



**Sustainability of Human resources – An Empirical
study considering demographic factors on employee engagement
contributing for sustainability at ITES sector**

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Abstract:

This article describes how demographic considerations impact on employee engagement affect the ITES sector's capacity to sustain its human resource base. Supplementary factors may too affect the sustainability of human resources, but demographic aspects form the backbone of sustainability and are taken into account in this article. The first part of this article explains the many demographical elements that contribute to the sustainability of human resources, and the second part explains the implications of employee engagement by enforcing demography on the sustainability. To solve this problem, research on the variables influencing employee sustainability in the ITes sector is required, with an emphasis on demographic traits in particular. The study is to identify why employees stay with these companies for a long time and to find the significant factors that support their continued commitment.

Aims: With a specific focus on IT & ITes companies in Bangalore, and the goal is to investigate the employee sustainability while taking demographic variables into account as a major contributor in the Indian IT & ITes industry.

Research Design: Structured questionnaire method was used to collect the data and the nominal scale and ordinal scale used to quantify the items within the questionnaire. The sample size of the study was 128 workers working in IT & ITES companies, Bangalore. IBM SPSS 20 version software helped to examine the data by adopting various statistical tools to assess the hypothesis, such as Pearson correlation analysis, reliability test, and frequency table analysis, ANOVA.

Results: Bestowing to the study, there is a connection between employee engagement and the long-term viability of human resources. Moreover, the study demonstrated how employee engagement strategies promote sustainability among IT & ITES staff.

Keywords: Employee engagement, Demographic, Work-Life Balance, Sustainability, Human Resources, IT – Information Technology, ITES – Information Technology enabled services.

Introduction:

ITES sector is a Sustainable Development Goals (SDG) to be achieved worldwide in the year 2030(United Nation 2015). Sustainable development was defined as development that meets needs of the present without compromising future generations' needs"(Brundtland, 1987). Sustainability is a concept that focuses on the condition of Earth's biophysical environment, particularly to the use and depletion of natural resources (Portney, 2015) whilst sustainability awareness is the major step in achieving sustainability (Li,etal.,2021). Sustainability awareness is the score to which people are educated towards the need to be positively responsive socially, economic and environmentally. (ZahariaandZaharia,2014).

Information Technology (IT) sector is staring at another major wave of employee attrition (Verrendra, 2019). The industry is experiencing the slow growth of single digit and fat middle of companies. The change in technologies leads to a great fleet of obsolete workforce (Balakrishnan, Former CFO, Infosys). The greatest task for an HR manager is to hold the employees to make them sustain in the company for longer turn to reduce HR cost, rate after performance management in the organization. With the rapidly changing society, government, culture, technology, communication and the legal landscape – a connecting mechanism is required to understand the fluctuations in the variables that determine an employee retention in a company.

Employee engagement:

The term "engagement" is also found to have few different surfaces: intellectual engagement, which refers to a commitment to doing one's job better, affective engagement, or feeling good after doing one's job, and social engagement, which includes engaging in conversations with others about enhancing work-related improvements. According to the Hay Group, an engaged employee's performance is "a outcome attained by increasing an employee's excitement for work and directing it towards organization success. According to Baumruk (2004), Richman (2006), and Shaw (2005), employee engagement is characterized as a person's emotional and intellectual commitment to a company. According to Harter, Schmidt, and Hayes (2002), employee engagement is a measurement of workplace participation as well as a composite of an individual's "involvement, satisfaction with, and enthusiasm for work." The grade of devotion and interest a worker has for their employer and its principles is known as their level of employee engagement. By the words in the time spent on a job as a proxy for employee engagement, the concept of time exists (Goddard, 1999). An employer-employee partnership is necessary for the companies to cultivate engagement, which must be developed. (McCashland, 1999) Employee engagement and commitment have both been used interchangeably.

Employee Sustainability:

Employee sustainability is directly connecting with employee retention and that itself is a problem for the Indian IT & ITeS sector, particularly in cities like Bangalore, for a various reason. A potential wave of employee turnover could result from the speedy technological advancement that has port a substantial percentage of the workforce useless. In spite to cut HR expenses and maintain performance levels inside organisations, HR managers must concentrate on staff retention, which is due to a combination of weak single-digit growth, a bloated middle management, and other factors.

Studying the issues that affect employee sustainability in the IT & ITeS industry, with emphasis on demographic characteristics in particular, and to address this issue is more common. The idea is to understand why employees stay with these companies for a long time and to find the key factors that support their continued commitment.

Factors that can stimulus employee sustainability in the Indian IT & ITeS industry include:

Demographical Factors - Demographic variables such as age, education level, gender, marital status, and family responsibilities as play a important part in employee retention. For EX: fresher employee capacity be more likely to switch jobs frequently, while employees with family obligations may prioritize stability and job security.

Career Growth Opportunities - The availability of career advancement and growth opportunities are providing in the organization can impact an employee's decision to stay or leave. Companies that provide career paths, training programs, and opportunities for skill advancement are more likely to retain their employees.

Work-Life Balance - Maintaining a healthy work-life balance is crucial for employee satisfaction and retention. Organizations that promote flexible work arrangements, provide adequate leave policies, and support employee well-being are more likely to retain their workforce.

Compensation and Benefits - Employee retention can be greatly impacted by competitive pay scales and alluring perks like health insurance, retirement plans, and performance-based bonuses. Companies that provide fair and competitive compensation have a higher likelihood of retaining their employees.

Organizational Culture - A positive and inclusive organizational culture that ideals employee contributions, encourages teamwork, and nurtures a sophisticated work atmosphere which can improve employee engagement and retention. Employees are habituated to continue in organizations where they feel cherished and appreciated.

Leadership and Management - Employee retention depends on effective leadership and management techniques. Regular feedback, accomplishment recognition, and teammate support are all behaviours that managers that value employee loyalty and retention encourage.

Employee Engagement - Employee commitment and sense of ownership can be increased by actively engaging them through frequent communication, participation in decision-making, and chances for feedback. Employee retention is higher for engaged workers.

Reviews of previous literature:

(Huang et al., 2021) Organizations must confirm that their people resources are sustainable, and demographic research is important for identifying and meeting the workforce's variety of demands. This literature review intends to investigate the body of information and research on how demographic studies support the long-term viability of human resources in organisations. One of the main problems for international affairs is the problem of global warming, which is caused by human behaviour and impacts populations and states all over the world.

(Posthuma et al., 2019; Lievens et al., 2020) Organisations can predict retirement trends, prepare for future skill needs, and create plans to close any skills gaps by analysing demographic data. Organisations can better know the effects of technological breakthroughs on their workforce with the practice of demographic research.

(Parry et al., 2018; Schleicher et al., 2019) Organisations can undertake training and development programmes to upskill or reskill employees and ensure their sustainability in a developing technology landscape by taking into account demographic aspects like age and digital literacy.

(Smith et al., 2017; Mellahi et al., 2019) Demographic studies assist businesses in determining the age, gender, education, and other pertinent characteristics of their workforce. Employers can utilize the data to evaluate diversity, spot potential skill gaps, and create specialised recruitment, training, and development strategies. Recognising demographic trends and preferences aids in acquiring and keeping top talent for organisations.

(Den Hartog et al., 2016; Konrad et al., 2018) Organisations can identify potential hurdles and create policies and practises that support diversity, equity, and inclusion by analysing demographic data. Workforce planning and succession management are of two different aspects where demographic research is helpful to businesses.

(Arti Chandani, 2016) Employee engagement is influenced by various factors, including career development, effective talent management, leadership, values, ethical behavior, empowerment, fair treatment, performance appraisal, pay, benefits, health and safety, satisfaction, family friendliness, talent recognition, communication, job nature, organizational politics, emotional factors, productivity, and personality factors. Newly joined employees can get benefit from the strong induction programs, rigorous training, certification programs, and realistic job previews. Adequate employee development through training and skills leads to increased engagement and positive perceptions of the organization.

(Shulgna Sarkar, 2011) The paper helps to gain an understanding of employee engagement tools/indicators to measure employee engagement, and the factors alarming employee engagement, practices to improve employee engagement, and advantages of having engaged employees. Both primary and secondary data collected for study by using 5 points Likert scale, used 10 manufacturing companies 18 HR sample size from the HR, Convenient sampling techniques and snow ball sampling techniques used for study. A great scope lies for the HR managers to bridge the gap between the need for implementing employee engagement strategies to what is actually practiced in the organization.

Statement of the problem:

The study holds the statement ‘Sustainability of Human resources – An Empirical study considering demographic factors on employee engagement contributing for sustainability at ITES sector’. The IT & ITES sector is considered the most substantial because the Sustainability of human resources depends upon the employee engagement provided by the top level in the IT & ITES companies. It is going to be greatest challenge of IT & ITES companies to retain the staffs by practicing the quality employee engagement activities with basic consideration of demographic factors of workers in the changing environment. Also, it is hard for employees to prioritize their careers due to their demographic factors like gender, age, income, qualification & experience for sustainability at the work place. Due to drastical changes in the technology, enhancing of new thoughts & ideas, balancing of work life, compensation management, quality of work life, organizational culture and practices may cause sustainable human resources at IT & ITES sector. Thus, the researcher decided to conduct a study on human resources to investigate the requirements and study the various dimensions which help in employee engagement helps in sustainability of human resources at IT & ITES sector, Bangalore.

Importance of the Study:

Important insights after the study results are expected to adopt by the management and development of proper employee engagement activities basis on demographical factors for sustainable human resources. The output of the study are expected to be used by IT & ITES sector in Bangalore for developing and implementing successful policies to improve employee engagement activities through perfectly balancing sustainable human resources.

Objectives:

1. To understand the different demographical factors, contribute for sustainability of employees at IT & ITES.
2. To examine the effect of factors contributing on employee engagement employees at IT & ITES.

3. To investigate the connection between employee engagement and the sustainability of human resources at ITES.

Hypothesis:

1. There is a significant connection between factors contributing on employee engagement.
1. There is no significant connection between factors contributing on employee engagement.
2. Employee engagement are positively related to sustainability of employees at ITES.
2. Employee engagement are not positively related to sustainability of employees at ITES.

Research Methodology:

The study's main objective is to investigate the relationship employee engagement towards sustainability by considering demographic factors of human resources at IT & ITES sectors in Bangalore. This research adopted a quantifiable method and used a questionnaire method for data collection. The questionnaires designed with the three major sections, Part A was pertinent to the demographic information, Part B was employee engagement factors, and Part C was relevant to employee engagement factors contributing on employee sustainability.

Data Analysis and Interpretation:

This research study used IBM SPSS software, version 20 for data analysis. The data of research study are self-reported and were obtained by using a single method of a 5-point Likert scale i.e., a. Strongly agree, b. Agree, c. Neutral, d. Disagree, and e. Strongly disagree.

Table 1. Frequency Table:

Age of the respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 or less	29	22.7	22.7	22.7
	26-35	33	25.8	25.8	48.4
	36-45	54	42.2	42.2	90.6
	46-55	10	7.8	7.8	98.4
	above 55	2	1.6	1.6	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: Table 1 exemplify the outcomes of the frequency table analysis. The respondents has remained categorized into five major groups based on their age, which is 25 or less, 26 - 35, 36 – 45,

46 -55, and 55 years and above. From the above slab it is pragmatic that out of a total of 128 respondents, 22.7% of the respondents belong to the 25 or less age group 25.8% of the respondents belong to the 26 -35 age group, 42.2% of the respondents belongs to 36 – 45 age group, 7.8% of the respondents belongs to 46 – 55 age group, and 1.6% of the respondents belongs to above 55 years age group in this study.

Table 2. Frequency Table:

		Education Qualification			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	51	39.8	39.8	39.8
	Degree & Above	46	35.9	35.9	75.8
	Diploma	7	5.5	5.5	81.3
	IT(Engineer)	24	18.8	18.8	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: The above table reveals the educational qualification of the respondents, it was found that huge number of bachelor’s degrees are working and a greater number of Degree and above are working followed by minimum number of IT (Engineer), and a smaller amount of Diploma working in IT & ITES.

Table 3. Frequency Table:

		Annual Income of the respondent			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5,00,001-7,00,001	16	12.5	12.5	12.5
	7,00,001-9,00,000	4	3.1	3.1	15.6
	9,00,001-11,00,000	25	19.5	19.5	35.2
	Above 11,00,001	20	15.6	15.6	50.8
	Less than 5,00,000	63	49.2	49.2	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: The above table explains that annual income of the respondents, it was found that more of the respondents fall under the annual income of fewer than Rs. 5 lakhs, followed by respondents fall under the annual income of between Rs. 9 lakhs to 11 lakhs, and minimum number of

respondents fall under the annual income of between Rs. 7 lakhs to 9 lakhs working at IT & ITES sector.

Table 4. Frequency Table:

		Experience in present post			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5yrs	45	35.2	35.2	35.2
	10-15yrs	28	21.9	21.9	57.0
	15-20yrs	19	14.8	14.8	71.9
	20yrs and above	2	1.6	1.6	73.4
	5yrs-10yrs	34	26.6	26.6	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: The above table discloses that 35.2% of the respondents are determined and their work experience between 0- 5years, and least experience fall 1.6% of respondents and their work experience between 20years in the IT & ITES sector are consider in this study.

Table 5. Frequency Table:

		Gender of the respondents			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	84	65.6	65.6	65.6
	Female	44	34.4	34.4	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: The above table tells that 65.6% of the respondents are male and 34.4% are female. Thus, it indicates that a greater number of employees are male in this study.

Table 6. Frequency Table:

		Designation of the respondent			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Top Level	75	58.6	58.6	58.6
	Middle level	39	30.5	30.5	89.1
	low level	14	10.9	10.9	100.0
	Total	128	100.0	100.0	

(Primary Source)

Interpretation: The above table explains that 58.6%, 30.5% & 10.9% of the samples are employed under top level management, middle level employment and low level employment are consider in this study.

Table 7: Reliability Analysis for the complete study of the paper

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.927	.931	14

(Primary Source)

Interpretation: The study constructs internal consistency is gauged by reliability. According to (Hair et al., 2013), a construct is considered credible if the Alpha value is larger than .70. Cronbach's Alpha (α) helped to evaluate the construct dependability. The results exposed that the overall item selected in the study was 14. HR/Management provides better employee engagement program during the change management, and engaging them with challenges and responsibilities, team engagement, and decision making, flexible working, job security, healthy environment which directly impacts on sustainability of human resources were found reliable with the alpha value 0.931(α -0.931).

Table 8: Pearson correlation analysis and ANOVA

		Correlations					
		I agree that the team becomes effective in engaging with their challenges and responsibilities.	I agree that employee engagement is active when implementing change management.	I agree that I am receiving the right direction to engage with the workin change management	I agree that effective team engagement programs are followed in my organization with change management.	I accept that involving the employees in decision-making which help to engage thoroughly.	I agree that my organization follows a better employee engagement program.
I agree that the team becomes effective in engaging with their challenges and responsibilities.	Pearson Correlation	1	.761**	.615**	.673**	.431**	.519**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	128	128	128	128	128	128
I agree that employee engagement is active when implementing change management.	Pearson Correlation	.761**	1	.709**	.729**	.429**	.696**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	128	128	128	128	128	128
I agree that I am receiving the right direction to engage with the workin change management	Pearson Correlation	.615**	.709**	1	.652**	.384**	.614**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001
	N	128	128	128	128	128	128
I agree that effective team engagement programs are followed in my organization with change management.	Pearson Correlation	.673**	.729**	.652**	1	.329**	.589**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	128	128	128	128	128	128
I accept that involving the employees in decision-making which help to engage thoroughly.	Pearson Correlation	.431**	.429**	.384**	.329**	1	.478**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	128	128	128	128	128	128
I agree that my organization follows a better employee engagement program.	Pearson Correlation	.519**	.696**	.614**	.589**	.478**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	128	128	128	128	128	128

** Correlation is significant at the 0.01 level (2-tailed).

(Primary Source)

Interpretation: Hypothesis 1 predicted that factors contributing for employee engagement would show a significant relationship with the sustainability of human resources. As indicated in Table 8, all the items of employee engagement factors tested positive with a Pearson correlation value from 0.43 and with the significance level of the study is .000 which is <0.05. Therefore, the null hypothesis failed to be accepted and alternative hypothesis accepted.

ANOVA analysis for the factors contributing for employee engagement

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig
Between People		495.979	127	3.905		
Within People	Between Items	11.635	5	2.327	3.825	.002
	Residual	386.365	635	.608		
	Total	398.000	640	.622		
Total		893.979	767	1.166		

Grand Mean = 2.3385

(Primary Source)

Interpretation: The above table shows that the output of the ANOVA analysis and there is a statistically significant difference between the group means. The table shows that the significance value is 0.002 (i.e., $p = .002$), which is below 0.05 and therefore, there is a statistically significant difference in the factors of employee engagement practices towards sustainability.

Table 9: Pearson correlation analysis and ANOVA

		Correlations							
		I have been given autonomy in matters such as participation in decision-making, working order and setting of work objectives.	I agree my organization ensured that more employees occupational safety.	I agree with my organization that employee work-life balance (career and family harmony) should be ensured.	I agree my organization takes necessary precautions for job security.	I agree my organization gives more importance to health and quality of life.	I agree my organization provides flexible working hours.	I agree my organization provides work-from-home facilities.	I agree my organization provides side benefits (private health insurance, life insurance, nursery, financial support for sport-related actions, etc.) to the temporary and part-time employees.
I have been given autonomy in matters such as participation in decision-making, working order and setting of work objectives.	Pearson Correlation	1	.360**	.605**	.600**	.494**	.541**	.379**	.466**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	128	128	128	128	128	128	128	128
I agree my organization ensured that more employees occupational safety.	Pearson Correlation	.360**	1	.593**	.560**	.500**	.538**	.442**	.418**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001	<.001
	N	128	128	128	128	128	128	128	128
I agree with my organization that employee work-life balance (career and family harmony) should be ensured.	Pearson Correlation	.605**	.593**	1	.760**	.564**	.562**	.347**	.435**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	<.001
	N	128	128	128	128	128	128	128	128
I agree my organization takes necessary precautions for job security.	Pearson Correlation	.600**	.560**	.760**	1	.590**	.612**	.148	.339**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	.095	<.001
	N	128	128	128	128	128	128	128	128
I agree my organization gives more importance to health and quality of life.	Pearson Correlation	.494**	.500**	.564**	.590**	1	.484**	.272**	.625**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	.002	<.001
	N	128	128	128	128	128	128	128	128
I agree my organization provides flexible working hours.	Pearson Correlation	.541**	.538**	.562**	.612**	.484**	1	.655**	.523**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001
	N	128	128	128	128	128	128	128	128
I agree my organization provides work-from-home facilities.	Pearson Correlation	.379**	.442**	.347**	.148	.272**	.655**	1	.549**
	Sig. (2-tailed)	<.001	<.001	<.001	.095	.002	<.001		<.001
	N	128	128	128	128	128	128	128	128
I agree my organization provides side benefits (private health insurance, life insurance, nursery, financial support for sport-related actions, etc.) to the temporary and part-time employees.	Pearson Correlation	.466**	.418**	.435**	.339**	.625**	.523**	.549**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	
	N	128	128	128	128	128	128	128	128

** Correlation is significant at the 0.01 level (2-tailed).

(Primary Source)

Interpretation: A Pearson correlation study was directed by the researcher to examine the association between employee engagement impact on sustainability during the change management process by considering the demographical features. It is observed from the above table that the coefficient of Pearson correlations value r is .360 and which means there is a positive relationship. Hence the null hypothesis failed to be accepted and the alternative hypothesis is accepted. The study used different items to test the relationship which is shown in the above table 9.

ANOVA analysis for the impact of employee engagement towards sustainability

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig
Between People		690.559	127	5.437		
Within People	Between Items	14.230	7	2.033	3.769	<.001
	Residual	479.520	889	.539		
	Total	493.750	896	.551		
Total		1184.309	1023	1.158		

Grand Mean = 2.3613

(Primary Source)

Interpretation: In the above ANOVA analysis there is a statistically significant difference between the group means with the significance value is 0.001 (i.e., $p = .001$), which is below 0.05. and, therefore, there is a statistically significant difference in the impact of employee engagement towards sustainability during change management process.

Summary of Findings:

The results of the study indicate that the execution of employee engagement factors which directly impacts on sustainability of human resources among employees working in IT & ITES, Bangalore. The study outcome shows that employee engagement factors significantly affect the sustainability of human resources at IT & ITES sector based on employee demographic factors. The research also initiate that employee engagement practices such as proper direction towards roles & responsibility, flexibility in organizational practices, and team engagement, involving in decision making process, retirement plan, work culture also positively affect the sustainability of human resources even in the change management.

Recommendations:

This research offers a few suggestions to enhance employee engagement practices which is more important towards sustainability of employees which increases the productivity among the employees, commitment towards work, team building, good coordination and improve performance. This study delivers knowledge about the various scopes of employee engagement practices which helps to improve sustainability of human resources at IT & ITES. Adopting the better employee engagement plans and strict practices will lead to satisfied employees and organizational performance. HR/Mangers should strictly practice the HR functions by adopting new techniques and methods to engage the employees and satisfaction leads to better human resources sustainable even in the change management process.

Limitations and Future Study:

The current study is conducted on only IT & ITES companies in Bangalore. Hence future researchers can perform studies on other domain and industries, different location and other parameters for sustainability of human resources. The present study examined on employee engagement factors and its contribution impact on sustainability by considering demographical factors among employees working at IT & ITES companies, Bangalore.

Conclusion:

The IT & ITES sector in India needs to provide lots of services across the globe. For this, the management and employers of the IT & ITES sector should appreciate the power of employees and better engaging them by considering necessary factors for better performance and sustainability which automatically improves the organizational performances. This research measured the association between employee engagement factors contributing on human resources sustainability by considering the demographical profiles of employees working at IT & ITES sector, Bangalore. The study concluded that there is a strong positive bond between employee engagement factors contributing towards sustainability of human resources among employees.

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