives a cost advantage, but also ensures better domain knowledge over other countries.

The $60 billion IT industry in India continues to attract overseas business, despite competition from the other emerging markets that also offer lower costs. Some markets like China, Singapore, and the Philippines offer lower costs, but they are not on par with India. China has an issue with language, and several other countries do not have the same levels of competency and moreover, many of them are still in the process of learning business norms. On the other hand, in India, there is an issue with the employability factor of fresh graduates.

Some of the important international players are Microsoft, IBM, Oracle, SAP, and Ericsson. IBM and Microsoft are the two leading IT industries in the world. The major players in the Indian IT industry include Tata Consultancy Services Limited (TCS), Wipro Technologies Ltd., Infosys Technologies Ltd., HCL Technologies Ltd. (and sister-concern HCL Infosystems Ltd.), Mahindra Satyam, and Tech Mahindra. Their global rankings (as of 2010) are given in the table below.

Indian IT companies in ET 500 (2010)

Company	Headquarters	Rank
Tata Consultancy Services	**Mumbai**	**20**

Wipro Technologies Ltd.	Bangalore	22
Infosys Technologies Ltd.	Bangalore	26
HCL Technologies Ltd.	Delhi/NCR	49
Mahindra Satyam	Hyderabad	112
Tech Mahindra Ltd.	Mumbai	132

Source: Economic Times 500

Sales turnover ratio of Indian IT companies from 2006-10

	2006	2007	2008	2009	2010
Infosys	9028.0	13149.0	15648.0	20264.0	21140.0
TCS	11230.5	14940.0	18533.7	22404.0	23044.2
Wipro	10247.9	13679.6	17461.2	20987.3	23177.6
HCL	3032.9	3768.6	4615.4	4675.1	5078.7
Tech Mahindra	1197.0	2753.2	3604.7	4357.8	4483.8

Source: Capitaline.com

Bangalore is the Silicon Valley of India, contributing 33% of India's total IT exports, and housing two of India's largest software companies. Mumbai also has a major share of IT companies, including India's largest, TCS.

MNCs like TCS and Infosys spend 4-6% of their revenues in training their employees. Global competition has led to the improvement in quality in terms of the services provided and the working environment. The backbone of IT sector is exports and outsourcing demand, but to sustain its growth, there is the need to increase domestic demand. The growing importance of human capital has given rise to entrepreneurship, driven by the software sector, which are slowly growing and spreading to other parts of Indian industry. A potentially important and appreciated contribution of the software industry leads to good entrepreneurship and corporate governance to the rest of Indian industry.

Induction is the training given to new employees. Induction is conducted at organizations to help a new employee to settle down quickly into the organization and start gaining profits to the firm (Fowler, 1996; Derven, 2008). The employee is made aware of the various policies and the culture of the organization during induction. One of the main jobs during induction is to collect all the necessary documents from the employees. Induction is also the only period when employees are not busy with their projects, hence all relevant information should be provided to them (Armstrong, 2006; Short, 2011).

It is important to give a new employee a good impression on the first day of work. However, the induction program should not end there. It is important to have a well-organized induction program, which should cover all the required aspects on which the employees should be trained on before joining their job (Skeats, 1991; Bradt, 2010).

Methodology

This study is a comparative analysis of induction practices in major Indian IT firms. The study also attempts to benchmark the best practices of induction in the IT industry. The study involves the analysis of the induction procedures in a sample of nine major IT firms, including Infosys, TCS, Wipro, Cognizant, Capgemini, Tech Mahindra, Oracle, IBM, and Accenture.

The study also aims at finding ways to improve the induction process by identifying the most important factors of induction, which should be primarily focused on to improve the induction process. The study is based on primary data obtained from respondents using a structured questionnaire[1] from ten respondents from each of the sample companies. The respondents were newly-recruited IT professionals in different IT companies who had undergone the induction program in their organizations. The data for the study was collected from the respondents relating to their satisfaction with respect to the following parameters of the induction processes of the sample IT companies: feel of welcome, infrastructure, promptness, videos/presentations, speakers, and coordination. The perceptions of the respondents towards each of the parameters in the induction process were taken on a five-point Likert scale.

The satisfaction levels towards the different parameters of the induction processes was analyzed using the Friedman test, and between the sample IT companies using the Kruskal-Wallis test. Further, the correlation between the different parameters was analyzed using factor analysis and TOPSIS analysis, in order to construct an index for overall satisfaction of the induction process.

Findings

The descriptive statistics of the satisfaction of the respondents towards the different parameters in induction programs are presented in Tables 1 and 2. The results of the Friedman test comparing the overall satisfaction levels of the parameters in induction programs are presented in Table 3.

Table 1: descriptive statistics of perceptions towards induction programs

	Feel of welcome		Infrastructure		Promptness	
	mean	std. dev	mean	std. dev	mean	std. dev
TCS	4.00	0.85	3.95	0.99	4.23	0.80
Capgemini	3.60	0.89	2.80	0.45	3.60	0.55
IBM	4.00	1.00	3.80	0.84	3.80	1.10
Wipro	4.40	0.89	3.80	1.30	3.80	1.64
Infosys	3.80	1.10	4.40	0.89	3.80	0.84
Cognizant	2.80	0.84	3.20	1.30	3.40	0.89
Accenture	3.60	0.89	4.40	0.89	3.40	0.89
Oracle	3.20	0.45	2.60	0.89	3.40	1.52
Tech Mahindra	3.20	1.10	3.20	1.30	3.60	0.89
Overall	*3.79*	*0.92*	*3.74*	*1.08*	*3.91*	*0.96*
Kruskal-Wallis χ^2	*14.386*		*17.107*		*11.131*	
p-value	*0.072*		*0.029*		*0.194*	

Table 2: descriptive statistics of perceptions towards induction programs

	Videos/Presentations		Speakers		Coordination	
	mean	std. dev	mean	std. dev	mean	std. dev
TCS	3.93	0.80	3.60	0.84	3.78	0.89
Capgemini	3.00	0.71	3.60	0.55	3.20	0.45
IBM	4.20	1.10	4.00	1.00	3.80	1.10
Wipro	4.20	0.45	4.20	0.84	4.00	1.22
Infosys	3.80	0.84	3.80	1.10	4.20	0.45
Cognizant	3.20	0.45	3.20	0.84	3.20	1.30
Accenture	3.60	0.55	3.60	0.89	4.00	0.71
Oracle	2.40	1.34	2.80	0.45	2.80	0.45

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[1] Please contact authors for the detailed questionnaire.

Tech Mahindra	3.80	0.45	3.20	0.84	3.40	0.89
Overall	*3.73*	*0.89*	*3.58*	*0.85*	*3.68*	*0.91*
Kruskal-Wallis χ²	*19.23*		*9.775*		*12.575*	
p-value	*0.014*		*0.281*		*0.127*	

Table 3: Friedman test

	mean rank
Feel of welcome	3.64
Infrastructure	3.48
Promptness	3.96
Videos and presentations	3.46
Speakers	3.12
Coordination	3.34
Friedman χ²	*17.245*
p-value	*0.004*

The descriptive statistics indicate that there was a moderate/high level of satisfaction overall along all parameters. There was found to be a significant difference between the satisfaction levels of the different parameters in induction programs, with highest satisfaction levels with respect to promptness, followed by feel by welcome, infrastructure, videos and presentations, coordination, and least satisfaction levels with respect to speakers.

Also, there was found to be significant differences between the sample IT companies with respect to the level of satisfaction towards infrastructure and towards videos/presentations; there was found to be no significant difference between the sample IT companies with respect to the other parameters. There was found to be relatively higher levels of satisfaction as compared to the other sample IT companies towards the feel of welcome in Wipro, infrastructure in Infosys and Accenture, promptness in TCS, videos/presentations in IBM and Wipro, speakers in Wipro, and coordination in Infosys. There was found to be relatively lower levels of satisfaction as compared to the other sample IT companies towards the feel of welcome in Cognizant, infrastructure and videos/presentations at Oracle and Capgemini, and speakers and coordination in Oracle.

The results of the factor analysis of the satisfaction levels of the respondents towards the different parameters of the induction process are presented in Table 4.

Table 4: factor analysis of perceptions towards induction programs

	loadings	coeff.
Feel of welcome	0.849	0.1776
Infrastructure, food and facilities	0.809	0.1696
Promptness in delivering employee id etc.	0.684	0.1432
Videos and presentations	0.748	0.1568
Speakers	0.843	0.1760
Coordination	0.844	0.1768
%age of variance explained	*63.71%*	
KMO measure of sampling adequacy	*0.867*	
Cronbach alpha	*0.882*	

The results indicate that only one factor was identified, with relatively high sampling adequacy (KMO = 0.867), explaining 63.71% of the overall variance in the satisfaction levels of the parameters, with high reliability (Cronbach alpha = 0.882). The factor coefficients have been normalized to sum to unity.

The factor coefficients obtained were used to construct factor scores for each of the sample IT companies. The descriptive statistics and the TOPSIS analysis of the factor scores are presented in Table 5 and Table 6, respectively.

Table 5: descriptive statistics of satisfaction score

	mean	std. dev
Wipro	4.0750	0.6983
Infosys	3.9725	0.6921
IBM	3.9334	0.9173
TCS	3.9018	0.7258
Accenture	3.7778	0.4647
Tech Mahindra	3.3867	0.7586
Capgemini	3.2995	0.5057
Cognizant	3.1576	0.6247
Oracle	2.8603	0.5789
Overall	*3.7298*	*0.7471*
Kruskal-Wallis χ^2	*16.8378*	
p-value	*0.0318*	

Table 6: TOPSIS analysis of satisfaction scores

	distance from ideal point	distance from anti-ideal point	TOPSIS score
Wipro	0.3076	1.3525	0.8147
Infosys	0.3790	1.2569	0.7683
IBM	0.3889	1.2088	0.7566
TCS	0.4108	1.1459	0.7361
Accenture	0.5824	1.1208	0.6581
Tech Mahindra	0.9333	0.7031	0.4297
Capgemini	1.0347	0.5688	0.3547
Cognizant	1.1433	0.4668	0.2899
Oracle	1.4503	0.1686	0.1041

The descriptive statistics of the satisfaction factor score indicate a moderate/high level of satisfaction overall with the induction process. Further, there was a significant difference in overall satisfaction with the induction process between the sample IT companies. Inductees at Wipro had the highest overall level of satisfaction with the induction process, followed by Infosys, IBM, and TCS; on the other hand, inductees at Oracle had the lowest overall satisfaction with the induction process. The TOPSIS analysis yielded the same ranking of the sample IT companies.

Discussion

Induction programs have several purposes/objectives. They help new joiners to feel familiar with the organization, and get to know the vision, mission, policies, and culture of the organization, creating a sense of belongingness for the organization, and motivate them to become productive. They also enhance the organization's public reputation/brand. However, there are some drawbacks of induction programs: they tend to be expensive, time-consuming, and difficult to arrange (in terms of arranging for suitable speakers, a suitable venue, and accommodation and travel for the new joiners). Induction training is an increasingly common form of induction, wherein companies put some real thought and effort into trying to make people feel welcome by meeting them face-to-face.

The results of the study suggest that IT companies should focus on improving the infrastructure and quality of speakers to improve the satisfaction of inductees towards the induction process. Further, although all major IT firms give great emphasis to their induction, and the induction processes in different IT companies are similar, there are significant differences in satisfaction of the induction processes in different IT companies.

The results of the current study are very different from a qualitative study on the same sample of IT companies by the authors (Dash et al, 2015). The qualitative study had considered formal and informal aspects of the induction processes in the sample IT companies and identified Accenture, IBM, and Oracle as the top performers, and Wipro, Capgemini, and Tech Mahindra as the worst performers.

There are several limitations inherent in the current study. The sample size of the study is relatively small. Further, as the study is based on perceptual data, the responses may be subject to bias. Thus, the results of the study may not be generalizable. Also, the study only considers a small set of variables relating to the induction process; other variables may also play a role in the perception of inductees towards the induction process. Further, the impact of the induction process on the inductees should be assessed and explained in terms of their perceptions of different aspects of the induction process.

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