

Antecedents and Ramifications of Employee Engagement in Indian Information Technology (IT) Sector

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Abstract

In this study we investigate the antecedents and ramifications of employee engagement in Indian Information Technology (IT) sector. Primary data was collected from 453 Indian IT employees post-pandemic and Partial least squares-structural equation modeling (PLS-SEM) was utilized. The study found positive and significant relationship between engaging leadership, perceived organization support and job characteristics i.e. antecedents on work engagement and positive and significant relationship between work engagement and task performance, organization citizenship behavior i.e. ramifications. The study contributes to literature by highlighting the role played by engaging leadership particularly after Covid crisis from an employee engagement perspective.

Keywords

Employee Engagement, Engaging Leadership, Task Performance, Job Characteristics, Organization Citizenship Behavior, India

1. Introduction

Employee engagement encompasses emotional and intellectual pledge an employee has to their employment, their business, and its goals. When employees are engaged, they experience a sense of ownership and conscientiousness for their work and are motivated to put in their best effort towards the achievement of the business. There are numerous factors that contribute to employee engagement such as the work atmosphere, the culture with the firm, the eminence of management, the support and means provided to employees and the configu-

ration of personal principles and goals with those of the firm which is applicable to all sectors of the economy including Information Technology (IT) sector of India. High levels of employee engagement can show the way for superior performance, efficiency, customer satisfaction, menial turnover and non-attendance (Preeti et al., 2022).

The National Association of Software and Service Companies NASSCOM's 2022 report highlights that the IT industry's revenue has surpassed US\$ 227 billion for the financial year 2022. As per the report and Gartner's estimates, IT expenditure in India is anticipated to swell to US\$ 101.8 billion in 2022 (IBEF, 2022). The Indian IT industry added 445,000 new employees in financial year 2022 thus making a total employment of 5,000,000 employees in Indian IT sector. With increasing adoption of big data, analytics, IoT, AI and as per Amazon Web Services survey 2021, India is projected to have 9 times more digitally skilled workers by 2025.

Literature and studies seem to suggest that employee engagement is associated with better task performance, better motivation and commitment levels, better focus and improved efficiency overall helping the organizations achieve their strategic objective (Bakker & Demerouti, 2017; Robijn et al., 2020; Schaufeli, 2015; Gupta et al., 2017; Preeti et al., 2022). Hence it becomes imperative to investigate the antecedents and ramifications of employee engagement particularly for Indian IT sector which has been structurally impacted in post Covid 19 pandemic. With a trend of growing scarcity of skilled workers in recent years, hiring and retaining good talent plays a pivotal role and in this endeavor employee engagement plays a critical role. Indian employees are a part of young and diverse workforce in the world going through swift makeover (Gupta, 2018; Gupta et al., 2017). Elevated levels of dexterity, faithfulness of such human resources to their profile/employment and their aspirations make it exceedingly exigent for organizations to hold on to them in India (Venkataraman et al., 2014).

The main objective of this study is to investigate the antecedents and ramifications of employee engagement in Indian IT sector. The study contributes to literature by highlighting the role played by engaging leadership, perceived organization support, job characteristics and open conflict norms with respect to employee engagement and further its relationship with task performance and organization citizenship behavior particularly after Covid crisis from an employee engagement perspective. The rest of the paper is structured as follows: In Section 2 we review the literature and propose the hypothesis for the study. In Section 3 we present the data and research methodology adopted for the study. We present the empirical findings in Section 4 and conclude our study in Section 5.

2. Literature Review and Hypothesis

Work engagement is immensely prized quality of human resources in a place of work with its connection to an employee's general welfare from a personage act

or team performance viewpoint ultimately contributing to organizational performance (Bakker & Demerouti, 2017; Robijn et al., 2020; Schaufeli, 2015). Schaufeli et al. (2002) elucidate employee engagement as constructive, gratifying, job-related condition of mind that is characterized by vitality, commitment and amalgamation.

According to literature we find over 51,000 articles published in the last two decades linked to work engagement. **Figure 1** highlights the increase in published research on employee engagement since 2000 (Preeti et al., 2022). Contribution by A B Bakker and W B Schaufeli has been immaculate. **Figure 1** presents published work on Employee Engagement. Study by Preeti et al. (2022) examined the literature on Employee Engagement in the last 20 years and found that as of June 2022, there was a decrease in number of published work. This may be due to a re-evaluation of the concept of employee engagement following the significant changes in the business landscape brought about by the Covid-19 pandemic.

Bakker (2011) considered employee engagement as an affirmative, enormously awakened emotional situation with heaps of energy and complete involvement. Liu (2016) conveyed employee engagement highlighting on Employees' organizational uniqueness, allegiance, assimilation, vitality and pleasant harmony. Schaufeli and Bakker (2004), Bakker and Albrecht (2018), Bakker and Demerouti (2017) have explored antecedents and consequences augmenting Job demands and resources model whose major drawback is that it's only descriptive model (Robijn et al., 2020). Employee engagement and work engagement are analogous concepts but they are not the same. Employee engagement is poignant and cerebral assurance that a worker has to their employment, their business, and its goals. Work engagement refers to echelon of vigor, association and spotlight that a worker brings to their job dealing with conduct and proceedings

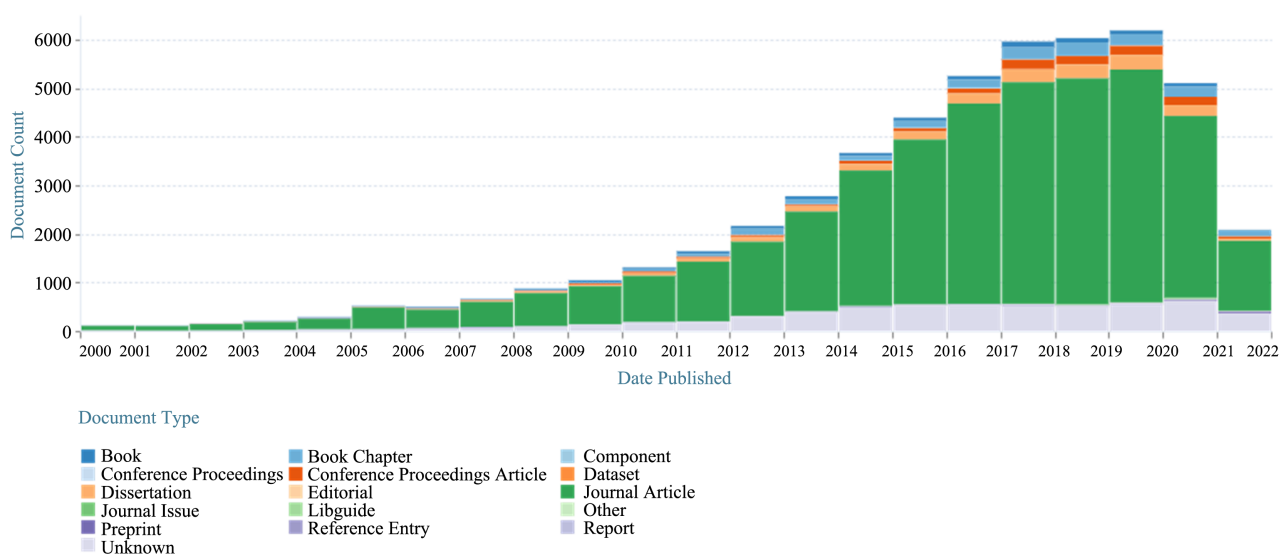


Figure 1. Published work on employee engagement year-wise. Source: Preeti et al. (2022).

of a member of staff whilst they are on the job. Mungthanaworakun et al. (2020) study investigated the engagement levels of employees at the Synchrotron Light Research Institute, a public organization owned by the Government of Thailand by utilizing a questionnaire survey to gather data and found that the engagement levels of SLRI employees were high. Additionally, they found that different groups of employees had distinct sub-group norms example: Scientists and researchers were engaged in creative and challenging tasks, engineers, technicians, and safety personnel were engaged in team-oriented, well-planned jobs, success, and reputation, while back-office staff were engaged in well-planned jobs, accountability, and ethicality.

Literature suggests Job Characteristics involving attributes such as Autonomy, Feedback and task significance play a positive role in work engagement (Preeti et al., 2022; Robijn et al., 2020; Bakker & Demerouti, 2017). Perceived Organization support also tends to have positive impact on work engagement. Engaging leadership involves leaders who are able to build affirmative and compassionate work surroundings, converse well with their group, and cultivate a sense of alliance and cooperation leading to augmented work engagement. Engaging leadership is related to work engagement in that it can have a positive impact on an employee's level of engagement with their work (Li & Bunchapattanasakda, 2019; Preeti et al., 2022; Robijn et al., 2020). Open conflict norms refer to norms pertaining to the way an organization handles and resolves conflicts that occur among human resources. In broad, organizations with open conflict norms support human resources to candidly discuss and resolve conflicts instead of avoiding or ignoring them making employees feel heard and supported leading to increased engagement (Li & Bunchapattanasakda, 2019; Preeti et al., 2022; Robijn et al., 2020). Based on the above rational, the following hypothesis has been formulated:

Hypothesis 1: *Perceived organizational Support post pandemic situation in India positively influences work engagement.*

Hypothesis 2: *Job characteristics post pandemic situation in India positively influences work engagement.*

Hypothesis 3: *Engaging leadership (post pandemic situation) is positively related to basic needs satisfaction.*

Hypothesis 4: *Open conflict norms (post pandemic situation) is positively related to basic needs satisfaction.*

Employees are vital asset of any business in the world. Engaged employees are exceedingly industrious and unswerving towards the business helping the organization accomplish competitive advantage thereby leading to better task performance (Li & Bunchapattanasakda, 2019; Preeti et al., 2022; Robijn et al., 2020; Bakker & Demerouti, 2017; Schaufeli, 2015). Organizational citizenship behavior (OCB) refers to dealings that are not constituent of the workforce official job duties, but that have a say in the overall performance and efficacy of the business. These behaviors are deliberate and are not characteristically recognized or re-

warded by the business examples include helping a colleague with a task, volunteering for a unique task, or portentous improvements to a process etc. Literature suggests that employee engagement is positively related to OCB. Organizational citizenship behavior-organization (OCBO) refers to actions that are intended for the organization as a complete, rather than towards specific individuals or groups. OCBO is focused on improving the entire organization instead of benefiting particular individuals or groups. OCB-individual (OCBI) refers to actions that are aimed and focused on benefiting particular individuals or groups inside the business, rather than towards the organization as complete. Overall, OCB, OCBO, and OCBI are all connected, but they are diverse concepts that refer to different types of intentional behaviors that add to the performance and efficacy of the company. Based on the above rational, the following hypothesis has been formulated:

Hypothesis 5: *Work engagement post pandemic situation in India positively influences task performance.*

Hypothesis 6: *Work engagement post pandemic situation in India positively influences OCB-I.*

Hypothesis 7: *Work engagement post pandemic situation in India positively influences OCB-O.*

3. Data and Research Methodology

Target population for the study was employees of Indian IT companies. Our sampling frame was employees working in Top 10 IT companies of Bangalore listed in National Stock Exchange of India. Primary data was collected from employees working in Indian IT companies from the city of Bangalore using online survey—Questionnaire. Sample size for our study is 453. The responses were collected between April 2022 and September 2022. 7 point likert scale was used to incarcerate the responses by the IT employees.

Work engagement was measured using Utrecht work engagement scale-3 (UWES-3) given by Robijn et al. (2020). Engaging leadership was measured using Schaufeli's (2017) engaging leadership scale. Open conflict norms was measured using Jehn and Mannix (2001) scale and as applied by Robijn et al. (2020). Williams and Anderson's (1991) two factor model was used for measuring OCB-I and OCB-O.

Partial least squares structural equation modeling (PLS-SEM) is a statistical technique used to test and estimate relationships among latent (unobserved) variables and their indicators (observed variables). It is a multivariate method that combines philosophy of factor analysis and structural equation modeling and is widely used in a multiplicity of fields, including marketing, behavioral finance, management, psychology and sociology for testing theoretical models and hypotheses about the relationships between variables. It is a popular choice for researchers due to its ability to handle complex models and its flexibility in dealing with various types of data. Figure 2 presents the Theoretical model of our study.

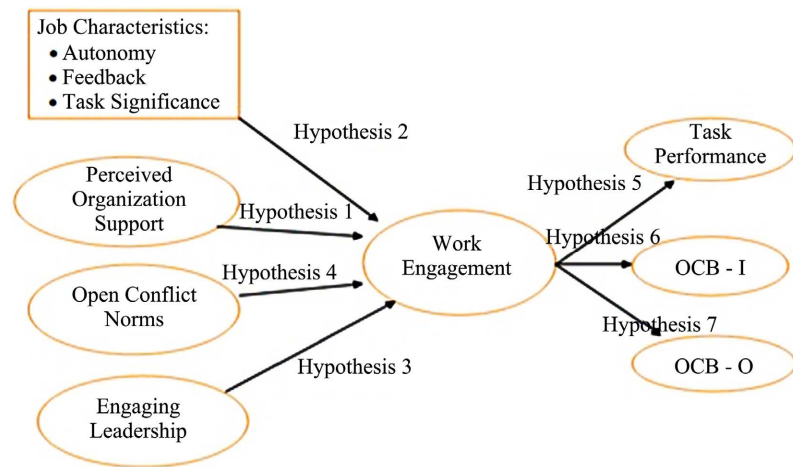


Figure 2. Theoretical model of our study.

4. Empirical Findings

Table 1 presents the demographic details of the employees of Indian IT companies who participated in the Survey. Out of 453 total participants, 54.74% were male participants and 45.26% were female participants. The Average age of the participants was 31.2 years. 71.08% of the participants had bachelors' degree, 28.03% had Masters and 0.88% had Doctoral degree as educational qualification. 9.27% of the participants had less than 1 year work experience, 32.01% of participants had more than 1 year but less than 5 years work experience, 43.48% had more than 5 years but less than 10 years work experience and 15.24% has more than 10 years work experience.

Table 2 presents results of a reliability analysis for several constructs. Cronbach's alpha is a measure of internal consistency, which indicates how well a set of items or questions on a survey are related to each other. A value of Cronbach's alpha greater than 0.7 is generally considered acceptable (Hair et al., 2010). In this case, all of the constructs have alpha values above 0.7, which suggests that the items or questions are reasonably consistent with each other. Composite reliability is a measure of the overall reliability of a construct, based on the average of the inter-item correlations. A value of composite reliability greater than 0.7 is generally considered acceptable (Hair et al., 2010). In this case, all of the constructs have composite reliability values above 0.7, which suggests that they are reliable. Average variance extracted (AVE) is a measure of the amount of variance in a construct that is explained by its underlying latent factor. A value of AVE greater than 0.5 is generally considered acceptable. In this case, all of the constructs have AVE values above 0.5, which suggests that they are measuring a single latent factor and are not redundant with each other. (Hair et al., 2010) Overall, the results suggest that the constructs are reliable and valid measures, and can be used in our research.

Table 3 presents results of discriminant validity using the Fornell-Larcker criteria. Discriminant validity refers to the extent to which different constructs

Table 1. Demographic details of participants.

Total Participants (N)		453
Gender	Male (%)	54.74
	Female (%)	45.26
Educational Level	Bachelor (%)	71.08
	Master (%)	28.03
	Doctoral (%)	0.88
Age	Mean	31.2
	SD	7.6
Work Experience (years)	Less than 1 year (%)	9.27
	1 year to 5 years (%)	32.01
	5 years to 10 years (%)	43.48
	More than 10 years (%)	15.24

Table 2. Construct reliability and validity.

Constructs	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Engaging Leadership (EL)	0.711	0.741	0.609
Job Characteristics (JC)	0.775	0.827	0.507
Open Conflict Norms (OCN)	0.722	0.762	0.626
Organization Citizenship Behavior Individual (OCB I)	0.712	0.753	0.524
Organization Citizenship Behavior Organization (OCB O)	0.709	0.716	0.525
Perceived Organization Support (POS)	0.769	0.796	0.579
Task Performance (TP)	0.704	0.778	0.637
Work Engagement (WE)	0.718	0.728	0.583

Table 3. Discriminant validity—Fornell-larcker criteria.

Constructs	EL	JC	OCN	OCB I	OCB O	POS	TP	WE
Engaging Leadership (EL)	0.78							
Job Characteristics (JC)	0.241	0.669						
Open Conflict Norms (OCN)	0.376	0.52	0.791					
Organization Citizenship Behavior Individual (OCB I)	0.191	0.324	0.258	0.724				
Organization Citizenship Behavior Organization (OCB O)	0.483	0.364	0.431	0.118	0.725			
Perceived Organization Support (POS)	0.307	0.298	0.442	0.413	0.438	0.761		
Task Performance (TP)	0.424	0.299	0.363	0.094	0.489	0.415	0.798	
Work Engagement (WE)	0.422	0.373	0.233	0.331	0.356	0.368	0.479	0.763

(e.g., engaging leadership, job characteristics) in a study are distinct from one another. The Fornell-Larcker criteria are a set of statistical guidelines used to assess discriminant validity. In this table, the rows represent different constructs, and the columns represent the relationships between the constructs. The values in the table represent the correlations between the constructs, with higher values indicating a stronger relationship. Discriminant validity assumes that items should correlate higher among them than they correlate with other items from other constructs that are theoretically supposed not to correlate (Zait & Berteau, 2011). In our study as per the table we find that all the constructs have discriminant validity.

Table 4 presents results from path analysis that examines the relationships between variables. Path coefficient is a measure of the strength of the relationship between the two variables that are listed. A positive coefficient indicates a positive relationship, while a negative coefficient indicates a negative relationship. Mean is the mean value of the variable. Standard deviation is a measure of the dispersion of the variable's values around the mean. A larger standard deviation indicates a greater degree of dispersion. T-statistic is a measure of how many standard deviations the mean value is from zero. The absolute value of the T-statistic is calculated by dividing the mean by the standard deviation.

P-value is a measure of the statistical significance of the relationship between the variables. A small *P*-value (typically less than 0.05) indicates that the relationship is statistically significant, while a large *P*-value indicates that the relationship is not statistically significant. We find statistically significant positive relationship between Engaging Leadership, Job Characteristics and Perceived Organization Support with Work Engagement. However, we find statistically non-significant negative relationship between Open Conflict Norms and Work Engagement, with a path coefficient of -0.158 . We also find statistically significant positive relationship between Work Engagement and Organization Citizenship Behavior Individual, Organization Citizenship Behavior Organization and Task Performance.

Table 4. Results of path analysis.

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	<i>P</i> values
Engaging Leadership (EL) → Work Engagement (WE)	0.333	0.339	0.121	2.757	0.006
Job Characteristics (JC) → Work Engagement	0.302	0.309	0.087	3.466	0.001
Open Conflict Norms (OCN) → Work Engagement	-0.158	-0.118	0.163	0.97	0.332
Perceived Organization Support (POS) → Work Engagement	0.246	0.245	0.105	2.343	0.019
Work Engagement → Organization Citizenship Behavior Individual (OCB I)	0.331	0.347	0.111	2.982	0.003
Work Engagement → Organization Citizenship Behavior Organization (OCB O)	0.356	0.372	0.107	3.342	0.001
Work Engagement (WE) → Task Performance (TP)	0.479	0.487	0.092	5.215	0

Table 5. Hypothesis results summary.

Hypothesis	Result
H1: Perceived organizational Support post pandemic situation in India positively influences work engagement	Accepted
H2: Job characteristics post pandemic situation in India positively influences work engagement	Accepted
H3: Engaging leadership (post pandemic situation) is positively related to basic needs satisfaction	Accepted
H4: Open conflict norms (post pandemic situation) is positively related to basic needs satisfaction	Rejected
H5: Work engagement post pandemic situation in India positively influences task performance	Accepted
H6: Work engagement post pandemic situation in India positively influences OCB-I	Accepted
H7: Work engagement post pandemic situation in India positively influences OCB-O	Accepted

Based on the Path Analysis results, the Hypothesis Results of our study are summarized in **Table 5**. All hypotheses are accepted except hypothesis 4 which is rejected. From our empirical analysis we found statistically non-significant negative relationship between Open Conflict Norms and Work Engagement, with a path coefficient of -0.158 . The results seem to suggest that for employees working in Indian IT sector, open conflict norms and policies of an organization does not play a statistically significant role for work engagement. Engaging Leadership playing a statistically significant positive role for work engagement provides empirical support to literature along the lines of [Robijn et al. \(2020\)](#).

5. Conclusion

Employee engagement encompasses emotional and intellectual pledge an employee has to their employment, their business, and its goals. When employees are engaged, they experience a sense of ownership and conscientiousness for their work and are motivated to put in their best effort towards the achievement of the business. In this study we investigated the antecedents and ramifications of employee engagement in Indian Information Technology sector. Primary data was collected from 453 Indian IT employees post-pandemic and Partial least squares-structural equation modeling was utilized. The study found positive and significant relationship between engaging leadership, perceived organization support and job characteristics i.e. antecedents on work engagement and positive and significant relationship between work engagement and task performance, organization citizenship behavior i.e. ramifications. The study contributes to literature by highlighting the role played by engaging leadership particularly after Covid crisis from an employee engagement perspective.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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