

SYNOPSIS OF THESIS

Employee Engagement Parameters and Practices in IT Companies

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By

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1. Introduction

Employee Engagement is one of the few subjects which is well researched by academics and extensively used by corporations globally. It broadly talks about being able to engage employee in a job to make them productive from short- and long-term perspective. It is all about ability of employer to keep employees happy and motivated to work through various hard and soft aspects of engagements.

While there is no universally accepted definition. William Kahn, during early stage provided the formal definition of employee engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances." Kahn (1990).

Employee Engagement practices ensure the engagement of employees towards their work. Machines and humans perform and behave differently in different scenarios. Understanding human beings always intrigued social scientists. Multi-generational workforce, digital disruptions, and currently, Covid-19 are continuously changing the way we do business and lead our lives. The pandemic situation has forced organizations to manage their employees away from the office environment, i.e., working from home. Indian I.T. Services business is at crossroads. One side is the opportunity, and the other is preparedness to encash the opportunity.

The impact of Covid-19 on revenue of services is visible where services export dipped from \$17.56Bn to \$16.45Bn to \$15.70 Bn during Mar-Apr-May 2020, As per the RBI Report.

As an emerging economy, India is spending \$1.6 Bn annually on training the workforce (Invest India,2020). During industrial revolution, efforts were to increase the capability of machine to make it more productive. Now during service age, efforts are on increasing the overall productivity of service environment which consists of people, process and

technology. Employee engagement largely addresses the people aspect. We have heard that cost of business through new customer is higher than that of existing customers. Similarly ability of the organization to get maximum economic benefit through existing employee is higher than that of new employee and this makes corporate world invest in employee engagement.

Generically, we can define employee engagement as the dedication, determination and commitment of employee for the common purpose of the organization, expressed through behavior, attitude and passion in business transaction. The whole purpose is to keep or make employee as productive as possible to drive enhanced economic benefits from the association.

The study examines the parameters influencing employee engagement. This study explores the relationship and influence of age, gender, educational qualification, work experience & location of the employee on employee engagement parameters. This study also focuses on some of the employee engagement practices followed in selected Indian IT companies.

Covid-19 created a scenario that affected all humans across society, all age groups across gender and educational profiles. Many of them were directly impacted (infected with the Covid virus), many were indirectly (family and friends got infected). It is the employment of IT services companies that brought many to this city, which indirectly means that most employees do not support their families. Our Education system prepared humans to be employees and has not taught them to design a life larger than work. Also, many of the employees traveled from tier 2 and tier 3 cities, and for them, work is life; thus, life engagement outside work/ not associated with work and colleagues is rare.

With the onset of Covid-19, the government locked down the city, restricting movement and business transactions, limiting the way people live and transact their lives and

businesses. Initially, all the IT Services companies in Bangalore have declared work from home. Later as the situation improved, today IT services companies are offering (including mandate) for 50%-80% of their workforce to work from home. Work environment and work from home were among the key parameters used to stimulate employee engagement. This part of the research is to understand the impact of Covid on employee engagement (forced work from home and deprived work environment). The study also considered that employees have personalities and personal engagement factors, which could have played a role in employee engagement.

Employees defined Employee engagement as a state when an employee is naturally (no external force) involved with his/her work. Few of the employee's related engagement with happiness, comfort, and productivity-related to work. The majority of the employees refused to accept the extended working hours as the definition of an engaged employee. Many employees stated that "We do not know how to be self-engaged," "work-life is the only life," "There is no time for any social activities after office."

2. The Relevance of the Topic – Research Motivation

What keeps the employee attached to the job, happily. The intriguing question is why organizations are not able to increase the engagement rate. The IT industry is experiencing paradigm shift. The whole purpose is to keep or make employee as productive as possible to drive enhanced economic benefits from the association. It is therefore very important to understand how employees are engaged in enhancing the business value (productive) of an enterprise. Engaged employee in support business can ensure reduced downtime, thus support enhances business operations, similarly engaged employee in development side can reduce defects and also right requirement management helps in reduction of re-work, leading to enhanced business value.

It is therefore very important to have engaged employee to enhance business value and effectiveness. Since employee engagement has a direct bearing on the business efficiency and effectiveness therefore a study to understand what engages an employee is very relevant to business environment and its stakeholders.

Covid time forced employers to close workplaces and enable employees to work from home. Employers proactively closed workplaces to comply with government regulations and directives and focus on employees' healthcare. Employees believe that it is the effect of government enforcement that employers accepted to allow work from home. Irrespective of the reason for motivation, employees are now working from home.

Workspace during Covid time is characterized as the place with disseminated working hours, Lack of ergonomic seating arrangement, Isolated working environment, Absence of Physical interaction/ Lack of ideation space, Employees living with additional/ running family responsibilities during work time, No medical support for proactive assessment, Distracted social life and priorities, too much of Technological involvement in day-to-day working, Missing recreation-rejuvenation activities and Fusion of personal and professional space.

Many areas where the impact is observed, felt and acknowledged are responsiveness, productivity, performance, and work quality, specifically work involving high involvement vs. transaction. Employee monitoring and management (Micro vs. Macro), Employee Engagement are other areas where the impact is duly accounted for now. The Covid effect impacted the facilities required for work from home, Data and Information security, confidentiality, and data safety, Culture and organizational value system, and communications.

3. Review of the Literature

Employee Engagement as a subject was discussed, explored by a different set of researchers over a long time. Research focus varied differently and changed its focus in every decade. In the literature review, we can categorize all the research into two parts, i.e., pre-1990 and post 1990. The pre-1990 era was more about the people-focused study; however, typically the 1990-2000 period, research was in transition, focusing on both human and usage aspects. As post-1990, research moved to use the subject in the corporate environment. The focus was to “monetize” or “take advantage” of the subject, unlike pre-1990, which focused on understanding humans.

The literature review is grouped into two parts – (1) Engagement parameters, (2) Engagement practices.

A literature review includes the study of various research articles, doctoral thesis, industry reports, meta-analysis, blogs, newspapers, and engagement models.

Literature Reviewed <small>(Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)</small>	Literature Type <small>(Research Paper, Review Paper, Chapter of a Book, etc.)</small>	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
Title: Coronavirus: Employer and employee relationship. Source: https://lakshmisri.com/insights/articles/coronavirus-employer-and	Article	Abrol, S., Madan, V.	2020	Engagement parameters – actionable for employers 1. Safe Workplace 2. Reimbursing employee expenses 3. Health and wellbeing 4. Communication 5. Data Security 6. Adherence to law a. Factories Act b. Disaster Management Act c. Epidemic Disease Act	Engagement parameters used by employers either by choice or by mandate	Diligent planning in times like COVID can help protect the interest of employers, employees and customer.

Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
employee relationship/#						
Title: The Covid-19 crisis as a career shock: Implications for careers and vocational behavior. Source: Journal of Vocational Behavior. 119. 103434. Doi 10.1016/j.jvb.2020.103434.	Article	Akkermans , Jos & Richardson , Julia & Kraimer, Maria.	2020	The concept of the COVID 19 as a career shock and its implication of people. This is directly impacted by the interplay between contextual and individual factors also can have a different impact in the short-term vs. the long-term and for different career stages. Article also explain that negative career shocks can incur positive career outcomes.		
Title: The potential impact of the Covid-19 pandemic on occupational status, work from home, and occupational mobility. Source: Journal of Vocational Behavior, Volume 119, 103442, ISSN 0001-8791, https://doi.org/10.1016/j.jvb.2020.103442 .	Article	Kramer, Amit., Kramer, Karen Z.	2020	Covid-19 pandemic is likely to reshape perceptions of individuals and organizations about work and occupations and result in both micro and macro shifts in the world of work. Paper presents the thought that three perceptions will change (1) Perceptions of the value and status of different occupations, (2), the great “work from home experiment” may change occupational perspectives on working from home. (3), the increased segmentation of the labor market which allocate workers to “good jobs” and “bad jobs” and the contribution of occupational segmentation to inequality.	Impact on engagement related to work and occupation and effect of work from home as reason to change in engagement definition	WFH have changed the way engagement parameters were understood and defined

Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
Title: Driving employee engagement: how personality trait and leadership style impact the process“. Source: Journal of Business & Industrial Marketing, Volume 35 Issue 10, ISSN: 0885-8624, doi/10.1108/JBIM-11-2019-0477/	Article	Meskelis, S. and Whittington, J.L.	2020	The purpose of this study was to contribute to the understanding of how personality traits and leadership styles impact employee engagement. With 100, study investigates the relationship between honesty–humility, authentic leadership and employee engagement. Results shows that honesty–humility impacts employee engagement and that authentic leadership functions as a substitute for honesty–humility	Study investigates the relationship between authentic leadership and employee engagement	Leaders remains a factor to understand the impact on engagement
Title: Employee engagement: A study of survivors in the Indian IT/ITES sector Source: https://doi.org/10.1016/j.iimb.2019.10.003	Article	Tiwari, Binita., Lenka, Usha	2019	This was to study association employee engagement with employer branding. 220 middle managers of Indian IT/ITES companies was selected. Structural equation modelling was used to evaluate the hypothesised model. Results indicate that internal corporate communication, knowledge sharing, continuous learning, intrapreneurship, and perceived communication satisfaction are positively associated with employee engagement. Employee engagement is also positively associated with employer branding. However, resonant leadership is negatively associated with employee engagement.	Parameters related to the study are internal corporate communication, knowledge sharing, continuous learning, intrapreneurship, and perceived communication satisfaction	There is positive relationship between engagement parameters and employee engagement
Title: Winning Effective Employee Engagement in IT Sector: An Analysis of emerging trends and challenges.	Article	S, Dr. Manjunath, M.C, Chandni	2018	Objective of the study was to identify the emerging trends & challenges in implementing effective employee engagement mechanisms in IT industry. • To understand the effectiveness of employee engagement in IT Sector. • To understand the impact of employee engagement in achieving organizational goals. •	Engagement parameters relevant for the study are Open Communication Platforms, Social Media As A Tool For Internal Communication, Blogs For	

Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
Source: ISBR Management Journal, Volume 3, Issue 2, November 27, 2018 ISSN (Online)2456 - 9062				To suggest a model for a more 'effective employee engagement by blending both the career aspirations of the employees & the organizational goals. New trends identified through the study are Open Communication Platforms, Social Media As A Tool For Internal Communication, Blogs For Imparting Informal Dialogues, Collaboration With Academia, Gamification, Eco- Sustainability Initiatives, Women Empowerment & Appreciation Programmes, Fitness Programmes, Rewards & Recognition Programmes, Family time at the Campus, CSR, Start up and Fun at Workplace.	Imparting Informal Dialogues, Collaboration With Academia, Gamification, Eco-Sustainability Initiatives, Women Empowerment & Appreciation Programmes, Fitness Programmes, Rewards & Recognition Programmes, Family time at the Campus, CSR, Start up and Fun at Workplace.	
Title: Employee Engagement in the IT Industry – Evidence from India. Source: DOI: 10.15640/sm q.v4n1a4	Article	Gantasala, Venugopal & Reddy, Swetha	2016	This research paper was aimed at assessing the Employee Engagement levels in the IT industry in India. Objective of the research was to find the current level of Employee Engagement in I.T. Industry. Factors that influence Employee Engagement, ways and means, the organizations need to enhance employee engagement. The researcher set out to also identify the impact of demographic profile of employees on engagement. Scope was limited to 6 IT companies in AP.	Engagement parameters	
Title: Employee Engagement, human resource management practices and	Article	Simon L Albrecht, Arnold B Bakker, Jamie A Gruman, William H	2015	<ol style="list-style-type: none"> 1. Well referenced article (more than 140) shows engagement and dis-engagement level using Aon survey 2. Talks about integration across HRM and engagement models- performance models 3. Provides a visibility on physical-energetic, emotional and cognitive components of engagement 	It provides insight on lack of clarity on relationship between high performance human resource practice and	Attitude and behavior parameters mapped to employee lifecycle give a distinct

Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
competitive advantage. Source: Journal of Organizational Effectiveness: People and Performance, Vol 2 No 1,2015 pp. 7-35 Permanent link to this document: http://dx.doi.org/10.1108/JOEPP-08-2014-0042		Macey, Allan M Saks.		<ol style="list-style-type: none"> 4. It also helps in relating distinct attitudes such as job satisfaction, job involvement and commitment and big 5 dimension of Neuroticism 5. Thoughts on engagement and competitive advantage in organization 6. Engaging employee through its life cycle 7. Rightly designed and managed organizational performance management system and practices will have positive impact on attitudes. 	organizational performance	view on how engagements can be managed
Title: How gender and work site affect employee engagement: a joint national business group Optum™ study Source: Optum.com/resourcecenter	Research Paper	OPTUM	2014	<ol style="list-style-type: none"> 1. Research was done to understand the impact of demographic on consumer engagement, usage of types of information or tools, preference for healthcare communication, likelihood of engagement post communication and understand the activities which employee undertake to make life style changes 2. Gender difference acts as key point to understand on engagement related to site, communication, health etc. 3. Work site location plays a significant role in how individual manages their health 	Acknowledgement of various parameters and sub parameters are important to understand engagement and how to engage.	Gender, Age, Work site and communication has good impact of type and level of engagement.

Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Linkage to own research	Remarks
OPTPRJ3552 37629-012014				4. Work site wellness programs are important enablers for engagement		

4. Research Objective

This research is all about understanding employer and employee’s perspective, as what makes employees engaged? What are the motivations for being engaged and how these parameters changes across segment of employee (Segment by gender, segment by age, segment by educational qualification). Proposed research will also explore to understand the engagement process and its effectiveness across employee segments.

Objective of the study is to find what employee thinks, as how they can be better engaged and, in the process, and understand their view on selected engagement parameters. Also, to understand how acceptance of these parameters varies by the very background of the people. Therefore, study will focus on the understanding the variation in acceptance of employee engagement parameters when people vary by gender, age and educational qualification.

Employer HR Manager’s, Employee Engagement Program Manager or functional Managers who are responsible for employee engagement will be interviewed to understand employee’s motivational factors.

Engagement Parameters: Leadership – Vision, Brand Alignment - Organizational Reputation, Manager – Coworkers, Work Life Balance, Monetary and Non- Monetary

Benefits (Pay), Communication, Managing performance - Learning and development, Work processes - Tasks, Physical work environment – Safety, Innovation - Autonomy, Recognition - Sense of Accomplishments, Diversity – Global Exposure, Career Opportunities, Customers - Customer focus, Valuing people/ People focus, Social acceptance

The objective of the research is to

- To find out the effect of gender, age, educational qualification, years of work experience and location on employee engagement parameters.
- To study the Employee Engagement Practices being followed in selected IT companies and identify the various parameters followed in these companies.
- To find out the effect of employee engagement parameters on overall Employee Engagement.
- To explore the relationship between people responsible for managing engagement activities and employee engagement parameters.

5. Research Scope

This study is about the parameter and practice of engagement, followed by employees and employers and the I.T. companies. The research focuses on employees living in Bangalore. This study will explore variation in selecting engagement parameters with widely spread respondents' profile, across gender, age, educational background, and city where they lived for the maximum amount. The study will explore the correlation between parameters. The study will help us understand if they (and to what extent, if they) influence each other. Through multiple regression, this study will also try to understand the statistical relationship of engagement with its parameters

6. Hypothesis

The hypothesis for this research are the following:

H1: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on gender.”

Male and females may have different social responsibilities and positions in their society, forcing them to think differently. It is therefore essential to explore if the employee engagement parameters among males and females are different and if there exists a significant difference of opinion existing among the respondents on the parameters of employee engagement based on gender.

H2: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on managing people.”

When we work to build a solution, we, in the process, build a better understanding of the issue and the environment. Employees with people management responsibilities understand the challenges from employers as well as employer perspective. The dual role, at times, does make them more balance or better informed. As a researcher, therefore, the question is, do the people manager think differently on the engagement parameters than those who individual contributors are.

H3: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on managing employee engagement program.”

Are employees who are involved in the implementation or management of employee engagement program are more engaged? If not, then will they be able to execute the engagement program successfully? It is, therefore, essential to explore if there is a significant difference of opinion existing among the respondents on the parameters of

employee engagement based on whether people are involved in managing employee engagement programs.

H4: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on age.”

We human beings learn and get experience over some time. Age increases the maturity among people, and so changes the responsibilities of people. It is, therefore, essential to explore if the employee across different age groups has a significant difference of opinion on the parameters of employee engagement.

H5: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on educational qualification.”

Education helps us learn new and different things during our life. Higher education is sought by people when they seek better options in life from employment. Will they be better engaged if they get better employment options for life standard, or is it otherwise. It is thus vital to check if there is a significant difference in liking if employee engagement parameter among people who are with different level of education.

H6: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on experience.”

Employees play various roles and have a different level of interaction based on their number of years. The question is to check and explore if this experience leads to employee selecting different engagement parameters.

H7: “There is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on place of living.”

We have places known for their characteristics. We know the city as a cultural city, financial city, and likes. People in our country are still moving towards different towns to get a better option in life. Also, some people are not able to move to different places

during the early part of their life. The early part of human life shapes personalities. Therefore, it is essential to explore if there is a significant difference of opinion existing among the respondents on the parameters of employee engagement based on the place of living.

Having made a hypothesis related to the parameters to understand the impact on employee engagement, it is also essential to explore and understand if employee engagement parameters contribute to the overall engagement. Below two hypotheses are to examine the relationship of engagement parameters on the overall employee engagement.

H8: “There exists a significant positive relationship between the parameters of employee engagement and the overall employee engagement.”

H9: “The parameters of employee engagement have a significant impact on the overall employee engagement.”

7. Research Methodology

- **Research Flow**

Like any other research, this research also followed the systematic and sequential steps of analysis and field study. The research objectives were formulated through an exhaustive review of the literature in the area of employee engagement in order to understand their findings, limitations, gaps, and directions for further research. Hypotheses were developed based on the objective of the research. In the next stage, research methodology was finalized, which include the development of research instruments in terms of structured questionnaires.

- **Research Design**

A research design is an architectural plan for investigation scenarios to obtain answers to research questions. The plan is an overall scheme or program of the research, which

includes an outline of what the researcher will do from the hypothesis and their operational implications to the final analysis of data (Schindler 2012).

This study tries to explore and associate engagement parameters with various employee groups/ segments. Therefore, an exploratory study was conducted to understand the critical engagement parameters across the target population.

Target Population: Employees of I.T. Services companies in Bengaluru in age groups of 20-50 years, either male or female and with any educational level (less than graduate to above post-graduate). To have clarity around scope, ITeS and BPO companies are not part of the study

- **Sampling**

Data were collected using a structured questionnaire, where friends and colleagues, apartment associations, H.R. meetings, and conferences helped in identifying and administering the survey.

Krejcie et al. (1970), In the article “Small Sample Techniques,” has published a formula for determining sample size.

$$S = \frac{X^2 NP(1 - P)}{d^2(N - 1) + X^2 P(1 - P)}$$

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level

$$= 1.96 * 1.96 = 3.841$$

N = the population size. (1500000)

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05)

$$\text{Numerator} = 3.8416 * 1500000 * 0.5 * (1 - 0.5) = 1440600$$

Denominator = $0.05*0.05*(1500000-1) + 3.8416*0.5(1-0.5) = 3749.998 + 0.9604 = 3750.948$

Sample size = $1440600/3750.948 = 384$

At a 95% confidence level with a confidence interval of 5, for a population of 1500000, we need a minimum of 385 sample size. The sample size considered for the research is 461 (390 Quantitative and 36+35 Qualitative (35 sample for Work Place under Covid))

- **Focus Group Discussion**

A focus group study has been conducted among the selected respondents to understand the engagement parameters that employees consider and which employees are exposed to at their workplaces. The main purpose was to understand and validate the engagement parameters.

A structured Focus group discussion guide has been prepared and personally administered to respondents to collect primary qualitative data. The objective of this focus group discussion was to select the right engagement parameters for the questionnaire.

The second set of focus groups of discussion was considered to capture employee's perspectives on the definition of engagement and other engagement parameters. This focus group also aimed at understanding employees' experience and their personal engagement stories at their workplace, as this is the direct reflection of engagement effectiveness and practices at the workplace.

- **Pilot Survey and Questionnaire**

After building a thorough understanding of engagement parameters, the next step was to generate statements/questions for the questionnaire. All the parameters and statements helped in building the questionnaire to collect the primary quantitative data for statistical analysis. The questionnaire developed based on the objectives of the research were

distributed among the respondents for their feedback. An initial set of 40 respondents were selected for a pilot study to validate:

- 1) Flow of questions
- 2) The ability of the respondent to comprehend the questions as expected
- 3) Validate the reliability of data
- 4) Validate the ability to use various statistical tool to perform the analysis

Based on the suggestions of the respondents of the pilot study and guidance from the guide, the corrections were incorporated and reconfirmed before rolling out the final survey questionnaire with maximum factual accuracy.

- **Reliability Statistics**

Before we start the analysis, it is vital to check and validate the reliability of the collected data. Cronbach Alpha test is conducted to check the reliability of the data. Formulae used was

$$\alpha = \frac{N}{N - 1} \left(1 - \frac{\sum_{i=1}^N \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

The test was conducted using all engagement parameters

Total Engagement Parameters N= 16

“Var.P” value for all respondent- across all engagement parameters $\sum_{i=1}^N \sigma_{Y_i}^2 = 4.40575$

Sum of “Var.P” value for all across all engagement parameters $= \sigma_X^2 = 19.2309$

$$\alpha = \frac{N}{N - 1} \left(1 - \frac{\sum_{i=1}^N \sigma_{Y_i}^2}{\sigma_X^2} \right) = (16/(16-1)) * (1-(4.40575/19.2309)) = 0.819084$$

We again performed the Cronbach alpha test using the data from Q25 – 39. (Summarized form) and Q25-39 in non-summarized form. The standardized Cronbach's coefficient alpha value of the engagement data is as below:

Parameters description	Cronbach Alpha Value
All 16 Engagement parameters	0.819084
Summarized Q25-39	0.929924067
Non-Summarized Q25-39	0.974584

Consistent Cronbach alpha calculation confirmed the reliability of the data, and hence we decided to continue with further statistical analysis.

8. Data Analysis

The following data analysis methods has been used to understand and interpret the data and information:

- 1) Analysis methods, e.g., frequency table, bar charts, pie charts, histograms, Pareto diagram, box plots, mapping, and cross-tabulations, were used based on the relevance of the presentation of data

The primary purpose of using the frequency table is to provide the distribution of demographic information of the sample. The frequency table helps in counting the number of respondents that fall into various categories.

- 2) Cronbach Alpha is used to check for data reliability and consistency - The reliability describes whether the measuring tool is reliable to the extent that independent administrations of the same tool will consistently yield similar results.
- 3) Hypothesis test - to test the hypothesis (as described earlier) - Independent Sample T-Test - The independent sample t-test is a parametric technique for testing two sample means drawn from independent samples. In this study, a t-test

was performed to analyze the difference of gender on employee engagement, organizational culture, job satisfaction, employee retention, and core self-evaluations construct.

- 4) Correlation means association or relationship in literature, and statistically, it is a measure of the extent to which two or more variables are related. This study used correlation analysis to establish the relationship between parameters of engagement and employee engagement.
- 5) In the present study, one-way ANOVA is used to measure group differences between demographic variables (age, gender, and education qualification) on various employee engagement parameters.
- 6) Factor analysis helps to develop the measure (scale) based on the grouping of variables under different components/factors as a data reduction technique. Secondly, develop a theory concerning the nature of the construct. Finally, to review the relationship in the form of a parsimonious set of factor scores for subsequent analysis.

Summary of Focus Group Discussion related to Work Place as Engagement Parameter in Covid

Narayana Murthy, the CEO of Infosys, in his letter to Infosys employees, observed that "Passing-Time, during late hours in the office just because they say they've nothing else to do." Employees based on their engagement and personality type reacted differently under the Covid-19 situation and experienced employee engagement.

1. Effect of Personal Engagement on Employee Engagement

- a. Many of the employees (20-30 yrs. of age) had their work as only engagement in life, and their life is only around work and work colleagues (extended friend). They experienced a negative impact.

- b. During the initial days of Covid-19, employees were locked in their hostels (shared accommodation) with limited internet/network connectivity, which impacted their work and engagement level.
- c. Since their employers focussed on their wellbeing and all their colleagues and managers supported them, employees tried to spend extra hours to complete their work.
- d. These extra hours of working led to exhaustion, and again this impacted their engagement level.
- e. These employees, who typically did not have any engagement other than work, started feeling the effect BUT fear of losing their job made them continue to work for extra hours. Lack of social interaction also negatively impacted the level of engagement.
- f. Employees openly acknowledge that if the number of work hours is the measure of engagement, then the engagement level increased significantly, but productivity and happiness at work have dipped.
- g. 20-30 years aged employees who were used to having the canteen facility, never worried about food however during Covid times they faced little hardship on many basic needs. Fear of infection did not give them comfort to explore many options outside their shared accommodations.
- h. Sudden missing airconditioned work environment, ergonomic seating and workspace, refreshment options, gym, and other facilities also deprived employees of the engagement to work
- i. Women employees generally complained less about the impact on work engagement due to Covid than their male counterparts. They felt that they

continuously lived in controlled societal conditions and situations due to Covid has not created an additional great deal of limitation for them.

- j. Additional support from employers and managers has helped them cope with the situation better.
- k. Many female employees felt better engaged because of limited communication from colleagues. Restricted communication helped them spend more time on work. Effectively increased the level of engagement.
- l. Covid's situation indirectly gave a lot of time to all the employees, and many of the employees utilized this time to acquire or enhance their capabilities. This change in activity helps them cope with the limitation, thus reduced the severe negative impact on the work engagement.
- m. Employees aged 40+ years were better off in terms of available infrastructure related to work. However, since they also have limited engagement as a person, they spent long hours working. This increased the level of work engagement.
- n. 40+ employees, dis-engagement level came from their side with spouse and kids at home, attending classes and their respective work. The situation forced them to live with multiple responsibilities, which led to enhanced active work hours or a lowered work engagement level. Enhanced work level led to exhaustion and indirectly reduced productivity.
- o. Many of the 40+ male employees learned cooking and found a way to rejuvenate. They acknowledged that these acts of rejuvenation helped them maintain the work engagement.
- p. 40+ female employees had higher level exhaustion due to parallel personal and professional demand of time. Engagement level dipped among them. Many of them during the early period of Covid was able to commit only half the expected

work time. The situation improved over some time (The adaptability factor increased). However, most of them have staggered work hours with breaks in between to facilitate them to take care of their responsibilities.

- q. A long working hour remained the norm for employees across age groups and gender profiles. While there is a definitive negative impact on social quotient, happiness, and fatigue, employee engagement experienced a mixed bag.

2. Effect of Personality Type on Employee Engagement

- a. For research, we looked at the employees having Introvert and Extrovert personality types and how they were impacted due to Covid. As a net result, it impacts employee engagement.

Introvert and Extrovert personality types definitions were used from MBTI assessment, and MBTI assessment questionnaire was used to establish individual personality profiles.

Extraversion and Introversion are "mutually complementary" attitudes. Individuals and society need these attitudes to maintain life; thus, both Extraversion and Introversion are necessary for psychological adaptation.

Introvert: Introverts are those people who draw energy from the inner self, directing energy mainly toward the inner world of experiences and ideas. They often prefer doing things alone or with one or two people (with comfort factor). They take time to reflect to have a clear idea about actions when they decide to act. They tend to focus their energy on concepts, ideas, and internal experiences. Sometimes they like the idea of something better than the real thing. They generally feel at home.

Extrovert: Extroverts are oriented primarily toward the outer world; thus, they tend to focus their energy on people and objects. They like getting their power from active involvement in events and having a lot of different activities. They are excited when they are around people, and they want to energize other people. They like moving into action and making things happen. They generally feel at home in the world.

i. Introvert Employees

1. Covid came as a boom to many introvert employees. This time gave them more opportunity to organize themselves, evaluate themselves, and plan for "what they want to do."
2. In general, they felt that they could spend more productive hours at work
 - a. Reduced communication allowed them to interact less (unnecessary interaction with other people/ including managers). People who gave them task and feedback gave them in more concise and actionable form
 - b. Constrained Resources – Limited network connectivity and time gave them more opportunity to think, plan and organize themselves.
 - c. Time for everything – They found time to read books, attend online training courses
3. During the initial days of lockdown – Introverts were happy that they got more time for everything. Restricted movement and reduced options (entertainment, food, gathering, etc.) for time consumption worked very well for employee engagement.

4. The current scenario, where they are not expected to go to the Office, brought many comforts. They expressed that there is no peer pressure to behave differently than the way they wanted to live. A side effect of this advantage was that it affected their ability to remain in contact with people and felt that it might impact their ability to find the next job when they want to change their own Organization's role.

ii. Extrovert Employees

1. All extrovert employees were challenged due to restricted face-to-face contact with people.
2. Since depended on their verbal and body language connect with other employees, they found it uncomfortable, challenging, and time-consuming to write a precise and concise note
3. They complained that they were forced to spend more time on their laptops and desktops.
4. Their ability to take short breaks in between work, which give them a lot of rejuvenation, become restricted
5. Their ability to talk, discuss and consult their friends and colleagues on various work topics also became restricted, which gave them a lot of uncomfortable feeling
6. They started discussing and talking to colleagues on the phone and using software's skype, teams, WebEx, and zooms to counter the above situation. This forced long working hours on them. The absence of external relaxation or rejuvenation opportunity made the whole Covid situation very tiring and exhausting.

7. Early days of Covid (first three months) engagement level decreased, then employees learned to cope with the situation and engagement level increased, but it remained less than the pre-Covid days. Today, typically, extroverts spend more time at work, their work engagement level has increased.

This study also explored the challenges faced by Managers in managing employees and customers during Covid19. Individual parameters (e.g., personal engagement and personality) were not considered for Managers.

Managers felt no extra pressure from customers (Mostly the US and Europe). They attributed this behavior due to

1. Extensive impact of Covid in US and European countries – Many of the customers were heavily impacted (directly or indirectly) due to Covid, and this made them very sensitive to extra demand on services
2. Humane face - Managers felt that in the US and Europe, people are generally more sensitive to human value and personal situation and more adjusting in nature
3. Robust image of Indian IT Services – three key points gave a distinct advantage to Indian IT services companies. Previous track record of excellent service performance, absence of any reliable alternative to Indian IT service, and planned business innovation and governmental support gave an additional assurance to the world that IT services will not be impacted. Today, most IT services companies can allow or mandate 50-80% of the workforce to work from home. This is proof of the concept that we can remotely support the services from anywhere in the world
4. Infrastructure – Almost all the IT services companies use software's that support and enable remote working. Almost all the customer interactions were using these remote connectivity software's (Skype, Zoom, WebEx, etc.).

Sometime during early 2000, Narayana Murthy once said that "Our Assets walk of the door each evening. We have to make sure that they come back next morning". Managers of all IT services companies in Bangalore struggled to ensure that all employees report to work and remain engaged in their work.

Project Managers, People Managers, HR Managers, Legal fraternity all started to fret on multiple points, i.e., resource availability, legal compliance, people's wellbeing, information, and data security.

1. Impact of Covid19, the response of employer and effect on managing employee engagement
 - a. Initial response to Covid was mandatory and legal, and all employers (including IT services companies) complied. There was no discussion of employee engagement. All discussed was to ensure employees wellbeing and avoid the negative effect on companies' premises.
 - b. The first round of worry was on well being of all the employees. Senior managers were dependent on the Government resources to support their employees. Few companies used the services of their facilities provider to provide extra support to their employees.
 - c. Many employees have moved to different cities (hometown/cities) due to a lack of access to support services. Pre-Covid times, companies (HR Managers), used to incentivize a city movement or relocation. Today they struggle to find the solution to build parity in the system. Since there is no tax or legal obligation due to the employee's action, companies do not enforce openly.
 - d. IT systems came under heavy usage; companies spent a significant amount of time updating and upgrading the IT systems in the first 4-5 months. Concerns

for employee engagement were nowhere near the discussion table. All Managers were concerned with securing the organizational network.

- e. With IT infrastructure secured, managers faced a challenge regarding employees' availability when needed for discussion or consultation. Employees were able to complete the work (with their share of hardship).
- f. Managers faced challenges regarding the internet connection and background noises. They were unsure if employees were engaged in the work, even though they tried to keep employees motivated to maintain the engagement level.
- g. Few of the HR managers (change management specialist) believe that companies should re-open the Office soon and change and variation to the routine will keep the employees engaged.

2. Effect/ Use/ Impact of various employee Engagement parameter on employee engagement

- a. During pre-Covid time top five employee engagement parameters were Career Growth, Work Environment, Recognition, Alignment of the company, and Leader.
- b. During first 3-4 months of Covid wellbeing was the only parameters which kept employee engaged.
- c. Work environment, which was one of the critical parameters during pre-Covid, is still considered vital. Many of the employees openly speak that they want to go to the Office and how good the office environment was. However, due to health and safety concerns, many people are not able to ask for it.
- d. Apart from health and wellbeing, career growth remained the sought-after parameter for employee engagement.

- e. During the last three months, many organizations have rewarded employees for their engagement and walk the extra mile. Many employees who changed the job got very respectable role change, which confirms that an engaged employee is still paying very well.

9. Summary of Research Findings

54% of respondents are graduates or are less than a graduate, whereas 46% of respondents Post-Graduate or have a higher degree. % split among male and female respondents is the same on educational qualification. 62% of male and 72% of female respondents are in the age group of 20-30 years. 25% of male and 28% of female respondents are in the age group 30-40 years, and this ratio drops drastically in the 40+ years category, where male respondents constitute 13% and female-only 2%. 60% of male, and 69% of female respondents have less than ten years of work experience. In the 10-20 years of experience group, male respondents are 37%, and females are 31%. There is no female respondent in the 20+ years of experience bracket, while 3 % of male respondents belong to 20+ year of work experience

The majority of respondents have completed their schooling (90% male and 83% female) and college (86% male and 79% female) from Non-metro city. 55%-57% of males and females are managing people in their organization, and similarly, 58% of males and 65% of females are managing employee engagement programs. Approx. 90% of respondents (90% male and 84% female) have heard about employee engagement, and 71% of the respondents do not believe that employee engagement is different for males and females. 65% of respondents (67% M and 62% F) agree that employee engagement parameters have changed over a period of time.

The human being is an unusual entity. A parameter/ factor which may motivate one person may demotivate another. The motivation factor for each employee is different. Still, the

concept of segmentation is to group like-minded people. This research is to list the parameters which keep employees engaged and to understand the relative importance of parameters among themselves.

The top 5 parameters of engagements are recognition (92.1%), Career Growth (85.1%), Work Environment (84.9%), Pay and Benefits (77.7%), Training and Development (75.6%).

Parameters which has the least (relatively) effect on employee engagement is Alignment of the company (27.7%), Customer (34.6%), Organizational Reputation/ Brand (36.4%), Product and Services (37.9%).

With Statistical significance at 0,01 level, the relational coefficient of parameters with that of employee engagement is Career Growth (0.531). Other major parameters that contribute to employee engagement are Work Environment (0.484), Recognition (0.483), Alignment of the company (0.472), Leader (0.464), Team Manager (0.434), and Roles and Responsibility (0.396). Other parameters that have a positive effect on employee engagement are Co-Worker (0.375), Alignment with the company (0.315), and organization reputation (0.201).

In simple words, the top three key parameters which nurture engagement among employees of I.T. services companies in Bengaluru are recognition, career growth, and work environment.

Summary of Focus Group on comparison of Current times with Pre-Covid time as impact on Engagement across various effect parameters.

When started in Bangalore, the IT Industry provided many facilities under Work Environment and was much valued as contributing to the engagement. However, over some time, employees assumed and taken the same for granted. Covid situation when employees were forced to work from home and missed the various facilities (as basic as readily available tea/

coffee), they again started talking about the how each of these facilities uses to keep them refreshed and helped in working productively.

Work from home, a privileged facility, and employees who cherish the same are unsure if they want to work from home. More than half of the employees do want to go back to the Office. Once looked at as a limiting and binding environment, Office is now imagined as a place of freedom.

Covid has made employees agree that business working condition is changing. Office to home, Fixed time working has changed to flexible working hours. This will extend from full-time employment to contractual employment and further from monthly salary to hourly effort-based working. This changing perception or mixed reality has employees better manage engagement, which was on free fall during the first 3-4 months of Covid

Covid forced people to relook at life and the role of employment in life. Honesty, hard work, time management gained prominence. Introvert employees got an excellent opportunity to work freely without being forced, influenced, and micromanaged for their work. Extroverts employees had a hard time working alone and keeping themselves motivated while being alone. Extrovert Managers were equally at a loss when they could not see employees working Infront of their eyes.

Employees also started discussing self-engagement (what they like), their personality (what makes them who they are), and this will surely (may take long term) help in increasing employee engagement in the long term. This will ensure that employee's dependence on the work environment will reduce.

Female employees with family responsibilities and without any helping hand faced many hardships in managing professional and personal commitments. The workplace shift had a very negative effect on Employee engagement for all female employees with family responsibilities.

For other female employees, it's a mixed bag and depended on personal engagement and personality type.

Employment will demand a high level of engagement from employees, and with visibly diminishing control, people with high self-control will have a better prospect. Workplace and physical environment will add relaxation, rejuvenation factor.

Today, many IT services companies decided to work from home or lock the physical space, but if employees are believed, this will reverse, and companies will open the workspace soon.

Few of the HR Managers (also a psychologist) believe that the absence of social structure (Workplace) will hurt employees and employee engagement.

Most companies are more inclined to take legal safeguards (as per govt regulations) while closing the offices. Many are taking advantage to consolidate their real estate landscape.

Organizations have not thought about employee engagement while making decisions to close offices.

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
1	Responsiveness	It was easy to get people for a quick meeting and pick-up their thoughts and perspective	Very difficult, practically impossible, to get all team members assembled quickly to discuss any topic.
2	Data/ Information Security	The company's secured network had access request	All employees are working from home, and numbers of a request originating from multiple sources

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
		from all know locations and devices	demanding access to organizational resources
3	Ergonomic Seating	The company ensured right/appropriate seating and workstation arrangement, which provided ease of working	Many of Table-chair combination is not right for long working hours. Many employees do not have a proper table and chair, and they work from their bed. Back posture, eye level with screen creating a lot of physical uncomforted
4	Physical interaction/ ideation space	The availability of people under one roof allowed them to discuss, brainstorm with people from a cross-functional team. Employees never knew other employees, but the connection of connection worked at ease to build space for discussion. Many of these discussions were not official, and hence a lot of	No physical interaction in the post-Covid scenario deprived employees and managers to ideate on any subject. Getting a cross-functional team without formally knowing them is impossible now. Finding people from the cross-functional team and then finding people with authority to share the information became difficult.

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
		open and transparent debate used to happen	
5	Health Care-Well Being	<p>Every Organization had a healthcare unit with all necessary health check-ups to support employees with healthcare needs.</p> <p>Every Organization ran wellbeing programs for employees, which use to encourage employees to think and focus on their wellbeing</p>	<p>Post-Covid, Employees are on their own; there is no proactive health care facility to support them warn them of any possible health issues.</p> <p>All health and mental wellbeing programs are reduced to being an email campaign, which gets lost in series of emails.</p>
6	Productivity and Performance		
7	A platform for employee engagement	Office space used to provide a platform for Managers and HR professionals to run employee engagement activities	With limited to no physical interaction, all employee engagement activities and programs involving people and get together is in cold storage

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
8	Recreation and Rejuvenation	While working in an office, it was easy for employees to take a break and a few of his/her colleagues to discuss a topic about work or outside work and feel refreshed and get back to work.	The opportunity to take a break while working from home is limited and negligible. Even when people take a break, they are alone (basically do not have anyone to discuss work-related challenges). Challenges related to work impacting employment are directly visible at home, creating a spiral effect at home.
9	Food and Snacks	Workplace used to provide ready-to-drink tea-coffee and an assortment of food from various cultures serving different food habits.	Employees living in a shared hostel do not have the option ready to drink tea and coffee (as per their want). All employees have to either prepare on their own or step out to roadside eateries (not safe from health concerns). Also, it takes time away from work, which many cannot afford.
10	Innovation and Learning	The Office provided space for shared learning, built an	Not many employees are exploratory, and they cannot read

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
		attitude to solve problems, attend cross-functional workshops to understand challenges, issues, and development (knowledge) related to job and aspirations.	the industry's next steps. Now employees not able to meet others and learn about industrial development informally. Lack of knowledge is giving a sense of insecurity.
11	Social Factor - Culture and organizational value system	Employees meet other employees with different cultures, backgrounds, and value systems. Still, organizational ethics are bounded to drive people towards cultural sensitivity and yet support each other to follow corporate ethics.	All employees are working in silos or their social setup, which takes them away from collective enforced cultural, ethical behavior. ("Many employees who are not working on official work tell that they busy with some deliverables – personal values?"
12	Communication	Informational communication and grapevine used to run in parallel in various	Informal and non-verbal communication is lost. Often, a nudge is used to do the work; however, in post-Covid times, the only communication mode that

#	Factor under Work Environment	Pre Covid – Work from Office	Post-Covid – Work from Home
		organizations along with formal communication.	remained is a formal-documented-with digital record. The new forced format of communication makes it uncomfortable for many managers and employees.

10. Application of Concept in Management

The findings of the research will help the organizations and employees at large to understand the key engagement factors which keep employees of I.T. services companies in Bengaluru engaged.

This study will contribute to management practices in the following manner:

- 1) A large number of employees lack the ability to self-assess their personality and self-diagnose the parameters which can keep them engaged. This study will expose them to find similarity with other employees and can understand the reason for co-worker's engagement
- 2) This study will also simplify the effort that organizations are scrambling to put into ensuring the employee engagement
- 3) This study will guide employees to look for practices related to select a few parameters in prospective employers to keep them engaged

Specific points on parameters which enhances employee are:

- 1) Career Growth was found to have highest correlation (0.531), Work Environment (0.484), Recognition (0.483), Alignment of the company (0.472), Leader (0.464), Team Manager (0.434), Roles and Responsibilities (0.396), Co-worker (0.375), Alignment with the company (0.315), and Organizations Reputation (0.201).
- 2) Organizational Reputation is an important parameter among employees who have less than ten years and more than 20 years of stay in Bengaluru
- 3) Career Growth, Alignment with company, Recognition, Work Environment, and Co-Worker as engagement parameters give maximum employee engagement.
- 4) Roles and Responsibilities draws significant opinion amongst employees
- 5) Employees involved in Employee engagement activities are better aligned with the company

- 6) Recognition and Career growth draws significant opinion among employees with people management responsibilities

11.Limitation of the research

This study gives us the employee engagement perspective of what people (as an employee) from across the country thinks on the subject. However, there were inherent limitation to this study

1. This study was restricted to I.T. services companies that have a presence in Bengaluru city.
2. The study does not include administrative staff and temporary workers in its purview.
3. Employee Engagement is a vast concept; this study covers only two areas, i.e., Employee Engagement parameters and practices.
4. This study also does not reflect the impact of COVID on employee engagement

12.Scope of the future study

Work environment and work conditions will change in times to come, and this will impact the parameters and practices of employee engagement. Health conditions (Pandemics), Social Change (Migration of Labour), and Technology Change (Data Science, ML, and A.I.) will shape future employments, and the way employee engages with the work.

Future research may focus on

- 1) Rate of Employee engagement among native employee's vs. migrant employees
- 2) Quality of Employee engagement among technology-oriented work Vs. the non-technology-oriented work environment

- 3) Variation in employee engagement due to variation in business scenarios (Employee engagement. during supply-based business condition Vs. employee engagement. during demand-based business conditions)

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