

Employee Engagement with Reference to Agility in Work Place and Organizational Performance in IT Industries, Bangalore

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Employee Engagement with reference to Agility in work place and Organizational Performance in IT Industries, Bangalore

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Abstract

Employee Engagement is the real matching of one's ability to meet the job needs of an employee with the capabilities of the employee and the employee performance is the outcome of personal competencies, Job fit, and organizational environment. Consistency in performance is assured through the continuous monitoring, facilitating and evaluation. In IT industry, the employees are working in virtual platform that the environment comprises of the place from where the employee works (may be work from home) or any place without distraction. This study analyses the employee level control of performance to meet organizational objectives. The results shows that, the clarity of interpersonal communication, training, online learning circles, etc, influence employee engagement and performance. The survey is conducted in the POST COVID 19 period in Bengaluru, Karnataka State India, a city known as the hub of IT industries, to learn the challenges faced the employees to meet the challenge of Dynamism in Information Technology improvement. The sample space is 189 and the respondents from IT industries. Analytical Hierarchy process is used to analyse the Data. The results shows that there is a positive effect of co working space employee performance.

Key words: IT Industries, Agility in Workforce, Co Working Space

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Introduction

An approach to workplace management known as "Employee Engagement (EE) " aims to strengthen workers' commitment to their jobs, the organization as a whole, their co-workers, and the values upheld by management. Increasing morale and output at every level of an organization is possible via the usage of EE strategies used by HR departments.

Ensuring that every individual in a company consistently performs at their best requires the implementation of various strategies, programs, and tactics for EE. Ensuring EE in HR is crucial for fostering a strong sense of commitment to the company's mission, goals, and values. It helps to keep employees motivated and inspired to make valuable contributions to the overall success of the organization. Ensuring the well-being and satisfaction of all employees is the main objective of any EE strategy.

EE is a term used by human resource professionals to describe the positive and dedicated attitude that workers have towards their work. It exemplifies the commitment and additional effort that employees invest in their work on a daily basis. Building a strong and engaged workforce relies on fostering honesty, openness, dedication, and effective communication between management and staff. Implementing this approach can significantly enhance the chances of achieving success for the company. By focusing on improving performance at both the individual and organizational levels, productivity can be increased while also promoting overall well-being.

Managing Agility in Workforce

VUCA is an acronym that stands for volatility, uncertainty, complexity and ambiguity. Now, all firms strive to VUCA of external market (Weeks, Johnston, & Mase, 2021). Managing organizational agility is the first stage in which agility in human resource has to be inculcated. Right workforce is the first target and the two strategies for achieving this goal to recruit apt candidates and the second is training to narrow down skill gap. The four dimensions of organizational agility are; speed, quick responding to customer needs, flexibility and competence (Lenssen & Smith, 2019). Agility is a strategy to face unprecedented external situations and hence, the paper analyses the extent to which the organization agility had succeeded in managing the challenges raised from COVID 19 in managing performance (Dubey & Gunasekaran, 2014). Competence dimension explains capabilities to be effective, efficient, competent to realize organizational goals (İnanır, 2020).

A few benefits for the organization for promoting agility in work force include, increase in productivity (Braun et al., 2017), quick response to market and economic change, high growth profile, continuous change (Sherehiy and Karwowski, 2014), adaptability and resilience, and continuous improvement in quality process (Fischer and Zimmermann, 2017) (Muduli, 2016) A few benefits for work force include, job satisfaction (Melnik and Maurer, 2006), higher wellbeing (Laanti, 2013), better performance (Braun et al., 2017). A few common agile workforces include, positive attitude for, managing hostile situations (Muduli and Pandya, 2018), self-development, learning, change, creativity, innovativeness, and readiness to meet challenges, (Plonka (1997)). Breu et al. (2002) described the agile workforce based on five capabilities: intelligence, competencies, collaboration, culture, and information systems. Sherehiy and Karwowski (2014)

observed that job control as well as job autonomy are the important predictors for workforce agility and it can be achieved through internal cooperation, empowerment and support of customers, organizational learning, a flat organizational structure, and the decentralization of decision making were positively related to workforce agility (Alavi et al., 2014). Cai et al. (2018) validated the claim that psychological availability, meaningfulness, and safety mediated the relationship of enterprise social media.

Why agility in workforce significant in IT industry?

Information and communication platform has four components: Hardware, software products and engineering services, IT enabled services, IT services. All these segments need different sets of skills. As IT is a technology driven industry, a few parameters like, safety, security, speed, accessibility, retention, modification and maintenance of data and its storage are very important. Hardware part of IT sector is technology centered and the firms continuously strive to enhance data transfer speed, compactness and process speed. But hardware is the physical part of the process while Software products and engineering solutions enhance the use of technical competencies of the hardware. It comprises of operating system, programs for controllers for automatic machines like Computer numerical control machines, specific applications and software to interface external Input-Output devices and tools, etc. This segment generally supports original equipment manufacturers (OEMs) to develop customised software for their products. This segment is also a technology centered. IT enabled services is an extension of technical services in other sectors to manage their data. Data mining and processing is a professional way of processing, warehousing and retrieving information. In business, the IT enabled services are used in marketing, human resources management, promotion, financial services etc. The last part is the IT services which include, consultancy, business outsourcing, technical support and training. The market structure, exempting hardware segment, shows that the demand for IT services is approximately 55% while ITes (IT enabled Services) and software development are respectively 22.5% each (The Institute of Company secretaries of India, 2018).

Organizational Agility and Personal Agility

Agility is the capability of an organization or an individual to manage unprecedented changes, or challenges in industry or economy or environment. There are five types of Agility and they are, mental agility, people agility, change agility, results agility and self-awareness. Mental agility is the mental potential of an individual to respond to the environmental changes and it is the same for organizations as well. The strategies and policies are to make firms to be focused and sturdy enough to meet challenges. It depends on top management. People agility is to meet the behavioural of colleagues, system and technological changes. Change agility is the potential to change with the changes in environment. Results agility is the potential to self-manage or do corrective measures to improve results. Self-awareness is important in adopting with changes (Evelyn Orr & Hezlett, 2020)

- Impact of IT implementation on organization performance

IT enabled industry causes adaption of technology in all the areas of operation that agility can be achieved. BPO (Business Process Outsourcing) and KPOs (Knowledge Process

Outsourcing) are examples for IT enabled services that the performance of the firm increases drastically (Lee, 2012)

From the value chain of all the forms IT business comprise of three levels, understanding customer needs, design the system to meet customer needs, testing at customer point, application and data development (collection, process, storing and provision for access), data mining and report generation, and finally decision making by the customer. The competencies needed for each activity is different and the workforce must be a heterogeneous talent pool.

From the resource point of view, Resources are valuable, rare, inimitable and non-substitutable. Hence, the use of technology to reduce cycle time of individual tasks to repeat maximum cycles is the prime objective. Hence the evaluation is based on time that non-productive tasks and idle time has to be removed.

Personal competence and agility

The key competence of any firm is its Human Resource Capital though the firms use technology more in routine operations. The machines replace the routine activities of a firm which reduces the cycle time tasks and maximise the output. The personal Agility comprise of three components: purposefulness, learning mind-set and change orientation. The agility will be optimum when social domain comprises of components like, anatomy and empowerment, relationship management and collaboration (Empey, 2021). Purposefulness make an organization with objective driven and empowered with employees with focus, committed, and intrinsically motivated to meet rapidly changing environment. Learning mind-set include, learnability, trainability, system thinking, and resourcefulness (Carlisi, Hemerling, Kilmann, Meese, & Shipman, 2017). Change orientation includes adaptability and resilience (Hodges, 2017)

Work from Home and Agility

The COVID 19 had changed business mode from 'work at office' to work from home for many information-based industries that can be processed and transferred online. The contraction in GDP globally is 4.8% and it is equivalent to 265 million job loss. The post COVID 19 is a fast technology adaption period in which many service and manufacturing sectors adopted technology in many functions like meetings, work planning, customer interaction, social media promotion etc. This comes under IT enabled service though Business promotion. In BPO and KPO operations, both technical and personal competencies matter. Software Development and Organizational Operations (DevOps) is a software to integrate customer operations to avoid complexity in information management. The cohesiveness of team was maintained only due to the agility of both employees and firm. It was a disintegrated work place but integrated through technology and agility.

Objectives

- To understand the preferred attributes among IT employees that support agility in work force
- To organise the attributes in an order based on their values

Methodology

The data was collected from managers of IT firms in Bangalore (as most of the firms still follow work from home). Hence, the Expert opinion survey was conducted. The experts were selected in such a way that representation of all segments is insured. The survey was conducted in the Post COVID 19 period that the employees are working still from home and report to office in a specific order specified by the company. The purpose of the survey is to understand how the employees adapt to the dynamic technological environment.

Multi-Criterion Decision Analysis (MCDA) is used in this research to determine the preferred attributes. It is a decision-making process based on the preference of respondents on certain attributes. The respondents of this analysis are from different functional levels in IT sector and have a thorough expertise in the domain and experienced enough to respond to the questions. The domains here selected are from, operations, HR, Marketing, and Research. Decision making trial and evaluation laboratory (DEMATEL) technique is used in this analysis as the criteria are interdependent. In this analysis, the effect of personality traits on different agility factors analysed.

Expert Opinion Analysis

As the ICT in Banks integrate the operations in two remote phases, administrative and customers. Hence, the expert opinion method is used in this research. A questionnaire developed from the theories and literature review and tested for content validity using a short survey among managers in IT sector

Experts were selected in such a way that adequate number of respondents participate in the data collection. The representation was ensured in three domains: role, experience and occupational domain in the industry.

Selection of Experts

Table 1 Functional experience of experts

	Designation	Years of Experience	Number Experts in the team	%
Expert 1	Marketing	6-14 years	26	25
Expert 2	Operations	7-12 years	36	34
Expert 3	HR	5-18 years	24	23
Expert 4	Research	4-14 years	15	14..5
	Total		101	100

Table 2: Expert selection: Domain and sector

	HR	Marketing	Operations	Research	Total	Percentage
Software Development	4	6	12	3	25	25%
Software Testing	5	8	8	5	26	26%
ITeS	6	5	2	2	15	15%
Consultancy	3	4	8	1	16	16%
Sales and Customer Service	6	3	6	4	19	19%
Total	24	26	36	15	101	100%
Percentage	24%	26%	36%	15%	100%	

A 51% of the respondents are from Deposits and loans, the prime two services in the banking sector.

Criteria for analysis

The agility factors considered in this research are, quick response to the market changes, adaptability and resilience, high growth potential, productivity, and continuous improvement. The personality factors taken are, positive attitude, innovativeness, creativity, readiness to meet challenges, learning skill. Personal agility primarily focuses on personality traits of the employee in maintaining purposefulness, learning mind-set and change orientation.

Analysis & Interpretation

Weighted mean is used for comparing the variation of sub-factors across functional domains. The response is taken in five-point scale.

Weighted mean = $\frac{\sum w*n}{\sum n}$ where w is the weight of the response and n is the number of responses in variable.

Table 3: Expert response on sub-dimension

Dimensions	Sub Dimensions	Software Development	Software Testing	ITeS	Consultancy	Sales and Customer Service	Average
Quick response to market changes	Change in Hardware improvements	3.6	3.9	4.2	2.9	3.3	3.58
	Improvements needed in exiting software	3.9	3.1	2.3	3.7	4	3.4
	Level of technical skill needed for users	2.8	2.3	2.9	3	2.8	2.76
Adaptability & Resilience	Agility is essential for adopting new technologies	2.6	2.1	2.7	2.3	2.6	2.46
	Personal competence is important for easy adaptability	3.3	2.6	3.9	2.1	3.6	3.1
	Learning organization and knowledge management make adaption easy	2.5	2.8	2.3	2.9	2.8	2.66
	Training and motivation matter more	2.8	2.9	3.6	2.3	3.9	3.1
Growth potential	Technology competence through research	2.6	2.8	3.6	2.6	3.8	3.08
	Personal level advancement in technology has to be encouraged	2.3	2.8	2.1	2.6	2.3	2.42

	Strategic planning decides growth nature	2.3	2.6	2.8	2.6	3.2	2.7
	Resource planning is significant	3.2	2.8	2.7	3.1	2.9	2.94
	Resource utilization and execution is important for agility	3.9	3.2	1.3	2.9	3.9	3.04
Productivity	The productivity is the measurable output in unit period for value added products sold	2.9	2.5	1.3	1.6	2.8	2.22
	Both teams and individuals contribute to productivity	4.1	3.9	2.3	2.9	3.8	3.4
	Gap in planning and execution is narrow	2.9	3.2	4.3	2.1	2.9	3.08
Continuous Improvement	Each team and employee continuously evaluate improvement	1.6	2.1	4.2	2.2	3.9	2.8
	Periodic performance give base for continuous improvement	1.2	1.6	4.1	2.2	3.7	2.56
	It is a strategic process	2.1	2.9	4.4	2.6	4.2	3.24
		2.8	2.8	3.1	2.6	3.4	

Table 3 shows, that the value-added services like, credit cards, mobile applications, online fund transfers, etc. highest mean followed by investments. In the dimensions, product/ service attributes are important followed by the RBI criteria are important.

DEMATEL (Decision making trial and evaluation laboratory (*DEMATEL*))

DEMATEL is used to analyse the factors that are essential the important dimension and effect. In this analysis, experts were taken from, Deposits, Loans, Investments, IT service and other value-added services.

Comparison Scale

Table 4: Comparison scale:

Comparison Scale of DEMATEL	
0	No influence
1	Low influence
2	Medium Influence
3	High influence
4	Very high influence

Comparison scale is described in a five-point scale from 0 to 4 to express '0 for No influence' to 4 for 'Very high influence'.

Algorithm

1. Create Direct relationship matrix with work force attributes on rows and personal attributes on column
2. The frequency of each cell calculated as the weighted average of the response from the experts
3. Calculate row sum
4. Identify the largest value of the rows
5. Divide all the cell values by large number of the row sums to get neutralised direct relation matrix
6. Execute the Formula: $T= X(I-X)$ where X is normalised direct relation matrix, I is the Identity matrix and T is the total relation matrix
7. Find the sum of Row elements and term it as D
8. Find the sum of column elements and term it as R
9. Find D+R and D-R

D+R gives the importance of criteria and D-R gives degree of relation of one criteria with other criteria.

Table 5: DEMATEL: Direct relationship matrix (Relative preference table)

	Positive attitude	Innovativeness	Creativity	Readiness to meet challenges	Learning skill
Quick response to the market changes	0	2	1	4	3
Adaptability and resilience	1	0	3	2	4
High growth potential	4	4	0	3	3
Productivity	2	3	4	0	1
Continuous improvement	4	2	2	1	0

(The cell values are calculated based on the weighted average formula

$A = \frac{\sum n_i * q_i}{\sum n_i}$ A is the value in each cell to represent the relative preference n_i is the frequency each numerical value of preference and q_i is the numerical value of the preference)

Table 6: The Total relation matrix: Personal & Work force attributes in an Agile organization

Personal Work force	Positive attitude	Innovativeness	Creativity	Readiness to meet challenges	Learning skill	D
Quick response to the market changes	0.526	0.597	0.520	0.741	0.503	2.887
Adaptability and resilience	0.849	0.588	0.717	0.769	0.680	3.604
High growth potential	0.975	0.890	0.613	0.897	0.680	4.055
Productivity	0.796	0.773	0.777	0.635	0.610	3.590
Continuous improvement	0.818	0.651	0.611	0.754	0.384	3.217
Index	3.964	3.500	3.238	3.795	2.856	

Table: 7 Importance & Relationship table

Work force attributes	D	R	D+R	D-R
Quick response to the market changes	2.887	3.394	6.281	-0.507
Adaptability and resilience	3.604	3.500	7.104	0.104
High growth potential	4.055	3.238	7.293	0.817
Productivity	3.59	3.795	7.385	-0.205
Continuous improvement	3.217	2.856	6.073	0.361

The D+R value is the highest for Productivity (7.385) and then for High growth potential and then high growth potential followed by adaptability and resilience. Quick response to market change and productivity are influenced by other three attributes while high growth potential, continuous improvement and adaptability influence quick response and productivity. In the case of relative importance (D-R), high growth potential has the highest value (.817) followed by continuous improvement (.361) while Quick response to market change has a negative relative important value (-.507) followed productivity (-.205).

The high growth potential of a firm depends on knowledge and skill of the owner and employees, strategic approaches and plan and environmental factors, especially in supply of resources and market conditions (Janeska-Iliev & Debarliev, 2015). Hence the Agility is the only solution for ensuring growth potential. Continuous improvement is relatively important, but it has less importance. It is due to the decentralized work management due to work from home

Total relationship matrix shows that positive attitude, readiness to meet challenge, and innovativeness are the important personal attributes while high growth potential and adaptability are the important work force attributes for an agile environment.

Personal efficacy and Agile environment

Total Direct Relation Matrix (normalised)

Personal \ Work force	Positive attitude	Innovativeness	Creativity	Readiness to meet challenges	Learning skill	D
Job satisfaction	0.526	0.597	0.638	0.741	0.589	3.091
Career growth	0.849	0.588	0.717	0.769	0.68	3.603
Employability development	0.489	0.356	0.613	0.897	0.68	3.035
Skill development	0.796	0.773	0.777	0.635	0.61	3.591
Advance learning	0.621	0.651	0.611	0.754	0.384	3.021
R	3.281	2.965	3.356	3.796	2.943	

	D	R	D+R	D-R
Job satisfaction	3.091	3.281	6.372	-0.19
Career growth	3.603	2.965	6.568	0.638
Employability development	3.035	3.356	6.391	-0.321
Skill development	3.591	3.796	7.387	-0.205
Advance learning	3.021	2.943	5.964	0.078

From the Importance and influence matrix, skill development is the most important followed by career growth. Employability and job satisfaction have a close importance. Career growth is the driving force that motivate to perform well. Job satisfaction, employability and skill development are influenced by career growth and advanced learning. In relative importance is for career growth first and then advanced learning.

The results shows that readiness to meet challenges in life and creativity are the two identified variables from the point of firms. Employability development is another factor that the agility strengthens in employees through experiential learning, opportunity to learn and learning

skill. Job satisfaction is another factor in employees when they manage their performance at an expected level. Advance learning is a need for an employee for developing reasoning and critical thinking.

Conclusion

In IT industry, Software design also varies a lot along with the emergence of new technologies, changing customer needs and product designs. Many IT industries act as a backward integration partner for Original Equipment Manufacturers. The Dynamism in IT industry demands the firms and employees to be lean and agile. Agility is the concept of adopting new changes and adapting to new environment. Lean in performance to reduce the non-productive activities in working that value proportion of work increase. Training and skill development is the most important factor in improving employee engagement, followed by career growth. Employability and job satisfaction have a close importance. Career growth is the driving force that motivate to perform well. Job satisfaction, employability and skill development are influenced by career growth and advanced learning. In relative importance is for career growth first and then advanced learning. The results shows that readiness to meet challenges in life and creativity are the two identified variables from the point of firms. Employability development is another factor that the agility strengthens in employees through experiential learning, opportunity to learn and learning skill. Job satisfaction is another factor in employees when they manage their performance at an expected level. Advance learning is a need for an employee for developing reasoning and critical thinking.

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