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Role of Artificial Intelligence in Transformational Leadership: An Empirical Study in the IT Industry in Bangalore

Rahath Begum
Ph.D(Full Time) Research Scholar in Commerce
PG and Research Department of Commerce (A)
(Affiliated to Thiruvalluvar University)
Islamiah Women's Arts and Science College
Vaniyambadi - 635 752.

Dr.P.Kavitha
Assistant Professor and Research Supervisor
PG and Research Department of Commerce (A)
(Affiliated to Thiruvalluvar University)
Islamiah Women's Arts and Science College
Vaniyambadi - 635 752.

Abstract

Artificial Intelligence (AI) has emerged as a critical enabler of organizational transformation, particularly within the IT industry. This study investigates the role of AI in transformational leadership by examining the relationship between demographic variables, AI contribution levels in transformational leadership. Primary data were collected from 130 IT employees. Percentage analysis and chi-square tests were employed. The findings reveal that demographic variables do not significantly influence transformational leadership, and AI contribution levels show no statistically significant relationship with transformational leadership. The study concludes that while AI supports leadership processes, transformational leadership remains predominantly human-driven.

Keywords: Artificial Intelligence, Transformational Leadership, IT Industry, Demographic Factors, Chi-square Analysis

I.INTRODUCTION

The adoption of Artificial Intelligence (AI) in organizations has redefined managerial and leadership practices. Transformational leadership, characterized by vision, inspiration, and intellectual stimulation, plays a crucial role in managing change in technology-driven environments. The rapid integration of Artificial Intelligence (AI) into organizational processes has significantly transformed decision-making, communication, and performance management in modern organizations, particularly in the IT industry. While AI enhances efficiency, accuracy, and strategic insight, leadership—especially transformational leadership—remains a human-centric function involving vision creation, motivation, ethical judgment, and individualized consideration. This study empirically examines whether demographic factors and AI contribution influence in transformational leadership in the IT industry.

Research Methodology

Sample Size: 130 IT employees

Data Source: Primary data through structured questionnaire

Statistical Tools:

Percentage Analysis

Chi-square Test

Statement of the Problem

Existing studies primarily focus on the technical and operational impacts of AI, with limited empirical evidence on how AI influences leadership styles and leadership effectiveness. There is ambiguity regarding whether AI strengthens transformational leadership capabilities or diminishes the human elements essential for leadership. Moreover, demographic factors such as age, gender, education, and work experience may shape perceptions of AI-enabled leadership, yet these relationships remain underexplored. In the Indian IT sector, where AI adoption is accelerating, understanding the role of AI in shaping transformational leadership is crucial for sustainable organizational development. Hence, the present study seeks to examine the role of Artificial Intelligence in transformational leadership and analyze the relationship between demographic variables, AI contribution levels, and transformational leadership.

Significance of the Study

The significance of the present study is highlighted as follows:

Academic Contribution:

The study contributes to leadership and management literature by integrating Artificial Intelligence with transformational leadership t, an area with limited empirical research.

Managerial Implications:

Findings assist managers and leaders in understanding how AI can be effectively used as a supportive tool while preserving human-centric leadership qualities.

Organizational Development:

The study provides insights into leadership development strategies in AI-enabled workplaces, enabling organizations to balance technology adoption and leadership effectiveness.

Policy and Training Relevance:

The results can guide HR policies and leadership training programs focusing on AI literacy, ethical decision-making, and transformational leadership competencies.

Future Research Scope:

The study serves as a reference for future researchers to explore AI-driven leadership across industries and cultural contexts.

Review of Literature

Artificial Intelligence in Organizations

Russell and Norvig (2021) define Artificial Intelligence as systems capable of performing tasks that typically require human intelligence, such as learning, reasoning, and problem-solving. AI has transformed organizational functions by improving productivity, predictive analytics, and decision accuracy (Davenport & Ronanki, 2018).

According to Jarrahi (2018), AI complements human decision-making rather than replacing it, emphasizing the need for collaborative intelligence in organizations.

Transformational Leadership

Burns (1978) introduced the concept of transformational leadership, highlighting its role in inspiring followers to transcend self-interest for organizational goals. Bass (1985) further expanded the model, identifying four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Studies by Judge and Piccolo (2004) found transformational leadership to be positively related to organizational performance, employee satisfaction, and innovation.

AI and Leadership Transformation

Avolio, Kahai, and Dodge (2001) suggested that advanced technologies reshape leadership dynamics by altering communication and influence processes. Recent studies indicate that AI enhances leaders' ability to analyze data and make

informed decisions but lacks emotional and ethical reasoning (Garcia & Calantone, 2020).

According to Dirican (2015), AI supports strategic leadership by providing real-time insights, yet leadership effectiveness depends on human judgment and vision.

Human–AI Collaboration in Leadership

Brynjolfsson and McAfee (2017) emphasized that AI augments rather than substitutes human leadership. Leaders must develop digital intelligence to effectively integrate AI tools into leadership practices.

Raisch and Krakowski (2021) highlighted that successful AI adoption requires leaders to balance algorithmic efficiency with human values such as trust, empathy, and ethical responsibility.

Research Gap

- The review of literature reveals that:
- Most studies are conceptual rather than empirical.
- Limited research focuses on AI's role in transformational leadership in the Indian IT context.
- The influence of demographic variables on AI-enabled leadership remains underexplored.
- Therefore, this study addresses these gaps by empirically examining the role of AI in transformational leadership and its relationship with demographic factors.

Objectives of the Study

i. To explore the Demographic variables
ii. To identify the relationship between De Demographic variables and Level of transformation in Leadership
iii. To identify the relationship between De Demographic variables and Level of contribution made by AI
iv. To identify the relationship between AI and transformation in Leadership

Hypothesis

i. To identify the relationship between Demographic variables and Level of transformation in Leadership
ii. To identify the relationship between Demographic variables and Level of contribution made by AI
iii. To identify the relationship between AI and transformation in Leadership

Results and Discussion

I. Percentage Analysis

1. Age					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	20-30	125	96.2	96.2	96.2
	31-40	3	2.3	2.3	98.5
	41-50	2	1.5	1.5	100.0
	Total	130	100.0	100.0	

The above table represents the details of age of the employees working in the IT Industries. It is found that 96.2% of employees belonging to age group of 20-30 years is more which constitute the highest frequency and mode value. Therefore, it is concluded that 96.2% of employees belonging the age group of 20-30 years are comparatively more.

2. Gender					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Male	9	6.9	6.9	6.9
	Female	121	93.1	93.1	100.0
	Total	130	100.0	100.0	

The above table represents the details of Gender of the employees working in the IT Industries. It is found that 93.1% of employees are Female constitute the highest frequency and mode value. Therefore, it is concluded that 93.1% of employees are Female which is comparatively more.

3. Education					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	UG	123	94.6	94.6	94.6
	PG	7	5.4	5.4	100.0
	Total	130	100.0	100.0	

The above table represents the details of Education of the employees working in the IT Industries. It is found that 94.6% of employees are UG are more which constitute the highest frequency and mode value. Therefore, it is concluded that 94.6% of employees are UG are comparatively more.

4. Monthly income					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Less than 10,000	76	58.5	58.5	58.5
	10,000-25,000	29	22.3	22.3	80.8
	25000-35,000	13	10.0	10.0	90.8
	35000-50,000	6	4.6	4.6	95.4
	More than 50,000	6	4.6	4.6	100.0
	Total	130	100.0	100.0	

The above table represents the details of monthly Income of the employees working in the IT Industries. It is found that 58.5% of employees earning monthly income less than 10,000 per month which is more constitute the highest frequency and mode value. Therefore, it is concluded that 58.5% of employees are earning less than 10,000 per month are comparatively more.

5. Nature of the job					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Technical	85	65.4	65.4	65.4
	Non-Technical	45	34.6	34.6	100.0
	Total	130	100.0	100.0	

The above table represents the details of Nature of the job of the employees working in the IT Industries. It is found that 65.4% of employees are working in technical field which is more constituted the highest frequency and mode value. Therefore, it is concluded that 65.4% of employees are working in technical field which is comparatively more.

6. Experience					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Less than 5 years	99	76.2	76.2	76.2
	5-10	20	15.4	15.4	91.5
	11-15	7	5.4	5.4	96.9
	More than 15 years	4	3.1	3.1	100.0
	Total	130	100.0	100.0	

The above table represents the details of Experience of the employees working in the IT Industries. It is found that 76.2% of employees have Less than 5 years of work Experience which is more constituted the highest frequency and mode value. Therefore, it is concluded that 76.2% of employees which is have Less than 5 years of Experience comparatively more.

7. Marital status					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Single	124	95.4	95.4	95.4
	Married	5	3.8	3.8	99.2
	Separated	1	.8	.8	100.0
	Total	130	100.0	100.0	

The above table shows the frequency of Marital Status. 95.4% are Unmarried and 3.8% are married employees working in the IT Industries. Therefore, it is concluded that Unmarried employees have higher frequency

8. Experience in Company					
		Frequency	**percent**	**Valid percent**	**Cumulative Percent**
Valid	Less than a year	87	66.9	66.9	66.9
	1 year to 5 years	36	27.7	27.7	94.6
	6 years to 10 years	2	1.5	1.5	96.2
	More than 10 years	5	3.8	3.8	100.0
	Total	130	100.0	100.0	

The above table represents the details of working in this specific company of the employees working in the IT Industries. It is found that 66.9% of employees are working in this specific company which is more constituted the highest frequency and mode value. Therefore, it is concluded that 66.9% of employees are working in working in this specific company which is comparatively more.

9. Your role/position in the IT industry:					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Entry-level Staff	74	56.9	56.9	56.9
	Mid-level Manager	35	26.9	26.9	83.8
	Senior Manager	12	9.2	9.2	93.1
	Executive/Leader	9	6.9	6.9	100.0
	Total	130	100.0	100.0	

The above table represents the details of role/position in the IT industry of the employees working in the IT Industries. It is found that 56.9% of employees have Entry-level Staff which is more constituted the highest frequency and mode value. Therefore, it is concluded that 56.9% of employees which is have Entry-level Staff comparatively more.

10. Size of your organization:					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Small (<100 employees)	63	48.5	48.5	48.5
	Medium (100–500 employees)	44	33.8	33.8	82.3
	Large (500–2000 employees)	15	11.5	11.5	93.8
	Very Large (>2000 employees)	8	6.2	6.2	100.0
	Total	130	100.0	100.0	

he above table represents the details of Size of your organization in the IT industry of the employees working in the IT Industries. It is found that 48.5% of employees have Small (<100 employees) which is more constituted the highest frequency and mode value. Therefore, it is concluded that 48.5% of employees which is have Small (<100 employees) comparatively more.

11. How familiar are you with AI technologies used in the IT sector?					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Not familiar	42	32.3	32.3	32.3
	Somewhat familiar	37	28.5	28.5	60.8
	Familiar	35	26.9	26.9	87.7
	Very familiar	16	12.3	12.3	100.0
	Total	130	100.0	100.0	

The above table represents the details of familiar with AI technologies used in the IT sector in the IT industry of the employees working in the IT Industries. It is found that 32.3% of employees have Not familiar which is more constituted the highest frequency and mode value. Therefore, it is concluded that 32.3% of employees which is Not familiar comparatively more.

II. Chi- Square Analysis Between Demographic Variables and Levels of Transformation in Leadership

1. Chi- Square Analysis Between Age and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Age group and Levels of Transformation in Leadership

H1: There is a significance relationship between Age group and Levels of Transformation in Leadership

Chi- Square Analysis Between Age and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			**Total**	**P Value**
		Low level transformation	**Average level transformation**	**High level transformation**		
AGE	20-30	14	49	62	125	
	31-40	2	1	0	3	0.058
	41-50	0	1	1	2	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Age and Level of transformation in leadership. Since the P-value 0.058 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the

variables. Therefore, it is concluded that there is no significant relationship between age and Level of transformation in leadership and the age does not influence the transformation in leadership.

2. Chi- Square Analysis Between Gender and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Gender group and Levels of Transformation in Leadership

H1: There is a significance relationship between Gender group and Levels of Transformation in Leadership

Chi- Square Analysis Between Gender and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			**Total**	**P Value**
		Low level transformation	**Average level transformation**	**High level transformation**		
Gender	Male	2	4	3	9	
	Female	14	47	60	121	0.523
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Gender and Level of transformation in leadership. Since the P-value 0.523 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between gender and Level of transformation in leadership and the gender does not influence the transformation in leadership.

3. Chi- Square Analysis Between Education and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Education group and Levels of Transformation in Leadership

H1: There is a significance relationship between Education group and Levels of Transformation in Leadership

Chi- Square Analysis Between Education and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P Value
		Low Level Transformation	Average Level Transformation	High Level Transformation		
Education	UG	15	47	61	123	0.540
	PG	1	4	2	7	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Education and Level of transformation in leadership. Since the P-value 0.540 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Education and Level of transformation in leadership and the Education does not influence the transformation in leadership.

4. Chi- Square Analysis Between Monthly Income and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Monthly income group and Levels of Transformation in Leadership

H1: There is a significance relationship between Monthly income group and Levels of Transformation in Leadership

Chi- Square Analysis Between Monthly Income and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P Value
		Low Level Transformation	Average Level Transformation	High Level Transformation		
Monthly income	Less than 10,000	12	25	39	76	
	10,000-25,000	2	14	13	29	
	25000-35,000	1	5	7	13	0.641
	35000-50,000	1	3	2	6	
	More than 50,000	0	4	2	6	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Monthly income and Level of transformation in leadership. Since the P-value 0.641 which is greater than 0.05. This indicates there is no strong evidence of a relationship

between the variables. Therefore, it is concluded that there is no significant relationship between Monthly income and Level of transformation in leadership and the Monthly income does not influence the transformation in leadership.

5. Chi- Square Analysis Between Nature of The Job Status and Levels of Transformation in Leadership

hypothesis:

H0: There is no significance relationship between Nature of the job status group and Levels of Transformation in Leadership

H1: There is a significance relationship between Nature of the job status group and Levels of Transformation in Leadership

Chi-Square Analysis Between Nature of the Job Status and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			**Total**	**P Value**
		Low Level Transformation	**Average Level Transformation**	**High Level Transformation**		
Nature of the job status	Technical	9	34	42	85	
	Non-Technical	7	17	21	45	0.714
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Nature of the job status and Level of transformation in leadership. Since the P-value 0.714 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Nature of the job status and Level of transformation in leadership and the Nature of the job status does not influence the transformation in leadership.

6. Chi- Square Analysis Between Work Experience and Levels of Transformation in Leadership

hypothesis:

H0: There is no significance relationship between Work Experience group and Levels of Transformation in Leadership

H1: There is a significance relationship between Work Experience group and Levels of Transformation in Leadership

Chi- Square Analysis Between Work Experience and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P Value
		Low Level Transformation	Average Level Transformation	High Level Transformation		
Work Experience	Less than 5 years	13	39	47	99	
	5-10	3	6	11	20	
	11-15	0	3	4	7	0.670
	More than 15 years	0	3	1	4	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Work Experience and Level of transformation in leadership. Since the P-value 0.670 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Work Experience and Level of transformation in leadership and the Work Experience does not influence the transformation in leadership.

7. Chi- Square Analysis Between Marital Status and Levels of Transformation in Leadership

hypothesis:

H0: There is no significance relationship between Marital status group and Levels of Transformation in Leadership

H1: There is a significance relationship between Marital status group and Levels of Transformation in Leadership

Chi- Square Analysis Between Marital Status and Levels of Transformation in Leadership						
		Levels of Transformation in Leadership			Total	P Value
		Low Level Transformation	Average Level Transformation	High Level Transformation		
Marital status	Single	15	49	60	124	
	Married	1	2	2	5	0.847
	Separated	0	0	1	1	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between marital status and Level of transformation in leadership. Since the P-value 0.847 which is greater than 0.05. This indicates there is no strong evidence of a relationship

between the variables. Therefore, it is concluded that there is no significant relationship between marital status and Level of transformation in leadership and the marital status does not influence the transformation in leadership.

8. Chi- Square Analysis Between How Many Years You Have Been Working in This Company and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between how many years you have been working in this company group and Levels of Transformation in Leadership

H1: There is a significance relationship between how many years you have been working in this company group and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			**Total**	**P Value**
		Low level transformation	**Average level transformation**	**High level transformation**		
How many years you have been working in this company?	Less than a year	11	35	41	87	
	1 year to 5 years	5	14	17	36	0.805
	6 years to 10 years	0	0	2	2	
	More than 10 years	0	2	3	5	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between how many years you have been working in this company and Level of transformation in leadership. Since the P-value 0.805 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between how many years you have been working in this company and Level of transformation in leadership and the how many years you have been working in this company does not influence the transformation in leadership.

9. Chi- Square Analysis Between Role/Position in The IT Industry and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between role/position in the IT industry group and Levels of Transformation in Leadership

H1: There is a significance relationship between role/position in the IT industry group and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P Value
		Low level transformation	Average level transformation	High level transformation		
Your role/position in the IT industry:	Entry-level Staff	9	30	35	74	
	Mid-level Manager	5	14	16	35	0.750
	Senior Manager	0	4	8	12	
	Executive/Leader	2	3	4	9	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between role/position in the IT industry and Level of transformation in leadership. Since the P-value 0.750 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between role/position in the IT industry and Level of transformation in leadership and the role/position in the IT industry does not influence the transformation in leadership.

10. Chi- Square Analysis Between Size of Your Organization and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Size of your organization and Levels of Transformation in Leadership

H1: There is a significance relationship between Size of your organization and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P Value
		Low level transformation	Average level transformation	High level transformation		
Size of your organization:	Small (<100 employees)	6	24	33	63	
	Medium (100–500 employees)	10	18	16	44	0.121
	Large (500–2000 employees)	0	5	10	15	
	Very Large (>2000 employees)	0	4	4	8	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Size of organization and Level of transformation in leadership. Since the P-value 0.121 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Size of organization and Level of transformation in leadership and the Size of organization does not influence the transformation in leadership.

11. Chi- Square Analysis Between How Familiar Are You with AI Technologies Used In The It Sector And Levels Of Transformation In Leadership

Hypothesis:

H0: There is no significance relationship between how familiar are you with AI technologies used in the IT sector and Levels of Transformation in Leadership

H1: There is a significance relationship between how familiar are you with AI technologies used in the IT sector and Levels of Transformation in Leadership

		Levels of Transformation in Leadership			**Total**	**P Value**
		Low level transformation	**Average level transformation**	**High level transformation**		
How familiar are you with AI technologies used in the IT sector?	Not familiar	4	14	24	42	
	Somewhat familiar	5	16	16	37	
	Familiar	5	15	15	35	0.554
	Very familiar	2	6	8	16	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between how familiar are you with AI technologies used in the IT sector and Level of transformation in leadership. Since the P-value 0.554 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between How familiar are you with AI technologies used in the IT sector and Level of transformation in leadership and how familiar are you with AI technologies used in the IT sector does not influence the transformation in leadership.

III. Chi- Square Analysis Between Demographic Variables and Levels

1.Chi- Square Analysis Between Age and Levels

hypothesis:

H0: There is no significance relationship between Age group and Levels

H1: There is a significance relationship between Age group and Levels

Chi- Square Analysis Between Age and Levels

		Levels			Total	P Value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Age	20-30	34	41	50	125	
	31-40	1	1	1	3	0.554
	41-50	0	0	2	2	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Age and Levels. Since the P-value 0.058 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between age and Level of transformation in leadership and the age does not influence the transformation in leadership.

2.Chi- Square Analysis Between Gender and Levels

Hypothesis:

H0: There is no significance relationship between Gender and Levels

H1: There is a significance relationship between Gender and Levels

Chi- Square Analysis Between Age and Levels

		Levels			Total	P Value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Gender	Male	2	3	4	9	
	Female	33	39	49	121	0.944
Total		35	42	53	130	

Interpretation

The chi-square test conducted to assess the relationship between Gender and Level. Since the P-value 0.944 which is greater than 0.05. This indicates there

is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between gender and Level of transformation in leadership and the gender does not influence the transformation in leadership.

3. Chi- Square Analysis Between Education and Levels

Hypothesis:

H0: There is no significance relationship between Education group and Levels

H1: There is a significance relationship between Education group and Levels

Chi- Square Analysis Between Education and Levels

		Levels			**Total**	**P Value**
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Education	UG	33	40	50	123	
	PG	2	2	3	7	0.977
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Education and Level. Since the P-value 0.977 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Education and Level of transformation in leadership and the Education does not influence the transformation in leadership.

4. Chi- Square Analysis Between Monthly Income and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Monthly income group and Levels.

H1: There is a significance relationship between Monthly income group and Levels.

Chi- Square Analysis Between Monthly Income and Levels

		Levels			Total	P value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Monthly income	Less than 10,000	19	22	35	76	
	10,000-25,000	6	12	11	29	
	25000-35,000	3	6	4	13	
	35000-50,000	3	1	2	6	0.278
	More than 50,000	4	1	1	6	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Monthly income and Level. Since the P-value 0.278 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Monthly income and Level of transformation in leadership and the Monthly income does not influence the transformation in leadership.

5. Chi- Square Analysis Between Nature of the Job Status and Levels.

Hypothesis:

H0: There is no significance relationship between Nature of the job status group and Levels.

H1: There is a significance relationship between Nature of the job status group and Levels.

Chi- Square Analysis Between Nature of the Job Status and Levels.

		Levels			Total	P Value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Nature of the job status	Technical	24	26	35	85	
	Non-Technical	11	16	18	45	0.822
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Nature of the job status and Level of transformation in leadership. Since the P-value 0.822 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Nature of the job status and Level of transformation in leadership and the Nature of the job status does not influence the transformation in leadership.

6. Chi- Square Analysis Between Work Experience and Levels.

Hypothesis:

H0: There is no significance relationship between Work Experience group and Levels.

H1: There is a significance relationship between Work Experience group and Levels.

Chi- Square Analysis Between Work Experience and Levels.

		Levels			Total	P value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
6. Experience	Less than 5 years	21	35	43	99	
	5-10	9	3	8	20	0.072
	11-15	2	3	2	7	
	More than 15 years	3	1	0	4	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Work Experience and Level of transformation in leadership. Since the P-value 0.072 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Work Experience and Level of transformation in leadership and the Work Experience does not influence the transformation in leadership.

7. Chi- Square Analysis Between Marital Status and Levels

Hypothesis:

H0: There is no significance relationship between Marital status group and Levels

H1: There is a significance relationship between Marital status group and Levels

Chi- Square Analysis Between Marital Status and Levels

		Levels			Total	P value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
7. Marital status	Single	35	41	48	124	
	Married	0	1	4	5	0.272
	Separated	0	0	1	1	
Total		35	42	53	130	

Interpretation

The chi-square test conducted to assess the relationship between Nature of the job status and Level of transformation in leadership. Since the P-value 0.272 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Nature of the job status and Level of transformation in leadership and the Nature of the job status does not influence the transformation in leadership.

8. Chi- Square Analysis Between How Many Years You Have Been Working in This Company and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between how many years you have been working in this company group and Levels of Transformation in Leadership

H1: There is a significance relationship between how many years you have been working in this company group and Levels of Transformation in Leadership

		Levels			Total	P value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
8. How many years you have been working in this company?	Less than a year	16	32	39	87	
	1 year to 5 years	15	8	13	36	0.015
	6 years to 10 years	0	1	1	2	
	More than 10 years	4	1	0	5	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between how many years you have been working in this company and Level of transformation in leadership. Since the P-value 0.805 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between how many years you have been working in this company and Level of transformation in leadership and the how many years you have been working in this company does not influence the transformation in leadership.

9. Chi- Square Analysis Between Role/Position in The IT Industry and Levels

Hypothesis:

H0: There is no significance relationship between role/position in the IT industry group and Levels.

H1: There is a significance relationship between role/position in the IT industry group and Levels.

		Levels			Total	P Value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
Your role/position in the IT industry:	Entry-level Staff	16	24	34	74	
	Mid-level Manager	12	12	11	35	0.543
	Senior Manager	3	3	6	12	
	Executive/Leader	4	3	2	9	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between role/position in the IT industry and Level of transformation in leadership. Since the P-value 0.543 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between role/position in the IT industry and Level of transformation in leadership and the role/position in the IT industry does not influence the transformation in leadership.

10. Chi- Square Analysis Between Size of Organization and Levels of Transformation in Leadership

Hypothesis:

H0: There is no significance relationship between Size of your organization and Levels of Transformation in Leadership

H1: There is a significance relationship between Size of your organization and Levels of Transformation in Leadership

		Levels			Total	P value
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
10. Size of your organization:	Small (<100 employees)	11	21	31	63	
	Medium (100–500 employees)	15	14	15	44	
	Large (500–2000 employees)	6	5	4	15	0.348
	Very Large (>2000 employees)	3	2	3	8	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between Size of organization and Level of transformation in leadership. Since the P-value 0.121 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Size of organization and Level of transformation in leadership and the Size of organization does not influence the transformation in leadership.

11. Chi- Square Analysis Between How Familiar Are You with AI Technologies Used in the IT Sector And Levels Of Transformation In Leadership

Hypothesis:

H0: There is no significance relationship between how familiar are you with AI technologies used in the IT sector and Levels of Transformation in Leadership

H1: There is a significance relationship between how familiar are you with AI technologies used in the IT sector and Levels of Transformation in Leadership

		Levels			**Total**	**P value**
		Low level contribution by AI	**Average level of contribution by AI**	**High level of contribution by AI**		
11. How familiar are you with AI technologies used in the IT sector?	Not familiar	8	16	18	42	
	Somewhat familiar	9	11	17	37	0.528
	Familiar	11	12	12	35	
	Very familiar	7	3	6	16	
Total		35	42	53	130	

Interpretation:

The chi-square test conducted to assess the relationship between how familiar are you with AI technologies used in the IT sector and Level of transformation in leadership. Since the P-value 0.528 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between How familiar are you with AI technologies used in the IT sector and Level of transformation in leadership and how familiar are you with AI technologies used in the IT sector does not influence the transformation in leadership.

Levels * Levels of Transformation in Leadership

		Levels of Transformation in Leadership			Total	P value
		Low level transformation	**Average level transformation**	**High level transformation**		
LEVELS	Low level contribution by AI	8	14	13	35	
	Average level of contribution by AI	4	19	19	42	0.121
	High level of contribution by AI	4	18	31	53	
Total		16	51	63	130	

Interpretation:

The chi-square test conducted to assess the relationship between Levels of Transformation in Leadership. Since the P-value 0.121 which is greater than 0.05. This indicates there is no strong evidence of a relationship between the variables. Therefore, it is concluded that there is no significant relationship between Levels of Transformation in Leadership and Level of transformation in leadership and Levels of Transformation in Leadership does not influence the transformation in leadership.

Findings of the Study

Based on the percentage analysis and chi-square tests conducted among 130 IT employees, the following major findings are derived:

A. Findings Based on Percentage Analysis

Age:

The majority of respondents (96.2%) belong to the age group of 20–30 years, indicating a predominantly young workforce in the IT industry.

Gender:

Female employees constitute 93.1% of the respondents, showing higher female participation in the selected IT organizations.

Educational Qualification:

Most respondents (94.6%) are undergraduates, reflecting an entry-level and early-career employee base.

Monthly Income:

A significant proportion (58.5%) of employees earn less than ₹10,000 per month, suggesting that most respondents occupy junior or trainee positions.

Nature of Job:

About 65.4% of respondents are engaged in technical roles, while 34.6% are in non-technical roles.

Work Experience:

A majority (76.2%) have less than five years of work experience, indicating limited professional exposure.

Marital Status:

Most respondents (95.4%) are unmarried, which aligns with the younger age profile.

Tenure in Current Organization:

66.9% of respondents have been working in their current organization for less than one year, reflecting high workforce mobility in the IT sector.

Role/Position:

Entry-level staff constitute the largest group (56.9%), followed by mid-level managers (26.9%).

Size of Organization:

Nearly half of the respondents (48.5%) work in small organizations with fewer than 100 employees.

Familiarity with AI Technologies:

A considerable proportion (32.3%) are not familiar with AI technologies, while only 12.3% are very familiar, indicating a gap in AI awareness.

B. Findings Based on Chi-Square Analysis: Transformational Leadership

There is **no significant relationship** between **age and levels of transformational leadership** ($P > 0.05$).

- **Gender** does not significantly influence transformational leadership ($P > 0.05$).
- **Educational qualification** has no significant relationship with transformational leadership ($P > 0.05$).
- **Monthly income** does not significantly influence transformational leadership ($P > 0.05$).
- **Nature of job** (technical or non-technical) has no significant relationship with transformational leadership ($P > 0.05$).
- **Work experience** does not significantly influence transformational leadership ($P > 0.05$).
- **Marital status** shows no significant association with transformational leadership ($P > 0.05$).

- **Tenure in the organization** does not significantly affect transformational leadership ($P > 0.05$).
- **Role/position in the IT industry** has no significant relationship with transformational leadership ($P > 0.05$).
- **Size of organization** does not significantly influence transformational leadership ($P > 0.05$).
- **Familiarity with AI technologies** does not significantly affect transformational leadership ($P > 0.05$).

C. Findings on AI Contribution Levels

Demographic variables such as age, gender, education, income, job nature, experience, marital status, organizational tenure, role, and organization size **do not significantly influence AI contribution levels** ($P > 0.05$).

There is **no significant relationship between AI contribution levels and transformational leadership** ($P = 0.121 > 0.05$).

Overall Key Finding

Artificial Intelligence acts as a **supportive and enabling tool**, but **transformational leadership remains predominantly human-driven**, shaped by vision, inspiration, ethical judgment, and interpersonal influence rather than technology or demographic factors.

II.CONCLUSION

The present study examined the **role of Artificial Intelligence in transformational leadership** in the IT industry by analyzing the influence of demographic variables and AI contribution levels on leadership transformation. The empirical evidence from the study reveals that **demographic characteristics do not significantly influence transformational leadership**, and **AI contribution levels have no statistically significant relationship with transformational leadership**.

Although Artificial Intelligence enhances efficiency, data processing, and decision support, it does not replace the core human elements essential for transformational leadership, such as emotional intelligence, motivation, ethical reasoning, and personalized consideration. The findings strongly support the view that **AI complements leadership rather than substitutes it**.

The study concludes that successful leadership in AI-enabled organizations depends on a balanced integration of advanced technologies and human leadership capabilities. Transformational leadership in the IT industry remains a **human-centered phenomenon augmented—but not driven—by Artificial Intelligence**.

III.REFERENCES

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