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ijmrset@gmail.com



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A Study on Employee Engagement Strategies in the Digital Age

J. TAMILARASU¹, S. ANGELIN²

¹Assistant Professor, Dept. of MBA, Nandha Engineering College (Autonomous), Erode, Tamil Nadu, India

² MBA Student, Nandha Engineering College (Autonomous), Erode, Tamil Nadu, India

ABSTRACT: Technological breakthroughs and changing workplace dynamics have brought about a substantial transformation in the landscape of employee engagement in the digital era. This study looks at modern methods for encouraging worker engagement in digitally connected workplaces. It looks at how digital tools and platforms affect employee engagement levels, emphasizing how social media, digital communication channels, and remote work affect employee experiences. The research finds critical elements that improve engagement, such as tailored communication, real-time feedback, and digital wellness efforts, through a thorough analysis of recent literature and case studies. Furthermore, the study explores the difficulties that firms encounter in sustaining employee engagement in the face of swift technological advancements and suggests practical remedies for human resources specialists and executives. The purpose of this project is to combine traditional methods with digital engagement initiatives to offer a comprehensive foundation for raising worker retention, productivity, and happiness in the contemporary workplace.

KEYWORDS: digital communication channels, employee engagement, digital tools.

I. INTRODUCTION

In the contemporary digital environment, employee engagement is a critical component of successful corporate outcomes. The dynamics of the workplace are changing along with technology, which makes it more important to understand how to encourage commitment and meaningful interactions among staff members. It is critical to conduct research on employee engagement techniques in the digital age, to discover novel approaches that leverage technology while maintaining the fundamentals of human contact. This study explores the complex relationships that exist between digital tools, organizational culture, and worker well-being to identify tactics that empower workers and foster a vibrant workplace environment.

The purpose of this study is to investigate how employee engagement tactics are changing in the digital sphere. Through an analysis of the relationship between technology, organizational culture, and employee satisfaction, this study seeks to identify novel strategies that maximize employee engagement, promote teamwork, and ultimately propel corporate success in the digital age.

II. PROBLEM OF THE STUDY

Companies now confront particular difficulties in sustaining high levels of employee engagement in the digital age. An increasingly distant and digitally connected workforce may have demands and expectations that traditional engagement tactics are unable to completely meet. The objective of this research is to assess the efficacy of existing employee engagement tactics in organizations and determine how digital tools and technology might be utilized to augment employee engagement.

This research aims to investigate and evaluate the effectiveness of several digital engagement tactics that Luker Electric Technologies Pvt Ltd has put in place. The study looks at these tactics to offer suggestions and insights for maximizing worker engagement in the digital era.

The goal of this research is to assist Luker Electric Technologies Pvt Ltd and related companies in creating more efficient engagement strategies that make use of digital technologies and address the changing needs of their workforce.

III. OBJECTIVES OF THE STUDY

1. To determine which employee engagement tactics, work best in the digital era.
2. To evaluate the efficiency of online collaboration tools and team-building exercises.



IV.SCOPE OF THE STUDY

1. A review of the major industries' current employee engagement initiatives
2. Employee questionnaires and interviews with workers in all sectors and sizes of organizations

V.LIMITATIONS OF THE STUDY

1. External factors that could affect employee engagement include industry trends, organizational changes, and economic situations.
2. The study may concentrate on a particular area or business, which limits its applicability to global contexts where engagement tactics are impacted by cultural and technical variations.

VI.REVIEW OF LITERATURE

Fernanda Flores Roitman Aguiar da Silva and Lucia Barbosa de Oliveira (2020) The purpose of the study is to assess how leader-member exchange (LMX) quality and high-performance work systems (HPWS) affect employee engagement. It also looks at the connection between employee engagement and employees' intentions to leave.

In Junghoon Lee's (2021) study, the linkages between the causes and outcomes of worker engagement in the hotel industry were empirically evaluated. This study provided theory-based empirical data about how employee views of the organizational environment—such as the psychological climate—and self-evaluations—or core self-evaluations—affect employee engagement.

Sorasak Tangthong (2020) This research aims to ascertain how employee retention in Thailand's multinational corporations (MNCs) is impacted by HRM practices. For the study, a total of 411 managers—including line managers, HR directors, and upper management—were evaluated.

"Employee Engagement Concerning Organizational Citizenship Behavior In Information Technology Organizations," **by Dr. Harold Andrew Patrick and Saradha H. (2021)**. The author claims that several OCB-related literature have emphasized the connection between OCB and business unit performance, productivity, and in-role performance.

VII.RESEARCH METHODOLOGY

The term "research methodology" refers to the process of conducting research, which comprises the general research plan and the technique used to collect data

RESEARCH DESIGN

A research design is a specialized measure and strategy for the data required to address issues in the project's overall operational pattern. It specifies which data should be gathered from which sources using which methods. When gathering information from respondents, the researcher employed a descriptive study.

DESCRIPTIVE RESEARCH DESIGN

One kind of research methodology called descriptive research focuses on characterizing a population's or phenomenon's features. Without influencing or changing variables, it seeks to present a thorough and accurate picture of the topic being studied. The research is completely based on the description of the factors that employee engagement strategy in the digital age. It helps in presenting data in a meaningful way.

DATA COLLECTION METHOD:

- ✓ Primary Data
- ✓ Secondary Data

SIZE OF THE SAMPLE:

The sample size is 100

STATISTICAL TOOLS USED:

- ✓ Anova
- ✓ Factor Analysis



ANALYSIS AND INTERPRETATION:

ONE-WAY-ANOVA:

ANOVA test for age and strategies that the company currently using.

H0=There are no significant relationship between age and strategies that the company currently using.

H1= There are significant relationship between age and strategies that the company currently using.

3.3.1 Table from the age and current level of engagement at work.

Anova: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
31	4	69	17.25	198.9167		
20	4	80	20	142		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	15.125	1	15.125	0.088731	0.775842	5.987378
Within Groups	1022.75	6	170.4583			
Total	1037.875	7				

INTERPRETATION:

As the p-value is lesser than sig .value (0.01 and 0.05) all the 2 case age and strategies that company currently using the Null hypotheses are accepted.

Hence, it is concluded that there is a statistically significant difference among the age of the respondents to the strategies of the company.

ANOVA test for experience and digital tools that connected with team members.

H0=There is no significant relationship between experience and technology that stay engaged in work.

H1= There are significant relationship between experience and technology that stay engaged in work.

3.4.2 Table from the experience and digital tool that connected with team members

Anova: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
5	4	95	23.75	533.5833		
10	4	90	22.5	73.66667		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	3.125	1	3.125	0.010292	0.922498	5.987378
Within Groups	1821.75	6	303.625			
Total	1824.875	7				



INTERPRETATION:

As the p-value is lesser than the sig .value (0.01 and 0.05)all the 2 case experiences and technologies that stay engaged in work the Null hypotheses are accepted.

Hence, it is concluded that there is a statistically significant difference in the experience of the respondents concerning the technology that stay engaged in work.

Factor Analysis:

Employee engagement strategies in the digital age are calculated by using a servqual scale through factor analysis

The responses are recorded in a five-point likert scale ranging from 'strongly agree' to 'strongly disagree'. The items in the scale with the variables studied are given in Table

Table 2: The impact of technology on employee engagement respondents (scale items)

Dimensions	Item in the scale
1. More Productive	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
2. communication with colleagues	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
3.tools provided	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
4. Technology enhances	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
5. more engaged with my work	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
6. job easier.	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
7. technological tools	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
8. new technology	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree



9. technical support	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree
10. work more flexibly	Strongly agree
	Agree
	Neutral
	Disagree
	Strongly disagree

TABLE : 3 Kmo and Bartlett’s test for respondents of the impact of technology on employee engagement.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.503
Bartlett's Test of Sphericity	Approx. Chi-Square	92.719
	df	45
	Sig.	.000

Sampling adequacy is sufficient enough to interpret the results of factor analysis as the Kaiser-Meyer-Olkin (KMO)measure is above 0.5 . chi-square test value of bartlett’s test of sphericity is significant enough as the significance value is 0.000 which is lesser than 0.05 at 5 percent level of significance. Factors derived with a principal component method with their squared loadings are presented in the total variance explained table.

Communalities		
	Initial	Extraction
More productive	1.000	.584
communication with colleagues	1.000	.626
tools provided	1.000	.792
Technology enhances	1.000	.610
more engaged with my work	1.000	.616
job easier.	1.000	.546
technological tools	1.000	.308
new technology	1.000	.500
technical support	1.000	.638
work more flexibly	1.000	.662

Extraction Method: Principal Component Analysis.



TABLE 4: Total variance explained for respondents of the impact of technology on employee engagement

Component	Total Variance Explained				
	Extraction Sums of Squared Loadings			Total	% of Variance
	Total	% of Variance	Cumulative %		
1	1.782	17.821	17.821	1.782	17.821
2	1.549	15.486	33.307	1.549	15.486
3	1.428	14.280	47.587	1.428	14.280
4	1.123	11.225	58.812	1.123	11.225
5	.990	9.896	68.708		
6	.830	8.299	77.007		
7	.666	6.662	83.669		
8	.622	6.221	89.890		
9	.581	5.810	95.700		
10	.430	4.300	100.000		

Component	Total Variance Explained			
	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings		
	Cumulative %	Total	% of Variance	Cumulative %
1	17.821	1.668	16.681	16.681
2	33.307	1.518	15.185	31.866
3	47.587	1.491	14.909	46.775
4	58.812	1.204	12.037	58.812
5				
6				
7				
8				
9				
10				

Extraction Method: Principal Component Analysis.

The total variance table explains that 4 factors are extracted as important from the 10 variables identified. The explanatory power of these variables to understand the impact of technology on employee engagement is to the extent of 58.812 percent. The factors identified are extracted by Varimax rotation and explained with the help of a rotated component matrix.

TABLE:5 Rotated component matrix for respondents on the impact of technology on employee engagement

	Component Matrix ^a			
	Component			
	1	2	3	4
communication with colleagues	.671			
More productive	.650			
Technology enhances job easier.	.576	-.522		
new technology		-.670		
technical support			.647	
work more flexibly			.643	
more engaged with my work			-.558	
tools provided		.516		-.664
technological tools				.517



Extraction Method: Principal Component Analysis. ^a
a. 4 components extracted.

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
More productive	.737			
communication with colleagues	.708			
new technology	-.664			
work more flexibly		.793		
technical support		.716		
more engaged with my work			-.680	
job easier.			.676	
Technology enhances			.580	
tools provided				-.859
technological tools				

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a
a. Rotation converged in 5 iterations.

The factors extracted are identified with the loadings (above 0.8) irrespective of sign and are listed below in the order of extraction. These are the major impacts of technology on employee engagement

- Factor 1: More Productive
- Factor 2: communication with colleagues
- Factor 3: tools provided
- Factor 4: Technology enhances

Component Transformation Matrix				
Component	1	2	3	4
1	.770	-.516	.368	.069
2	.502	.151	-.770	-.363
3	.393	.830	.293	.267
4	.028	-.148	-.431	.890

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

The impact of technology on employee engagement as revealed in the analysis are:
The responses are recorded in a five-point likert scale ranging from 'strongly agree' to 'strongly disagree'. The total variance table explains that 4 factors are extracted as important from the 10 variables identified. The explanatory power of these variables to understand the impact of technology on employee engagement is to the extent of 58.812 percent. The factors identified are extracted by Varimax rotation and explained with the help of a rotated component matrix. impact of technology on employee engagement is Factor 1: More Productive Factor 2: communication with colleagues, Factor 3: tools provided, Factor 4: Technology enhances



VIII.CONCLUSION

In conclusion, there are chances and challenges for improving employee engagement in the digital age. Technology and digital tools together can greatly enhance teamwork, communication, and overall work happiness. Organizations can effectively engage their workers by introducing flexible work arrangements, making investments in professional development, and cultivating a favorable business culture. By focusing on well-being and support, leveraging data analytics enables individualized employee experiences and informed decision-making, ensuring a healthy work-life balance.

Furthermore, encouraging creativity and innovation through online forums and virtual gatherings fosters a progressive and dynamic workplace. Transparent leadership and efficient onboarding and training initiatives strengthen the bond between staff members and the company. Companies can build a resilient and motivated workforce that can thrive in the rapidly changing digital landscape by addressing five critical areas. Attaining long-term organizational performance and maintaining high levels of employee engagement thus depends on the intentional implementation of digital tools and processes.

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