



TRANSFORMATION OF THE ECONOMY AND SOCIETY: MOTIVATION FOR THE ACHIEVEMENT OF LATVIAN POPULATION

Jelena Badjanova¹, Dzintra Ilisko², Valerijs Dombrovskis³, Svetlana Guseva⁴, Sergejs Capulis⁵, Svetlana Ignatjeva⁶

^{1, 2, 3, 4, 5, 6} Daugavpils University, Daugavpils, Latvia

e-mails: ¹jelena.badjanova@du.lv, ²dzintra.ilisko@du.lv, ³valerijs.dombrovskis@du.lv, ⁴svetlana.guseva@du.lv, ⁵sergejs.capulis@du.lv, ⁶svetlana.ignatjeva@du.lv

Received: 24 Feb. 2023 Accepted: 28 May 2023 Online Published: 27 July 2023

ABSTRACT

Digitalization of Latvian economy is set as a comprehensive and long-term developmental strategy for the society as a whole. The economic crisis caused by the COVID-19 pandemic determined the quantitative values for the economic growth score in order to overcome the existing technological gap with leading countries in technological progress, thus aiming to achieve national goal of mobilizing local national resources. The increasing role of information technology in the modern world objectively determines the necessity of training specialists who are able to improve the efficiency of digitalization process. Therefore, development of professional competences is important for the economic growth of the entire society. This article examines such aspect of a human resource as motivation for success, as an essential component for preparing Latvian specialists in the field of IT technologies.

The topicality of the study is determined by the fact that there is still a lack of studies in which the content of the concept of achievement motivation is clearly defined. In this study, the content of the concept of achievement motivation was justified. It was discovered that two aspects of motivation of Latvian residents have not been studied in Latvia properly: motivation for success and fear of failure. This study summarizes the aspects of forming the content for the achievement motivation. The aim of the research was to explore motivation towards achievements of Latvian population.

The main result of the study: the content of the concept of achievement motivation was determined. It was discovered that there are no statistically significant relationships between the motivation for achievement, age and gender. Methods applied in this study include methods of statistical data analysis: Cronbach's Alpha coefficient that was identified for measuring the reliability and consistency of indicators; Chi-Square tests (χ^2); parametric one-way analysis of variance ANOVA; Pearson correlation coefficient (r -Pearson); Mann-Whitney U - test, Kruskal-Wallis rank-sum H - test.

Key words: motivation, achievement motivation, motivation for failure, motivation for success.

JEL classification: O011, O035, Z10, Z13

Paper type: Research article

Citation: Badjanova, J., Ilisko, Dz., Dombrovskis, V., Guseva, Sv., Capulis, S., Ignatjeva, S. (2023). Transformation of the economy and society: motivation for the achievement of latvian population. *Access to science, business, innovation in the digital economy, ACCESS Press*, 4(3), 419-433, [https://doi.org/10.46656/access.2023.4.3\(7\)](https://doi.org/10.46656/access.2023.4.3(7))

INTRODUCTION

Ministry of Economics of Latvia has issued Economic Development Report of Latvia 2022. The report assesses the situation in the economy and forecasts the prospects for economic development (Ministry of Economics Republic of Latvia, 2022). The competitive advantage of Latvian economy is mainly based on technological factors, namely, improvement of production efficiency and innovation. The work of digital platforms makes



production and exchange processes faster and cheaper, eliminates intermediaries, and significantly increases efficiency and productivity of market.

In the context of already conducted study, the digital economy was defined as a global network of economic and social activities supported by platforms such as the Internet, programming, as well as mobile networks (Ramazanov & Petrova, 2020).

Newly created study programs were also implemented and launched in higher education institutions in Latvia with the aim of training the following specialists: Computer system and Network administrator, computer designer software engineer; Master of natural sciences in computer science; software developers; digital market specialists; specialists in smart economics and innovations and others. (Linde & Petrova, 2018)

Further development of economy depends on the situation in the external environment and reforms (Nenkov et al., 2017; Petrova Buzko & Dyachenko, 2018; Petrova, Tepavicharova & Dikova, 2019), as development of motivation for achievements of the inhabitants of Latvia can be considered as not the least important factor.

However, empirical research of motivation for achievement has been studied separately in different fields for many years, making it difficult to design an integrative vision about the achievement motivation, which affects the result to be achieved by each resident not only in meeting personal needs, but also in professional activities thus raising one's own qualifications (Uteubayev, Petrova & Lyubenova, 2018).

The analyses of theories that describe one's motivation for achievement is chosen as the based for this study, are justified and reveal the concept of motivation for achievement in general and all its aspects as discussed by classical and modern theories of motivation, including approaches and theories of psychological science researchers. The term "motivation" or "motivational phenomenon" was studied by different researchers from different fields in order to define its essence and content with diverse methods. Many scientific theories have a focus on understanding of the content of the concept of motivation as a whole, by differentiating this concept according to separate areas of social psychology.

However, the theory that gives a holistic understanding about the motivation for achievement that has not yet been designed, since people are complex social beings with complex needs and desires.

Researchers argue that people are motivated with the material rewards and are willing to raise their authority and prestige and are motivated to achieve a goal, for example, if they have an interesting job, recognition or a desirable reputation.

This is topical for the authorities to introduce competition as a means to increase people's motivation and performance. Competition is an effective way to increase people's motivation and performance. The empirical literature explores the impact of competition on one's performance, but these studies have been conducted separately and there were no integrated theoretical perspectives that has been offered.

Modern social sciences offer several conceptual definitions about the concept of "achievement motivation." The main theories of achievement motivation and the approaches which were chosen as a bases of this research are as following: Grant & Dweck, 2003; Schunk, 2003; Felzer, 2006; Heckhausen & Heckhausen, 2008; Simpson & Balsam, 2016; etc.



However, in the 21st century, research on the motivation for achievements of Latvian population and its content has not been carried out so extensively.

In Latvia, most of the research has been carried out in the fields of social, educational and organizational psychology. However, it has been concluded as an attempt to "measure" motivation as an attempt to measure the immeasurable.

It should be emphasized that research on motivation of achievements in such practical areas as educational and school psychology, work and organization psychology, clinical and health psychology has also been launched in Latvia.

The study about motivation has been influenced by various psychological theories. Each of these theories underline different sources of motivational needs, and each of them has certain disadvantages. Motivation was also defined as the stimulation of behavior to achieve the goal where motivation is a fundamental element of our interaction with the world and with each other. The concept of motivation should be viewed as the past and current state of the individual in their interaction in order to promote a goal-oriented activity. One of the aspects of motivation behavior is that it is directed towards the achievement of the goal and is rewarding. Thus, motivation, defined as the activation of behavior to achieve a goal is a fundamental characteristic of behavior (Simpson & Balsam, 2016).

Some researchers emphasize that motive involves a conscious satisfaction of needs, taking into account many conditions and factors, as well as tools or means (Grant & Dweck, 2003; Schunk, 2003). In turn, the stimulus (internal impulse) is considered as important and serve as a stimulating and motivating factor that arouses an interest for some type of activity (Grant & Dweck, 2003). Thus, a stimulus is defined as a determinant of the human condition or a phenomenon that in most cases can become a motive. Therefore, motivation is an internal process that involves the organization of psychological and physiological behavior depending on social and economic conditions, as well on internal and external motives. The representatives of cognitive theories believe that behavior is influenced by the environment and self-perception. In comparison to behavioral view of an external stimulus/response, cognitive beliefs tend to be more based on internal and information processing.

Based on the theory of cognitive dissonance developed by Festinger (Kaplan & Maehr, 2007), and Piaget's (Piaget, 2002) views on imbalance, it can be emphasized that individuals will act to resolve contradictions between different beliefs or actions.

Humanistic views about motivation should be attributed to Maslow's (Maslow, 1970) theory of needs, supported by the belief that an individual's behavior is motivated by the needs that are not satisfied. Maslow's approach assumes a hierarchical approach to the structure of needs. Maslow argues that positive emotions, holistic thinking, spiritual values and life goals are important for one's self-actualization.

Based on the content of the positive thinking, this can be concluded that achievement motivation empirically is seen as a tool or means of identifying achievements in order to achieve the goal and to meet one's own needs.



The beliefs mentioned above in the text are consistent with the theory of self-determination developed by Deci and Ryan (Deci & Ryan, 1985; Deci & Ryan, 2000) that focuses on the importance of intrinsic motivation describing human behavior. Similar to Maslow's hierarchical theory, the theory of self-determination is based on natural tendency of an individual to grow and to develop. However, unlike other theories, it does not include any "autopilot" for achievements, but requires active stimulus from the environment.

The main factors that contribute to motivation and development are autonomy, feedback and commitment of competencies. Being motivated means being encouraged to achieve something or persevere in a particular context. This new approach focuses on motivation of achievement, which is defined as the motivation stemming from the desire to achieve the goal.

The latest approach to the development of integrative theories of motivation began at the end of the 20th century, when researchers tried to synthesize all main aspects of motivational theories in the formulation of the concept, including the theory of stimulation, the theory of achievement, the theory of needs, self-efficacy and goal setting. This greatly simplified defining the concept of motivation for achievement by integrating some theories into one whole.

In the sociocultural context, Heckhausen & Heckhausen (Heckhausen & Heckhausen 2008) believe that, unlike respondents of lower social status, respondents with average social status can be characterized by higher orientation towards future. Numerous studies of successful business people revealed their greater sense of purpose in recognizing and accepting future opportunities.

The indicator of motivation is defined by differences in individual abilities. The issue of achievement for the lower social status representatives is more focused around receiving material remuneration. The researchers have found out that only material remuneration for the performance of the task is a motivating factor and respondents choose a moderate risk in making a decision.

Based on the results of the study of Hekhauzen & Heckhausen, the researchers came to the conclusion that a person under certain conditions can be encouraged to act only because of social prestige. In addition, the approach towards completing the task as a goal orientation leads to a quick and focused solution of the task.

At the same time, failure leads to tension, blocks, limitations and obstacles in the process of solving the task. It was discovered that the motivation for achievement is formulated as an attempt to increase or maintain person's abilities in any form of activity at the highest possible level. In turn, performing similar action can lead to both, success and failure.

For explaining instrumental and integrative motivation, Dornyei (Dörnyei, 2005) used the theory of control by Hekhauzen et al. (Heckhausen & Schmalt & Schneider, 1985) and Kuhl's theory of control of activity (Kaplan & Maehr, 2007) in developing a motivational model that includes a temporal dimension.

Motivation was differentiated into three stages, which allows interpreting the integrative orientation and the intensity of motivation (Figure 1).

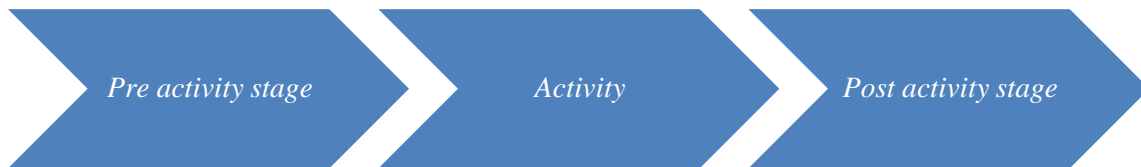


Figure 1. Three stages of motivation (according to Dörnyei, 2005)
Source: Author's illustration

According to Dörnyei (Dörnyei, 2005), external and instrumental motivations are similar. The external focuses on the fact that the reason is beyond the person, while the instrumental one is about the purpose of learning. Internal and integrative motivation also differ, since internal motivation is related to what makes someone feel good, while integrative motivation is related to belonging to a community.

In this context, modern researchers (Kaplan & Maehr, 2007) have defined the concept of motivation as a system of factors that determine the pattern of behavior; as a phenomenon that supports the operational process itself. Thus, it can be emphasized that motivation is the process of psychic formation of a motive, in which the motive is the basis of a certain behavior or action.

These studies allow one to conclude that the content of achievement motivation is complex and is based on the interrelationships, interactions of different beliefs and psychological approaches.

METHODOLOGY

The authors carried out empirical research about the achievement motivation of Latvian population in relation to the age and gender of the Latvian population, which had not been studied before. Theoretical underpinnings and the data obtained in the empirical part of this research allows one to formulate the motivational indicators of Latvian citizens' achievement. The research carried out is a non-experimental and took place from 2021-2022 in the conditions of the real-life environment in different regions of Latvia. The quantitative methodology was applied for the purpose of this study. In total, 160 respondents in the age group from 18 to 68 have participated in this study ($M=37.51$; $SD=14.15$) from different cities and different regions of Latvia. A random sample was used to select the respondents for this study.

The study has four research questions:

- 1) What is the content of the Latvian population's motivation for the achievements?
- 2) Are there differences in motivation for achievement in relation to the age of respondents?
- 3) Are there differences in motivation for achievement for both genders?

In total, 160 ($N=160$ (100%)) of respondents participated in the study: residents of cities in different regions of Latvia in the age range from 18 to 68 years ($M=37.51$; $SD=14.15$), that includes women ($n=101$ (63.1%)) and men ($n=59$ (36.9%)). Based on the results of the survey, the motivation for the achievements of the Latvian population was interpreted for the purpose of this study.



For the selection of respondents to the study, selection of a random sample was applied, after which Latvian residents were included in the sample. The data of the study were collected individually, in direct and indirect contact with respondents, using the e-learning environment.

For the purpose of this study, Rean's survey "motivation for success and fear of failure" was adapted from Ilyin, (Ilyin, 2004, p. 515), which is based on Ehlers' two methodologies, adapted and used to explore: "motivation to avoid failure" and "motivation for success" (Ilyin, 2004, p. 512).

A standardized questionnaire was created, which contains questions and statements with multiple choice questions. As a result, quantitative (textual data) was obtained for interpretation. The survey includes 20 closed-ended questions (claims). The survey is comprised of ordinal scale, or dichotomous scales, which require respondents to answer "yes" or "no" with numerically differentiating answer ratings (1 point for each affirmative answer (statement)), formulated as a choice of two characteristics of the personality trait).

Cronbach's Alpha coefficient was used to assess the reliability and coherence of the survey. Cronbach Alpha factor was also used to measure the confidence limit of reliability of measurement scale as a measure of internal consistency. This study has discovered a coefficient of 0.567, which is acceptable in sociological studies where the number of respondents is less than 500 – 1000 respondents (Cohen & Manion & Morrison, 2018).

In order to compare the averages of the quantitative traits that were measured, parametric one-factor variance analysis of one-way of variance *ANOVA* was used. The study used a statistical criterion: nonparametric test – Chi-Square test (χ^2), which made it possible to assess the level of difference between two qualitative signs.

RESULTS AND DISCUSSION

In this empirical research, the Pearson Correlation Coefficient (r) has been used to measure the Statistic Score between two variables – three thematically related groups that characterize the motivation of the Latvian population and the age of the respondents (Cohen & Manion & Morrison, 2018).

Mann-Whitney's Test, U was applied for a non-parametric comparison of two independent samples (variable: females and males).

Kruskal-Wallis rank-sum test, H was applied to measure more than two independent samples to determine groups that differ statistically significantly from each other (variable: Age).

For all statistical criteria used, p -level (statistically significant level) equal to 0,05 is considered to be the acceptable marginal error of all results observed in the general population. If $0.05 < p < 0.1$, dependencies are considered at the level of statistical trends.

In order to answer the first question of the study: *What is the content of the motivation for the achievements of the inhabitants of Latvia?* - it was necessary to differentiate respondents according to the motivation indicators formulated in the Rean's survey, the collection of the obtained data was carried out in accordance with the key for processing the results included in the survey. Based on the estimated survey data

corresponding to the content of the question sessions, the respondents were divided into three thematically related groups, one of which describe motivation (Figure 2).

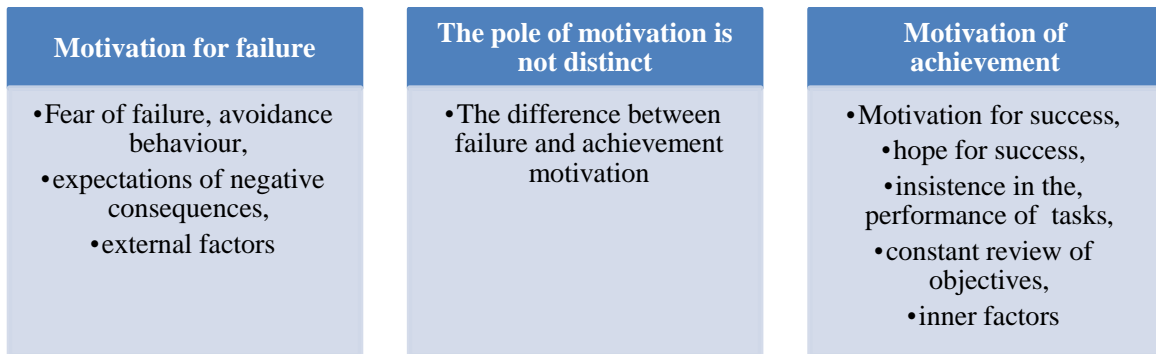


Figure 2. Three thematically joined groups that describe motivation
Source: Author's illustration

The data obtained made it possible to single out three groups:

1. the first group - motivation for failure - includes 6 respondents (3.8%);
2. the second group - the pole of motivation is not distinct - includes 73 respondents (45.6%);
3. the third group – motivation of achievement – includes 81 respondents (50.6%).

In three thematically related groups, which describe the motivation of the Latvian population, different number of respondents were found. It can be concluded that respondents of the first group are motivated for failure. The motivation for failure is based on avoidance and negative expectations (fear of failure).

For respondents of the second group, the motivation pole is not expressed, which indicates a trend of uncertainty. In turn, respondents of the third group are motivated for success (hope for success). Achievement motivation is based on expectations of success and the need for success.

The age of respondents varies from 18 to 68 years against the mean ($M=37.51$; $SD=14.15$).

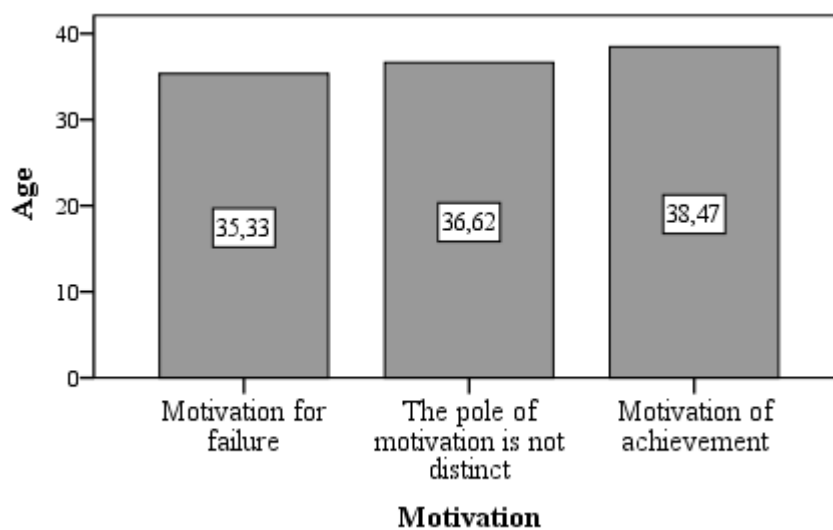


Figure 3. Average age (Mean) of respondents in three thematically related groups
Source: Author's illustration



6 (3.8%) of respondents in the first group (motivation for failure) had an average age of 35 years ($M=35.33$). In the second group (motivation pole not expressed) comprises 73 (45.6%) respondents, the average age is 37 years ($M=36.62$). 81 (50.6%) and the respondents from the third group (achievement motivation) had an average age of 39 years ($M=38.47$). (Figure 3).

The comparison of means significance of age in three thematically related groups, parametric one-way analysis ANOVA was carried out. Despite the data obtained, which indicate to high indicators of the motivation for the achievements among the Latvian population throughout the sample (Figure 3).

According to the results of parametric one-way analysis of variance ANOVA, statistically significant differences between three thematically related groups and age groups does not exist ($F=0.39; p>0.05$) (Table 1).

Table 1. One-way analysis of variance ANOVA according age of respondents ($N=160$)

Three thematic groups that describe motivation	F - criterium	P (significant)
1. Motivation for failure	0.39	0.67
2. The pole of motivation is not distinct		
3. Motivation of achievement		

It was discovered that the older are the respondents, the stronger is a tendency to success that is expressed (the third group describing motivation).

In total, 101 ($n=101$ (63.1%) female respondents and 59 ($n=59$ (36.9%)) male respondents took part in the study. The percentage of male respondents is relatively low. In the first of three thematically related groups (motivation for failure), the number of male respondents reached (33.3%) and the number of female respondents was 4 (66.7%).

In the second group (the motivation pole is not expressed), the number of male respondents was 31 (42.5%) and the number of female respondents was 42 (57.5%). The third group comprises 26 (32.1%) male and 55 (67.9%) female respondents (achievement motivation) (Figure 4).

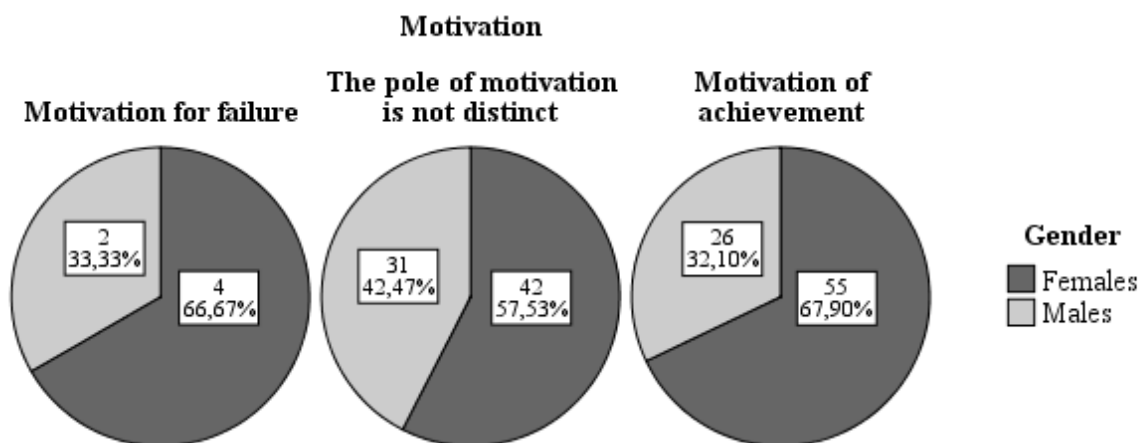


Figure 4. Distribution of respondents of different sex in three thematically related groups

Source: Author's illustration



The level of statistical significance according to Chi-Square test (χ^2) is $p=0.40$ ($p>0.05$). This indicates that there is no statistically significant difference between two qualitative characteristics: motivation of Latvian residents (3 thematically related groups) and gender of respondents.

In this study the quantitative average Mean within each thematically related group was analyzed, which describes the motivation of Latvian population by age and gender.

Pearson's Correlation coefficient (r) between respondents' motivational assessment scores within each thematically related group and age is weak ($r=0.12$; $p=0.12$) and not statistically significant ($p>0.1$).

The average importance of motivation within each thematically related group is 12.8 for male respondents and 13.58 for female respondents (Figure 5).

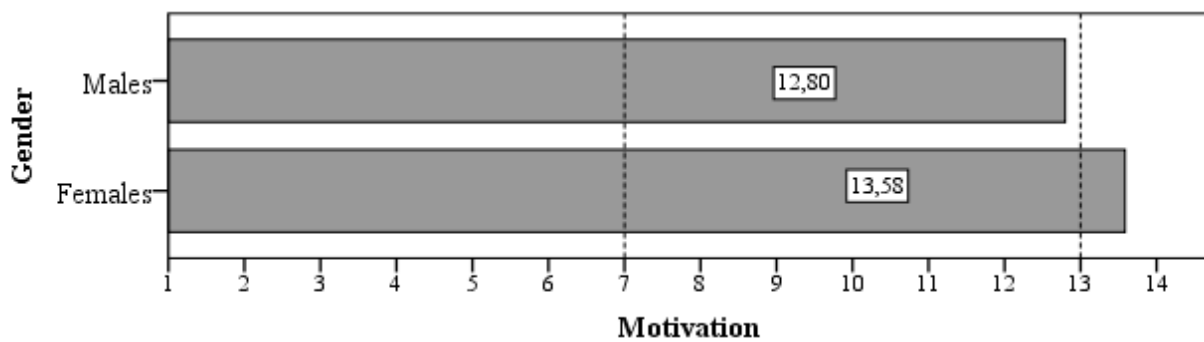


Figure 5. Quantitative Mean of respondents of different sex within each thematically related group
 Source: Author's illustration

According to the t-test criterion, there is no statistically significant differences between gender and motivation ($t=1.66$; $p>0.05$) (Table 2).

Table 2. Mean by t-test criterion between gender and motivation of respondents

Three thematically related groups that describe motivation	T - criterion	P (significant)
1. Motivation for failure	1.66	0.09
2. The pole of motivation is not distinct		
3. Motivation of achievement		

The answer to the second question of the study: *Are there differences in achievement motivation by age of respondents?* The motivation for achievement was measured by the age of the respondents.

There is no single generally accepted classifications of the periodization of the ages of human development. Although there were multiple attempts to create a classification of age-related periodization.

For the purpose of this study, the following characteristics of the age classification by Craig & Baucum (Craig & Baucum, 2005) were taken as a basis:

- *adolescence and young people* - from 12 to 19 years ol,
- *early maturity* - from 20 to 40 years,
- *average maturity* - from 40 to 60 years,
- *late maturity* - from 60 years and above.



Based on the characteristics of Craig's classification of age groups, the following three age groups were singled out:

- 43 young people ($n=43$) (aged 18-25),
- 32 ($n=32$) youngest mature respondents (aged 26-35),
- 85 ($n=85$) mature respondents (36–66 years).

By the use of Kruskal-Wallis rank-sum test, H, a higher average Mean rank of achievement motivation (78.71) was found in the first age group as compared with the second age group Mean rank was (72.02), but was relatively lower than the average rank of achievement motivation of the third age group (Mean rank was 84.6).

In contrast, for the second age group, the average rank of achievement motivation Mean rank is comparatively lower than the average rank of the first and third age groups. But for the third age group, the average rank of achievement motivation is the highest. It can be judged that the older the respondents, the more they are motivated to success and the more strongly expressed is the tendency to success.

However, according to Kruskal-Wallis rank-sum test, H, there were no statistically significant differences between respondents' motivation for achievement and their age ($p>0.05$) (Table 3).

Table 3. Statistic comparison of achievement motivation indicators by age group using the Kruskal-Wallis rank-sum H-test

	Age group from 18 to 25 ($n=43$)	Age group from 26 to 35 ($n=32$)	Age group from 36 to 66 ($n=85$)			
<i>Variable: Motivation of achievement</i>	<i>Mean rank</i>			χ^2	<i>df</i>	<i>p</i>
	78.71	72.02	84.6	1.825	2	0.402

Based on the characteristics of Craig's classification of age groups, the content of the obtained data can be concluded:

1. In the first age group, the basic tasks are related to trying to find oneself in the professional field; with the complex process of building a career.
2. In the second age group, the basic tasks are related to mastering the chosen profession; craving for stability and permanence.
3. In the third age group, the basic tasks relate to the need for immediate action and results, the development of competence, awareness of the real possibilities of one's professional career, the completion of tasks that were not performed until now or that were not performed well enough. When a person is driven by internal motivation, he/she fits more personally into the work, performs it better and reinforces one's identity as a competent employee. This, in turn, reinforces his/her internal motivation for work.



In order to answer to the third question of the study: *Are there differences in achievement motivation by gender of respondents*, the authors have applied the Mann-Whitney Test, U, and it was found that for a female 101 ($n=101$) respondents, the achievement motivation Mean rank (103.55) was higher than the Mean rank for 59 ($n=59$) male respondents' achievement motivation (Mean rank comprising 76.48).

This can be concluded that the motivation for achievement is more pronounced for women rather for men. However, according to Mann-Whitney Test, U, there were no statistically significant differences between respondents' achievement motivation and their gender ($p>0.05$). (Table 4).

Table 4. Comparison of achievement motivation indicators by gender by Mann-Whitney Test, U

	<i>Gender</i>		<i>U - criterion</i>	<i>p</i>
	<i>Females (n=101)</i>	<i>Males (n=59)</i>		
<i>Motivation of achievement</i>	<i>Mean rank</i> 103.55	<i>Mean rank</i> 76.48	2509.5	0.094

CONCLUSION

To answer to the first question of the study: *What is the content of the motivation for the achievements of the inhabitants of Latvia*, the authors have justified a theoretical background on motivation for achievement and its content. Achievement motivation is an attempt to increase or maintain one's abilities in any form of activity at the highest possible level. Performing similar action can lead to both success and failure.

Therefore, this is impossible to determine objectively if a person has a success and or fails over a long period of time.

Based on theoretical insights on the study of the content of motivation and the results obtained in the empirical part of this study, the population of Latvia can be divided into three thematically related groups:

1. a group with a motivation for failure;
2. a group for which the motivation pole is not distinct;
3. a group of individuals with the motivation for achievement.

The first two groups were included in the study to find out how large is a sample who has an achievement motivation. To determine the content of achievement motivation, the intensity of motivation was measured for the pool of the third group, which is the only one of the three thematically related groups where the participants are having an achievement motivation.

This could be concluded that the content of the motivation for the achievements of the inhabitants of Latvia can be described as a tendency to achieve success. The third group respondents do not have a pronounced motivation for success, can be interpreted as a trend.

Those who have a tendency towards success and who are active in achieving goals have been identified. Other inhabitants of Latvia are having less pronounced tendency to succeed and they actively work towards achieving goals.



To answer to the second question of the study: *Are there differences in achievement motivation according to the age of respondents*, this could be concluded that there are no statistically significant differences between the motivation and age for the achievements of Latvian population ($p=0.40$; $p>0.05$).

In order to answer to the third question of the study, *if there are differences in achievement motivation according to a criterion of gender of respondents*. This could be concluded that there are no statistically significant differences between the motivation for the achievements of the Latvian population and gender ($p=0.09$; $p>0.05$).

However, this could be concluded that this study has limitations, since the degree of motivation intensity of respondents' achievements has not been studied in such detail to identify statistically significant differences. Insufficient number of respondents can also be attributed to the limitations of the study. This study has also involved an insufficient number of male respondents.

Author Contributions:

Conceptualization, J.B. and Dz.I; methodology, Sv.I and J.B.; software, Sv.I and J.B.; validation, Sv.I and J.B.; formal analysis, Sv.I and J.B.; resources, J.B. and Dz.I; data curation, J.B. and Dz.I; writing - original draft preparation, J.B. and Dz.I; writing review and editing, J.B. and Dz.I; visualization, Sv.I, V.D, Sv.G. and S.C; supervision, Sv.I, V.D, Sv.G. and S.C.

All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: not applicable

Informed Consent Statement:

Informed consent was obtained from all the participants involved in the study.

Data Availability Statement:

The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy issues.

Conflict of interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

References

- Cohen, L., Manion, L., Morrison, K. (2018). *Research Methods in Education*. // 8 th Edition. Routledge: Taylor & Francis Group. ISBN 9781315456539, 945p (ebook)
- Craig, G., Baucum D. (2002). Psihologija razvitija [*Developmental Psychology*]. SPb.: Peter, 9 edition. ISBN 5-94723-187-5, 940 p (in RU)
- Deci, E.L., Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*, New York, Plenum
- Deci, E. L., Ryan, R. M. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), 68-78 <https://doi.org/10.1037/0003-066X.55.1.68>



- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*, London, Routledge
- Ekonomikas ministrija [Ministry of Economics Republic of Latvia] (2022), “Latvijas ekonomikas attīstības pārskats” [“Economic Development of Latvia Report 2022”], available at: <https://www.em.gov.lv/en/economic-development> (accessed: 15 March 2022)
- Felzers G. (2006). *Motivēšanas veidi [Forms of Motivation]*, Rīga, Zvaigzne, ABC (LV)
- Ghimire, R.P. (2022) Role of pedagogical internship for educational transformation. *Access to science, business, innovation in digital economy*, ACCESS Press, 3(3): 240-252. [https://doi.org/10.46656/access.2022.3.3\(4\)](https://doi.org/10.46656/access.2022.3.3(4))
- Grant, H., Dweck, C. S. (2003). Clarifying achievement goals and their impact. *Journal of personality and social psychology*, 85(3), 541. <https://doi.org/10.1037/0022-3514.85.3.541>
- Heckhausen, J., Heckhausen, H. (2008). Motivation and action: Introduction and overview. In J. Heckhausen & H. Heckhausen (Eds.), *Motivation and action*, (pp. 1–9). Cambridge University Press. <https://doi.org/10.1017/CBO9780511499821.002>
- Heckhausen, H., Schmalt, H. D., & Schneider, K. (1985). *Achievement motivation in perspective*, Orlando F. L., Academic Press
- Ilyin, E.P. (2004). *Psychology of individual differences*. SPb: Peterburg. “Masters of psychology” (in RU)
- Kaplan, A., Maehr, M. L. (2007). The contributions and prospects of goal orientation theory. *Educational Psychology Review*, 19, 141–184. <https://doi.org/10.1023/A:1024750807365>
- Linde, I., Petrova, M. (2018) *The challenges of formalization and modelling of Higher Education Institutions in the 21st century*. CBU International conference proceedings 2018: Innovations in Science and Education, 21.-23.03.2018, pp.303-308, <https://doi.org/10.12955/cbup.v6.1173>
- Maslow, A. (1970). *Motivation and personality* (4th Ed.), New York, Harper & Row
- Nenkov, N., Dyachenko, Yu., Petrova, M., Bondarenko, G., Pustovit, V. (2017). Intelligent and Cognitive Technologies in Education of International Economic Relations Students and Human Resource Development in Enterprises: Methodology in Language. *European Journal of Sustainable Development*, Publisher: European Center of Sustainable Development, ISSN 2239-5938 (print), ISSN 2239-6101(online), Rome, Italy, Vol 6, No.4, pp.353-360, <https://doi.org/10.14207/ejsd.2017.v6n4p353>
- Petrova, M., Buzko, I., Dyachenko, Yu. (2018). *Cognitive, Intelligence Technologies and Economical Foundations of Teaching of International Economical Relations and Tourism*. 17th International Scientific Conference ENGINEERING FOR RURAL DEVELOPMENT, 23.-25.05.2018. Jelgava, Latvia, pp. 1102-1106, <https://doi.org/10.22616/erdev2018.17.n170>
- Petrova, M., Tepavicharova, M., Dikova, L. (2019). Factors for development of the educational and professional qualification profile of the human resources in the machine building sector in Bulgaria. Sheregesh, X International Scientific and Practical Conference “Innovations in Mechanical Engineering” (ISPCIME-2019). MATEC Web of Conferences, EDP Sciences, vol.297 (06015), 2019, DOI: <https://doi.org/10.1051/mateconf/201929706001>
- Piažē, Ž. [Piaget, J.] (2002). *Bērna intelektuālā attīstība [Intellectual motivation of children]*, Rīga, Pētergailis. (LV)
- Ramazanov, S., Petrova, M. (2020). Development management and forecasting in a green innovative economy based on the integral dynamics model in the conditions of «Industry - 4.0». *Access to science, business, innovation in digital economy*, ACCESS Press, 1(1), 9-30. [https://doi.org/10.46656/access.2020.1.1\(1\)](https://doi.org/10.46656/access.2020.1.1(1))
- Schunk, D. H. (2003). Self-efficacy for reading and writing: Influence of modelling, goal setting, and self-evaluation. *Reading and Writing Quarterly*, 19, 159–172. <https://doi.org/10.1080/10573560308219>
- Simpson, E.H., Balsam, P.D. (2016). *Current Top Behavioural Neuroscience*, 27, 1–12. doi:10.1007/7854_2015_402
- Utebayev, T., Petrova M.M., Lyubenova, I. (2018). *Training of qualified specialists in the process of their education at the university: the role of the public-private partnership*. CBU International conference proceedings 2018: Innovations in Science and Education, 21.-23.03.2018, pp.491-495. ISSN 1805-997X (Print), eISSN 1805-9961. <https://doi.org/10.12955/cbup.v6.1203>
- Zagorodnya, A., Dichek, N., Chobitko, N., Voznyk, M., Honchar, L., Petrova, M. (2020). Professional training of the economic sector specialists at higher education institutions of the Republic of Poland and Ukraine: criteria of comparison. *International Journal of Higher Education*, Vol. 9, No. 3, June 2020, pp.139-144, <https://doi.org/10.5430/ijhe.v9n3p139>



About the authors



Jelena BADJANOVA,

Doctor of Pedagogic, Dr. paed., Mg. psych., docent, Faculty of Education and Management Daugavpils University: Daugavpils, Latvia

Research interests: Gender and leadership, sustainable development, holistic approach, personality traits, learning environment, competences in education, management

Researcher ID: AAU-1308-2020

ORCID ID: 0000-0001-8671-8715



Dzintra ILISKO,

Doctor of Philosophy, PhD, professor, Faculty of Education and Management, Institute of Humanities and Social Sciences, Centre of Sustainable Education Daugavpils University: Daugavpils, Latvia

Research interests: Sustainable development, holistic approach, sustainability competences, inclusive education, management

Researcher ID: O-3090-2019

ORCID ID: 0000-0002-2677-6005



Valerijs DOMBROVSKIS,

Doctor of Psychology, Dr. psych., Mg.ed., associate professor, Faculty of Education and Management Daugavpils University: Daugavpils, Latvia

Research interests: Competences in education, pedagogical intervention, professional burnout, professional stress, teacher's lifestyle

Researcher ID: AAK-5079-2020

ORCID ID: 0000-0003-0454-8279



Svetlana GUSEVA,

Doctor of Psychology, Dr. psych., docent, Faculty of Education and Management, Daugavpils University: Daugavpils, Latvia

Research interests: Adaptation of personality, cognitive passiveness, competences in education, higher education, pedagogical intervention

Researcher ID: AAS-6269-2020

ORCID ID: 0000-0001-7755-3066



Sergejs CAPULIS,

Doctor of Pedagogic, Dr. paed., associate professor, Faculty of Education and Management, Daugavpils University: Daugavpils, Latvia

Research interests: Athlete personality, athlete social adaptation, competences in education, humane approach in sports pedagogy, karate-do learning

Researcher ID: AAS-6239-2020

ORCID ID: 0000-0002-7522-3001



Svetlana IGNATJEVA,

Dr.phys., docent, Faculty of Natural Sciences and Mathematics Daugavpils University: Daugavpils, Latvia

Research interests: Development and adaptation of questionnaires, collection, analysis and data processing using data mining methods.

Researcher ID: FBI-8933-2022

ORCID ID: 0000-0002-3608-8409

This work is licensed under the Creative Commons Attribution International License (CC BY)