

## Pattern of Employee Cost in Select Corporate Sectors of India: An Empirical Analysis

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**Abstract:** This paper is an attempt to identify the pattern of employee cost in the Indian corporate sector during the last 15 years from 2005 to 2019. In order to achieve the objective, data from 9 sectors have been selected. For testing the hypotheses, the ANOVA test has been applied. The study concludes that the Indian corporates have not yet adopted any consistent wage policy. Further, it is also attempted to provide insightful information for policymakers to lessen the attrition rate in the corporates by analyzing the employee cost component in cost structure; it will also give room to the companies to determine up to what extent the employee cost will be increased. From the point of view of employment, the IT sector is an alluring sector that consistently providing the highest wages to the employees over the selected years of study.

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## 1. Introduction

Optimal cost management becomes a central point to maintain the profitability due to sudden changes in technologies and tough global and domestic competition, moreover due to the Covid-19 entire corporate sector through out the globe is under pressure to maintain the optimal cost of the product. In this sequence, most companies focused on reducing employee cost by adopting various modes like salary cut, retrenchment, and restricted the perquisites. Companies like Tata Consultancy Service, Wipro Ltd., Price Water House Coopers (PWC) Ltd., Infosys Ltd., etc. have decided to give a deferred hike in salary. Reliance Industries Ltd., Kazaria Ceramics, TVS Motor Company all have reduced employees' salaries due to Covid-19, but these companies have not retrenched employees from companies. Swiggy, Ola Cabes, Uber Technologies Inc., Zomato, International Business Machines Corporation (IBM), etc. have retrenched several employees for reducing production costs. According to the study of CMIE (Centre for Monitoring Indian Economy), 122 Million (12.20 Crore) people have lost their jobs since the 25th of March, 2020, due to the Covid-19 pressure. However, Hindustan Unilever Ltd., Asian

Paints, Johnsen & Johnsen, Flipkart, Hindusthan Coca Cola Beverages Private Ltd. (HCCB), Bhartpe, Inflexion Point Venture (IPV), and BHS Home Appliance has given hike in salaries to their employees to face pandemic Covid-19 situation more serenely.

In India, the unemployment rate increased rapidly due to the pandemic effect. In the first five months of 2020, the unemployment rate was January -7.22 %, February – 7.76%, March– 8.75%, April – 23.52%, and May – 23.48%. This data explains that many employees have lost their jobs because of the companies' economic and financial crises due to the global pandemic Covid-19. A large number of companies had retrenched their employees all over the world. So, here the question arises that if employee cost is so crucial, then why the organized sector could not bear this cost without production hardly even for two or three months during the pandemic situation. In the corporate sector, employee cost is an essential part of the cost of production. Therefore this study has been conducted to examine the significance of employee cost in Indian corporate sectors in terms of sales and total expenditure.

This research mainly focuses on the cost component i.e. employee cost in cost structure, we didn't focus on factors affecting the employee cost. No doubt several factors are affecting the employee cost and these factors vary from industry to industry. But this study will mainly focus on the pattern of employee cost in the Indian corporate sector.

## **2. Review of Literature**

A very few studies were conducted on individual components of total cost, i.e., employee cost. The present research work entirely depends on the analysis of employee cost. In the sequence of literature review the following Kathuria *et al.* (2019), Pudi (2018) and Rajasekhar (2017), have investigated financial performance of different sectors of Indian corporate sectors. In the way of literature review, Anand *et al.* (2005) highlighted developments in cost management practices in the Indian corporate sector. The results suggest that firms have better insights for benchmarking and budgeting with activity based costing cost system. Yet, the consistency in their priority of budget goals is lacking, unlike firms using traditional costing systems. In contrast, Kumar and Sreeramulu (2007) compare employee productivity and employee cost ratios between traditional and modern banks from 1997 to 2008. The study concludes that modern banks (foreign and new private sector banks) were superior to traditional banks (public sector and old private sector banks). The study of Nurlina (2020) shows that the work environment does not affect employees' performance, leadership style, and intrinsic motivation on the employee's account. Leadership styles and the variable that the dominant influence on the dependent variable. The study by Pratt *et al.* (2021) is to create an algorithm to predict the behavior of employees. Data of 102 respondents were used for the study. An algorithm was designed to help employers discover in which areas and ways the company should improve their work. The algorithm can predict which employees are likely to leave the company and for which reasons. At the same time, it can be used as a guide for technology developers to improve the quality of their communication technologies. Furthermore, Rao *et al.* (2015) explore cost and management accounting practices used by manufacturing companies operating in Andhra Pradesh, India. The study's significant findings, i.e., the most widely used product costing method, are job costing. The three most widely used overhead bases are prime costs, units produced, and direct

labour cost; pricing decisions are the most crucial area where cost information is used. The findings also indicate that companies perceive traditional management accounting tools as still essential. Another study conducted by Srivastava and Nair (2018) represents a framework for predicting employee attrition concerning voluntary termination employing predictive analytics. Workforce analytics can be applied to reduce the overall business risk by predicting the employee churn. Predictive analytics in the field of study uses statistical analysis, data mining techniques, and machine learning to predict future events accurately based on past and current situations. Tomic *et al.* (2018) examined the relationships among employee loyalty, service quality, cost reduction, and company performance. Different statistical analyses (the Kolmogorov-Smirnovljjev statistic, Path analysis, AMOS statistic, and lavaan) have been used for the study. The study concluded that employee loyalty is significantly related and has a significant positive influence on company performance. After an intensive review of the literature the following questions arise in order to fulfill the research gap:

- How much percentage of employee cost to sales in the structure of cost are being paid?
- Is there any difference available in different sectors regarding the pattern of employee cost?
- Which sectors do constitute the highest employee cost in their cost statement?

As far as review of literature is concerned, no study was found which is fully devoted to employee cost analysis of Indian corporate sectors. Incidentally, above literature is showing that no research is done in order to identify the specific component of cost i.e. employee cost with special reference to Indian corporate sectors, in this way present study fulfills the research gap.

### **3. Objective and Hypotheses of the Study**

#### **3.1. Objective of the Study**

The main objective of the study is:

- To identify the pattern of employee cost in the Indian corporate sector.

#### **3.2. Hypotheses of the Study**

In the present research work, employee cost has been calculated in terms of percentage of sales and the percentage of total expenditure for the corporate sector in India. The entire calculation of sample units of different Indian corporate industries are divided into two parts: employee cost as a percentage of sales and employee cost as a percentage of total expenditure. In order to identify the difference in ratios of these different sectors simultaneously, their blocks of 5 years (2005-2009, 2010-2014, 2015-2019) have been created. In order to identify the significance of these ratios the following hypotheses have been developed.

$H_{01}$ : There is no significant difference among different sectors of the Indian corporates and block of 5 years as regarded to employee cost to sales ratio.

$H_{02}$ : There is no significant difference among different sectors of Indian corporates and block of 5 years as regarded to employee cost to total expenditure ratio.

## **4. Research Methodology**

### **4.1. Statistical Tools and Techniques**

To identify the pattern of employee cost in terms of percentage of sales and the percentage of total expenditure in the Indian corporate sector, descriptive statistics has been used. For the testing of hypotheses, the ANOVA test has been applied.

### **4.2. Period of Study**

The period of the study for the present research work has been taken from 2005-2006 to 2018-19. The data of 15 years have been considered for the study. Generally, economic conditions are changed within a period of 5 years. To keep this fact in mind, data have been analyzed in their segment period i.e., 2005 to 2009, 2010 to 2014 and 2015 to 2019.

### **4.3. Source of Data**

This study is based on secondary data sources that have been taken from the ACE knowledge portal (ACEKP) database available in MLS University central library Udaipur.

### **4.4. Sample Design**

After an intensive examination of 900 companies on the ACEKP portal, only 750 companies have complete data set of 15 years. Consequently, only these companies are taken into account for the study. These companies are then classified on the basis of sectors. Later on for this study only nine sectors are selected from different sectors using random sampling technique. After selecting the sectors, all companies from nine sectors till 2019 have been selected for the sample for the present research work.

**Table 1: Sectors Composition of the Sample**

<i>S. No.</i>	<i>Sector</i>	<i>Sample</i>		
		<i>Size</i>	<i>Proportion of total companies</i>	<i>Final sample Size</i>
1.	Chemical	37	30%	35
2.	Consumer Food	26	30%	26
3.	Electronic Equipment	15	30%	14
4.	Hotel	15	30%	13
5.	Household	07	30%	06
6.	IT	36	30%	29
7.	Pharma	40	30%	38
8.	Telecom	04	30%	04
9.	Textile	45	30%	40
	Total	225		205

*Source:* Authors' Own Compilation

The value of sample units is obtained from the formula of Z. The percentage of sample units was calculated (which came from the formula) to total companies in all sectors. Based on this percentage value of all the sample companies of individual sectors have been selected based on the random sampling method. The 9 sectors selected for this research purpose are: Chemical, Consumer Food, Electronic Equipment, Hotel, Household, IT, Pharma, Telecom and Textile. In the process of data sanitization few companies were eliminated.

Looking at the table out of all 225 sample companies, only 205 companies have been selected for the present research work on different grounds like the financial year ending of few companies were not the same, some had not prepared the financial statements till March and other has not prepared financial statement for complete 12 months. Therefore 20 companies were removed from the sample units to maintain uniformity in the companies.

## **5. Data Analysis and Discussion**

To identifying the pattern of employee cost in terms of percentage of sales and percentage of total expenditure in Indian corporate sector, Average and Coefficient of Variation (CV) have been calculated. Table 2 gives an idea about the employees' costs of all sectors in terms of percentage of sales and the percentage of total expenditure in the Indian corporate sector. For checking consistency in the variation of employee cost, CV for all sectors has been calculated.

**Table 2: Employee Cost of Indian Corporate Sector**

<i>Sector</i>	<i>Employee Cost to Sales</i>		<i>Employee Cost to Total Expenditure</i>	
	<i>%</i>	<i>C. V. (%)</i>	<i>%</i>	<i>C. V. (%)</i>
Chemical	10.02	31.10	9.09	15.16
Consumer Food	9.43	38.53	7.31	17.89
Electric Equipment	8.45	20.38	8.69	12.49
Hotel	20.29	18.76	25.70	12.24
Household	12.26	29.19	12.38	29.00
IT	46.20	11.78	45.15	7.38
Pharma	13.84	29.62	12.79	22.66
Telecom	11.58	29.73	12.33	26.85
Textile	15.96	29.82	10.98	19.75
Average	16.45		16.05	

*Note:* All values are derived on the basis of 15 years data (2005 to 2019)

*Source:* Authors' Own Computation through MS – EXCEL 2013

Table 2 shows the average and CV of employee cost to sales ratio and employee cost to total expenditure ratio for all selected corporate sectors in the India. It has been observed that the IT sector has reported the highest employee cost to sales ratio i.e., 46.20%. It indicates that among all

selected sectors IT sector is the highest salaries and wages paying sector. As far as consistency is concerned, the IT sector has also shown consistency in paying wages and salaries. As the CV of this sector has reported to be the lowest (11.78%) when compared to all other selected sectors which clearly indicates that there is a less variation in data of IT sector during the last 15 years. The lowest employee cost to sales ratio is reported by the Electric Equipment sector i.e., 8.45% which indicates that the Electric Equipment sector is the lowest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the CV of this sector has been reported as 20.38% indicating less consistency in paying wages and salaries as compared to IT Sector.

Table 2 shows that the entire corporate sector's employee cost to sales ratio is reported 16.45%. But the IT sector's employee cost is reported 46.2%, which means the IT sector is paying wages and salaries approximately, three times the average of the entire Indian corporate sector consistently throughout 15 years. Table 2 also revealed a very thin line between the employee cost to sales ratio (16.45) and employee cost to total expenditure ratio (16.05) of the Indian corporate sector. It is a clear indication of very less profit margin by the Indian corporate sector .

Table 2 also revealed that the average and CV of employee cost to total expenditure ratio for all selected sectors in the Indian corporate sector. It has been observed that the IT sector has reported the highest employee cost to total expenditure ratio i.e., 45.15%. It indicates that the IT sector is the highest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the IT sector has shown consistency in paying wages and salaries as the CV of this sector has reported the lowest (7.38%) compared to other selected sectors. It also indicates that there is less variation in data of IT sector for the last 15 years. The lowest employee cost to total expenditure ratio is reported by the Consumer Food sector, i.e., 7.31% which indicates that the Consumer Food sector is the lowest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the Consumer Food sector has shown less consistency in paying wages and salaries as compared to IT sector as the CV of this sector has reported (17.89%) is comparatively high. Table 3 shows a summary of the employee cost to sales ratio and total expenditure ratio highest and lowest values of average and CV.

**Table 3: Lowest and Highest Values at a Glance**

	<i>Average</i>		<i>C.V.</i>	
	<i>Employee Cost to Sales Ratio (%)</i>	<i>Employee Cost to Total Expenditure Ratio (%)</i>	<i>Employee Cost to Sales (%)</i>	<i>Employee Cost to Total Expenditure (%)</i>
Highest	IT (46.20)	IT (45.15)	Consumer Food (38.53)	Household (29)
Lowest	Electric Equipment (8.45)	Consumer Food (7.31)	IT (11.78)	IT (7.38)

*Source:* Authors' Own Computation through MS – EXCEL 2013

### 5.1. Five-year Block-wise Analysis

The table 4 & 5 explain five years of block-wise analysis, which is created by dividing 15 years into three blocks, each includes 5 years. This block-wise analysis is including employee cost to sales ratio and employee cost to total expenditure ratio.

**Table 4: Employee Cost to Sales Ratio (5 Years Average wise)**

<i>Sector</i>	<i>2005 to 2009 Average</i>	<i>2010 to 2014 Average</i>	<i>2015 to 2019 Average</i>	<i>2005 to 2019 Average</i>
Chemical	9.78	7.59	12.69	10.02
Consumer Food	8.76	8.96	10.56	9.43
Electric Equipment	7.04	7.96	10.34	8.45
Hotel	16.32	20.29	24.27	20.29
Household	8.59	12.02	16.16	12.26
IT	42.44	46.97	49.19	46.20
Pharma	9.24	14.60	17.67	13.84
Telecom	8.07	13.86	12.81	11.58
Textile	13.88	13.35	20.66	15.96

#### ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	4412.148	8	551.5185	252.8709	2.97E-21	2.355081
Columns	141.1471	3	47.04905	21.57196	5.36E-07	3.008787
Error	52.34467	24	2.181028			
Total	4605.64	35				

Source: Authors' Own Computation

Table 4 shows five years block of employee cost to sales for all selected sectors in the Indian corporate industry. An ANOVA test has been applied for testing of the hypothesis, "There is no significant difference among different sectors of Indian Corporate industries and block of 5 years as regarded to employee cost to sales ratio". It is observed from Table 4 that the calculated F-value at 8 degree of freedom for sectors (252.8709) and F-value at 3 degree of freedom for the block of 5 years (21.57196). Both calculated values are very high than the tabulated value at 5% significance level and P-value is less than 0.05 for both sectors and block of years hence,  $H_{01}$  is rejected. It indicates a significant difference among different sectors of Indian corporate industries and block of 5 years as regarded to employee cost to sales ratio. It is revealed from our statistical analysis that employee cost to sales ratio are not the same each sector and for every block of 5 years. The figure 1 represents a graphical presentation of the 5-year block-wise analysis of employee cost to sales ratio.

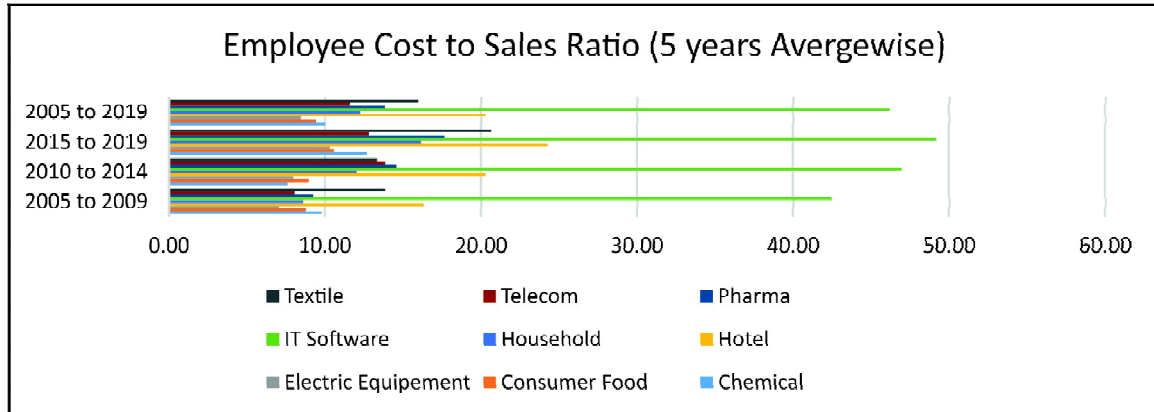


Figure 1: Employee Cost to Sales Ratio (5 years Avergewise)

Source: Authors' Own Compilation

Table 5: Employee Cost to Total Expenditure Ratio (5 Years Average wise)

Sector	2005 to 2009 Average	2010 to 2014 Average	2015 to 2019 Average	2005 to 2019 Average
Chemical	8.41	8.12	10.74	9.09
Consumer Food	6.42	7.08	8.44	7.31
Electric Equipment	7.89	8.58	9.62	8.69
Hotel	22.14	26.14	28.82	25.70
Household	8.94	11.92	16.30	12.38
IT	46.07	46.38	43.00	45.15
Pharma	9.86	12.36	16.16	12.79
Telecom	8.98	14.79	13.22	12.33
Textile	8.81	10.54	13.58	10.98

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	4730.038	8	591.2548	253.119	2.94E-21	2.355081
Columns	58.62106	3	19.54035	8.365318	0.000556	3.008787
Error	56.06105	24	2.335877			
Total	4844.72	35				

Source: Authors' Own Computation

Table 5 shows five years block of employee cost to total expenditure for all selected sectors in the Indian corporate industry. For testing of the hypothesis "There is no significant difference among



different sectors of Indian corporate industries and block of 5 years as regarded to employee cost to total expenditure ratio”, ANOVA test has been applied. It is observed from Table 5 that the calculated F-value at 8 degree of freedom for sectors (253.119) and calculated F-value at 3 degree of freedom for the block of 5 years (8.365). Both calculated values are very high than the tabulated value at 5% significance level and P-value is less than 0.05 for both sectors and block of years, hence  $H_{02}$  is rejected. It indicates a significant difference among different sectors of Indian corporate sector and block of 5 years with respect to employee cost to total expenditure ratio. It is also revealed through our statistical analysis that each sector and every block of 5 years of employee cost to total expenditure ratio are not the same and the difference is significant. The figure 2 represents a graphical presentation of the 5-year block-wise analysis of employee cost to total expenditure ratio.

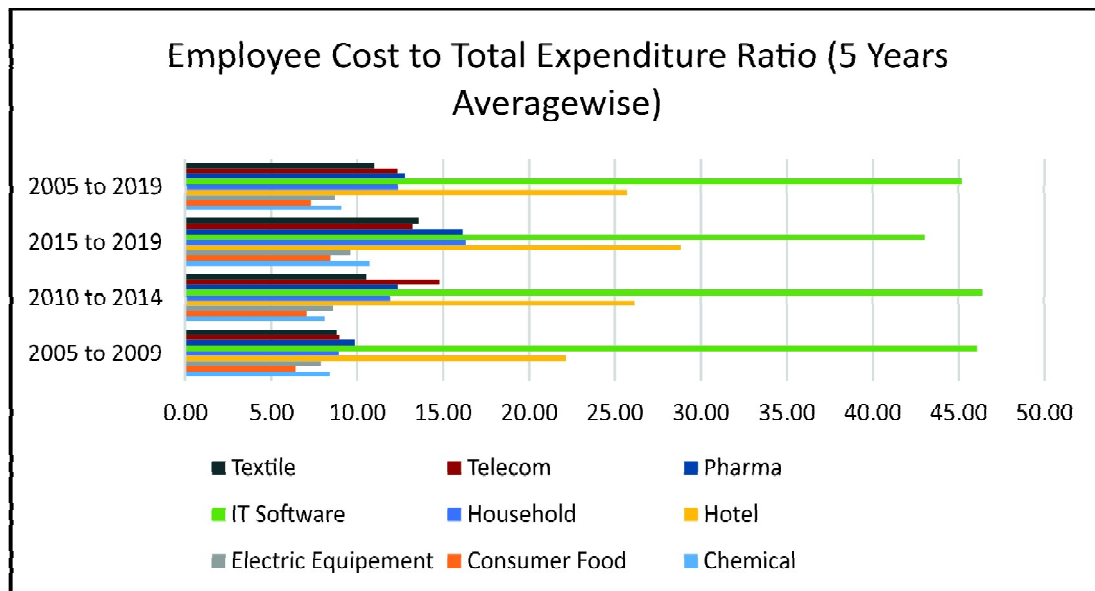


Figure 2: Employee Cost to Sales Ratio (5 years Averagewise)

Source: Authors' Own Compilation

## 6. Findings

The IT sector has reported the highest employee cost to sales ratio i.e., 46.20%. It indicates that the IT sector is the highest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the IT sector has shown consistency in paying wages and salaries. As the CV of this industry has reported the lowest (11.78%) when compared to other selected sectors. It also indicates that there is less variation in data of IT sector during the last 15 years.

The lowest employee cost to sales ratio is reported by the Electric Equipment sector i.e., 8.45% which point out that the Electric Equipment sector is the lowest salaries and wages paying sector

among all other selected sectors. As far as consistency is concerned, the CV value of Electric Equipment sector has reported (20.38%) which explains the less consistency in paying wages and salaries as compared to IT Sector.

It has been observed that the IT sector has reported the highest employee cost to total expenditure ratio i.e., 45.15% which signify that the IT sector is the highest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the IT sector has shown consistency in paying wages and salaries. As the CV of this sector has reported the lowest (7.38%) when compared to other selected sectors. It also indicates that there is less variation in data of IT sector for the last 15 years.

The lowest employee cost to total expenditure ratio is reported by the Consumer Food sector i.e., 7.31% which portrays that the Consumer Food sector is the lowest salaries and wages paying sector among all other selected sectors. As far as consistency is concerned, the CV of the Consumer Food sector has reported (17.89%) which elucidate less consistency in paying wages and salaries as compared to IT Sector.

The entire corporate sector's employee cost to sales ratio is reported at 16.45%. But the IT sector's employee cost is reported 46.2%, which means that IT sector is paying wages and salaries approximately, three times the average of the Indian corporate sector consistently throughout the 15 years.

Results of statistical analysis shows that both hypotheses are rejected i.e., "There is no significant difference among different sectors of Indian corporate industries and block of 5 years as regarded to Employee Cost to Sales Ratio and Total Expenditure Ratio." In other words there is a significant difference among different Indian corporate industries and a block of 5 years as regarded to Employee Cost to Sales Ratio and Total Expenditure Ratio.

## **7. Conclusion**

Employees are the backbone of any company. Employees plays a significant role in the growth of the business. Due to pandemic Covid- 19, entire corporate sector across the globe is under pressure to maintain the product's optimal cost. In this sequence, most of the companies are focused on reducing employee cost by cutting their salary, retrenchment, and restricted the perquisites. The objective of this present study is to identify the pattern of employee cost in the Indian corporate sector. For achieving this objective, descriptive statistics and ANOVA test has been used. The results of this study is clearly indicating that the IT sector is paying the highest and consistent wages and salaries among all sector during the last 15 years. The results also find that the entire corporate sector employee cost to sales ratio average is 16.45%. The IT sector's employee cost is shown 46.2%, which means the IT sector pays wages and salaries approximately three times the average of Indian corporate industry's throughout the 15 years. Statistical results paves the way to conclude that there is a significant difference among different sectors of Indian corporate industries in terms of paying wages & salaries. Also, there is a significant difference between a block of 5 years with respect to employee cost to sales ratio and total expenditure ratio. The present research will provide insightful information for policymakers to lessen the attrition rate by analyzing the employee cost component in cost structure, it also gives room to companies to decide upto what extent of employee cost can be increased. From an employment

point of view, the IT sector is an attractive sector which provides the highest wages consistently over the selected years.

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