

## Emotional Health through Employee Experience: An Insight through Employees' Lens

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### ABSTRACT

Current scenario has started realizing the connotation of emotions and sentiments especially at workplace which directly or indirectly impact the job and thereby the company. The emotions set a base of employee experience. These emotions headed by employee experience are creating the emotional health of an employee. The burgeoning of social media provides plethora of opinionated content that includes employees reviews about their organizations, which form the foundations of predictive and proactive strategic human resource decision making tool. Reviews of three major IT companies of India were mined from website [www.glassdoor.com](http://www.glassdoor.com). The reviews were further applied for text analysis. The analysis of the extracted reviews elucidates the opinions and sentiments about the organization. This paved a way to understand employee's experience. This paper is an attempt to explore factors that contribute to employee experience from the reviews about sentiments that were implicit from the communication on the social media website. With this new field, data and science are turning out to be essential resource and successful businesses are not just recognizing it as central nervous system of the organization but also applying people analytics extensively to enhance business outcomes. The implications of the study are also discussed.

**Keywords:** Emotions, Emotional Health, Sentiment analysis, Employee Experience, Data mining, HR analytics

### 1. Introduction

Humans are the bundle of emotions, and their emotions have direct and indirect impact on the performance of the organization. Emotions crave a person for the right direction where they can feel motivated or sometimes can lead to anxiety when they are not handled properly. Emotional Health is crucial for every human and this can be framed properly when employees have good experiences. The kind of emotions a person has create their emotional Health. Emotions are linked to our everyday experiences and social interactions; thus they are situational and malleable (Tsai et al., 2007). Organizations are now realizing the relevance of various emotions of employees and attempt is made to create an appropriate ecosystem within organization to handle them. Basch, J., & Fisher, C. D. (1998) have supported relationship between aggregated moment to moment emotions emotion at work and its outcome like job satisfaction, organization commitment and intention to quit.

'Employee Experience' is the new strategic tool of human resource management. The term Employee Experience has entered the lexicon of all successful organizational strategic management ambits today. Emotions of employees get exhibited when they get employee experience (positive, negative, neutral) through their shared moments on social media like LinkedIn, glass door etc. The pace with which people share their emotions and opinions has transformed in the last couple of years. The proliferation of this information at a mindboggling pace and accessibility at the remotest area has transformed the communication mechanism world over. This has decisive consequences for organizations communication processes and managing employees more specifically the tech savvy generation of millennials. Everything from the current position, the pros and cons of the company, the overall ratings to the company, culture and value system and opinions and ratings to the management are discussed.

Today successful organizations gain data driven insights to optimize employee emotions like joy and, tackle issues generating sadness. Existing employees' journeys can be mapped and analyzed through emotion analytical tools. With the rise of human and data analytics, employers have access to wonderful resource as a guide to decision making.

This research paper aims to apply the human analytics to the reviews of Glassdoor website ([www.glassdoor.com](http://www.glassdoor.com)) to understand the emotions, experience and expectations of the employees. Sentiment analysis is used in the paper to comprehend the emotional tone of the employees. Sentiment analysis is a technique that assists in evaluating the emotional tone of a person denoted by series of words. The Information Technology (IT) companies are the drivers of innovation throughout the world. With this comes the demand for talented IT professionals and corporate employ strategic HR (Human

Resource) tools to attract and retain talent. Data mining of employees' reviews of three major Indian IT companies was done. The reviews were from May 2008 to March 2019. The reviews comprised of both former and current employees in the IT companies from all over the world. They were analysed using R –software. . Sentiment analysis and graphical representation of text was majorly emphasized upon.

The rest of the research paper is structured as follows. Section 2 comprises of literature review followed by research methodology in section 3. Section 4 displays the analysis and interpretation of the data. This is followed by managerial implications and limitations section 5. Finally section 6 comprises of conclusion.

## **2. Review of Literature**

### **2.1 Theoretical Framework**

Weiss and Cropanzano (1996) provided Affective Events Theory (AET) which proves to be a valuable guide in these researches. The importance of AET is that emotional states are seen to lie at the core of attitude formation and employee behavior in organizations. AET can be very useful in understanding how work environment and personal characteristics can lead to emotional environment which have consequences on the overall attitude, behavior and performance. AET thus conveys message that emotions in organization setting need not to be ignored even if they appear minor”( Ashkanasy, Daus,2002). AET suggest to take care of emotional climate in organization as it has impact on how people feel and think at work (Ashkanasy, Daus,2002).

Affective events theory tells managers that the ostensibly minor hassles and uplifts that people experience at work every day accumulate to determine organizational members' affective states, and these states can subsequently affect their attitudes and behaviors at work (Ashkanasy and Tse ,2002). The managers should thus assign the work after assessing the 'emotional impact 'of the job and create a positive emotional climate by compensation systems and also their own behaviour ( Ashkanasy and Daus,2002).

### **2.2 Emotions and employee experience**

Employees being humans are experiencing emotions and these emotions set the base for employee experience. The Employee Experience can be defined as the sum of all the perceptions an employee has at all touch points in the organization he or she is working( Maylett&Wride, 2017). In another definition employee experience is defined as a set of perceptions that employees have about their experiences at work in response to their interactions with the organization (GloboforceWorkhuman Research Institute and IBM Smarter Workforce Institute, 2016). Amazing employee experience providing organizations are transcending the basic concept of mission statement and connecting it to the people in the organization who are actually effected by it and ignites them to align with the organization (Jacob Morgan , 2017).By focusing on the three environments the organization can create engaged employees (Morgan, 2017). Positive environment at workplace thus brings engagement, loyalty and commitment. Transformation and innovation can be found only by challenging the old and ossified ways of thinking and by looking for better alternatives (Maylett and Wride, 2017). The employees will generate outstanding customer experiences only when they feel welcome, valued, respected and heard (Brigette Hyacinth, 2018).

According to Didem Y. et al. (2020) it is pertinent for the organizations to leverage employee experience because positive employee experience enhances the employee's commitment, engagement and loyalty. Their study revealed that leadership plays the most vital role in enhancing positive employee experience which is followed by opportunity to develop human capital.. In congruence with this, the study by Dutta A. , 2020 also emphasizes that organizations should adopt strategies like employee experience that provide positive environment and meet expectations of the employees in order to increase employee commitment and reduce turnover intentions.

Research by Mckinsey (2020) pointed out that in today's unprecedented stressful disruptive scenario calls for redesigning and rethinking HR that aligns with employee experience framework for creating of agile and resilient workforce. According to Mckinsey's Jonnathan, Emmett et al., that organisations need to configure employee journey and design tailored approaches as per the employee's need and struggles. The studies by Abhari K. et al.(2021) on digital transformation in organizations is not limited to creation of digital technology in the organization .According to the study it is more of a process of aligning the values, goals and culture of the organization with perspective of the employees . The study validated the relationship between employee experience and digital transformation in the organization.

### **2.3 Online Reviews**

Online reviews are also known as electronic word of mouth (e WOM) and they play a major role in creation of images prior to the experience of the service by customer (Sparks, 2011). The online reviews offer advantages like 24 hour accessibility and continuous storage of data in form of text and images ( Lee & Byun, 2011) . This leads to broader coverage and faster spread.

The significance of online opinions has initiated many researches in the field. As demonstrated by Dellarocas et al. (2007) online review metrics had accurately predicted the movie revenue. The investigation by M. Siering et al. (2018) revealed that online reviews could be leveraged to predict recommendation decision. Internet users share their views and ideas every day on microblogging sites thus generating plethora of messages ( Pak, Paroubek,2010). People like to post their opinion and ideas on various issues and also viewpoints and reviews of products on social networking websites ( Agarwal, A., et.al., 2011) . Websites like Glassdoor and Indeed contain user generated content where people post their feedback about a particular company on various issues like, compensation, interview experiences, working culture etc. Glassdoor also has a feature of star ratings (on a scale of 5) where employees rate their company on various parameters like salary, work life balance, top management and also overall company rating (Maria Guideng, 2018). Employees' word of mouth reviews matter for employer branding and also influenced the job seeker's opinion about the company (Glassdoor Research report, 2017).

### **2.4 Opinion mining and sentiment analysis**

This proliferation of opinions offers exceptional opportunity to formulate and employ theories and technologies to search and mine for sentiments (Kumar & Sebastian, 2012). Sentiment analysis is a branch of text mining, known as opinion mining that uses a natural language processing (NLP) analysis method that recognizes the opinions of positive , negative people posted in text data ( Liu , 2012) It is very significant in comprehending the opinions , attitudes and emotions on online platforms particularly on social media platforms (M. Giatsoglou, 2016). Sentiment Analysis is also called opinion mining as it analyses the sentiment and opinions towards an entity (Rout, et.al. , 2018). Sentiment scores and impact factor are great predictors of real time public opinion and thus sentiment analysis has profound usage in social domains as well as business domain (Hao & Dai, 2016). The base of Sentiment Analysis is words that are used in the text and the analysis is done based on Plutchick's circumplex model ( Plutchik, 1997).

The sentiments are detected on the basis of the textual data and the classification of the same in the form of negative, positive and neutral opinion (Nakov, P. , et.al. , 2016). In the emerging field of data science R software provides most popular environment to conduct computational research ( R Core Team, 2017). Opinion Lexicon was built by Liu (2012) comprising of English words Wibe et al. (2005) established MPQA dictionary of sentiments that intricately defined emotions appearing in about 10000 sentences in order to perform sentiment analysis.

Sentiment analysis forms vital role in business world and there are stories abound where companies reputation has been made or shattered by social media opinions (Hunt , 2009). Social media analysis help in forecasting and thus playing role in business decision making and planning ( Kabir , A.I. , et.al. ,2018) The websites like [www.Glassdoor.com](http://www.Glassdoor.com) provide insight into the employees attitude about the company and thus provide a proxy of employee satisfaction ( Maria Guidang , 2018).

## **3. Methodology**

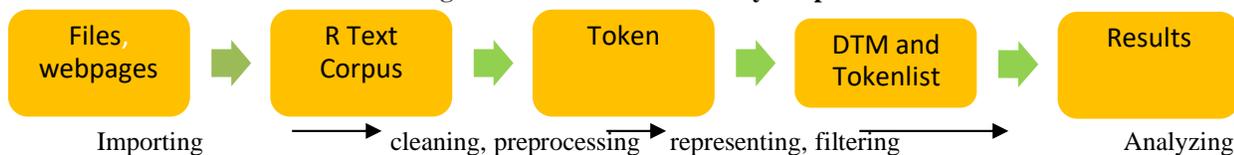
Data mining is the most important steps in the knowledge discovery databases process and is considered as significant subfield in knowledge management. Availability of data mining and advanced analytical tools has opened avenues for advances computational Human analytics. . Currently, one of the most popular environments for computational methods and the emerging field of "data science" is R statistical software (R Core Team, 2017). R is a free, open-source, cross-platform programming environment. In contrast to most programming languages, R was specifically designed for statistical analysis, which makes it highly suitable for data science applications. One of the keys to R's explosive growth (Fox & Leanage, 2016; TIOBE, 2017) has been its densely populated collection of extension software libraries, known in R terminology as packages, supplied and maintained by R's extensive user community.

Indian IT industry comprising of Business Process Outsourcing and IT Services contributes 7.7% to Indian GDP as on 2017 as against 1.2 % in 1998 (Wikipedia, 2018). The aggregate revenue of the sector is US\$ 150 Billion in 2017 (NASSCOM, 2018). IT industry employed 15 million people directly or indirectly in the year 2017 and is a major employer in India. Unfortunately this sector is facing major challenges like high attrition rate, lack of talented individuals, and competition from other countries like Phillipian, Japan, and Singapore etc. Sengupta S. and Gupta S. (2012) identified the major causes of attrition being: hostile organizational climate, uncongenial organizational support, nature of job, dispirited perceptual factors

, low self fulfilment factors , discontented personal factors , unfavorable working conditions mystified career paths. All this leads to stress among employees. Most modern approaches to engagement and retention foundationally stem from old ways of thinking that will not work in today's workplace. In this paper the researchers have attempted to use analytics to gauge the emotional tone of the employees of major IT companies of India namely TCS, Wipro and Infosys. The sentiments of the employees will aid in comprehending the drivers of the employee experience including various touch points that lead to engagement, commitment, employer branding and what factors serve as threat and result in loss due to job dissatisfaction, low productivity and attrition .

This research is based on unstructured data of employee reviews of three major IT companies, which were data mined from the website [www.glassdoor.com](http://www.glassdoor.com). Software R was used for this purpose. The employee reviews from 2008 to March, 2019 were collected in the form of comma separated variables (csv) file. The reviews were from the employees all over the world. The last one thousand reviews were considered for further analysis. The following process chart summarizes the steps involved.

**Figure 2 : Order of Text Analysis operation**



### 3.1 Data Mining

The first step was to obtain the data of the employee review of the three major IT companies of India from the website [www.glassdoor.com](http://www.glassdoor.com). The following codes were used for the same using packages `gdscapeR` and `devtools`:

```
install.packages("devtools")
devtools::install_github("mguideng/gdscapeR")
library(gdscapeR)
```

The company number as available on the website's url was passed to get the reviews.

This resulted in scraping following variables:

Date - of when review was posted

Summary - e.g., "Great People"

Rating - star rating between 1.0 and 5.0

Title - e.g., "Current Employee - Manager in Hawthorne, CA"

Pros - upsides of the workplace

Cons - downsides of the workplace

Helpful - count marked as being helpful, if any

(and other info related to the source link)

We then created dataframe and saved the data by writing in csv and excel format. Package `stringr` was used for this .

### 3.2 Data Preparation

Henceforth the data needs to be prepared for analysis . Preparing texts for analysis requires making choices that can affect the accuracy, validity, and findings of a text analysis study as much as the techniques used for the analysis (Crone, Lessmann, & Stahlbock, 2006; Günther & Quandt, 2016; Leopold & Kindermann, 2002). This involved steps like importing data, string operations , cleaning data (preprocessing), creating Document Term Matrix (DTM) .

#### 3.2.1 Importing Data:

The text that was saved in csv format was imported in R using the package `readtext` to analyze the text .It was done for each company separately. It also involved importing the variable that was to be analyzed. eg. If we are focusing on pros reviews of Wipro we will mention this in the code.

#### 3.2.2 String Operations:

In order to refine digital text we need a framework for computational text analysis. Digital text is represented by series of characters called strings. For this string package was used. R text corpus was created by cleaning punctuations, URLs common English words like prepositions, in order to have better analysis. Once this pre processing was done the tokenization of the text was done.

### **3.2.3 Tokenization:**

Tokenization is the process of splitting texts into tokens, which are most often words. This is a crucial step for computerized text analysis to yield meaningful results. There is a dedicated package for text tokenization, called tokenizers (Mullen, 2016). The same package was used for tokenization into unigram (one word), and trigram (three words) analysis.

### **3.2.4 Document Term Matrix:**

The document term matrix (DTM) is one of the most common formats for representing a text corpus (i.e. a collection of texts) in a bag-of-words format. A DTM is a matrix in which rows are documents, columns are terms, and cells indicate how often each term occurred in each document. The advantage of this representation is that it allows the data to be analyzed with vector and matrix algebra, effectively moving from text to numbers. The document term matrix was created using package tm which resulted in matrix of words and frequency. This was crucial step in order to have further analysis.

### **3.3 Analysis:**

DTM was further used to make unigram word clouds, frequency plotting of unigrams and trigrams and also sentiment analysis.

#### **3.3.1 Word cloud :**

Both pros review and cons review of each company were plotted separately using ggplot and word cloud package of R Studio. The cloud highlights the most used words in the reviews in the centre of the word cloud.

#### **3.3.2 Histogram:**

Histogram of the most frequently used words was plotted followed by trigram bar graph plotting to get a crisper and clear picture of the reviews. The tokenization of the reviews was done separately for pros review and cons review of the three companies. Tokenization was followed by ngram analysis more specifically trigram analysis in which group of three words that are occurring together in the reviews was plotted.

#### **3.3.3 Sentiment Analysis:**

After the text were cleaned and document term matrix and corpus were created Sentiment Analysis of the text was done in R using the package Sentiment Analysis package. The steps involved installing the package Sentiment Analysis and then the code `s=get_nrc_sentiment(corpus)` provided the sentiments based on the lexicon used in the reviews. The sentiment analysis of the review summary was calculated separately for each of the three companies in consideration. Also polarity of the companies was calculated which classified the emotions as positive, negative and even neutral. The sentiment Analysis revealed 11 factor sentiment (namely anger, disgust, anticipation, fear, joy, sadness, trust, surprise, positive, negative, neutral)

## **4. Analysis and Interpretation**

After the organization of dataframe as DTM the data was further analyzed to understand the big picture and to comprehend the emotions behind the reviews. By conducting the word cloud function we could get the visualization of the most used words by the employees both in pros and cons reviews. Further the words were extracted individually as unigram and in a group of three as trigram and plotted which gave a better picture of the employee's opinions. The overall ratings by the employees further gave a better overall picture. Sentiment analysis of the review summary provides insightful emotional tone of the

An example of typical pros review mined looked like: TCS Pros review "Good hike at least compared to other companies. Flexible. Best company when it comes to women employees. We have the choice to talk to RMG and request for the career we are in dream with, onsite opportunities as well."

While a cons review looked like: Infosys cons review "The work is not cutting edge. Salaries are not competent. Intellectual challenges are limited. Administrative processes are slow such as reimbursements etc

### **4.1 Identifying the frequency of Unigram (single word) frequency and Trigrams and interpretation of it in the Pros of reviews:**

After pre processing of the data the dataset of the reviews were further analyzed separately for each company. The reviews were categorized as pros which include comments around what employee liked in the company and cons that employees disliked and need improvement. The data obtained was further analyzed in terms of unigram which are single words and

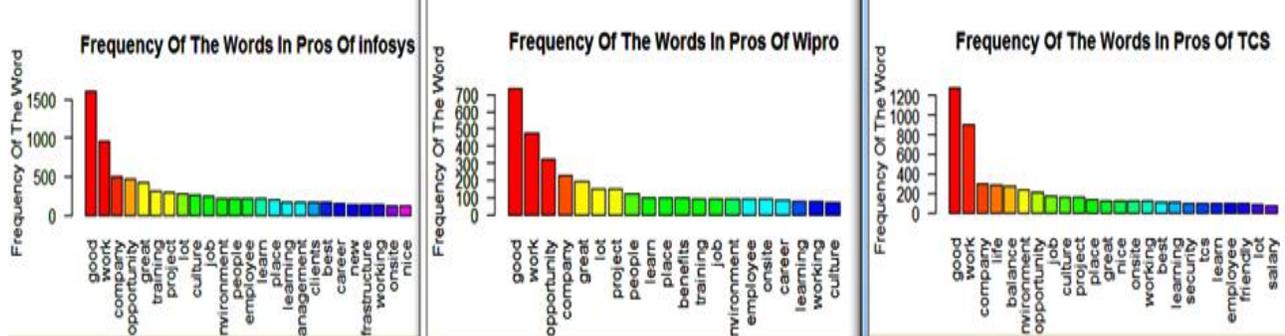
trigrams which are group of three words occurring together. The words occurring with maximum frequency for pros and cons were separately analyzed and plotted as word clouds and bar graph. 1(a) Pros reviews: Focusing on the pros reviews, the following word cloud and bar graphs were plotted.

**Figure 3: Word Cloud of unigram of pros reviews of Infosys, TCS and Wipro respectively**



From the word cloud (Figure 3) we infer that the word :”good” and “work” have been used in most of the pros review showing that people in general find the work or company good( the higher the frequency of the word the larger is the word in the word cloud) . The word “opportunity” has also been emphasized as shown in the word cloud of Infosys and TCS which may be showing employees satisfaction about their company providing them new or growth opportunities. The bar graph of the most frequent used words in each companies pros was plotted. The bar chart gave a better representation of the words used as shown by the following plotting.

**Figure 4: Histogram of Unigram (Most frequently Used Single Words in the Pros Reviews)**



These words give an idea about what are the best factors that employees like about their company and that provides a positive working environment. These words are all important in trying to figure out what makes these companies a great place to work.

**Table 1: Top Five Words in Pros of the Reviews**

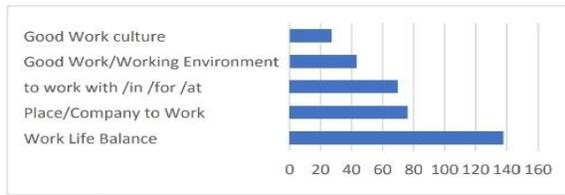
Name of the company	Top 5 words in Pros(Unigram)
TCS	good, work, company, life , balance
Wipro	good, work, opportunity, company, great
Infosys	Good, work, company, opportunity, great

The above table 1 depicts the top five words used in pros and most of the reviews had the word “good” primarily in all the three companies followed by the word “ work” which may highlight the fact that the employees found the work or company good.Since the unigram analysis doesn’t provide a clear picture a trigram analysis was done

**Figure 5: Trigram of Pros Review**

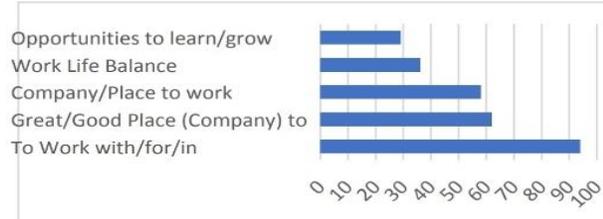
TCS Pros Review Trigram

Trigram	Number of Employees
Work Life Balance	138
Place/Company to Work	76
to work with /in /for /at	70
Good Work/Working Environment	43
Good Work culture	27



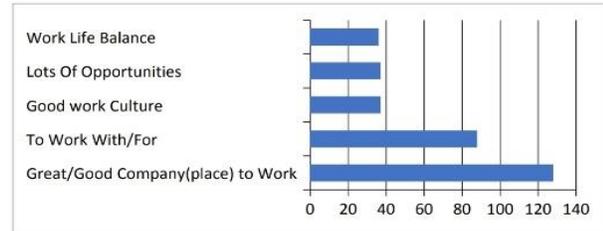
Wipro Pros Trigram

Trigram	Number of Employees
To Work with/for/in	94
Great/Good Place (Company) to	62
Company/Place to work	58
Work Life Balance	36
Opportunities to learn/grow	29



Infosys Pros Trigram

Trigram	Number of Employees
Great/Good Company(place) to Work	128
To Work With/For	88
Good work Culture	37
Lots Of Opportunities	37
Work Life Balance	36



The trigrams of the three companies (Figure5) shed more light about the greatest aspects of working in the company. It is evident that TCS employees have greatest work life balance, which is the essential element for providing positive employee experience. Every company has large frequency of “great or good company to work with”,that shows their satisfaction in working with the company. Infosys employees score highest in this aspect. While opportunities to learn and grow are seen occurring a number of times in Infosys and Wipro depicting employees are fairly contented with the opportunities that their companies provides for their career growth which is again a major demand for attaining a positive employee experience. Good work culture which is again an enhancer of employee experience can be seen top five trigrams of Infosys and TCS, showing that employees are affirmative about it.

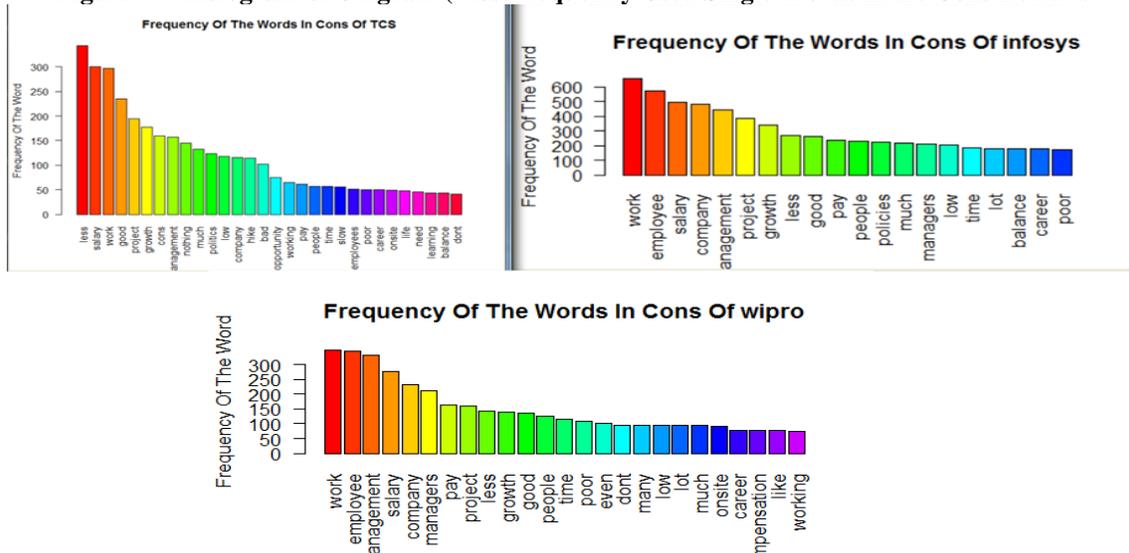
**4.2 Identifying the frequency of Unigram (single word) frequency and Trigrams and interpretation of it in the Cons of reviews**

The unigram and trigram analysis of the cons reviews of the three companies were plotted and analyzed. Cons reviews give glimpse of what the employees didn’t approve about the company . If cons are carefully analyzed it may lead to those facets that need to be improvised in the enterprise. The following word cloud and graphs represent the most frequent words in the cons reviews.

**Figure 6 : Word Cloud of unigram of cons reviews of Infosys, TCS and Wipro respectively**



**Figure 7 : Histogram of Unigram (Most frequently Used Single Words in the Cons Reviews**



The above word cloud and bar plots of unigram words (figure 6 and figure 7) respectively show the maximum used words in cons reviews of the three companies namely TCS, Wipro, Infosys. These words give an idea about what are the factors that employees have negative feelings for may bring to highlight possible factors that lead to dissatisfaction in working environment.

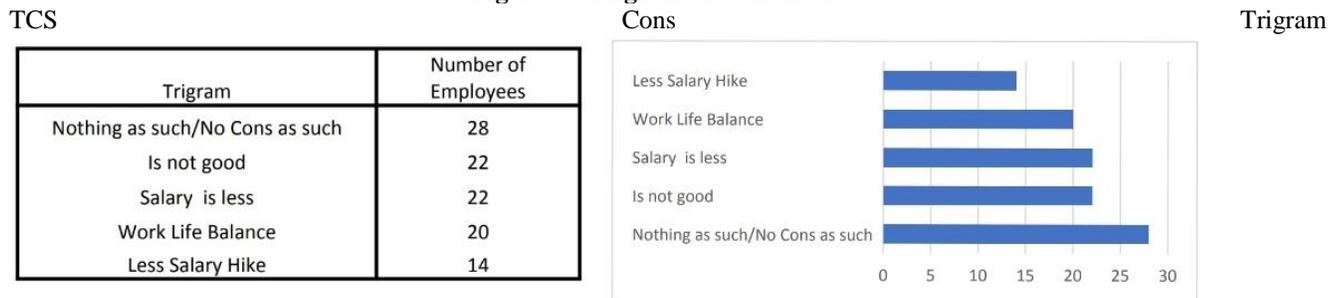
**Table 2 : Top Five Words in the Cons of the Reviews**

Name of the company	Top 5 words in Cons
TCS	less, salary, work, good, project
Wipro	work, employee, management, salary, company
Infosys	work, employee, salary, company, management

It may be inferred that the word “:work” and “ salary” are in top 5 most frequent used words in the cons review , thus communicating a negative emotion regarding the companies work and salary structure. .The words“:management”, “growth” are also having a high frequency in cons and thus are downside discussed terms.

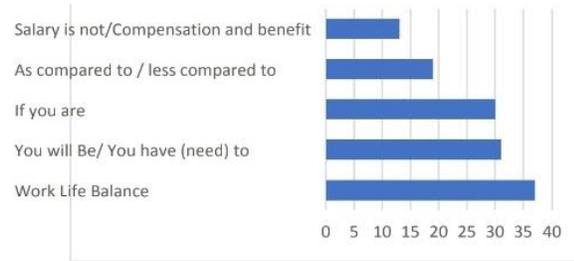
The trigram analysis (Figure 8) depicts a better view as shown by the graphs of each companies .

**Figure 8 : Trigram of Cons Review**



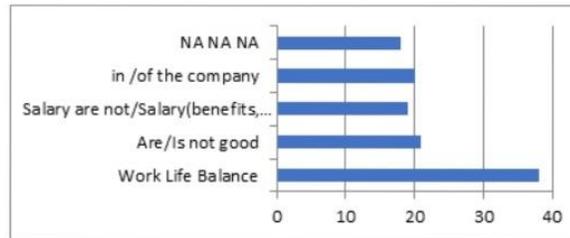
Wipro Cons Trigram

Trigram	Number of Employees
Work Life Balance	37
You will Be/ You have (need) to	31
If you are	30
As compared to / less compared to	19
Salary is not/Compensation and benefit	13



Infosys Cons Trigram

Trigram	Number of Employees
Work Life Balance	38
Are/Is not good	21
Salary are not/Salary(benefits, compensation) compared to	19
in /of the company	20
NA NA NA	18



The trigram plotting (figure 8) reveals that Although maximum Trigram frequency for TCS is no cons as such / no cons but on reading between the lines and combining the two reviews on salary namely, “Salary is less/ Less salary hike” , it turns out that majority of employees seem discontented with the salary . The salary is the major issue for TCS as compared to other two organizations .Though salary scores high in the trigram analysis but it is the work life balance that needs major focus for Wipro and Infosys as can be deduced from the bar chart .

Table 3: Compiled Trigram Table

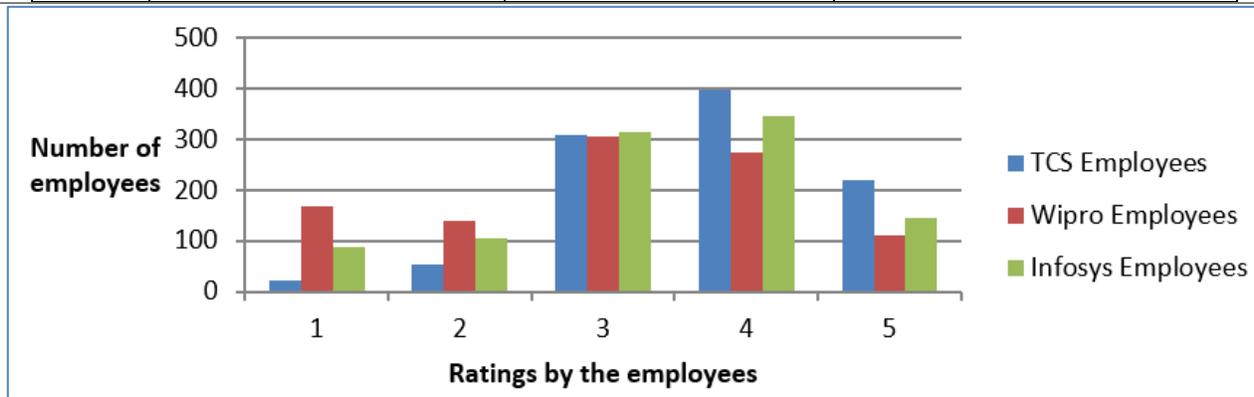
Company	Top Pros trigram	Top Cons trigram
<b>TCS</b>	<ul style="list-style-type: none"> <li>• Work life balance</li> <li>• Good work /working environment</li> <li>• Good work culture</li> </ul>	<ul style="list-style-type: none"> <li>• Salary is less</li> <li>• Less salary hike</li> <li>• Is not good</li> </ul>
<b>Wipro</b>	<ul style="list-style-type: none"> <li>• To work with/for/in, company/place</li> <li>• Great/good place(company) to</li> <li>• Work life balance</li> <li>• Opportunities to learn/grow</li> </ul>	<ul style="list-style-type: none"> <li>• Salary is not/compensation and benefits</li> <li>• As compared to /less compared to</li> </ul>
<b>Infosys</b>	<ul style="list-style-type: none"> <li>• Great/ good company(place) to work</li> <li>• To work with/for,</li> <li>• Good work culture,</li> <li>• Lots of opportunities,</li> <li>• Work life balance</li> </ul>	<ul style="list-style-type: none"> <li>• Salary are not/ salary (benefits/ compensation)</li> </ul>

4.3 Overall Star rating by the employees

An overall rating of the three companies was obtained on a scale of 1 to 5, to get an insight into the employee’s perception about the company in wider sense. It also connotes the overall satisfaction level of the employee. Following result was obtained:

**Table 4: Overall Ratings by the employees**

Ratings	TCS Employees	Wipro Employees	Infosys Employees
1	21	168	89
2	53	139	105
3	309	307	315
4	397	275	345
5	220	111	146



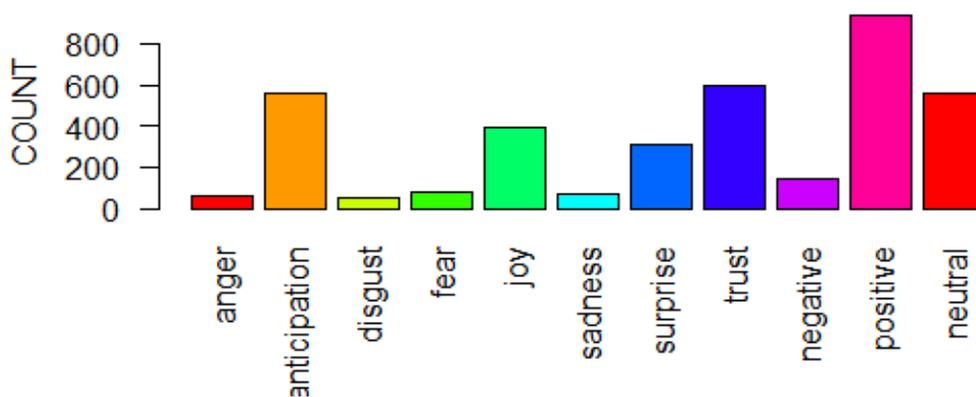
**Figure 9 :Ratings by the employees**

An overall rating of 4 or 5 reflects a workplace where employees are very satisfied and feel good to great working there. It can be figured out from above graph (figure 9) that TCS employees seem to be highly satisfied, followed by Infosys. More the satisfaction higher is the level of commitment which brings about more engagement.

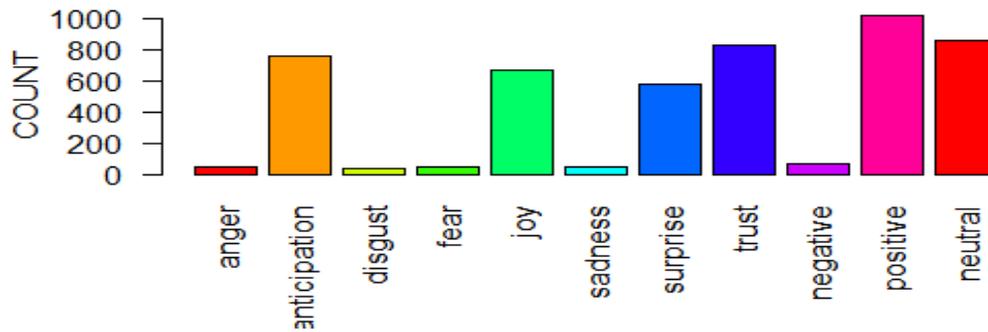
**4.4 Sentiment Analysis**

Psychologist Robert Plutchik stated there are eight basic emotions: joy, trust, fear, surprise, sadness, anticipation, anger, and disgust. Plutchik created the wheel of emotions, which illustrates the various relationships among the emotions. Based on the Plutchik’s eight primary emotions we apply sentiment analysis on the overall reviews summary by each employee. Thus it attempts to estimate the sentiments expressed by the employee. Sentiments reflect people’s attitudes and opinions based on what they have to say (whether they are positive, negative or neutral) and can provide a proxy for employee satisfaction. This facilitates a better understanding of the opinions and opens a communication and feedback channel so that employers may take corrective measures and enhance employee experience. The Sentiment Analysis tool used gauged not only polarity (positive, negative or neutral) but also emotions like anger, disgust etc depicted in Figure 10.

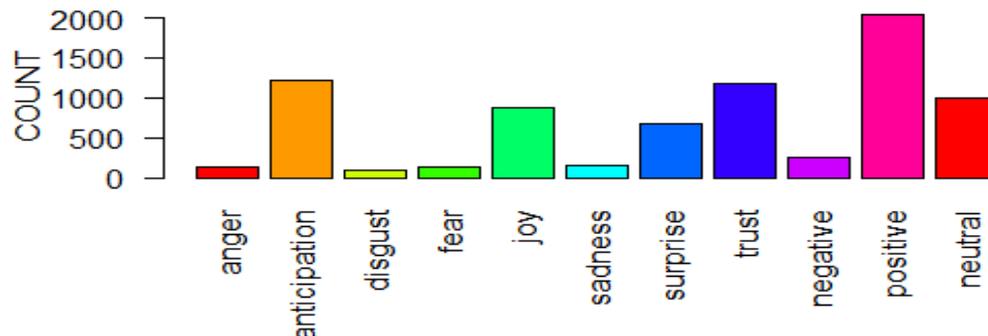
**Figure 10: Sentiment Analysis of Review Summary of the Three Companies**



**Wipro Employees sentiment Analysis of Review Summary**



TCS Employees sentiment Analysis of Review Summary



Infosys Employees Sentiment Analysis of Review Summary

The above sentiment analysis graph include polarity in terms of negative , positive and neutral .The sentiment analysis tries to capture the feelings of the employees and provides a glimpse of the emotions in the reviews and categorizes themes stated by Robert Plutchik: anger, anticipation, disgust, fear, joy, sadness, surprise and trust . These emotions are then aggregated into negative, positive or neutral. The emotions like anger, disgust, fear, sadness are negative sentiments and so are cumulated there while joy, trust and anticipation may be regarded as positive sentiment .There may be some words that denote neither positive nor negative tone and are aggregated as neutral sentiment. A higher positive or neutral tone denotes employees are happy or satisfied with their company and negative sentiment denotes that there are issues creating dissatisfaction and require concern and corrective action to be taken by the management

From the graph (Figure10) we can infer that TCS employees have more positive sentiments relatively followed by Infosys and Wipro. . The sentiments of joy and trust were high in all the three companies but relatively more in TCS. The negative sentiments are also relatively low. This is in congruence with the overall company ratings given by the employees where maximum ‘4’ and ‘5’ ratings were given by TCS employees. When we analyze sentiment analysis graphs with the trigram graphs TCS employees review had “work life balance” has the maximum frequency while the same has maximum frequency in the cons trigram of Infosys and Wipro. We may conclude that work life balance has major contribution for positive sentiments like“joy”. The negative sentiments were observed more in Wipro followed by Infosys. The employees of Wipro had given Maximum 1 or 2 ratings to the company. Thus the HR may use to analyze and implement strategies to upgrade the level of satisfaction of the employees. Providing better work life balance which is the major concern of today’s millennial workforce could be one such strategy.

## 5. Discussion

### 5.1 Managerial Implications

A person’s feelings and responses based on their interactions with our organization during the entire journey is employee experience. Oodles of researches are being carried out to find various variables and factors that contribute to creation of positive employee experience. Social media analysis using human analytics software can be very beneficial for managers and employers. The employee reviews act as electronic word of mouth for other workers and prospective applicants as today online reviews are regarded as reliable source of information and form opinion for applying for the job . Employers can take corrective actions as soon as they notice a negative review by analyzing the reasons of negative review or low ratings and also address the problem online where it has appeared. The employees of Indian IT industry are also quite stressed out and

struggle to maintain work life balance. The study could contribute to the improvement of their holistic work conditions which the companies should be willing to adopt. The implementation of employee experience in the IT industry can aid in the boosting of engagement and production, as happy employees are engaged and productive employees and productive employees contribute to the successful running and survival of an organization. The managers may take step towards enhancing employee experience which will in turn enhance employer branding, employee commitment, productivity and lower dissatisfaction with the job and thus less attrition.

### 5.2 Limitation and Future Research

The study is limited to the three IT companies of India and is based on the employees who have posted their reviews on the website [www.Glassdoor.com](http://www.Glassdoor.com). Thus, the findings of the study cannot be generalized to other industries and companies. Since the three companies are Indian IT companies the opinions and the sentiments of employees working for IT companies not in India may be different. All the findings are based on employee reviews on the above mentioned website and thus may be biased. A similar study can be conducted for more organizations and spread across different geographical regions.

## 6. Conclusion

In this study we identify the potential impact of the primary stakeholders of the firm, that is, employees and highlight that automated sentiment analysis of the employee reviews to provide valuable insight of emotional tone of employees and thereby their emotional Health too. Given the technologically driven and social media savvy workforce the employers need to be proactive and predictive tools need to be adapted as indispensable ingredient of the corporate culture. Data from Glass Door's website was used to understand how current employees trust their employer's brand compared to competitors. Addressing the key contributing factors to the positive emotions, like work life balance, will increase retention and engagement. Employee Experience is a holistic concept which builds on every trust point. It is imperative for the enterprise to look through the glasses of the employees to provide enhanced employee experience for the current employees and to attract future talent. The paper helps the management of the IT companies to leverage the reviews and enhance the employee experience not just for the current employees but attract and retain the best talent in this scenario where war for talent is all pervasive. The best employee experience comes from organizations who truly understand their employees, give emphasis to emotional well-being and data can be an amazing asset for that. The positive sentiments expressed by an employee through Employee Experience are developing a better emotional health of an employee which in turn result in better productivity and happiness. Often where traditional approaches to measuring employee experience fails emotion analysis succeeds.

The social media reviews can serve as a major tool to analyze the corporate culture and frame and monitor future strategies for combating the competition of talent hunt. Text mining and text analysis are receiving a lot of acceptance and popularity in this context. N gram analysis and sentiment analysis can be leveraged to take corrective action on time. This provides a better understanding of the employee's emotional tone which is the key in this era of employee experience. This results in positive employee experience, leading to more engaged, satisfied employees that bring about multifold increase in firms earnings.

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