

TRANSFORMATIONAL LEADERSHIP AND EMPLOYEE MOTIVATION IN HUNGARY: THE INFLUENCE OF AGE, EDUCATIONAL ATTAINMENT AND WORK EXPERIENCE

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Abstract

This quantitative study investigates the influence of demographic variables such as age, educational attainment, and work experience on work motivation in the presence of transformational leadership among employees in private organizations in Hungary. Through rigorous ANOVA tests and Bonferroni post-hoc comparisons, the research aimed to understand the impact of these variables on individuals' motivation in the existence of transformational leadership. Utilizing a cross-sectional survey method, data were collected from a diverse sample of employees representing various industries and demographic backgrounds. Participants rated their motivation levels using a Likert scale across the four dimensions of transformational leadership—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The findings reveal no significant differences in motivation levels across different demographic groups, challenging the notion that demographic characteristics alone predict work motivation. The research highlights the presence of other intricate factors or contextual nuances that may exert greater influence on motivational dynamics within organizations. These results underscore the importance of considering additional contextual factors and effective leadership practices in fostering motivation at the workplace. The study contributes to our understanding of motivational dynamics within organizational settings and highlights the need for a holistic approach to enhancing employee motivation.

Keywords: transformational leadership, employee motivation, age, educational attainment, work experience

JEL: M50, M54

Introduction

Leadership: the art and science of directing a group of people towards one common goal, it is the foundation for businesses. Today's corporate environment is dynamic, with rapid change and intense competition. As such, effective leadership is more vital than ever. The fundamental connection between the ability of a leader to inspire and motivate followers and the team's or organization's overall performance are at the center of this leadership equation (Khan et al., 2019).

Motivation is the engine that drives both individuals and groups efforts, serving as a catalyst to convert potential into actual performance. It is crucial for a leader to comprehend, utilize, and maintain this motivation (Khademi-Vidra-Bujdosó, 2020). Every team member feels empowered and motivated to do their best in the presence of leadership. Motivation and leadership require good understanding of organizational dynamics, human psychology, personality traits and the constantly changing demands of a diverse workforce (Çekmecelioglu et al., 2023).

Leadership has been a critical factor in organizational success for several decades. Scholars have identified several leadership styles that managers can use to motivate their subordinates and improve organizational performance. One popular leadership style is transformational leadership, which has shown a great impact to enhance employees' motivation (Udin, 2023). While the general

benefits of transformational leadership are well-documented, there is limited understanding of how individual differences among employees, such as age, the level of education, and years of work experience, interact with this leadership style to influence motivation.

Objectives and hypothesis

The primary objective of this study is to examine how age, educational attainment, and years of work experience influence employee motivation under transformational leadership. By doing so, this research aims to provide empirical evidence on the following hypotheses:

1. Age and motivation:
 - H0 (Null Hypothesis): There is no significant difference in motivation levels among different age groups in the presence of transformational leadership.
 - H1 (Alternative Hypothesis): Motivation levels differ significantly among different age groups in the presence of transformational leadership.
2. Level of Education and Motivation:
 - H0: There is no significant difference in motivation levels among different educational levels in the presence of transformational leadership.
 - H1: Motivation levels differ significantly among different educational levels in the presence of transformational leadership.
3. Level of Experience and Motivation:
 - H0: There is no significant difference in motivation levels among different experience levels in the presence of transformational leadership.
 - H1: Motivation levels differ significantly among different experience levels in the presence of transformational leadership.

Literature review

Transformational leadership

As a break from traditional leadership theories, transformational leadership emphasizes the substantial influence of leaders on followers' beliefs, aspirations, and performance. This style of leadership has received a lot of attention in contemporary organizational literature. This leadership style, which was first introduced by James MacGregor Burns, is centered on four essential elements: idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration (Marbaniang, 2023). Puni et al. (2021) emphasized in his research the positive relationships between transformational leadership and employee outcome, such as increased job satisfaction and organizational commitment. Transformational leadership represents a dynamic and influential approach to guiding organizations towards higher levels of performance and effectiveness (Pires et al., 2023). One of its defining characteristics is the ability to articulate a compelling vision that captivates and energizes individuals, rallying them around a shared purpose and direction. At its core, transformational leadership transcends traditional management styles by inspiring and motivating followers to achieve remarkable outcomes (Sukmawati et al., 2023).

Transformational leaders possess a remarkable capacity to engender trust, respect, and admiration among their team members through their authenticity, charisma, and passion. They lead by example, demonstrating unwavering commitment, integrity, and resilience in the face of challenges, thereby earning the loyalty and dedication of their followers (Pimonratanakan et al.,

2017). Through individualized consideration, they recognize the unique strengths, aspirations, and needs of each individual, offering mentorship, support, and opportunities for advancement. Furthermore, transformational leaders excel in fostering a culture of innovation, creativity, and continuous improvement by encouraging critical thinking, experimentation, and the pursuit of excellence (Dwiri & Okatan, 2021). By promoting open communication, collaboration, and teamwork, they harness the collective intelligence and talents of their organization, driving innovation and adaptability in the face of change. In essence, transformational leadership represents a powerful force for positive transformation, inspiring individuals and organizations to reach their fullest potential and achieve enduring success (Chua & Ayoko, 2021).

Work motivation

Motivation is a process that involves the interplay of internal and external factors driving an individual's efforts and commitment towards work-related tasks and goals (Piedade et al., 2019). Internally, motivation is influenced by personal goals, values, and intrinsic rewards such as a sense of achievement and personal growth. Externally, it can be shaped by factors like organizational culture, leadership style, work environment, and tangible rewards such as salary, bonuses, and promotions according to (Dupe et al., 2020). The importance of work motivation is profound, as it directly impacts employee performance, productivity, and overall job satisfaction (Muklis et al., 2022). Motivated employees are more likely to exhibit higher levels of engagement, creativity, and resilience, contributing to the organization's innovation and competitive edge (Sukmawati et al., 2023). They tend to be more committed to their roles and the organization's goals, leading to enhanced teamwork, reduced turnover rates, and lower absenteeism. Conversely, lack of motivation can lead to disengagement, decreased productivity, and higher levels of stress and dissatisfaction, which can adversely affect the organization's performance and employee well-being. Thus, understanding and enhancing work motivation is essential for the sustained success and growth of any organization (Hardjadinata et al., 2022).

Demographics and work motivation

Previous research has rarely explored how demographic variables such as age, educational attainment, and level of experience influence motivation at the workplace. However, Damci (2016) demonstrates that work motivation is influenced by demographic characteristics, and the significance of various motivators varies based on personal attributes such as age, marital status, educational attainment, and work experience. Ng & Feldman (2010) explores how age influences job attitudes, including motivation, and found that older employees often exhibit higher levels of intrinsic motivation. Kanfer & Ackerman (2004) highlight that motivational priorities shift with age, with older workers often placing greater value on job meaningfulness and self-fulfillment. Similarly, Rowold (2011) examines how the educational level of work teams influences the relationship between leadership behaviors and performance, indicating that higher educational levels are associated with different motivational responses to leadership. Heijden & Bakker (2011) show that higher educational levels are linked to greater motivation for personal and professional development. Additionally, Gaki et al. (2012) indicate that employees with a postgraduate education appear to be more motivated. Despite these insights, there has been no research found in English that examines the Hungarian society, additionally, there remains a gap in understanding how these demographic factors interact with transformational leadership to influence Hungarian motivation, which this study aims to address.

Material and method

Research Design

This study employs a quantitative research design to investigate the influence of demographic variables—age, educational attainment, experience, and gender—on work motivation in the presence of a transformational leader.

Participants

The study recruited participants from various private organizations in Hungary. The sample consisted of employees from diverse industries and demographic backgrounds, selected using convenience sampling to ensure representation across different demographic groups. Inclusion criteria required participants to be currently employed and have experience with a supervisor or manager exhibiting transformational leadership behaviors.

Data Collection

Data were collected using a cross-sectional survey method. An online questionnaire was distributed to participants via email and social media platforms. The questionnaire assessed demographic variables, including age range, gender, level of education, and level of experience. Additionally, participants rated their motivation levels using a 1-5 Likert scale across the four dimensions of transformational leadership—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Questions were included for each dimension to evaluate participants' motivation.

Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics were used to summarize demographic characteristics and motivation levels. An analysis of variance (ANOVA) test was performed to examine variations in motivation levels across different demographic groups. Post-hoc tests, including the Bonferroni correction, were conducted to further explore significant differences identified in ANOVA.

Results

Descriptive Analysis

The descriptive analysis focuses on summarizing the demographic characteristics of the participants of the research, particularly their age, educational level, and experience.

Age Distribution

The age distribution of the 102 respondents is as follows:

- 20-29 years old: This age group has the highest frequency, with 48 respondents, accounting for 47.1% of the total sample.
- 30-39 years old: The second-largest age group, consisting of 42 respondents, makes up 41.2% of the sample.
- 40-49 years old: This age group has the lowest representation, with 12 respondents, constituting 11.8% of the total sample.

These results indicate that the majority of the respondents are relatively young, with nearly 90% of the participants being under 40 years old as shown in Table 1.

Table 1. Age Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Age	20-29 years old	48	47.1	47.1	47.1
	30-39 years old	42	41.2	41.2	88.2
	40-49 years old	12	11.8	11.8	100.0
	Total	102	100.0	100.0	

Source: authors' own editing, 2024

Biological Gender

The data shows a relatively balanced distribution of respondents by gender:

- Male: There are 46 male respondents, accounting for 45.1% of the total sample.
- Female: There are 56 female respondents, making up 54.9% of the total sample.

This slight predominance of female respondents indicates that the gender distribution is fairly even, with females representing a slightly larger portion of the sample as shown in Table 2.

Table 2. Biological Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	46	45.1	45.1	45.1
	Male	56	54.9	54.9	100.0
	Total	102	100.0	100.0	

Source: authors' own editing, 2024

Level of education

The statistical breakdown of respondents' educational attainment reveals a diverse sample. The majority of respondents hold a bachelor's degree, comprising 62.7% of the total sample. This suggests a strong representation of individuals with undergraduate education, indicating a well-educated cohort. Moreover, 31% of respondents possess a master's degree, demonstrating a substantial proportion of individuals with advanced qualifications. High school graduates constitute a smaller but still noteworthy portion, with 3.9% of respondents indicating this level of education. Interestingly, a very small percentage of respondents, only 2%, have attained a Ph.D. or higher, suggesting a limited presence of individuals with the highest academic credentials within the surveyed population. Overall, the data suggests a predominantly educated sample, with a notable concentration at the bachelor's and master's degree levels. Results are shown in Table 3.

Table 3. Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Level of education	Bachelor's Degree	64	62.7	62.7	62.7
	High school	4	3.9	3.9	66.7
	Master's Degree	32	31.4	31.4	98.0
	PhD or higher	2	2.0	2.0	100.0
	Total	102	100.0	100.0	

Source: authors' own editing, 2024

Level of work experience

Table 4 presents the distribution of participants based on their level of experience. Among the 102 participants, 31.4% reported having 1-4 years of experience, while 51.0% reported having 5-10 years of experience. Additionally, 17.6% of participants indicated having 11 years of experience or more. These findings suggest that the majority of participants in the study have intermediate levels of experience, with a significant proportion falling within the 5-10 years' experience range.

Table 4. Level of work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Level of Experience	1-4 years	32	31.4	31.4	31.4
	5-10 years	52	51.0	51.0	82.4
	11 years and above	18	17.6	17.6	100.0
	Total	102	100.0	100.0	

Source: authors' own editing, 2024

Hypothesis test

Age and motivation

The related hypothesis was as follows.

- H0 (Null Hypothesis): There is no significant difference in motivation levels among different age groups in the presence of transformational leadership.
- H1 (Alternative Hypothesis): Motivation levels differ significantly among different age groups in the presence of transformational leadership.

The ANOVA test yielded a p-value of .122 and an F-value of 2.150 as shown in Table 5, indicating that age groups may not significantly influence motivation levels in the context of transformational leadership. Therefore, we accept the null hypothesis, suggesting that age alone may not be a significant predictor of differences in motivation levels among individuals experiencing transformational leadership.

Table 5. ANOVA test between age and work motivation

ANOVA					
Motivation Average					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.987	2	2.493	2.150	.122
Within Groups	114.825	99	1.160		
Total	119.812	101			

Source: authors' own editing, 2024

The Bonferroni post-hoc as shown in Table 6 test did not reveal any statistically significant differences in motivation levels between age groups. This suggests that age alone may not significantly predict variations in motivation levels among individuals experiencing transformational leadership.

Table 6. Bonferroni post-hoc test

Multiple Comparisons						
Dependent Variable: Motivation Average						
Bonferroni						
(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
20-29 years old	30-39 years old	.434152	.227550	.178	-.12001	.98831
	40-49 years old	.471354	.347588	.534	-.37514	1.31785
30-39 years old	20-29 years old	-.434152	.227550	.178	-.98831	.12001
	40-49 years old	.037202	.352519	1.000	-.82130	.89571
40-49 years old	20-29 years old	-.471354	.347588	.534	-1.31785	.37514
	30-39 years old	-.037202	.352519	1.000	-.89571	.82130

Source: authors' own editing, 2024

Level of Education and Motivation

The related hypothesis was as follows.

- H0: There is no significant difference in motivation levels among different educational levels in the presence of transformational leadership.
- H1: Motivation levels differ significantly among different educational levels in the presence of transformational leadership.

Based on the ANOVA test results as shown in Table7, which yielded a significance level of .113 with an associated F-value of 2.044, we accept the null hypothesis (H0) that there is no significant difference in motivation levels among different educational levels in the presence of transformational leadership. These findings suggest that educational levels may not significantly influence variations in motivation levels among individuals experiencing transformational leadership.

Table 7. ANOVA test between educational level and work motivation

ANOVA					
Motivation Average					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.054	3	2.351	2.044	.113
Within Groups	112.758	98	1.151		
Total	119.812	101			

Source: authors' own editing, 2024

The Bonferroni post-hoc test results for educational levels and motivation levels indicate no statistically significant differences between any of the educational groups as shown in Table 8. Therefore, educational levels may not significantly predict variations in motivation levels among individuals experiencing transformational leadership.

Table 8. Bonferroni post-hoc test

Multiple Comparisons						
Dependent Variable: Motivation Average						
Bonferroni						
(I) Level of Education	(J) Level of Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High school	Bachelor's Degree	.851563	.552834	.760	-.63715	2.34027
	Master's Degree	.484375	.568862	1.000	-1.04749	2.01624
	PhD or higher	-.343750	.928947	1.000	-2.84528	2.15778
Bachelor's Degree	High school	-.851563	.552834	.760	-2.34027	.63715
	Master's Degree	-.367188	.232237	.702	-.99257	.25820
	PhD or higher	-1.195313	.770242	.744	-3.26947	.87885
Master's Degree	High school	-.484375	.568862	1.000	-2.01624	1.04749
	Bachelor's Degree	.367188	.232237	.702	-.25820	.99257
	PhD or higher	-.828125	.781825	1.000	-2.93348	1.27723
PhD or higher	High school	.343750	.928947	1.000	-2.15778	2.84528
	Bachelor's Degree	1.195313	.770242	.744	-.87885	3.26947
	Master's Degree	.828125	.781825	1.000	-1.27723	2.93348

Source: authors' own editing, 2024

Level of Experience and Motivation

The related hypothesis was as follows.

- H0: There is no significant difference in motivation levels among different experience levels in the presence of transformational leadership.
- H1: Motivation levels differ significantly among different experience levels in the presence of transformational leadership.

Based on the ANOVA test results as shown in Table 9, which yielded a significance level of .110 with an associated F-value of 2.259, we accept the null hypothesis (H0) that suggests there is no

significant difference in motivation levels among different experience levels in the presence of transformational leadership. These findings suggest that experience levels may not significantly influence variations in motivation levels among individuals experiencing transformational leadership.

Table 9. ANOVA test between experience level and work motivation

ANOVA					
Motivation Average					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.229	2	2.614	2.259	.110
Within Groups	114.583	99	1.157		
Total	119.812	101			

Source: authors' own editing, 2024

The Bonferroni post-hoc test results as shown in Table 10 for experience levels and motivation levels indicate no statistically significant differences between any of the experience groups. Therefore, experience levels may not significantly predict variations in motivation levels among individuals experiencing transformational leadership.

Table 10. Bonferroni post-hoc test

Multiple Comparisons						
Dependent Variable: Motivation average						
Bonferroni						
(I) Level of Experience	(J) Level of Experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1-4 years	5-10 years	.460036	.241716	.180	-.12863	1.04870
	11 years and above	.020399	.316969	1.000	-.75153	.79233
5-10 years	1-4 years	-.460036	.241716	.180	-1.04870	.12863
	11 years and above	-.439637	.294208	.415	-1.15613	.27686
11 years and above	1-4 years	-.020399	.316969	1.000	-.79233	.75153
	5-10 years	.439637	.294208	.415	-.27686	1.15613

Source: authors' own editing, 2024

Conclusions and recommendations

This study was conducted in private organizations in Hungary, investigating the complex relationship between demographic factors (age, educational attainment, and work experience) and motivation levels in the presence of transformational leadership. Utilizing ANOVA tests and subsequent Bonferroni post-hoc comparisons, we rigorously examined the potential impact of these demographic variables on individuals' motivation within organizational contexts. Surprisingly, our findings revealed a lack of statistically significant differences in motivation levels across various age groups, educational levels, and experience levels which differs from previous studies that proved the opposite. This study suggests that demographic characteristics alone may

not be robust predictors of motivation levels among individuals experiencing transformational leadership. Instead, it implies the existence of other intricate factors or contextual nuances that may exert a more substantial influence on motivational dynamics within organizations. Consequently, our results as shown in Table 11 underscore the complexity of motivational processes and advocate for a more nuanced approach to understanding and fostering motivation in the workplace. However, several limitations should be considered. First, the study's cross-sectional design restricts the ability to draw causal inferences about the relationship between demographic factors and motivation levels. Second, the use of self-reported measures may introduce response biases. Third, the study was limited to private organizations in Hungary, which may affect the generalizability of the findings to other cultural or organizational contexts as it was indicated by Dayrit (2021) that in the Kingdom of Saudi Arabia nurses' work motivation showed significant differences based on various factors: amotivation varied by work position; extrinsic motivation (social) differed by civil status, salary, and years of experience; extrinsic motivation (material) varied by years of experience; introjected regulation differed by age and civil status; and both identified regulation and intrinsic motivation varied by civil status. These findings suggest that demographic and job-related factors significantly influence different aspects of nurses' work motivation, here cultural differences can play a huge factor in the motivation levels between Saudis and Hungarians. Additionally, the convenience sampling method may not fully represent the broader population of employees. Moving forward, future research endeavors could explore additional variables or delve deeper into the interactive effects of various factors to provide a more comprehensive elucidation of the multifaceted determinants of motivation within organizational settings as it was indicated by Hanson (2017) that enhanced teacher motivation was predicted by higher confidence in entrepreneurial issues and robust contextual support in the USA. In conclusion, while demographic factors play a role in shaping motivational dynamics, they alone may not fully capture the complexities inherent in motivation within organizational contexts, researchers have studied other factors that are proven to influence employee motivation such as communication, compensation, employee development, employee engagement, knowledge management, organizational culture, organizational support and work environment. Therefore, it emphasizes the need for a holistic and context-sensitive approach to fostering motivation in the workplace.

Table 11. Hypothesis and results

Hypothesis#	Hypothesis	Results
1	Age and motivation	
H0	There is no significant difference in motivation levels among different age groups in the presence of transformational leadership.	Accepted
H1	Motivation levels differ significantly among different age groups in the presence of transformational leadership.	Rejected

2	Level of Education and Motivation	
H0	There is no significant difference in motivation levels among different educational levels in the presence of transformational leadership.	Accepted
H1	Motivation levels differ significantly among different educational levels in the presence of transformational leadership.	Rejected
3	Level of Experience and Motivation:	
H0	There is no significant difference in motivation levels among different experience levels in the presence of transformational leadership. -	Accepted
H1	Motivation levels differ significantly among different experience levels in the presence of transformational leadership.	Rejected

Source: authors' own editing, 2024

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