

Workplace motivation in the light of Alderfer's ERG model

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Abstract

Purpose – Contemporary labor-market changes have sharpened the tension between employees' expectations for development, recognition, and flexibility and the incentive choices made by employers. This study aims to demonstrate how Alderfer's ERG (Existence–Relatedness–Growth) model can serve as an analytical tool to identify workplace motivation patterns and relevant points for managerial intervention in a Hungarian sample.

Design/methodology/approach – A quantitative online survey of 145 Hungarian adults with prior work experience assessed 19 motivational factors on a five-point Likert scale, using a non-probability convenience sample. The questionnaire was structured around Alderfer's ERG model, with items grouped into the three ERG dimensions. The analysis employed descriptive statistics, Cronbach's alpha reliability testing, Pearson correlation analysis, and multiple linear regression.

Findings – The three ERG dimensions jointly explained 12.5% of the variance in motivation ($R^2 = 0.125$; $F = 6.741$; $p < 0.001$). Growth needs emerged as the only significant predictor ($\beta = 0.765$; $p = 0.001$), whereas Existence and Relatedness needs were not significant. When pay satisfaction was added to the model, the explained variance increased to 41.5%, making it the dominant predictor.

Originality/value – The study contributes to the limited Hungarian empirical literature on workplace motivation that applies Alderfer's ERG model. Its value lies in using classical need theory as a practical framework to structure current motivational drivers and interpret them for managerial decision-making in a younger, relatively highly educated sample.

Keywords: Alderfer ERG model, motivation, workplace motivation, regression analysis, hierarchy of needs

Paper type: Research Article

1. Introduction

The investigation of workplace motivation is one of the most researched areas of organizational psychology and human resource management, but the importance of the topic has been expanded with new content in the 2020s (Kanfer et al., 2017; Latham & Pinder, 2005). Digitization, hybrid working, labor shortages, and the inflationary environment have both transformed the expectations of employees: in addition to competitive income, flexibility, development opportunities, feedback, and experiencing the meaning of work have been valued (Gagné et al., 2022; Guan & Frenkel, 2023; Kniffin et al., 2021).

However, in the new labor market, it is not self-evident that employers' incentive practices actually support what employees consider important from a motivational perspective. Based on international literature, managerial decisions across several sectors remain strongly driven by extrinsic incentives, whereas employee satisfaction and retention are often explained more by relationship and development factors (Kanapathipillai et al., 2024; Koutalas et al., 2024; Shanmugapriya et al., 2022). This tension makes the use of an analytical framework that can capture material, relational, and self-development needs at the same time particularly justified.

Clayton Alderfer's (1969, 1972) ERG (Existence–Relatedness–Growth) model offers a suitable framework for this and is one of the best operationalized versions of needs-based approaches in higher education.

Accordingly, the first research question of the study focuses on the extent to which the three groups of needs in the ERG model explain motivation at work in the examined sample. Our second research question is which of the three dimensions identifies the strongest point for organizational intervention regarding motivation. Our third research question concerns how the inclusion of pay satisfaction modifies the explanatory power of the ERG dimensions and what implications this has for managerial incentive practice.

At the same time, empirical research suggests that the effects of workplace motivation systems cannot be explained solely through financial incentives. In Hungarian workplace practice, salary and security continue to function as fundamental prerequisites, while factors related to development opportunities, feedback, and autonomy are gaining increasing importance in employee retention, performance, and engagement (Farkas et al., 2013; Székely et al., 2023). This justifies examining which ERG dimensions possess predictive power for employees' self-reported motivation levels.

Based on the literature review, a research gap is evident: domestic empirical studies primarily focus on general motivational factors, satisfaction indicators, or HR practices, while few studies test the independent explanatory power of the three dimensions within the ERG model's theoretical framework on a Hungarian employee sample. Internationally, the ERG model has been applied across multiple sectors; however, within the Central European — and particularly the Hungarian — context, there remains a need for studies that evaluate the need dimensions using reliability, correlation, and regression analyses.

The novelty of the study lies in the fact that the 19 examined motivational factors are not merely ranked descriptively; rather, they are organised into the dimensions of the ERG model and tested for their independent explanatory power. Its theoretical contribution consists of interpreting the role of the Growth dimension within the context of workplace motivation in Hungary, while its practical contribution can be identified in the specification of concrete HR and managerial intervention points for the development of motivational systems.

The structure of the study is as follows: the literature review presents the theoretical background of the ERG model and the relevant empirical studies; this is followed by the presentation of the research questions, the sample, and the statistical methods applied. The Results section discusses the descriptive statistics, correlations, and regression models separately, while the Discussion relates the findings to the previous literature. Finally, the manuscript concludes with a separate Conclusions section summarizing the main findings, the theoretical and practical implications, the limitations of the study, and directions for future research.

2. Literature review

2.1. *The concept and importance of motivation in the workplace*

Motivation comes from the Latin verb „movere” (to move) and denotes the internal state that prompts action, directs and maintains behavior (Pinder, 2008). In the workplace context, motivation is the set of psychological processes that determine the direction, intensity, and duration of an employee's effort (Latham & Pinder, 2005). Motivated employees are more productive, satisfied, and committed organizational members, which directly affects organizational performance and turnover (Dajnoki et al., 2021; Gagné & Deci, 2005).

The importance of motivation research in XXI. continued to grow in the third decade of the century. The transformation of the world of work – digitalization, hybrid working, and generational differences – is redefining employee needs and expectations (Guan & Frenkel, 2023; Kniffin et al., 2021). The multidisciplinary nature of motivation allows us to examine the phenomenon from the viewpoints of psychology, management, sociology, and economics (Farkas et al., 2013; Kanfer et al., 2017). Analyzing the application of self-determination theory (SDT) in the workplace, Guo (2023) used ANOVA and factor analysis to show that satisfying the basic psychological needs of autonomy, competence, and connection significantly increases satisfaction and performance. Peramatzis and Galanakis (2022), in their study reviewing the workplace application of Herzberg's two-factor theory, concluded that internal motivators (recognition, responsibility, development) have a stronger long-term impact on satisfaction than hygiene factors.

2.2. *Maslow's hierarchy of needs and his extended models*

Maslow's (1943, 1962) hierarchy of needs is one of the best-known frameworks of motivation theory, which divides human needs into five levels: physiological needs, safety needs, social needs, self-esteem needs, and self-actualization needs. According to the model's basic assumption, the satisfaction of lower-level needs is necessary for higher-level needs to become a motivating force (Savanya, 2015).

Maslow (1962) recognized the limitations of his model and later supplemented it with an expanded pyramid of eight or nine

elements, which, in addition to the original five levels, also includes cognitive needs (desire for knowledge), aesthetic needs, and transcendence needs (Koltko-Rivera, 2006). Tay and Diener's (2011) empirical research, covering 123 countries and involving 60 865 people, proved that there are basic human needs independent of culture, but their hierarchical order may differ across cultures. As a criticism of Maslow's model, several people have stated that it is not flexible enough: an individual can be motivated by several levels of needs simultaneously, and needs do not necessarily appear in the order of the hierarchy (Wahba & Bridwell, 1976). These criticisms led to the development of Alderfer's ERG model.

2.3. *Alderfer's ERG model*

Clayton Alderfer (1969, 1972) condensed Maslow's hierarchy of needs into three comprehensive categories in the ERG model: Existence, Relatedness, and Growth. The necessities of life refer to financial and physical security, including pay, benefits, and working conditions. Relatedness needs include social interaction, recognition, and a sense of belonging to a community. Developmental needs reflect the desire for self-actualization, a sense of competence, and personal development (Alderfer, 1969; Arnolds & Boshoff, 2002).

The ERG model differs from Maslow's model in three important ways. First, it does not require a strict hierarchical order of needs; an individual can be motivated on several levels simultaneously. Second, it introduces the frustration-regression hypothesis, which holds that if the satisfaction of a higher-level need fails, the individual returns to more intensive satisfaction of a lower-level need. Third, according to the model, the satisfaction of a need does not necessarily reduce its motivational power, especially for developmental needs, where satisfaction may actually strengthen the desire for development (Alderfer, 1972; Caulton, 2012).

Many studies have empirically validated the ERG model. Arnolds and Boshoff's (2002) research showed that ERG dimensions influence job satisfaction to varying degrees across organizational levels. Yang et al. (2011) tested the model in the Chinese cultural context and confirmed its applicability. More recent research (Ozguner & Ozguner, 2014; Raudeliūnienė & Meidutė-Kavaliauskienė, 2014) also applied the model in the context of knowledge management and organizational learning.

Shanmugapriya et al. (2022) used structural equation modeling (SEM/PLS) to examine the relationship between ERG needs and intention to stay at work among physicians in rural health centers in India (N = 318). According to their results, developmental needs had the strongest effect on the intention to stay ($\beta = 0.533$), followed by existence needs ($\beta = 0.416$), whereas social-relational needs showed an inverse effect ($\beta = -0.484$). The model explained 30% of the variance in intention to stay ($R^2 = 0.30$), and the internal reliability of the scale was excellent (Cronbach- $\alpha = 0.933$). This result confirms that developmental needs play a prominent role in workplace motivation and commitment.

Numerous recent empirical studies have confirmed the international applicability of the ERG model. He and Kenikasahmanworakhun (2024) used PLS-SEM analysis in a Beijing technology company (N = 200) to show that developmental needs predict employee effectiveness ($R^2 = 0.514$) and that all three ERG dimensions have a significant effect on employee retention. Máynez Guaderrama et al. (2024) conducted a PLS-SEM study among Mexican manufacturing workers (N = 164) found that the effect of developmental needs is the strongest on satisfaction ($\beta = 0.443$; $p < 0.001$), the effect of relational needs is significant ($\beta = 0.186$; $p < 0.05$), while the effect of existence needs is not significant ($\beta = 0.119$). Koutalas et al. (2024) applied exploratory and confirmatory factor analysis (KMO = 0.948; CFA: CFI = 0.928; RMSEA = 0.059) among employees of the Greek National Health Service (N = 363) and identified three satisfaction factors: trust-commitment, psychological contract, and administrative model-professional relationships, which can be well matched with the ERG categories. Kanapathipillai et al. (2024) examined the effect of telework in the Malaysian banking sector (N = 313) within the framework of the ERG model. They concluded that, primarily, relationship and development needs influence motivation, whereas the growth needs(employee well-being) had no significant effect.

ERG theory is also widely used in the education industry. Xue et al. (2024) investigated the relationship between ERG needs and job satisfaction among Chinese primary school teachers (N = 303): according to their results, existence and development needs significantly influence satisfaction. Xu and Wang (2024) analyzed the professional happiness of rural teachers from the perspective of the ERG model. They found that the joint satisfaction of three levels of needs – existence, relational, and developmental – is necessary for professional satisfaction. Huang (2021) investigated incentive mechanisms based on the ERG theory in social work organizations and concluded that development needs – especially opportunities for further training and advancement – play a key role in talent retention. In their narrative review, Arogundade and Akpa (2023) stated that no motivational theory is universally applicable: organizations need a combination of ERG and other needs theories, taking into account the given cultural and business context.

2.4. *The relationship between the ERG model and other motivational theories*

The ERG model shows close parallels with other content theory approaches. In Herzberg's (1966) two-factor theory, the hygiene factors (salary, working conditions, supervision) largely correspond to the survival and relationship dimensions of the ERG model, while the motivator factors (recognition, responsibility, development) can be linked to development needs (Beller, 2014; Dajnoki et al., 2021). The critical psychological states of Hackman and Oldham's (1976) work characteristics model - the perceived importance of work, the sense of responsibility, and knowledge of results - can also be paralleled with the developmental dimension of the ERG model (Noé, 2019).

The performance, power, and affiliation needs of McClelland's (1961) performance motivation theory also reflect the ERG dimensions: the performance need is related to development, affiliation to relationship needs, and power need to certain aspects of existence needs (Benke, 2018; Arogundade & Akpa, 2023). The ERG model has a complementary relationship with process theories - especially Vroom's (1964) expectation theory and Deci and Ryan's (2000) self-determination theory: while the ERG model identifies „what” the individual requires, process theories explain „how” motivation develops (Benke, 2019; Gagné & Deci, 2005; Guo, 2023).

The applicability of the ERG model was also proven in the educational context. Kamalruzaman et al. (2023) investigated online learning motivation within the ERG framework (N = 99). According to their results, students showed moderate intrinsic goal orientation but high task value (M = 3.8–4.2), which may be linked to developmental needs. Rasdi et al. (2024) analyzed the motivations for learning at home during COVID-19 according to Alderfer's theory: existence needs were represented by flexibility (free schedule, M = 4.00; saving travel costs, M = 3.98), relationship needs were represented by the balance of study and private life, and developmental needs were represented by personal development and independent learning. Both studies confirm that the ERG framework can be used as a tool to examine motivation beyond the traditional workplace environment.

2.5. *Workplace motivation in the domestic context*

In the 2020s, the domestic literature indicates that a complex interpretation of motivation, not just a wage-centered one, has become increasingly important in Hungary as well. Dajnoki et al. (2021) showed that intrinsic motivation is closely related to job satisfaction, based on Herzberg's model and self-determination theory, while Mravíkné Homolya and Sebők (2021) highlighted the combined effect of material and non-material incentives in the pharmacy sector.

At the same time, the Hungarian results fit well with more recent international research, according to which workplace motivation in the current economic and social environment is strongly influenced by flexible work organization, managerial support, development opportunities, and psychological security (Gagné et al., 2022; Guan & Frenkel, 2023; Kanapathipillai et al., 2024). Székely et al. (2023)'s synthesizing study on Hungary also concluded that personalized incentive practices and positive feedback are basic conditions for organizational success, and Fazekasné Batta (2024) highlighted the prominent motivational role of non-material recognition in the higher education environment.

At the same time, there remains a lack of domestic empirical studies in the literature that test a classical theory of needs in a fresh labor market environment using a quantitative model. There is particularly little Hungarian research that applies the ERG model to explain the structure of employee motivation and to isolate factors relevant to managerial decisions. This study aims to narrow this gap.

3. Methodology

3.1. *Sample and data collection*

The research is based on a quantitative approach, within which we conducted an online questionnaire in 2023. The basic population consisted of Hungarian adults aged 18 and over with work experience; respondents who voluntarily completed the questionnaire published on the Google Forms interface were included in the sample via convenience sampling. We excluded those who only had casual or student work experience. The sample consisted of 145 people (N = 145); it is not representative, therefore, the results cannot be generalized to the studied group. The questionnaire was anonymous and did not collect personally identifiable information.

The demographic characteristics of the sample are summarized in Table 1. 47.6% of the respondents were men, and 52.4% were women. The largest proportion (55.9%) of those born between 1990 and 2010 (generations Y and Z) is present. 42.8% of the respondents have a higher education, 57.9% are working, and 32.4% are studying and working. By company size, employees at large companies make up the largest share (37.2%).

Table 1: Demographic characteristics of the sample (N=145)

Typical	Category	n	%
Gender	Male	69	47.6
	Female	76	52.4
Year of birth	1950–1970	17	11.7
	1970–1990	44	30.3
	1990–2010	81	55.9
	2010–	3	2.1
Educational qualification	Elementary school	8	5.5
	Vocational secondary school	23	15.9
	High school	37	25.5
	Technical secondary school	15	10.3
	Tertiary qualification	62	42.8
Company size	Microenterprise (<10)	30	20.7
	Small-sized enterprise (<50)	26	17.9
	Medium-sized enterprise (<250)	35	24.1
	Large-scale enterprise (>250)	54	37.2

Source: Own editing based on questionnaire data collection

3.2. *Structure of the questionnaire and operationalization of the ERG dimensions*

The questionnaire consisted of three parts. The first block measured sociodemographic and workplace characteristics (gender, year of birth, place of residence, education, occupation, working hours, work schedule, position, nature of work, company size, workplace seniority). The second block measured satisfaction with pay (L1), general motivation level (L2), motivational factors considered important (L3), and the importance of workplace motivation (L5) on a five-point Likert scale. The third block also recorded the importance of 19 workplace motivation factors on a five-point Likert scale (L6.1-L6.19). Alderfer's (1969, 1972) ERG model provided the theoretical basis for the questionnaire. When compiling the 19 motivational items, we started from the assumption that workplace incentives can be classified into three groups: existence needs, relationship needs, and development needs. We mapped the items according to this logic and classified them into the dimensions presented in Table 2. The measuring instrument is thus not a mechanical adaptation of a ready-made, standardized ERG scale, but rather a theory-driven, exploratory operationalization, the internal consistency of which was assessed using Cronbach's alpha.

Table 2: Classification of motivational factors into ERG dimensions

ERG-dimension	Motivation factor	Questionnaire item
Existence needs (Existence)	Base salary	L6.1
	Bonus and commission	L6.2
	Non-salary benefits	L6.3
	Workplace environment	L6.8
	Manageable workload	L6.10
	Work-life balance	L6.7
	Safety	L6.19

Table 2 (Continued)

ERG-dimension	Motivation factor	Questionnaire item
Relatedness needs (Relatedness)	Quality of workplace relationships	L6.9
	Recognition and praise	L6.13
	Communication	L6.14
	Quality of management	L6.15
	External recognition of the organization	L6.16
	Organizational values	L6.17
Growth needs (Growth)	Opportunities for growth and learning	L6.4
	Career advancement opportunity	L6.5
	Continuous feedback	L6.6
	Job completeness and meaningfulness	L6.11
	Responsibility	L6.12
	Autonomy	L6.18

Source: Own editing based on Alderfer (1969, 1972)

3.3. Statistical methods

Data analysis was performed using the Python programming language (NumPy, Pandas, SciPy, Statsmodels packages). In the first step, descriptive statistics (mean, standard deviation) were calculated for all Likert items and the three ERG composite variables. Cronbach's alpha was used to assess internal consistency, with an acceptable threshold of $\alpha \geq 0.70$ (Nunnally, 1978). A Pearson's correlation analysis was performed to reveal the association between the variables. To answer the research questions, we ran two multiple linear regression models: in model 1, the three ERG dimensions served as independent variables, and in model 2, we also included satisfaction with salary (L1). The dependent variable in both cases was the self-reported motivation level (L2).

4. Results and Discussion

4.1. Descriptive statistics and reliability

As shown in Table 3 below, the mean motivation level (L2) is 3.30 (standard deviation: 1.27), indicating a medium level of motivation on a five-point scale. The mean satisfaction with pay (L1) is 3.21 (standard deviation: 1.24), and the mean importance of workplace motivation (L5) is 4.52 (standard deviation: 0.97), indicating that the vast majority of respondents consider motivating employees important.

Table 3: Descriptive statistics of motivation-related variables

Variable	Code	Mean	Standard Deviation	Interpretation
Motivation level	L2	3.30	1.27	Indicates a medium level of motivation on a five-point scale.
Satisfaction with earning	L1	3.21	1.24	Reflects a moderate level of satisfaction with pay.
Importance of workplace motivation	L5	4.52	0.97	Indicates that the vast majority of respondents consider employee motivation important.

Source: Own calculation

Table 4 shows that the internal consistency of all three ERG dimensions is acceptable: the Cronbach- α values are 0.749 for existenceneeds, 0.793 for relational needs, and 0.821 for developmental needs. The developmental needs dimension has the highest reliability. In terms of averages, the existenceneeds dimension received the highest rating ($M = 4.10$), followed by relationship needs ($M = 3.99$) and development needs ($M = 3.81$).

The highest-rated individual motivational factors are: base salary ($M = 4.45$), quality of leadership ($M = 4.39$), communication ($M = 4.30$), bonus and commission ($M = 4.26$), and recognition and praise ($M = 4.24$). The lowest-rated were: organization's external recognition ($M = 3.37$), autonomy ($M = 3.43$), organizational values and behavior ($M = 3.52$), and responsibility ($M = 3.59$).

Table 4: Descriptive statistics and internal consistency of ERG dimensions (N=145)

ERG-dimension	Number of items	Average	Standard deviation	Cronbach- α
Existence needs (E)	7	4.10	0.58	0.749
Relatedness needs (R)	6	3.99	0.69	0.793
Growth needs (G)	6	3.81	0.77	0.821

Source: Own calculation

This discrepancy is an important interpretative aspect: respondents rated factors related to pay and leadership highly, yet the regression model showed that the Growth dimension had independent explanatory power. The results, therefore, do not suggest that financial and relational factors are insignificant; rather, they may function as hygiene or baseline conditions, whereas in this sample, development opportunities most strongly differentiate motivational levels.

4.2. Correlation analysis

Table 4 shows the correlation coefficients between the variables. The strongest correlation with the motivation level (L2) is salary satisfaction (L1: $r = 0.601$; $p < 0.001$) and development needs (Growth: $r = 0.342$; $p < 0.001$). Relationship needs show a weaker but significant correlation ($r = 0.220$; $p < 0.01$), while the correlation of existence needs is not significant ($r = 0.159$; $p = 0.056$). Notably, the strong correlations among ERG dimensions ($r = 0.632$ – 0.789) may indicate multicollinearity.

Table 5: Pearson's correlation matrix (N=145)

	E	R	G	L1	L2
Existence need (E)	1,000				
Relatedness needs (R)	0.667***	1,000			
Growth needs (G)	0.632***	0.789***	1,000		
Salary satisfaction (L1)	0.023	0.004	0.210*	1,000	
Motivation level (L2)	0.159	0.220**	0.342***	0.601***	1,000

Source: Own calculation. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

The relatively strong correlations among the ERG dimensions suggest that, in practice, the need categories tend to appear interconnected. From a methodological perspective, this warrants a cautious interpretation of the regression model; from a practical perspective, it indicates that within motivational systems, growth-, relatedness-, and existence-related factors should not be treated in isolation but rather as complementary elements.

4.3. Regression analysis

To answer the research questions, we ran two multiple linear regression models, and the results are summarized in Table 6.

Table 6: Results of multiple linear regression (dependent variable: L2 motivation level)

Variable	Model 1 β	Model 1 p	Model 2 β	Model 2 p
Constant	1.717	0.019	0.049	0.936
Existence need (E)	-0.142	0.547	-0.056	0.774
Relatedness needs (R)	-0.187	0.461	0.233	0.278
Growth needs (G)	0.765	0.001**	0.229	0.231
Salary satisfaction (L1)	–	–	0.583	<0.001***
R^2	0.125		0.415	
Adj. R^2	0.107		0.398	
F	6.741	0.000***	24.794	<0.001***

Source: Own calculation. ** $p < 0.01$; *** $p < 0.001$

In the first model, the ERG dimensions together explain 12.5% of the variance in motivation level ($R^2 = 0.125$; $F(3,141) = 6.741$; $p < 0.001$). The growth needs dimension proved to be the only significant predictor ($\beta = 0.765$; $p = 0.001$), indicating

that a 1-unit increase in the growth needs assessment is associated with a 0.765-unit increase in motivation level. Neither existenceneeds ($\beta = -0.142$; $p = 0.547$) nor relational needs ($\beta = -0.187$; $p = 0.461$) showed a significant effect. Including salary satisfaction in the model significantly increased the model's explanatory power ($R^2 = 0.415$; $F(4,140) = 24.794$; $p < 0.001$). In this model, only salary satisfaction ($\beta = 0.583$; $p < 0.001$) remained a significant predictor, whereas the development needs dimension no longer was ($\beta = 0.229$; $p = 0.231$). This indicates that pay satisfaction partially mediates the relationship between development needs and motivation.

4.4. *Interpretation of main results*

The results show that the ERG model captures key structural elements of workplace motivation in the sample examined, but its explanatory power is moderate ($R^2 = 0.125$). This is in line with the general experience that needs-based models provide a useful framework for interpretation, but the actual motivation level is influenced by many situational, organizational, and individual factors (Kanfer et al., 2017; Latham & Pinder, 2005). The value of the model thus lies primarily in its ability to structurally separate the groups of needs on which the organizational incentive practice can be built.

Among the three ERG dimensions, developmental needs proved to be the strongest predictor in the examined sample. This suggests that development and learning, the possibility of advancement, feedback, responsibility, and autonomy are particularly important motivational factors for younger, less highly educated respondents. The result is consistent with recent international research that emphasizes the important role of the development dimension in explaining employee satisfaction, efficiency, and retention (He & Kenikasahmanworakhun, 2024; Máynez Guaderrama et al., 2024; Shanmugapriya et al., 2022). At the same time, the inclusion of satisfaction with salary significantly increased the model's explanatory power ($R^2 = 0.415$) and overshadowed the independent statistical effect of the development dimension. This suggests that, from a managerial decision-making perspective, salary-related satisfaction and development opportunities are not mutually exclusive but rather interrelated motivational factors. For organizations, it follows that an integrated motivation system is needed instead of purely financial incentives or exclusively development-oriented interventions.

5. Conclusions

5.1. *Theoretical implications*

From a theoretical perspective, the results confirm that the Growth dimension of the ERG model is the most differentiating factor for workplace motivation. This is consistent with international research findings that emphasize the prominent role of intrinsic motivation and development opportunities (Gagné et al., 2022; Guan & Frenkel, 2023). Shanmugapriya et al. (2022) reached similar conclusions among healthcare professionals: in their SEM model, growth needs were the strongest predictor of intention to stay in the workplace ($\beta = 0.533$), which aligns with the present study's finding that the Growth dimension is the only significant predictor of motivation. Koutalas et al. (2024) also demonstrated among employees of the Greek healthcare system that individuals in managerial positions report significantly higher satisfaction ($d = 0.928$) and that work experience is associated with motivational profiles. Székely et al. (2023), in their review study, likewise confirm that the tailored application of growth and recognition-related factors is key to organizational motivation. Huang (2021), in a study conducted in social work organizations, supports the view that growth needs—particularly training and promotion opportunities—are critical for talent retention, which is consistent with the prominent role of the Growth dimension in the present research. The results also indicate that the strong correlations among the ERG dimensions (multicollinearity) act as a moderating factor in the regression model, suggesting that the need dimensions are not entirely independent of one another.

5.2. *Practical implications*

From a practical perspective, the findings highlight that when developing motivational systems, organizations should treat pay satisfaction as a baseline requirement, while considering growth needs as one of the primary drivers of long-term motivation and commitment. Salary, security, and relatedness factors alone did not emerge as significant predictors; however, their absence may weaken the organizational environment in which developmental factors can operate effectively. As concrete HR interventions, it is recommended to enhance the transparency of learning and career pathways, provide regular developmental feedback, implement job enrichment, increase autonomy, and consciously improve managerial communication and recognition practices. At the leadership level, this implies that motivation should not be interpreted solely as a compensation package, but rather as an integral part of daily work design, empowerment, and performance feedback processes.

5.3. *Limitations and future research directions*

The research has several limitations that should be considered in future research. First, convenience sampling and the sample size ($N = 145$) do not allow generalization of the results. Second, the methodological limitations of the self-report questionnaire – social desirability bias, common method variance – may affect the results. Third, the cross-sectional study design does not allow for causal inferences.

For future research, we recommend expanding the sampling - perhaps a longitudinal study focusing on a specific large company -, using validated questionnaires (e.g., the ERG questionnaire of Yang et al., 2011), and exploring mediation and moderation relationships (e.g., the mediating role of pay satisfaction, the moderating effect of organizational culture). In addition, the use of confirmatory factor analysis (CFA) and structural equation modeling (SEM) would refine the validation of the dimensional structure.

5.4. *Overall conclusions*

The main conclusion of the study is that the three dimensions of the ERG model exhibit statistically significant, albeit moderate, explanatory power for employees' self-reported motivation levels. In the examined sample, growth needs were the only significant ERG predictor, thereby reinforcing the importance of learning, advancement, autonomy, responsibility, and feedback in workplace motivation.

From a theoretical perspective, the findings contribute to the empirical application of the ERG model in Hungary by evaluating its need dimensions not only descriptively but also predictively. From a practical perspective, the study suggests that, in addition to ensuring pay satisfaction, particular attention should be given to developing growth opportunities, a feedback culture, and leadership practices that support autonomy when designing motivational systems.

Due to the non-representative convenience sampling, the results cannot be generalized to the entire Hungarian workforce; however, they provide a suitable foundation for future research based on larger samples, as well as for sectoral or international comparative studies. Accordingly, the study offers a useful empirical basis for both Hungarian HR practice and international motivation research.

Conflict of interest:

The authors declare no conflict of interest.

References

- Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance*, 4(2), 142–175. [https://doi.org/10.1016/0030-5073\(69\)90004-X](https://doi.org/10.1016/0030-5073(69)90004-X)
- Alderfer, C. P. (1972). *Existence, relatedness, and growth: Human needs in organizational settings*. Free Press.
- Arnolds, C. A., & Boshoff, C. (2002). Compensation, esteem valence, and job performance: An empirical assessment of Alderfer's ERG theory. *International Journal of Human Resource Management*, 13(4), 697–719. <https://doi.org/10.1080/09585190210125868>
- Arogundade, A. M., & Akpa, V. O. (2023). Alderfer's ERG and McClelland's acquired needs theories – Relevance in today's organization. *Scholars Journal of Economics, Business and Management*, 10(10), 232–239. <https://doi.org/10.36347/sjebm.2023.v10i10.001>
- Beller, B. (2014). Herzberg-féle motivációelmélet vizsgálata egy empirikus kutatás során. *Hadtudományi Szemle*, 7(4), 210–233.
- Benke, M. (2018). *A motiváció és tanulás kapcsolatának vizsgálata: fókuszban az önmeghatározás elmélet* [Doktori értekezés, Pécsi Tudományegyetem].
- Benke, M. (2019). Az önmeghatározás elmélet gyakorlati alkalmazása. *Taylor Gazdálkodás- és Szervezéstudományi Folyóirat*, 10(4), 4–14.
- Caulton, J. R. (2012). The development and use of the theory of ERG: A literature review. *Emerging Leadership Journeys*, 5(1), 2–8.
- Dajnoki, K., Ujhelyi, M., & Filep, R. (2021). Motiváció vizsgálata Herzberg kéttényezős modellje és az öndeterminációs elmélet alapján. *Studia Mundi – Economica*, 8(2), 2–12. <https://doi.org/10.18531/Studia.Mundi.2021.08.02.2-12>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Farkas, F., Jarjabka, Á., Lóránd, B., & Bálint, B. (2013). Munkahelyi motivációk Magyarországon 2013-ban. *Vezetéstudomány – Budapest Management Review*, 44(10), 12–23.
- Fazekasné Batta, R. (2024). *Munkahelyi elismerés vizsgálata a Magyar Agrár- és Élettudományi Egyetemen* [Szakdolgozat, MATE].
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>
- Gagné, M., Parker, S. K., Griffin, M. A., Dunlop, P. D., Knight, C., Klonek, F. E., & Parent-Rochelleau, X. (2022). Understanding and shaping the future of work with self-determination theory. *Nature Reviews Psychology*, 1, 378–392. <https://doi.org/10.1038/s44159-022-00056-w>
- Guan, X., & Frenkel, S. (2023). How perceptions of training impact employee performance: Evidence from two Chinese manufacturing firms. *International Journal of Training and Development*, 27(1), 73–88. <https://doi.org/10.1111/ijtd.12273>
- Guo, M. (2023). Motivation at work: An analysis from the self-determination theory perspective. *SHS Web of Conferences*, 180, 03017. <https://doi.org/10.1051/shsconf/202318003017>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- He, J., & Kenikasahmanworakhun, P. (2024). Empirical analysis of motivational factors from ERG theory on employee effectiveness and retention at Beijing Jinwan Ruicheng Technology Co., Ltd. *Journal of Value Chain Management and Business Strategy*, 3(2), 23–37.
- Herzberg, F. (1966). *Work and the nature of man*. World Publishing Company.
- Huang, C. (2021). Incentive mechanism of social work service organisations based on existence, relatedness and growth (ERG) theory. *Higher Education and Oriental Studies*, 1(1), 58–67.

- Kamalruzaman, N. K. A., Mahmood, W. M. A. W., Ghazali, N. F., Mohamed, M. F., & Rahmat, N. H. (2023). Is there a relationship between existence, relatedness and growth in online learning motivation? *International Journal of Academic Research in Business and Social Sciences*, 13(9), 68–84. <https://doi.org/10.6007/IJARBS/v13-i9/17723>
- Kanapathipillai, K., Choong, K. M., Raman, J., & Gom, R. J. (2024). Remote revolution: Unravelling employee motivation drivers in Malaysia's banking sector through Alderfer's ERG model. *European Journal of Human Resource Management Studies*, 8(2), 47–70. <https://doi.org/10.46827/ejhrms.v8i2.1805>
- Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology*, 102(3), 338–355. <https://doi.org/10.1037/apl0000133>
- Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., ... & Vugt, M. V. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63–77. <https://doi.org/10.1037/amp0000716>
- Koltko-Rivera, M. E. (2006). Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification. *Review of General Psychology*, 10(4), 302–317. <https://doi.org/10.1037/1089-2680.10.4.302>
- Koutalas, E., Kostares, E., Antonakos, I., Paraskevadaki, E., Psaltopoulou, T., Riza, E., Tsiamis, K., Tsakris, A., & Kantzanou, M. (2024). The existence-relatedness-growth theory for job satisfaction and motivation of Greek National Healthcare Service employees in the context of severe financial constraints. *Cureus*, 16(6), e62738. <https://doi.org/10.7759/cureus.62738>
- Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annual Review of Psychology*, 56, 485–516. <https://doi.org/10.1146/annurev.psych.55.090902.142105>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Maslow, A. H. (1962). *Towards a psychology of being*. D. Van Nostrand Company.
- Máynez Guaderrama, A. I., Anaya Gutiérrez, A., Torres Arguelles, V., & Noriega, S. (2024). Motivation and job satisfaction among Mexican workers: Empirical analysis of Alderfer's ERG theory. In Astrae Editorial (Ed.), *Advances in Business and Management Research*. <https://doi.org/10.61728/AE20240523>
- McClelland, D. C. (1961). *The achieving society*. Free Press.
- Mravikné Homolya, B., & Sebők, M. (2021). Munkavállalói elkötelezettség, elégedettség – Empirikus kutatás a közforgalmú gyógyszerárakban. *Vezetéstudomány – Budapest Management Review*, 52(6), 56–70. <https://doi.org/10.14267/VEZTUD.2021.06.05>
- Noé, N. (2019). A dolgozó munkával való elégedettsége. *Emberi Erőforrásmenedzsment*, 38(5), 13–23.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Ozguner, Z., & Ozguner, M. (2014). A managerial point of view on the relationship between of Maslow's hierarchy of needs and Herzberg's dual factor theory. *International Journal of Business and Social Science*, 5(7), 207–215.
- Peramatzis, G., & Galanakis, M. (2022). Herzberg's motivation theory in workplace. *Psychology Research*, 12(12), 971–978. <https://doi.org/10.17265/2159-5542/2022.12.009>
- Pinder, C. C. (2008). *Work motivation in organizational behavior* (2nd ed.). Psychology Press.
- Rasdi, N. N., Rusli, A. N., Zainal Abidin, N. A., & Manssor, N. A. S. (2024). Motivation to study from home: Balancing Alderfer's theory. *International Journal of Academic Research in Business and Social Sciences*, 14(6). <https://doi.org/10.6007/IJARBS/v14-i6/21447>
- Raudeliūnienė, J., & Meidutė-Kavaliauskienė, I. (2014). Analysis of factors motivating human resources in public sector. *Procedia – Social and Behavioral Sciences*, 110, 719–726. <https://doi.org/10.1016/j.sbspro.2013.12.916>

- Savanya, Z. (2015). A Maslow-féle motivációs elmélet szintjeinek megjelenése a Magyar Honvédség tisztjeinek körében. *Hadtudományi Szemle*, 8(4), 375–392.
- Shanmugapriya, J., Mehta, S., & Saxena, T. (2022). Augmentation of Alderfer's ERG needs conducive in intent to stay of rural CHC doctors in Tamilnadu: Structural equation modelling with Smart PLS. *Indian Journal of Public Health Research & Development*, 13(2), 48–56. <https://doi.org/10.37506/ijphrd.v13i2.17892>
- Székely, B., Naárné Tóth, Zs., & Erdeiné Késmárki-Gally, Sz. (2023). Motiváció az egyén és a szervezet szintjén. *Multidiszciplináris Kihívások, Szekszerű Válaszok*, 2023(2). <https://doi.org/10.33565/MKSV.2023.02.08>
- Tay, L., & Diener, E. (2011). Needs and subjective well-being around the world. *Journal of Personality and Social Psychology*, 101(2), 354–365. <https://doi.org/10.1037/a0023779>
- Vroom, V. H. (1964). *Work and motivation*. Wiley.
- Wahba, M. A., & Bridwell, L. G. (1976). Maslow reconsidered: A review of research on the need hierarchy theory. *Organizational Behavior and Human Performance*, 15(2), 212–240. [https://doi.org/10.1016/0030-5073\(76\)90038-6](https://doi.org/10.1016/0030-5073(76)90038-6)
- Xu, C., & Wang, X. (2024). The path to enhancement of rural teachers' professional happiness in county areas – Based on ERG theory perspective. *Advances in Educational Technology and Psychology*, 8(3), 145–151. <https://doi.org/10.23977/aetp.2024.080319>
- Xue, X., Rungruang, P., Rungrueng, P., & Vongchavalitkul, B. (2024). Factors affecting job satisfaction of junior high school teachers using ERG motivation theory. *International Journal of Development Administration Research*, 6(1), 1–12.
- Yang, C. L., Hwang, M., & Chen, Y. C. (2011). An empirical study of the existence, relatedness, and growth (ERG) theory in consumer's selection of mobile value-added services. *African Journal of Business Management*, 5(19), 7885–7898.



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