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The Relationship Between Demographic Variables and Motivation Levels in Educational Institutions*

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A B S T R A C T

This study was conducted to examine in detail the relationship between the demographic characteristics of individuals working in educational institutions and their motivation levels. The demographic variables considered in the study include gender, age, marital status, education level, professional level within the institution, type of employment, duration of employment at the current institution, and total professional experience. Motivation was analysed through four sub-dimensions—probability of success, challenge, fear, and interest and overall motivation levels were also measured. Independent Samples t-tests and One-Way ANOVA analyses were employed. According to the findings, there was no significant relationship between gender and either overall motivation or its sub-dimensions. In contrast, age, marital status, professional level within the institution, and total work experience were significantly associated with overall motivation as well as the challenge and fear sub-dimensions, but not with probability of success and interest sub-dimensions. Education level was significantly related to overall motivation and interest, but not to the other sub-dimensions. Regarding the type of employment, being employed in public or private institutions with a tenured position was found to be related to overall motivation as well as the challenge and fear dimensions, while no relationship was found with the probability of success and interest. These results are consistent with those obtained for other demographic factors such as age, marital status, professional level within the institution, and total work experience. Finally, the length of time individuals had worked at their current institution was significantly associated with overall motivation and the challenge sub-dimension, but not with the other dimensions. In conclusion, gender was the only demographic variable found to have no significant relationship with motivation. All other demographic variables showed varying degrees of association with motivation. Therefore, future studies on motivation in the education sector should take demographic factors into account.

Keywords: Motivation, demographic variables, educational institutions.

1. Introduction

Motivation is critically important for businesses due to the adverse consequences that arise in its absence. Therefore, identifying the level of motivation within an organization and revealing how it is associated with various demographic variables is of great significance. This study focuses on educational institutions, which hold substantial importance in both economic and societal contexts,and examines the level of motivation in these institutions in relation to different demographic variables.

The motivation dimensions considered in the study are probability of success, challenge, fear, and interest, and the relationship between each motivation dimension and the demographic variables is examined in detail. The demographic variables addressed include gender, age, marital status, education level, professional level within the institution, type of employment, duration of employment at the current institution, and total professional experience. For each demographic variable, the relationship with the relevant motivation dimension is analyzed in depth.

The primary outcome of the study is to determine whether a significant relationship exists between each demographic variable and motivation. If a relationship is found, the secondary outcome is to explore the nature of this relationship in detail, identifying at which levels of the demographic variable the relationship manifests and how.

2. Methodology

This section presents the research study, organized under relevant headings, which examines the relationship between the motivation levels of individuals working in the education sector and various demographic variables.

2.1. Research model

Within the scope of the research, the independent variables examined under the category of demographic variables include age, gender, marital status, education level, professional level within the institution, type of employment, total duration of employment at the current institution, and total professional experience. The dependent variables are the overall motivation level and its sub-dimensions, namely Probability of Success, Challenge, Fear, and Interest.

Demographic Variables
- Gender
- Age
- Marital Status
- Education Level,
- Professional Level Within the Institution
- Type of Employment

Motivation
- Overall Motivation Level
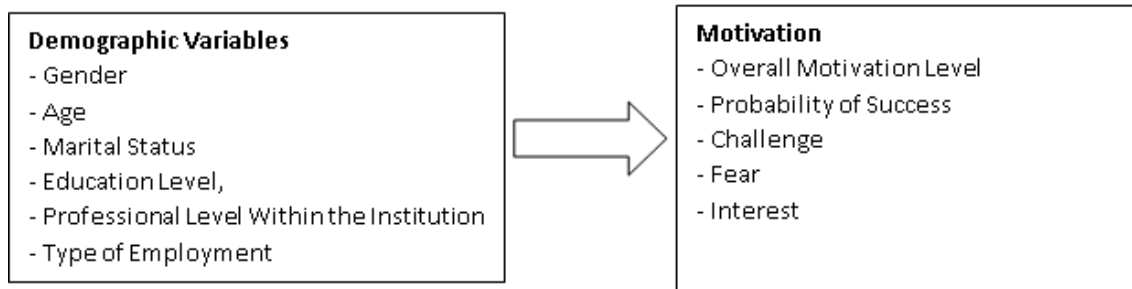- Probability of Success
- Challenge
- Fear
- Interest

Fig. 1 - research model

The research hypotheses were developed to examine the relationships between demographic variables and both overall motivation and its sub-dimensions, and the hypotheses are presented in the findings section along with the test results.

2.2. Introduction of the research scale

The survey method was used in the study, and the first part of the questionnaire included questions aimed at identifying demographic variables. These questions covered gender, age, marital status, education level, professional level within the institution, type of employment, total duration of employment at the current institution, and total professional experience.

In other words, the first part was designed to collect the participants' demographic data. In the second part of the questionnaire, an attitude scale was used to measure the level of motivation. A 12-item scale, consisting of four sub-dimensions—probability of success, challenge, fear, and interest—was developed based on the original Attitude Motivation Scale by Rheinberg, Vollmeyer, and Burns (2000), with the items adapted and refined accordingly.

2.3. Data analysis procedures

This section presents the analyses conducted on the research data. Since the data obtained in the study were found to be normally distributed, parametric tests were employed in the analyses. To examine the relationship between the demographic variables of the employees included in the study and their overall motivation levels—as well as the relationship between demographic variables and the sub-dimensions of motivation—Independent Samples t-Test and One-Way Analysis of Variance (ANOVA) were used.

The relationships between motivation and the variables of gender and marital status were analyzed using the Independent Samples t-Test, while the relationships between motivation and the variables of age, education level, type of employment, professional level within the institution, total duration of employment at the current institution, and total professional experience were analyzed using One-Way ANOVA. Data were collected from a total of 443 participants

2.4. Findings

This section presents the hypothesis test results of the study, as well as the participants' mean, and standard deviation values based on demographic variables.

Table 1 - Analysis results regarding the gender variable.

No.	Hypothesis	*p*	**Result**
H1	There is a relationship between gender and overall motivation level in educational institutions	*0,859*	Reject
H1a	There is a relationship between gender and probability of success level in educational institutions	*0,160*	Reject
H1b	There is a relationship between gender and challenge level in educational institutions	*0,517*	Reject
H1c	There is a relationship between gender and fear level in educational institutions	*0,102*	Reject
H1d	There is a relationship between gender and interest level in educational institutions	*0,323*	Reject

Type Of Motivation / Gender		N	Mean	Std. Deviation
Overall Motivation	Woman	320	3,2639	0,51183
	Man	123	3,2548	0,39820

All hypotheses were rejected at the 95% confidence level, indicating that there is no significant relationship between gender and overall motivation or its sub-dimensions (p > 0.05). However, the overall motivation mean was found to be higher among female participants compared to male participants.

Table 2 - Analysis results regarding the age variable.

No.	Hypothesis	p	Result
H2	There is a relationship between age and overall motivation level in educational institutions	0,000	Accept
H2a	There is a relationship between age and probability of success level in educational institutions	0,260	Reject
H2b	There is a relationship between age and challenge level in educational institutions	0,000	Accept
H2c	There is a relationship between age and fear level in educational institutions	0,001	Accept
H2d	There is a relationship between age and interest level in educational institutions	0,327	Reject

Type of motivation / Age		N	Mean	Std. Deviation
Overall Motivation	18-23	18	3,6022	0,90753
	24-29	76	3,4466	0,40987
	30-35	68	3,3187	0,41469
	36-41	94	3,2176	0,42153
	42-47	73	3,1451	0,46097
	48-53	67	3,1754	0,38939
	54-59	39	3,1554	0,51333
	Over 60 years	8	3,0625	0,89535

A significant relationship was found between age and overall motivation level, as well as the challenge and fear sub-dimensions (p < 0.05). However, no significant relationship was observed with the probability of success and interest dimensions. When the age variable is examined in detail, the highest overall motivation level was observed in the 18–23 age group, while the lowest was in the 60 and above age group. The mean values of overall motivation according to age groups are presented below.

Table 3 - Analysis results regarding the marital status variable

No.	Hypothesis	p	Result
H3	There is a relationship between marital status and overall motivation level in educational institutions	0,008	Accept
H3a	There is a relationship between marital status and probability of success level in educational institutions	0,862	Reject
H3b	There is a relationship between marital status and challenge level in educational institutions	0,028	Accept
H3c	There is a relationship between marital status and fear level in educational institutions	0,001	Accept
H3d	There is a relationship between marital status and interest level in educational institutions	0,598	Reject

Type of motivation / Marital status		N	Mean	Std. Deviation
Overall Motivation	Married	298	3,2257	0,46832
	Single	121	3,3735	0,43425
	Divorced	24	3,1400	0,74883

A significant relationship was found between marital status and overall motivation level, as well as the challenge and fear sub-dimensions ($p < 0.05$). However, no significant relationship was observed with the probability of success and interest dimensions. The highest motivation level was found among single participants, while the lowest was observed among divorced employees.

Table 4 - Analysis results regarding the education level variable.

No.	Hypothesis	*p*	Result
H4	There is a relationship between education level and overall motivation level in educational institutions	0,042	Accept
H4a	There is a relationship between education level and probability of success level in educational institutions	0,557	Reject
H4b	There is a relationship between education level and challenge level in educational institutions	0,446	Reject
H4c	There is a relationship between education level and fear level in educational institutions	0,221	Reject
H4d	There is a relationship between education level and interest level in educational institutions	0,030	Accept

Type Of Motivation / Education Level		N	Mean	Std. Deviation
Overall Motivation	Below undergraduate level	25	3,4724	0,47432
	Undergraduate degree	324	3,2629	0,45819
	Postgraduate degree	94	3,2000	0,55106

A significant relationship was found between overall motivation and education level. Among the sub-dimensions of motivation, only the interest dimension was significantly associated with education level ($p < 0.05$), while no significant relationship was found with probability of success, challenge, or fear. The highest motivation level was observed among participants with below undergraduate education, whereas the lowest motivation level was observed among those with postgraduate education.

Table 5 - Analysis results regarding the professional level within the institution variable.

No.	Hypothesis	*p*	Result
H5	There is a relationship between professional level within the institution and overall motivation level in educational institutions	0,030	Accept
H5a	There is a relationship between professional level within the institution and probability of success level in educational institutions	0,649	Reject
H5b	There is a relationship between professional level within the institution and challenge level in educational institutions	0,014	Accept
H5c	There is a relationship between professional level within the institution and fear level in educational institutions	0,014	Accept
H5d	There is a relationship between professional level within the institution and interest level in educational institutions	0,184	Reject

Type Of Motivation / Professional level within the institution		N	Mean	Std. Deviation
Overall Motivation	Preschool Education	63	3,4030	0,57606
	Primary School	166	3,2103	0,42301
	Middle School	114	3,2199	0,47175
	High School	100	3,3043	0,50847

A significant relationship was found between professional level within the institution and overall motivation, as well as the challenge and fear sub-dimensions ($p < 0.05$). However, no significant relationship was observed with the probability of success and interest dimensions. The highest motivation level was observed among participants working in preschool education institutions, while the lowest motivation level was found among those working in primary schools.

Table 6 - Analysis results regarding the types of employment within the institution variable.

No.	Hypothesis				p	Result
H6	There is a relationship between types of employment and overall motivation level in educational institutions				0,012	Accept
H6a	There is a relationship between types of employment and probability of success level in educational institutions				0,301	Reject
H6b	There is a relationship between types of employment and challenge level in educational institutions				0,002	Accept
H6c	There is a relationship between types of employment and fear level in educational institutions				0,000	Accept
H6d	There is a relationship between types of employment and interest level in educational institutions				0,880	Reject
Type of motivation / Types of employment within the institution			**N**	**Mean**	**Std. Deviation**	
Overall Motivation	Tenured employees in public institutions		368	3,2354	0,45867	
	Tenured employees in private institutions		75	3,3892	0,57229	

A significant relationship was found between types of employment within the institution and overall motivation, as well as the challenge and fear sub-dimensions (p < 0.05). However, no significant relationship was observed with the probability of success and interest dimensions. Motivation levels were found to be higher among tenured employees in private institutions compared to tenured employees in public institutions.

Table 7 - Analysis results regarding the duration of employment at current institution variable.

No.	Hypothesis			p	Result
H7	There is a relationship between duration of employment at current institution and overall motivation level in educational institutions			*0,028*	Accept
H7a	There is a relationship between duration of employment at current institution and probability of success level in educational institutions			*0,478*	Reject
H7b	There is a relationship between duration of employment at current institution and challenge level in educational institutions			*0,001*	Accept
H7c	There is a relationship between duration of employment at current institution and fear level in educational institutions			*0,114*	Reject
H7d	There is a relationship between duration of employment at current institution and interest level in educational institutions			*0,806*	Reject
Type of motivation / Duration of employment at current institution		**N**	**Mean**	**Std. Deviation**	
	Less than 1 Year	65	3,4115	0,52554	
	1 Years- 5 Years	129	3,2724	0,44008	
	5 Years -10 Years	80	3,2043	0,47049	
	10 Years -15 Years	77	3,2799	0,43316	
Overall Motivation	15 Years -20 Years	37	3,2838	0,53753	
	20 Years -25 Years	26	3,1100	0,61711	
	25 Years -30 Years	17	3,0094	0,33419	
	30 Years -35 Years	9	3,0922	0,58157	
	More than 35 Years	3	3,5567	0,39323	

A significant relationship was identified between the duration of employment at the current institution and overall motivation, as well as the challenge sub-dimension (p < 0.05). However, no significant relationships were found with the probability of success, fear, or interest sub-dimensions. A detailed examination of the duration of employment revealed that the highest level of overall motivation was observed among participants with more than 35 years of experience, whereas the lowest motivation level was found in the group with 25–30 years of experience.

Table 8 - Analysis results regarding the total professional experience variable.

No.	Hypothesis	*p*	Result
H8	There is a relationship between total professional experience and overall motivation level in educational institutions	*0,000*	Accept
H8a	There is a relationship between total professional experience and probability of success level in educational institutions	*0,070*	Reject
H8b	There is a relationship between total professional experience and challenge level in educational institutions	*0,000*	Accept
H8c	There is a relationship between total professional experience and fear level in educational institutions	*0,000*	Accept
H8d	There is a relationship between total professional experience and interest level in educational institutions	*0,221*	Reject

Type of motivation / Total professional experience		N	Mean	Std. Deviation
Overall Motivation	Less than 1 Year	21	3,5838	0,49831
	1 Years- 5 Years	69	3,4277	0,38933
	5 Years -10 Years	59	3,3005	0,44770
	10 Years -15 Years	82	3,1135	0,51910
	15 Years -20 Years	78	3,3137	0,48037
	20 Years -25 Years	64	3,1505	0,46171
	25 Years -30 Years	20	3,1160	0,60632
	30 Years -35 Years	31	3,1742	0,39636
	More than 35 Years	19	3,2721	0,45099

A significant relationship was found between total professional experience and overall motivation, as well as the challenge and fear sub-dimensions ($p < 0.05$). However, no significant relationship was observed with the probability of success and interest sub-dimensions. A detailed analysis of the total professional experience variable showed that the highest overall motivation level was observed among participants with less than 1 year of experience, while the lowest was recorded in the 10–15 years of experience group.

3. Results and Discussion

Within the scope of the study, it was determined that all demographic variables—except for gender—namely age, marital status, education level, professional level within the institution, type of employment, duration of employment at the current institution, and total professional experience, were significantly associated with the overall level of motivation.

The probability of success sub-dimension of motivation was not found to be associated with any of the demographic variables. The challenge sub-dimension of motivation was unrelated to gender and education level; however, it showed significant associations with age, marital status, professional level within the institution, type of employment, duration of employment at the current institution, and total professional experience.

The fear sub-dimension of motivation was not associated with gender, education level, or duration of employment at the current institution, but it was found to be significantly related to age, marital status, professional level within the institution, type of employment, and total professional experience.

The interest sub-dimension of motivation was found to be significantly associated only with education level, while no significant relationships were observed between this sub-dimension and gender, age, marital status, professional level within the institution, type of employment, duration of employment at the current institution, or total professional experience.

Although the overall motivation level did not differ significantly by gender, it was observed to be higher among female participants. Regarding the age variable, the highest level of motivation was found in the 18–23 age group, while the lowest was observed in participants aged 60 and above. In terms of marital status, single employees reported the highest motivation levels, whereas divorced employees reported the lowest, suggesting the influence of personal life circumstances on motivation.

With respect to education level, participants with below undergraduate education exhibited the highest motivation, and motivation levels declined as the level of education increased. This trend was interpreted as an indication that higher education levels may lead to greater expectations, thereby reducing

perceived motivation. Concerning professional level within the institution, the highest motivation level was found among those working in pre-school education institutions, while the lowest was observed among those working in primary schools. This was attributed to the stronger professional commitment typically exhibited by pre-school educators.

In terms of type of employment, motivation levels were higher among employees with permanent positions in private institutions compared to those in public institutions. Regarding duration of employment at the current institution, the highest motivation level was observed in employees with over 35 years of service, while the lowest was among those with 25–30 years.

When total professional experience was examined in detail, the highest overall motivation level was found in participants with less than one year of experience, and the lowest in those with 10–15 years. This finding was interpreted as an indication that individuals who are new to the profession tend to have higher motivation due to the novelty and enthusiasm associated with starting their careers.

According to the research conducted by Kukanja (2013), the impact of motivational factors on employees varies significantly depending on demographic characteristics. Based on these findings, it is recommended that differentiated motivation strategies be developed according to demographic variables such as age, gender, education level, and work experience in order to enhance employee motivation.

According to the findings of the study conducted by Kotherja and Hamzallari (2022), three key socio-demographic factors were examined in relation to teachers' job performance. The results showed that there was no statistically significant relationship between teachers' performance and their years of experience or seniority in education, indicating that the length of service does not meaningfully influence performance. However, a significant relationship was found between job performance and the education level at which teachers work; those teaching at the primary school level (grades 1–5) demonstrated higher performance than those at the upper secondary level (grades 10–12). Additionally, workplace location was identified as another significant factor, with teachers in rural areas exhibiting higher job performance compared to their urban counterparts, a difference that may be attributed to smaller class sizes in rural settings. In conclusion, while education level taught and workplace location significantly affect teachers' job performance, seniority and experience do not.

Huei, Mansor, & Tat (2014) conducted a study in the education sector and found that demographic variables such as gender and organizational tenure did not have a significant effect on the relationship between motivation and employee performance; in other words, these variables did not play a determining role in performance. The findings of the study indicate that intrinsic motivation is a key factor in enhancing employee performance in the education sector, whereas demographic characteristics play only a limited role in this relationship.

According to the findings of the study conducted by Urošević and Milijić (2012), which examined the relationship between employees' motivation levels and demographic factors, educational level (professional qualification) created significant differences across all dimensions of motivation, while other demographic variables such as age and tenure in the organization did not generally show any significant differences. Specifically, age was observed to have a limited impact only on certain sub-dimensions (safety, respect and status, self-confirmation, and loyalty), but it was not found to be a determining factor in overall motivation perception. Furthermore, organizational tenure had no significant effect on employee motivation, including its sub-dimensions. These findings indicate that education level is the primary demographic variable influencing employee motivation, whereas age and tenure are either limited in their effect or not influential at all.

In conclusion, the relationship between demographic variables and motivation should be taken into consideration. In studies focusing on motivation, it is essential to account for the associations between demographic factors and both overall motivation and its sub-dimensions in order to ensure more accurate and meaningful interpretations.

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