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SYNOPSIS OF THE DOCTORAL THESIS Modelling of Motivation System to Increase Job Performance of Information Technology Professionals in Latvia.

Developed for doctor's degree in Business Administration (Dr. oec) Doctoral study programme Business Administration

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ANNOTATION

Motivation is one of the core problems of management. Motivation in management is complex approach to personnel management, driven towards creating motives, which make the employee perform better. For contemporary management motivation has become topical and critical issue to some extent. Thanks to the correct and suitable motivation of employees, organization can develop in the conditions of high competition and turbulence of contemporary environment. The key to creating right motivation model is in choosing right motives to drive the employee for productive work. Understanding the gist of motivation is one of the tasks of successful manager. The way to productive work of the employee lies through right motivation. Knowing by which motives employee is driven allows working our effective motivation strategy.

Considering the very fact, this thesis aims to investigate what factors can motivate IT professionals in Latvia to perform better.

Chapter 1 of the thesis discusses the theory of the creative class due to the concept of the creative class and its role in the modern economy. Also it includes theories of motivation in order to analyze various systems of employee motivation, their effectiveness, and their features. In addition, the theoretical part of the thesis includes theories of generation and their implementation for Latvian society.

Chapter 2 is dedicated to shaping of professional identity and professional culture of IT professionals in modern Latvia. Professional affiliation is an important characteristic of the creative class since the profession in many ways determines the very affiliation to a given social group and the lifestyle associated with it.

Chapter 3 analyses the value orientations of IT professionals and their influence on the employee motivation. The employee motivation and the desire to work more productively depend on the value orientations of the employee. They greatly affect the assessment of most life situations, and human behavior, including economic behavior and behavior at work.

Chapter 4 is dedicated to creating a model of employee motivation system for improving job performance of IT professionals. All studies of the creative class show that the effective management of the creative class representatives requires a unique system of motivation. Material incentives do not motivate representatives of the creative class to work in more productive way since the issue of adequate and fair wages is no longer problematic in this professional community. The main goal of this project is to create a model that would link employee motivation, job

performance, value orientations and attitudes, as well as take into account the individual characteristics of professionals (professional position, generational identity, gender, etc.). The developed motivation model gives new insights and discuss different opportunities to improving job performance of IT professionals. Recommendations and suggestions have been put as necessary implications of this model.

Chapter 5 presents the validation of motivation model to increase job performance of IT professionals. Validity of statistical inference was gained with the help of two approaches. Firstly, one more representative online survey was made among IT professionals, recruiting respondents using the same methodology as initial research. Secondly, the series of expert interviews with top management of the organizations, where IT professionals are employees, where managers evaluated relevance of created model.

The Doctoral thesis consists of 175 pages including 25 tables, 27 figures and 8 Appendixes. The list of literature contains 238 sources.

Keywords: creative class, employee motivation, job performance, generations, value orientations, online survey, IT professionals.

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INTRODUCTION

In the age of technological development, the rise of Information Technology (further in the text IT) industry constantly increases. As a part of Global economy, Latvia follows the same patterns of IT sector growth as other countries. According to Central Statistical Bureau, in 2018 99.8% of Latvian companies are computerized, 99.6% have Internet Connection and 63% have a website (Central Statistical Bureau, 2019). For business organizations it is significant to employ well qualified, flexible and creative IT professionals in order to optimize their processes develop and remain competitive. Based on the data from Latvia ICT association ICT sector is top 3 exporters among all sectors in Latvia producing 49% of ICT is for export with 1.1 billion euro ICT product export and 779 million euro ICT service export (Latvian ICT Association, 2020). These numbers demonstrate high competitiveness of Latvian IT professionals and their service are their demand on the world's labor market thanks to their skills and knowledge, abilities to learn fast and update their knowledge in a timely manner. All these facts make companies take into account priorities and needs of well qualified and creative professionals.

Management of organizations, operating in the market of Information Technologies, needs to develop strategies, which allow determining, which motivators work better for IT professionals in their unique conditions. In order to understand the concept of motivation theories for employees performing creative work, it is necessary to briefly observe basic theoretical definitions and directions, which explain, which factors influence productive work and allow increasing job performance

Research topicality

Topicality of the thesis can be explained by the growth of the significance of Information Technologies in contemporary economy and business environment, mobility of IT professionals in terms of location of their place of employment, universality of programming and web languages and significance of making business processes up to date and competitive on the market in matters of and with the help of rapid technological development. IT professionals also differ by character type of work as they are working in various tasks depending on character of business they work for, their projects differ and every new one can be completely different from another. That is why there is a need of special approach for motivating them and improving their job performance. Latvian society highly benefit from the presence of creative IT professionals. In 2017, 17.7 thousand people left Latvia. A large number (14.7 thousand or 83 % of emigrants) of population of Latvia in working age (15-62 years) went abroad. 9.5 thousand of them or 64 % were 20-39 years old. Of the total number of emigrants, 80 % were of working age. Also 62 % of migrants of

working age were 20-39 years old (Central Statistical Bureau of Latvia, 2019). All the above factors highlight the necessity of retaining professionals, especially in ICT sector. Consequently, the problem of their motivation becomes particularly topical.

In the management theories, motivation is observed as a driving force of participation in any kind of activity. Motivation in management is complex approach to personnel management, driven towards creating motives, which make the employee perform better. For contemporary management motivation has become topical and critical issue to some extent. Thanks to the correct and suitable motivation of employees, organization can develop in the conditions of high competition and turbulence of contemporary environment. The key to creating right motivation model is in choosing right motives to drive the employee for productive work. Understanding the gist of motivation is one of the tasks of successful manager. The way to productive work of the employee lies through right motivation. Knowing by which motives employee is driven allows working our effective motivation strategy. All the actions of the employee are based on the needs. Therefore, it is significant to determine the needs of the targeted employee or the group of employees in creating the right motivation.

Research question

The main research question in the thesis is: 'What factors can motivate IT professionals to perform better?'

Objective

The objective of the research is to identify factors that motivate Latvian IT professionals and propose a model to improving job performance for IT professionals.

Tasks

Achieving the objective of the dissertation implies solving the following tasks:

1. Work out theoretical approach to explain value settings connected with employee motivation of creative IT professionals in Latvia.

2. Create theoretical model, which ties life value setting of IT professional with employee motivation and job performance.

3. Select the most appropriate research methodology in mixed-method paradigm for analyzing values, expectations and motivation of creative class IT professionals in Latvia.

4. Explore creative class background in Latvia: education, origin, professional activity.

5. Determine career opportunities, professional expectations and employee motivation of Latvian creative IT professionals.

6. To study Latvian creative IT professionals' preferences to working conditions and system of employee motivation.

7. Create effective model for improving job performance for IT professionals.

Object of the research

The object of the research is Latvian IT professionals.

Subject of the research

Subject of the research is factors affecting the motivation of IT professionals in Latvia.

Hypotheses

To effectively manage IT professionals, it is necessary to understand well the professional identity and culture of this social group. It can be assumed that for the creative employees, professional identity is a particularly important factor, since the profession in many respects determines both belonging to a given social group and the whole lifestyle. In connection with this, one of the objectives of this study is to study the process of formation of professional culture and identity of IT professionals. Therefore, the first hypothesis of the study is:

H1. If IT professionals are considered as a new professional group, they should have specific employee motivation, motives for job performance, success criteria and professional culture (based on Creative Class theory).

H2. Professional values of IT professionals in Latvia differ from the values, which are dominant among other Latvian labor force representatives. (based on Modernization Theory)

H3. Latvian IT professionals are more influenced by motivator factors than by hygiene factors. Factors that motivate IT professionals differ depending to the Generation they belong to.

Research Methods

The empirical part of research is based on mixed method strategy. The research design is built in the way, where qualitative data and results are further enhanced and checked using quantitative methodology to achieve the triangulation of the research and create the motivation model to improve job performance for IT professionals as well as the list of recommendation for management of business organizations for motivating IT professionals to perform better, retaining them in the organization and attracting to new projects.

- 1. Qualitative methods:
- Scientific literature analysis regarding the concept and approaches to motivation, creative class phenomenon, generational and locational aspects of motivation,
- Series of semi-structured interviews with employed IT professionals in order to receive insights in understanding working process, motivation strategy and further create questionnaire for online survey as well as formulate hypotheses. Total of 30 interviews with IT professionals were analyzed. As a modern approach, Quirkos package was used to analyze the interview, with coding and linking procedures carried out.
- 2. Quantitative methods:
- Statistical data on the subject was analyzed,
- Online survey was created, 1200 valid questionnaires filled by IT professionals were found analyzable after quality check. The survey was professionally programmed using Sawtooth software and analyzed with SPPS software.
- Multiple regression modeling
- Factor analysis
- Age-Period-Cohort Analysis
- Validation using T-test for Paired Samples

Research Limitations

• Research object does not include Latvian IT professionals employed currently in other EU countries.

• Research methodology assumes studying and evaluating effectiveness of motivation based on the information gathered from IT professionals, not mentioning point of view of managers of organizations, where these professionals are employed.

Research time

Research period is starting from 2017 to 2019 including selecting appropriate research methodology, statistical data analysis, carrying out a round of semi-structured interviews with IT professionals as well as online survey.

Validation

In order to validate motivation model to improving job performance for IT professionals in Latvia, the mixed method approach was used. Data collection took place in August 2019. The online survey of 350 IT professionals was done in order to validate and evaluate the model and basic characteristics among IT employees. The series of semi structured interviews of 12 top managers, working and managing IT professionals, was done in order to evaluate the model and to compensate research limitation of having on IT professionals in initial sampling. The model was successfully validated with the help of chosen methodology.

Novelty

The novelty of the research is based on the fact that creative class and its motivation have not been yet investigated in Latvia. The phenomenon of creative class was offered by Florida; its influence on economic development has been researched from the many aspects: in connection with regional and urban development (Lorenzen & Andersen, 2009; Asheim, 2009; Bayliss, 2007), policy (O'Connor & Kong, 2009; Wuwei, 2011), migration (Annell & Terman, 2017). Some researchers justify the interconnection between the creative class, creative industries and creative economy (Pratt, 2009; Tschang, 2009, Puchta et al, 2010). However, the problem of motivation of creative class in Latvia yet demands to be researched. While there are researches dedicated to various aspects of employee motivation, they observe this from various points: some - from the point of motivation of employees, who belong to different generations and therefore each generation group needs special approach to be motivated to work (Baltina & Šenfelde, 2016); some - from the point of view of professional orientation, emphasizing that employees need to be motivated based on their professions or occupation (Lasmane et al., 2011). However, there are no researches dedicated to motivation of creative IT professionals in the context of generational approach.

The results of the research bring theoretical novelty and practical contribution into solving the problem of motivation of IT professionals in Latvia.

The Ph.D. thesis consists of a theoretical chapter, three empirical chapters and chapter of validation.

Chapter 1 of the thesis discusses the theory of the creative class due to the concept of the creative class and its role in the modern economy. Also it includes theories of motivation in order to analyze various systems of employee motivation, their effectiveness, and their features. In addition, the theoretical part of the thesis includes theories of generation and their implementation for Latvian society.

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employee motivation. The employee motivation and the desire to work more productively depend on the value orientations of the employee. They greatly affect the assessment of most life situations, and human behavior, including economic behavior and behavior at work.

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Chapter 5 presents the validation of model to improving job performance for IT professionals. Validity of statistical inference was gained with the help of two approaches. Firstly, one more representative online survey was made among IT professionals, recruiting respondents using the same methodology as in the research done in the framework of the thesis. Secondly, the series of expert interviews with top management of the organizations, where IT professionals are employees, where managers evaluated relevance of created model.

Theses for defense

- Elaboration and application of the motivation model to improving job performance for IT professionals in Latvia will allow business organizations increasing work performance of these employees and minimize costs, connected with control and effective material stimulation.
- Application of the motivation model to improving job performance for IT professionals will provide sustainable development of the organization by means of attraction to the organization and further retention of well-qualified IT professionals.
 - 3. Effective management of IT professionals in Latvia is able to increase competitiveness and attractiveness of Latvian ICT market and decrease amount of professionals leaving country.

Approbation

• The Author presented research results on 12 international scientific conferences

• The author has taught a part of the course in Human Resource Management for students in The Russian Presidential Academy of National Economy and Public Administration (RANEPA) and in Economics, Management and Agriconsulting department of Chuvash Agricultural Academy.

• The recommendations provided in the research have been used and implemented in two organizations "Survey Everyone G.", US company, having an IT team based in Latvia and SIA "Survey Agency", Riga.

Author's publications:

1.Gribanova, S. (2020). The Impact of Intrinsic and Extrinsic Motivators onIT professionals. Case of Latvia. The 20th International Scientific ConferenceGlobalization and its Socio-Economic Consequences 2020, Volume 92, Teplice, SlovakRepublic(Accessiblehttps://www.shs-conferences.org/articles/shsconf/pdf/2021/03/shsconf_glob20_04008.pdf)ISI Web ofScience, Scopus

2. Gribanova, S., Ābeltiņa, A. (2020). Age and Gender-Based Differences in Motivation of Creative Employees: Case of IT Professionals in Latvia. 21st International Scientific Conference Economic Science for Rural Development 2020, Jelgava, Latvia pp.225-232 (Accessible

http://www.esaf.llu.lv/sites/esaf/files/files/lapas/Krajums_Nr_54_07.07.2020.pdf) ISI Web of Science

3. Gribanova, S. (2020). Management of Motivation for Millennial IT Professionals in Latvia. *Advances in Economics, Business and Management Research*, Volume 139, International Coneference of Economics, Management and Technologies 2020 (ICEMT 2020), Yalta, Russia pp. 491-498 (Accessible <u>https://www.atlantispress.com/proceedings/icemt-20/125940032</u>) ISI Web of Science

4. Gribanova, S., Ābeltiņa, A. (2020). Peculiarities of Motivating the Creative IT Professionals. *Acta Prosperitatis: Journal of Turiba University*, No. 11. Riga, Latvia pp.57-71 (Accessible <u>https://www.turiba.lv/storage/files/ap-11.pdf</u>)

5. Gribanova, S., Ābeltiņa, A. (2020). Management of creative class. The case of IT professionals in Latvia. The 19th International Scientific Conference Globalization and its Socio-Economic Consequences 2019 – Sustainability in the Global-Knowledge Economy Volume 74, Teplice, Slovak Republic (Accessible <u>https://www.shs-conferences.org/articles/shsconf/pdf/2020/02/shsconf_glob2020_02006.pdf</u>) ISI Web of Science, Scopus

6. Gribanova, S., Ābeltiņa, A. (2019) Job Satisfaction of IT Employees in Latvia: Expectations and Reality. *Economic Annals-XXI*, Volume 178, Issue 7-8. Kiev, Ukraine pp.148-157 (Accessible <u>http://soskin.info/userfiles/file/Economic-Annals-</u>

pdf/DOI/ea-V178-13.pdf) Scopus

7. Gribanova, S., Ābeltiņa, A., Ozols, J. (2019). Evaluation of the Factors Which Influence the Motivation of IT Specialists in Latvia. *International Scientific Conference Society*. Integration. Education. Rezekne, Latvia, pp. 156-168 (Accessible <u>http://journals.ru.lv/index.php/SIE/article/view/3698/3896</u>). ISI Web of Science

8. Gribanova, S., Ābeltiņa, A. (2019). Shaping of the Professional Community in Digital Economy: a Case Study. *International Scientific-Practical Conference Business Cooperation as a Resource of Sustainable Economic Development and Investment Attraction*. Pskov, Russia pp. 217-220 (Accessible <u>https://www.atlantispress.com/proceedings/ispcbc-19/125914508</u>) ISI Web of Science

9. Gribanova, S., Ābeltiņa, A. (2019). Work Motivation and Labor Productivity Growth Among IT Professionals in Contemporary Latvia. *International Scientific Conference Economic Science for Rural Development* 2019, Jelgava, Latvia pp.165-174 (Accessible

http://www.esaf.llu.lv/sites/esaf/files/files/lapas/Latvia_ESRD_52_2019.pdf) ISI Web of Science

10.Gribanova, S., Ābeltiņa, A. (2019). Motivation of IT Specialists. Case ofLatvia. Eurasian Journal of Analytical Chemistry, Volume 13. Malaysia, pp. 472-476(Accessiblehttp://www.eurasianjournals.com/Motivation-of-It-Specialists-Case-of-Latvia,105656,0,2.html) Scopus

 Gribanova, S., Ābeltiņa, A. (2018). Motivation of IT students in contemporary Latvia. *Economic Annals-XXI*, Volume 170, Issue 3-4. Kiev, Ukraine pp.73-78 (Accessible <u>http://soskin.info/userfiles/file/Economic-Annals-pdf/DOI/ea-V170-13.pdf</u>) Scopus

 Грибанова, С. (2018) Особенности Мотивации Специалистов в Области Информационных Технологий в Латвии. *Информационное Общество*, 2018 выпуск
 4-5. Moscow, Russia pp.43-55. Approved by Highest Attestation Commission

 13. Gribanova, S., Ābeltiņa, A. (2018). Emplacement of Creative IT Specialists

 in Latvia. International Scientific Conference Research for Rural Development. Jelgava,

 Latvia
 pp.224-230

 (Accessible

 <u>http://www2.llu.lv/research_conf/proceedings2018_vol_2/docs/LatviaResRuralDev_24th</u>

 _2018_vol2-224-230.pdf)

 ISI Web of Science

14.Gribanova, S., Ābeltiņa, A. (2018). Motivation of Young IT professionals.International Scientific Conference Business and Management 2018. Vilnius, Lithuaniapp.333-342(Accessible)

http://www.bm.vgtu.lt/index.php/verslas/2018/paper/viewFile/458/119)

15. Gribanova, S., Ābeltiņa, A. (2018). Peculiarities of Motivating the Creative IT Professionals. *XIX International Scientific Conference*. Latvia 100: Expectations, Achievements and Challenges. Riga, Latvia pp.88-100 (Accessible <u>http://www.turiba.lv/f/2018/XIX_Conference_2018_FINAL.pdf</u>)

List of Conferences:

1. Report "The Impact of Intrinsic and Extrinsic Motivators on IT professionals. Case of Latvia." International Scientific Conference "Globalization and its socio-economic consequences 2020, Rajecke Teplice, Slovak republic, 2020, 21st October

2. Report "Management of Motivation for Millennial IT Professionals in Latvia" "ICEMT 2020", Yalta, Russia, 2020 19th-21st May

3. Report "Age and Gender Based Differences In Motivation of Creative Employees. Case of IT Professionals in Latvia" 21st International Scientific Conference "Economic Science for Rural Development 2020", Jelgava, Latvia, 2020 12th-15th May

 Report "Peculiarities of Motivating the Creative IT Professionals" XXI International Scientific Conference "Sustainable Economy. Latvian Story", Riga, Latvia, 2020 21st April

5. Report "Management of Creative Class. Case of IT professionals in Latvia" International Scientific Conference "Globalization and its socio-economic consequences 2019. Sustainability in the Global-Knowledge Economy", Rajecke Teplice, Slovak republic, 2019 9th - International Conference of Economics, Management and Technologies 202010th October

 Report "Evaluation of the Factors Which Influence the Motivation of IT Specialists in Latvia" International Scientific Conference "Society. Integration. Education", Rezekne, Latvia, 2019 24th – 25th May

7. Report "Shaping of The Professional Community in Digital Economy: a Case Study" International Scientific-Practical Conference "Business Cooperation as a Resource of Sustainable Economic Development and Investment Attraction", Pskov, Russia 2019 21st-23rd May

8. Report "Work Motivation and Labor Productivity Growth Among IT Professionals in Contemporary Latvia" International Scientific Conference "Economic Science for Rural Development 2019", Jelgava, Latvia 2019 8th-10th May

9. Report "Motivation of IT Specialists. Case of Latvia" International Scientific Conference "International Conference on Multidisciplinary Innovations and Research", Moscow, Russia 2019 20th -21st April

 Report "Emplacement of Creative IT Specialists in Latvia" International Scientific Conference "Research for Rural Development", Jelgava, Latvia 2018 15th – 19th May

11. Report "Motivation of Young IT professionals" International Scientific Conference "Business and Management 2018", Vilnius, Lithuania 2018 3rd May

12. Report "Peculiarities of Motivating the Creative IT Professionals" International Scientific Conference "XIX International Scientific Conference. Latvia 100: Expectations, Achievements and Challenges", Riga, Latvia 2018 17th April

1. THEORETICAL ASPECTS OF MOTIVATION FOR IT PROFESSIONALS IN CONTEXT OF CREATIVE CLASS THEORY AND GENERATION THEORY

This chapter includes the literature regarding essential concepts, definitions and explanations about motivation as a prime step for development of hypotheses. Also, issues encompassing what is IT professionals as a part of creative class, the challenges of motivation for creative class and generational differences among IT professional for adequate understanding research context and contributing to the foundation and essence of the study.

IT Professional as a part of creative class.

Richard Florida (2012) has offered Creative Class Theory and described **creative class** as "scientists and engineers, university professors, poets and novelists, artists, entertainers, actors, designers and architects as well as through leadership of modern society: nonfiction writers, editors, cultural figures, think- tank researchers, analysts and other opinion makers" (Florida, 2012). Also, he included to creative class "creative professionals", are employed in "a wide range of knowledge intensive industries, such as high-tech, financial services, the legal and health care professions, and business management" (Florida, 2012) and these people are engaged in problem-solving tasks, work process optimization and in finding new ways or approaches to work by using their knowledge and education (Florida, 2012).

IT professional, according to Oxford dictionary, is a professionally qualified person, having certain knowledge and skills in the field of information technologies and employed in the position, which requires these skills (programming, web-design, coding, software architecture etc.). This activity is the basic source of income and means of living. So, according to definition of Florida IT professionals is a part of creative class. Florida describes employed people, they still have tasks and obligations but, thanks to their ability to create, they give organizations ideas to develop. They become the key to success. From the Florida findings, the economy is not based on raw materials or any of the supply issues anymore emphasizing that creativity has become this raw material, which guarantees further development (Florida, 2012).

Labor market for creative highly skilled professionals faces the deficit. It makes the mobility of creative IT professionals more intense and requires local companies to develop strategies of retaining creative class in IT industry within the country. Innovational economy demands creative class as much, as creative class seeks innovational economy. Latvia also keeps paying attention to developing creativity and innovations within the economic system.

Innovational economy demands creative class as much, as creative class seeks innovational economy. Latvia also keeps paying attention to developing creativity and innovations within the economic system. In 2018, Latvia was ranked 33-d by the Global Innovation Index (Global Innovation Index, 2019). According to the research results, Latvia has already moved to postindustrial stage of development in 1990 (Inglehart, Welzel, 2005). That is why it can be concluded that post-materialistic values are dominant especially among young people (Inglehart, Welzel, 2005). This is very important to mention such post-materialistic values as personal autonomy and freedom of choice can be tied to motivation for work.

Analysis of current situation in Latvia shows that measures for retaining and attracting IT professionals are required. Developing creative class attracting policy should be aimed on boosting innovation and creativity in Latvian society. From the research prospective, retaining and attracting creative class is a first step in developing creative society. The whole process should look as a process with inherent attributes.



Fig. 1. Process of Forming Creative Society

Source: Constructed by the author

It is clear that all the elements of creative society are interconnected. According to Richards and Wilson idea creativity can be developed through three directions (Richards and Wilson, 2007):

• Creative hardware – infrastructure/spaces for creative production, consumption and presumption

• Creative software – atmosphere/ambience, fashion, quality of life, perceived diversity, 'vibrancy'

• Creative orgware – sectors, industries, clusters, policies, governance.

Simultaneous improvements of all wares will help to build creative society within the country.

Taking into account that creative class employees are a part of the personnel of the organization and that the development of the organization depends on effective HR management and motivation the author can say that the work with creative class needs to be considered as a very important part of this process. Especially considering the fact that by employing creative class the organization can benefit on innovative ideas, new approaches and methods creative class employees bring.

Creative class is the most important resource of any society for development and prosperity. IT sphere and IT professionals in other spheres create innovations and technologies, which are very crucial for a creative society. IT is a relatively new sphere, and the mechanisms of the organization of the main processes there are not studied yet well enough. Moreover, IT professionals may have a specific value system at least because they are working in a sphere, which demands a constant professional growth. The thesis is devoted to the systems of motivation in general and specifically – for creative IT professionals. It discussed whether IT professionals need a different approach to their motivation and if so, what it needs to be focused on.

Employee motivation

Motivation is multidimensional definition. Numerous research papers demonstrate that except satisfaction from work, contemporary professional employees, including IT professionals, are driven towards achieving work-life balance (Idrees et al. 2017, Zhao 2018). These findings allow assuming that contemporary professionals are motivated with various factors their job offers, and sometimes these factors are not obvious.

The personnel motivation system includes both material and non-material stimulation. Motivating process is a way of influence on employee stimulation on evoking particular motives in him. Motivation can be considered as a core of personnel management. On the Figure 2., the elements of internal organizational environment, which determine motivation system, are demonstrated.



Fig. 2. Elements of internal environment of the organization, through which the employee motivation can be realized

Source: Constructed by the author

Motivation is a process of conscious human choice of one or another type of behavior, defined by synergy of influencing extrinsic (stimuli) and intrinsic (motives) factors. Motivation makes human behavior target oriented. The goal is to remove the condition of need in anything. Reaching the goal leads to minimization or disappearance of the tension. Reaching the goal restores physical and psychological balance. Basic functions of motivation are call to action, direction of action and support of behavior.

Motivation as a strategy of overcoming labor crisis can be described as a long-term influence on employee in order to change value setting and interests according to current goals as well as shaping corresponding motivational core and development of labor potential based on it.

Stimulation as tactics of problem solving is oriented towards actual structure of value setting and interests of the employee and on fuller realization of working potential.

Motivation and stimulation as methods of employee management are contradictive by their direction: motivation is driven towards changing current condition; stimulation is driven towards fixing it, but at the same time these they complement each other: it is impossible to survive crisis

or high competition conditions without changing or updating motivation strategy. Motivation and stimulation processes not only can match, reinforce each other, but also contradict. For instance, monetary income growth along with absence of appropriate material coverage not only causes lack of employee motivation but also minimizes it. Any reformation of labor stimulating factors, if becoming a goal in itself, will not bring desired results when not taking into account human reaction. Stimulation needs to correspond with needs, interests and abilities of the employee (Abner, Udo, 2019). That means that stimulation mechanism needs to correspond with employee motivation mechanism. In some cases, it is material stimulation and it play significant part (Pembi, 2019), but this is not the only type to be considered. Human needs become a subjective basis, intrinsic source of motivation. Objective basis of motivation is extrinsic reality for the exact subject, any achievement human considered, as an aim has become the matter of his need.

There are various levels and ways of motivation, which play significant part in determination how strong employee is motivated (Ryan & Deci, 2000). For example, employees can have high motivation in completing certain project, connected with gaining professionals skills, which are necessary to finish the task successfully. However, part of this group can be additionally motivated by the willingness to demonstrate to their colleagues that they are qualified enough, that they have enough knowledge and skills, to complete challenging projects. Additionally, another group foresees the accomplishment of the task as an opportunity for promotion and salary increase as the strongest motivator. Despite the fact that both these groups are motivated, they are motivated by different factors. It is significant to understand which factors define the motivation of the employees and the reasons of it; which factors can become driving force for more productive performance and which interfering activities from managers can become necessary for solving internal tasks of the companies, which employ IT professionals.

Motivation includes not only intrinsic and extrinsic characteristics, but it also depends on expectation of the employee personally. Despite the fact that sometimes extrinsic and intrinsic motivators can be observed and completely different approaches, these two categories can definitely be used in order to create effective working environment

Extrinsic motivation can exist in two shapes: administrative and economic. It can be determined by a meaning of stimulation. Administrative motivation assumes doing job by order, command meaning by direct constraint with corresponding sanctions and penalties for breaking definite norms. It is possible to add to administrative motivation such types of stimulation as requests and suggestion. Economic motivation is carried out by stimulating using economic stimuli.

Intrinsic motivation is determined by contents and importance of work, if this work is interesting for employee, if it allows to realize his natural inclines and abilities, it becomes a strong motive to action, sincere and productive work on its own. Human has innate need of functioning as organism: see, hear, feel and act by reaching a goal. These needs lead to activity not only for specific result but also for a process itself. The source of intrinsic motivation is not outside the activity but inside it. There needs to be a synergy of both types of motivation to influence employee satisfaction (Abu-Shanab, Subaih, 2019).

Concepts of intrinsic and extrinsic motivators are significant not only for individual job performance, but also they play important part and influence job performance of the whole team, working on a project and organization in general. The research is also focused on the way of how to increase job performance among IT professionals.

Job performance in this research is understood as the work related activities expected of an employee and how well those activities were executed. Many business personnel directors assess the job performance of each employee on an annual or quarterly basis in order to help them identify suggested areas for improvement (Business Dictionary). It is understood as definite quality and competitive ability of the product IT professionals create in definite timeframe. That is why they require special attention and research That is why they require special attention and research. Creating of attractive job positions, which correspond with values of the employees and are created for autonomy, self-development, personal and professional growth, is of special significance for companies, working in IT. This market is characterized by high demand for professionals, and company success depends on the willingness of these professionals to cooperate to higher extent.

Many researchers have already come to the conclusion that quantitative measurement of labor productivity for intellectuals, and especially for creative, employees is not appropriate to certain extent (Cote, Miners, 2006, Caillier, 2010, Davar, 2012, Sykes et al, 2015). There is a need for another approach. IT professionals can spend hours thinking on the solution of a certain task or problem, developing code construction in their mind, not producing anything at the very moment. Expert in the management field Peter Drucker (Drucker, 2008) wrote that knowledge economy requires that the responsibility for labor productivity needs to be in the hands of the employees. Employees of knowledge work, creative employees need to have an opportunity to manage themselves to certain extent; they need to have certain autonomy and motivation in solving the task, which company requires to be solved at their best and in a certain timeframe. Creative employees, including IT professionals, need to be involved in a process; they need to take part in determination of success. Implementation of the projects needs to work for boosting their professional significance (Christen, Soberman, 2006). Standard approach in measuring

productivity in such case does not work. Therefore when talking about and evaluating work of creative workers it is more appropriate to speak about job performance, not labor productivity and job performance is evaluated by managers based on the type of work and type of tasks employee needs to do (Luther, 2000).

There are many interconnected factors influencing person's motivation. The algorithm of motivation was proposed in Rheinberg's schema (Vollmeyer et al, 2013).

Source: Vollmeyer, R., Jenderek, K., & Tozman, T. (2013). How Different Motivational Aspects Can Affect Moral Behavior. Handbook of Moral Motivation.

Basic approach to employee motivation names three main motivators: opportunity for achievement, recognition for work and challenging nature of work (Williams, 2003). However, this approach is too simplified; it does not regard such factors as employee's values, needs, generational and industrial aspects and many others.

The variety if motivation theories prove that the concept of motivation can't be researched with a single approach. Numerous studies of motivation show that motivation is a flexible changing substance as the results of one research can rarely be replicated in different environment or even at the same environment a few years later. However, exploring motivation theories let emphasize some patterns and explain phenomena.

Generational differences in motivation.

Generation is a complicated interdisciplinary concept that is shaped by multiple factors. Under the classic definition of Karl Mannheim, generations "endow the individuals sharing in them with a common location in the social and historical process, and thereby limit them to a specific range of potential experience, predisposing them for a certain characteristic mode of thought and experience, and a characteristic type of historically relevant action" (Mannheim, 1952).

According to the commonly used typology, there are four generations in Western society that are currently included into labor force (The Center for Generational Kinetics, 2018):

- Baby Boomers, who were born between 1946 and 1964;
- Generation X, born between 1965 and 1976;
- Generation Y or Millennials that were born between 1977 and 1995
- Generation Z (Centennials, iGen) born in 1996 or later.

However, due to economic, political and social factors size and gender composition of these generations differs in different countries. Contemporary researchers already underlined the fact that the generation pattern can differ from country to country depending on main historic events and conditions which shaped generations (Bejtkovský, 2016).

The comparison of Latvia with Western countries showed that it does not follow the same patterns as they do. For example, share of people 25-40 years old that belong to Generation Y is much higher than in other countries. On the contrary share of the Millenials is much lower. At the same time gender disparity is strongly pronounces as male prevail in every generation except Baby Boomers. This is explained by lower life expectancy of men in Latvia.

Generational aspect has been widely studied in the Western European countries and the USA. According to the generic approach most of creative IT professionals studied in current thesis belong to Generation Y as they were born between 1980 and 2000.

Studies conducted by PricewaterhouseCoopers and Karsh, B. & Templin, C showed that work attitude of Generation Y specialists differ from work attitude of previous generations. They have different values, preferences and motives.

Table 1.

Work characteristics	s of Generation Y
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Assets	Liabilities	Preferences
Goal-oriented	Dislike inferior work	Flexible work hours
Positive approach	Limited ability to deal with	Opportunity to work outside
	difficult people	the office
Superb work with	Lack of experience	Work/life balance
technologies		
Able to collaborate	Self-confidence not	Work for dynamic
	corresponding to skills	organization
Multicultural awareness	Impatience	Value professional
		development over financial
		rewards

Source: Constructed by the author based on Karsh, B. & Templin, C. (2013) and PwC (2011)

Other differences of Generation Y from other Generations include their acceptance of changes (Hart, Brossard, 2002) and relying on technology (Welsh, Brazina, 2010). Generation Y is more confident, with a can-do attitude (Elam et al, 2007).

New-coming generations are always being the agents of changes that is why the modernization of cultures is so closely connected with the changes of generations.

Shaping of postindustrial society is the result of the major change when people have to interact with other people more than they interact with machines in mechanical environment. They spend their time communicating with others, sharing knowledge, analyzing information and providing different types of service. Digitalization provided business with opportunity of allowing many routine tasks being performed with the help of computers or artificial intelligence, so employees need to use their knowledge, imagination and communicational skills in everyday life a lot more than during industrialization stage (Inglehart, Welzel, 2005).

To sum up, in postindustrial stage people are more economically secure, intellectually autonomous and socially independent so the freedom of choice becomes more important than obeying strict rules like during industrial stage. Survival values shift towards self-expression values. It is important to note that rising self-expression values do not completely replace material needs and desires. Professionals are still demanding high salaries but they are also interested in flexible working schedule, challenging and complex tasks, and opportunities to exchange and receive new knowledge and skills. Consumers still buy goods but they focus on eco-friendly, cruelty-free products, thinking of environment. People are searching unusual experience by visiting exotic restaurants and travelling to interesting places (Inglehart, Welzel, 2005).

In the framework of this research the author focuses on three main generations on the labor market which exclude generation Z representatives as they just started or still choosing their professionals path. Some researchers state that the representatives of generation Z need absolutely different approach to motivation as they are not alike any other generation before (Gaidhani, Arora, Sharma, 2019). However, it is worth to mention that based on the data gathered in Deloitte Global Millennial Survey 2019, which included not only respondents belonging to Millennial generation from 42 countries but also representatives of generation Z, these two latest generations have common traits in terms of expectation from their employers, in terms of their lifestyle and value setting patterns (Deloitte Global Millennial Survey 2019). Therefore, finding the optimal way of management of motivation of IT professionals belonging to various generations will be later useful for creating optimal motivation model of representatives of generation Z when they enter labor market. Herzberg's approach was used in the research of Kultalahti & Viitala to study positive and negative factors for Generation Y. Based on this research hygiene factors and motivators for the Millennials can be defined.

The research of young knowledge workers motivation performed by Kubátová & Kukelková showed that the main factors motivating Generation Y creative educated people are the following in descending order: Atmosphere in the workplace, Interesting scope of work, Opportunity for professional development, Opportunity for career growth, Work environment. Only after those non-financial factors extraordinary financial reward for getting the job done follows (Kubátová, Kukelková, 2014; Medryk, 2016). Barford and Hester research figures out that for Generation Y employees such factors as advancement potential and free time are much more important than for Generation X employees and Baby Boomers (Barford, Hester, 2011). Along with this Generation Y highly value a sense of accomplishment, and world peace (Murphy et al, 2010). Millennials demand feedback, 44, 5% of them wants to receive feedback as often as its possible (Lehky, 2011).

Table 2.

Positive and negative factors influencing motivation of Generation Y

Positive factors	Negative factors
New, interesting work project	Working on the same task for too long, feelings

	of stagnation
Nice work community	Poor atmosphere at work
Possibility of growth and development	Working at the expense of private life
Flexibility at work	Poor supervisor performance
Work-life balance	Inflexibility in the workplace
Happiness in private life	Feelings of not being respected or heard
Sufficient challenges, but a not overly	Negative impacts on private life (e.g. lack of
demanding job	sleep, not enough time for hobbies)
Everything is fine at home	Not getting help when needed
	Vague job

Source: Kultalahti, S., Viitala, R.L. (2014). Sufficient challenges and a weekend ahead – Generation Y describing motivation at work. Journal of Organizational Change Management

Modern Latvian society developed under the influence of different inputs then traditional Western society mainly because of prevailing command system during the time of Soviet regime, which was characterized by the denial of private property, centralized management and inability of economic subjects to take independent decisions. Later, after USSR ceased to exist Latvia faced new epoch, the transition period when all previous systems of administration and economic relations were lost and market economy was not established yet. This period was characterized by high volatility along with high possibilities.

Latvian citizens that were impacted by these comprehensive changes formed different types of Generations than those formed in the countries of Western Europe and the USA. According to the research of Apsalone et al. devoted to distinguishing generations in Latvia, current Latvian labor force can be divided into the following generations: Post-War Generation, Early Generation X, Transition Generation and the Millennials (Apsalone et al., 2016). The duration of these generations corresponds with the factors that caused their appearance.

Generations	Period of time	Main events and processes that influenced the		
	of birth	appearance of the generation		
Post-War Generation	1945-1960	World War II, communist ideology, hardship and		
		privation, fast technological development		
Early Generation X	1961-1970	Khrushchev Thaw, economic stagnation and economic		
		inefficiency, deficit, influence of Western culture		
Transition	1971-1984	Declaration of independence of Latvia after the collapse		
Generation		of the Soviet Union, open borders, transition from		
		command to market economy, joining NATO and EU		
Millennials	1985-now days	Globalization, market economy, informational		
		technologies, total adaptation to the Western society,		
		joining the EU		

Generations in Latvia

Source: Constructed by the author based on Apsalone et al, 2016

Generational approach applied in the thesis reflects basic changes that happened in Latvian society. This paper studies the management of motivation of IT professionals in Latvia and offers the motivation model to improve job performance for IT professionals, which suits these professionals the best.

2. IT PROFESSIONAL EVALUATION FOR DEVELOPING MOTIVATION MODEL TO IMPROVE JOB PERFORMANCE.

This chapter takes a step ahead for developing the motivation model to improve job performance for IT professionals as an outcome of research conducted for the study.

Research Design.

The research design of the current thesis is mixed-method design of a combination of qualitative and quantitative methods in one research. The main goal of the mixed method research design is that the combination of qualitative and quantitative approaches provides better interpretation and understanding of the research problem and complex phenomena than any of this approach separately (Creswell & Plano Clark, 2007).

There are two ways of realization of mixed method strategy: simultaneous (when qualitative and quantitative parts are done in parallel and the comparison of the results is done afterwards) and consequential (when the qualitative part goes first and then its results are elaborated and enhanced in the quantitative part). Consequential realization of qualitative and quantitative methods allows spreading results on the full coverage.

In the research of management of motivation of IT professionals in Latvia the consequential application of mixed method strategy was used. During the qualitative part, the series of 30 semistructures interviews was performed throughout the IT professionals belonging to three generations. After the interview part was completed the assumptions regarding the employee motivation for IT professionals and management of job performance for IT professionals were formulated. These results helped in formulating online questionnaire in appropriate way, and check the assumptions made with the results of online survey (1200 respondents) and apply the results on entire professional community.

Additionally, the usage of mixed-method strategy in the research allowed gathering information about community of IT professionals, which could not be gathered by means of exclusively qualitative or quantitative methods. In such a way, if the research was only done by means of online survey, it was not possible to determine generation differences connected with career directions. While if the research included only interviews with IT professionals, it would not be possible to determine connections between employee motivation, value settings and motives to increasing job performance. Fig.4 demonstrates research design

Fig. 4. Research Design

Source: Constructed by the author

Results of Qualitative Part. Professional Culture of IT Professionals in Latvia.

The search for respondents for the interview was carried out in two stages. For the first stage, the respondents who work in the field of IT technologies were selected using the snowball method, and were invited to take part in the study. During the second stage, a sample of maximum variation was selected from the prior available respondents. A sample of maximum variation is a goaloriented sample, aimed at describing and encompassing the central aspects that cover the majority of all cases. This type of sampling for qualitative research suggests that the principle of maximum heterogeneity is observed when used.

In this case, the sample was formed in such a way that it represented different age groups, professional groups, geographical diversity, and different representations of gender. Because of the filters used, a sample of 30 people was created: 10 people of ages 20 to 30 years old, 10 people from 30 to 40 years old, and 10 people over 40 years of age. The sample included representatives of super professionals (5 individuals), creative workers (18 individuals), and technical professionals (7 individuals). There was a total of 25 males and 5 females in the sample.

In this project, the Quirkos package was used to analyze the interview, with coding and linking procedures carried out. Codes were formed based on the objectives of the study. As a result, the following codes were included in the analysis: "education", "past work", "good work", "why do you like the work", "what prevents work", "change work", "where you are in 5 years", "learn new things about the profession", "salary", "motivate to work", "effective threats." During text analysis, these codes were combined into the following categories: "Career," "Work," "Social Position," "Job Satisfaction," "Management Efficiency," and "Strong employee motivation." Categories were built and analyzed separately by age groups and for the entire sample. Further, with the help of the categories "Career," "Work," and "Social Position," the concept of "Professional Identity" was reconstructed, and the categories "Job Satisfaction," "Effectiveness of Management," "Strong employee motivation" allowed forming the concept of "Professional Culture.

The results of the study show that the professional community of IT professionals in Latvia is not homogeneous. Differences related to age entail differences related to professional experience, ambition, and motivation.

Young professionals, who came to the profession after many years of fascination with computer equipment, games, programming, etc., often do not have a professional education and do not want to waste time on getting it. They independently master the necessary skills, often work as freelancers, value freedom, and strive to create something unique.

The middle generation of professionals who came to this profession, having worked for several years in other areas, appreciate the financial opportunities and independence of actions. They do not want to work as freelancers; they value stability, they are ready to change in order to maintain their professional position, but they do not seek to lead.

The older generation of IT professionals, who began to work in the IT technology market almost from the very beginning of its formation, has experienced crises and the difficult times of the market. They value creativity, progress, and the ability to solve complex tasks in this profession. They do not seek to have an administrative career; they prefer to work where they have the best professional results and where they feel they are real professionals.

Thus, the results of the study suggest that the most capable and ambitious young IT professionals have left or want to leave Latvia. It is obvious that those who have already made such a decision are difficult to convince to stay, for example, by offering them something that would force them to refuse emigration. But those who remained in Latvia see certain advantages in their decision and are not ready to give them up.

Middle-aged and older professionals have a strong attachment to the country and the place where they live. This attachment is determined by value orientations, professional opportunities, and personal circumstances. All this creates a situation in the Latvian IT market, where local companies do not have to compete with Western companies for employees. Latvian companies only compete with each other. And in this competition, the person who better understands the motivation of IT professionals, their expectations from work and their criteria for personal success, wins.

The research results allow making a conclusion that the increasing of job performance of IT professionals depends at least on three parameters:

- 1. Professional position
- 2. Belongingness to definite age group
- 3. Employee motivation.

The hypothesis that IT professionals in Latvia are considered as a new professional group is confirmed and it is assumed that motivation of IT professionals is linked to their value settings. In the next chapter is dedicated to value settings of IT professionals and hypothesis that these values differ from another labor force representatives testing.

Value Orientations of IT Professionals

One of the main objectives for this study was to analyze the value orientations of IT professionals. Value orientations affect the assessment of most life situations and they largely determine human behavior, including economic behavior. The method of studying value orientations, which was used in this study (method of S. Schwartz), involves obtaining a large amount of quantitative data, on the basis of which, using factor analysis, value orientations are identified.

Current research applied quantitative paradigm of data collection and analysis. Data collection was conducted by random sample with the use of online survey. The survey was programmed with Sawtooth software by professional programmer. The invitation to the survey was sent to 4225 respondents through emails and was available in personal accounts using online survey panels. 1637 took part in the survey and 1200 questionnaires were found analyzable. The analysis was performed with the use of SPSS software. 27% of them are female and 73% are male.

In this project, values are considered as a person's beliefs about how important certain phenomena are.

During survey of IT professionals, an abbreviated questionnaire by S. Schwartz was used (Schwartz, Lehmann, Roccas, 1999). The Schwartz technique involves grouping values along axes using multivariate analysis. Sometimes researchers use factor analysis to group values (Magun, Rudnev, 2010). In this study, the method of multidimensional scaling was used.

The questionnaire for the survey of IT professionals included 22 descriptions of people characterized by various values.

1. Living in safety is very important for this person; he avoids everything that may be dangerous.

2. I am a methodical person and I love cleanliness and order. I want everything to be in its place.

3. I am not looking for thrill or adventure. I do not like to risk.

4. For this person it is important to follow the traditions and customs adopted in his family or religion.

5. For this person, it is important to always behave correctly, not to commit acts that people would not approve.

6. I am a responsible person and I believe in ethical principles. I keep my promises and work carefully and carefully.

7. For this person it is important to propose new ideas, be a creative person, to go your own way.

8. I am a stubborn person who often argues. I openly express my anger or discontent wit.

9. I know exactly what I want to achieve and work hard for it.

10. Adventure and risk are very important for this person, he is committed to a life full of exciting events.

11. I like to change my classes, to visit different places, to try, from time to time, unfamiliar exotic things. I like the novelty and variety.

12. I often act spontaneously, without thinking about the consequences of my actions and decisions.

13. For this person it is important to have a good time, indulge yourself.

14. I often put off difficult and unpleasant work and leave things unfinished. I find it difficult to get together and force myself to do what I have to.

15. I love to meet and communicate with many people. I enjoy companies, and the more people the better.

16. It is important for this person to be very successful so that others know about his achievements.

17. I often feel not competent enough to do something. I do not have great achievements. I do not work very effectively.

18. For this person it is important to be rich, have a lot of money and expensive things.

19. It is important for this person to do something good for the community.

20. Care for the environment and nature is important for this person.

21. I believe that every person deserves respect. I feel sympathy for people who are less fortunate in life than me.

22. I trust people and believe that all people are honest and have good intentions.

Then each respondent had to evaluate which of the proposed descriptions corresponds to him. Compliance was proposed to evaluate on a six-point scale: "very similar to me" (6 points), "similar to me", (5 points), "quite similar to me" (4 points), "a bit like me" (3 points), "Does not look like me" (2 points), "does not look like me at all" (1 point).

After the survey, for each respondent, 22 indicators of the importance of each value were counted which were included in the questionnaire. These are initial values or, as Schwartz claimed, values of the "first level". In the further analysis, they were used both separately and for calculating value indices.

Value indices are "second level" values

Security:

• Living in safety is very important for this person, he avoids everything that may be dangerous.

• I am a methodical person and I love cleanliness and order. I want everything to be in its place.

• I am not looking for thrill or adventure. I do not like to risk.

Conformance. Tradition:

• For this person it is important to follow the traditions and customs adopted in his family or religion.

• For this person, it is important to always behave correctly, not to commit acts that people would not approve.

• I am a responsible person and I believe in ethical principles. I keep my promises and work carefully and carefully.

Independence:

• For this person it is important to propose new ideas, be a creative person, to go your own way.

- I am a stubborn person who often argues. I openly express my anger or discontent wit.
- I know exactly what I want to achieve and work hard for it.

Risk. Novelty:

• Adventure and risk are very important for this person; he is committed to a life full of exciting events.

• I like to change my classes, to visit different places, to try, from time to time, unfamiliar exotic things. I like the novelty and variety.

• I often act spontaneously, without thinking about the consequences of my actions and decisions.

Hedonism:

• For this person it is important to have a good time, indulge yourself.

• I often put off difficult and unpleasant work and leave things unfinished. I find it difficult to get together and force myself to do what I have to.

• I love to meet and communicate with many people. I enjoy companies, and the more people the better.

Achievements, power, wealth:

• It is important for this person to be very successful so that others know about his achievements.

• I often feel not competent enough to do something. I do not have great achievements. I do not work very effectively.

• For this person it is important to be rich, have a lot of money and expensive things.

Universalism:

- It is important for this person to do something good for the community.
- Care for the environment and nature is important for this person.

• I believe that every person deserves respect. I feel sympathy for people who are less fortunate in life than me.

• I trust people, believe that all people are honest, and have good intentions.

Individual indicators of respondents by value categories of the third level were calculated as the average scores of the corresponding value indexes of the second level.

Conservation:

- Security
- Conformity. Tradition

Openness to Changes:

- Independence
- Risk. Novelty.
- Hedonism

Self affirmation:

- Achievement, power, wealth
- Caring for people and nature.
- Universalism

Thus, the Preservation indicator was calculated as the average value of values of Security and Conformity – Tradition, the Openness to Changes indicator - as an average value of values Independence, Risk – Novelty and Hedonism, etc.

At the last stage, on the basis of these four categories, two value "axes" were constructed (Conservation - Openness to Changes, Self-Transcendence – Self-Enhancement).

The Schwartz technique involves grouping values along axes using multivariate analysis. Sometimes researchers use factor analysis to group values (Magun, Rudnev, 2010). In this study, the method of multidimensional scaling was used.

The main hypothesis of this study is the assumption that modern IT professionals, as representatives of the creative class, form a new professional culture based on a special value system that is different from the value system of the average Latvian. In order to test this assumption, in this study, the structure of values of IT professionals is compared with the structure of values of the entire Latvian society. To analyze the structure of values of the average resident of Latvia, the study used data from the European Social Survey (ESS).

Fig.5. presents the average values of second order indices for IT professionals and residents of Latvia. This graph shows that the most significant differences between IT professionals and the population of Latvia are related to the values of Security, Comfort and Hedonism. In the system of values of Latvian citizens, security occupies almost the largest place. In the value system of an average Latvian, security has one of the largest values. For IT professionals, security is what they value the least. It suggests that representatives of IT professionals in Latvia, in contrary with the entire population, as a rule, do not think that they live in a dangerous world, and do not spend time and money in making their lives more secure, predictable and orderly. The average statistical resident of Latvia loves order, does not look for thrills, and cares about his safety.

Comfort is also not a significant value for IT professionals. For them, it is not important to follow traditions and always behave correctly. It should be noted that for the average resident of Latvia, this value also loses its meaning. The average value of this meaning is quite small (0.09), but still has a positive value. This suggests that, in general, the significance of this value is higher than the average value of all other values.

Fig. 5. Second order value indices for IT professionals and the population of Latvia (Axes present the names and average values of second order indices for IT professionals and residents of Latvia). Source: Constructed by the author

The value of hedonism, on the contrary, is significant for IT professionals and does not matter at all for the residents of Latvia mostly. It is vital for IT professionals to be able to have a

good time alone or with friends. They refuse to do unpleasant work; they value freedom. These data statistically confirm the result obtained from the analysis of interviews with IT professionals. In interviews, respondents often said that it was essential for them that their work allowed them to be able to travel, have fun, eat well, dress well, and not think about how to earn money, and they disagree to engage in work that does not give these opportunities.

For the average resident of Latvia, entertainment does not matter much compared to other values, and this index is negative for the general population. They probably cannot afford to give up work that does not give them pleasure and often have to postpone their trips. The correlation between the values of security and hedonism suggests that the inhabitants of Latvia are more concerned with economic and political stability than with entertainment and pleasure

Indices characterizing independence and achievements do not have such big differences for Latvian residents and IT professionals. These values have a positive mean value in both groups, which means that they are essential for everyone, and often more important than all other values. However, the average values of these values among IT professionals are higher than among the usual residents of Latvia. This is a fantastic result, because the values associated with the promotion of competition, and the desire for wealth, are not characteristic of post-communist societies, and are not characteristic of modernized societies. Thus, Latvia occupies a specific intermediate position on this issue, and IT professionals support this culture. They, as a rule, know what they want to achieve as success and competence are vital for them.

Another important difference in the value orientations for IT professionals and residents of Latvia, in general, is the importance of universalism values, that is, altruistic values, for IT professionals. They are willing to take care of the environment, do something good for strangers, trust people and also respect them. For residents of Latvia as a whole, this index has a negative average value, i.e., people are rather not committed to the values of care and trust.

The value of the index characterizing the attitude to risk and novelty (stimulation) has the highest index among all values of IT professionals. This suggests that they love adventure; they often act spontaneously, willing to change their work as well as their hobbies. These values are also peculiar to the usual residents of Latvia; the average value of the stimulation index in this sample is positive. However, it is minimal (0.1).

Thus, it is common for the Latvian society to downplay the values of care, equality, tolerance and the excess of personal success, power and wealth competitive values. Competitive values are even more important to IT professionals from Latvia than the average resident of Latvia, but altruistic values are also important (even more important than competitive values) for them. This is a slightly contradictory result, since, as a rule, these values are divided: people are committed to either competition or altruism, but in this case, it is not.

Fig.6. shows third-order value indexes that provide a generalized view for IT professionals values compared to another resident of Latvia. These indices are integral indicators of value axes: Ability to change - Conservation and Care for people and nature - and Self-affirmation. This comparison generally confirms the conclusions obtained from the comparison of second-order values.

Fig.6. Third-order value indices for IT professionals and residents of Latvia (Axes present the names and average values of third order indices for IT professionals and residents of Latvia). Source: Constructed by the author

Residents of Latvia have high rates in the Conservation axis and low rates in the Open to Changes axis. Along the axis Self-Enhancement - Self-Transcendence - the inhabitants of Latvia have low altruistic indicators and common indicators for the Self-affirmation parameter.

IT professionals from Latvia have low Conservation scores, very high on the Open to Changes scale and equally high on the Care and Self-affirmation scale.

Thus, IT professionals are significantly differing from the average Latvian in the direction of greater modernization. These differences can cause certain contradictions in our everyday life. At the very least, they impose specific requirements on the organization of work and day-to-day interaction at work. Otherwise, the brightest and most talented representatives of this community can leave the country.

Determination of factors affecting the value orientation of IT professionals in Latvia.

An important task of this study is to understand what the value orientations of the new creative class of which Latvia depend. What are the differences in the value structure? Why IT

professionals and people belonging to the same social and professional group have different indicators related to the values of openness, conservation, care, and self-affirmation.

There is a whole pool of studies that are devoted to the study of factors that influence the formation of value orientations in an individual (Braithwaite V., Law HG, 1985, Davidov E., Schmidt P., Schwartz SH, 2008, Schwartz SH, 2008, Magun V.S., Rudnev MG, 2010). These studies revealed that factors such as gender, age, education, and country characteristics (GDP per capita, human development index, etc.) affect the level of value orientations.

In this study, we are unable to identify the influence of country characteristics on the formation of values, since we analyze respondents from only one country, Latvia. However, we formulated hypotheses that test the impact of the individual characteristics for the individual on his values. Testing of these hypotheses was carried out using multiple linear regression analysis.

It is this method that allows controlling the simultaneous influence of several independent variables on one dependent variable.

The multiple regression equation allows predicting the value of the dependent variable, i.e., it will enable you to create data. There are several important assumptions for this model. The first assumption is that there must be a linear relationship between the dependent variable and the independent variables. The second is that the effect of the influence of several independent variables is summed, i.e., it is additive. The second assumption is that independent variables should not correlate with each other.

The results of the study suggest that openness to change is more characteristic of men than women; Women are more focused on order and stability. In addition to gender, age is a significant variable in the model. The older a person is, the less openness to change in characteristics of him, Young people are more prone to risk and novelty.

It is important to note that belonging to a generation does not affect the value of this index. This suggests that the values associated with the openness to change are not formed among people in the process of socialization. They are formed under the influence of life experience. This may explain the fact that this index has a rather low value among the population of Latvia as a whole. Most people in Latvia grew up in a completely different culture, with different values. They could not convey the values associated with the desire to change their children in the process of socialization, and they almost did not change their attitude to such concepts as stability, reliability, and immutability. Values of openness and the desire to improve have not yet taken root in Latvian society. They are peculiar only to specific social groups, particularly the new creative class.

Having a partner and children has a positive effect on the formation of values of openness to change. The creative class wants their children to live in a different society. In a society where people do not think about how to preserve the existing order, but in a society where there is a place for new ideas, risk, spontaneity, and where people are ready for a change. Therefore, it can be assumed that the values of openness and novelty will be distributed in Latvia in the future,

Emigration status, trusts in people, and satisfaction with the financial situation does not affect the level of values associated with the openness to change. This explains the fact that most IT professionals have fairly high levels of trust in people and, as a rule, are satisfied with their financial situation. As interviews with IT professionals showed, the IT services market in Latvia is quite broad; good professionals can always find a decent job, so IT professionals refuse positions that offer a salary below their requirements. IT professionals are a homogeneous group according to these indicators, so they do not affect the level of values.

The most influential variable that affects the value of values on the "Conservation-Open to changes" axis is the presence of children. Moreover, this effect is positive. Thus, the birth of children from representatives of the creative class leads not to the conservation of status and the desire to maintain their position, but to the desire to look for new ideas, new work, and to understand what they want to achieve in life, i.e., to change.

The survey results show that the majority of the respondents we surveyed feel more like citizens of the world or just Europeans. Therefore, the emigration status does not matter for their attitude and their value system.

Additionally, in selective research it is significant to avoid the problem of overfitting, which is usually occurred when R square value is high. The task is to create universal management model, which corresponds not only to the sample of the research, but all general totality. These models, as a rule, do not have high determination coefficients (Field A., 2013). This corresponds to all regression models, demonstrated in the framework of this research.

The second model analyzes the formation of values along the axis of "Self-Enhancement – Self-Transcendence," where altruistic values are on one end, and competing values oriented toward power and achievement are on the other.

In this model, gender is also a significant variable, but unlike the first model, the effect of gender is the opposite. If in the first model, men had higher rates along the axis of openness to change, then in the case of altruistic values, there are higher rates for women. For women, it is more important than for men to take care of nature, to help other people, and to experience trust and tolerance. For men, it is more important to be successful, rich and competent.

Neither age nor generational affiliation has any influence on altruistic values. These values are equally likely to occur in people of different ages and different generations.

It is important to note that in this model, having a partner and having children reduces the level of altruistic values and increases the level of achievement. It is obvious that family people with children are more focused on their career, and taking care of their family than on caring for outsiders. This result suggests that altruistic values are not frequent enough yet in this social group. This fact can be explained by economic factors, for example, the economic situation in Latvian society. At the same time, it is impossible not to consider cultural factors. In Latvia, where the market economy exists relatively recently, following personal interest and participation in competition has become a socially approved norm.

However, if it is possible to consider that altruistic values are not typical for the whole of Latvian society, the tolerance and altruism of the creative class look very encouraging. It can be assumed that in the coming years, IT professionals, as representatives of the creative class, will have greater adherence to these values, like their colleagues from other European countries, where altruistic values fully coexist with a market economy.

From the study, it can be concluded that, according to its system of value orientations, IT professionals in Latvia differ significantly from the average Latvian resident. These differences are primarily because, residents of Latvia value security very much, and for IT professionals, security is not of great value. They perceive safety as a given, do not problematize it, and therefore do not pay particular attention to it. This quality unites them with representatives of the creative class from other developed countries.

IT professionals in Latvia are not ready to follow traditions, behave correctly, and obey and listen to the opinions of others. This quality also significantly distinguishes them from the majority of Latvian residents. These data suggest that IT professionals, as well as the entire creative class, cannot be subject to traditional penalties and incentives. For them, another system of motivation is tedious. According to the value axis of Self-Enhancement –Self-Transcendence IT professionals are not so significantly different from the average Latvian citizen. The competing values associated with achieving wealth and success is higher among IT professionals than among residents of Latvia as a whole. In this matter, IT professionals are not much different from the average resident of the country. If we consider that the financial satisfaction of IT professionals is quite high, then we can assume that declaring commitment to achievement values is merely a socially approved norm.

Along with the desire to achieve, IT professionals are also peculiar to altruistic values, and in this, they are significantly different from society as a whole. This feature of the creative class should also be considered when building a system of employee motivation. For the creative class, justice, respectful attitude, competence and the solution of complex problems are very important. It is on this and should be based on the reward system.

Analysis of the system of value orientations of IT professionals allows us to consider them as a social group with modernizing ahead of the whole society. Therefore, solving the problem of effectively using the potential of this social group requires a proper understanding of both their needs and their incentives.

3. MODELING OF EMPLOYEE MOTIVATION SYSTEM TO INCREASE JOB PERFORMANCE OF IT PROFESSIONALS

The main goal of this project is to create a model that would link employee motivation, job performance, value orientations and attitudes, as well as take into account the individual characteristics of professionals (professional position, generational identity, gender, etc.).

The employee motivation and job performance in this study is considered as a latent variable. The search for latent variables is one of the most common tasks in modern social sciences. The method most often used to solve this problem is factor analysis.

In this study, to study the employee motivation during the survey of IT professionals in the questionnaire there were included some judgments, with which respondents were asked to agree or disagree. The respondents on a ten-point scale evaluated the degree of agreement or disagreement where one, means disagree, and ten means agree.

The judgments offered to the respondents described some characteristics of the work that could potentially make this work attractive for the respondent. These characteristics are from Rheinberg's schema (Vollmeyer et al., 2013). They deliberately do not include material employee motivation, since the task of the study was to understand what the motivating factors in a situation where wages are adequate and fair.

Further, latent variables (possible motives to work) were distinguished and measured using factor analysis.

The first factor includes statements:

- Have the opportunity to improve their skills and acquire new skills
- Have good working conditions (proper ventilation, lighting, workspace)

This motivation can be called "Survival" when work is valued for providing knowledge and skills that can change it in the future, as well as working conditions that create minimal comfort and a sense of security.

The second factor includes such variables as:

- Have considerable freedom in how to do your job.
- Have a job that leaves enough free time for personal or family life.

This factor can be called "Freedom and independence," Such motivation implies that the employee distributes his working time and determines how he should perform the work.

Minimizing external control and the ability to manage time are essential qualities of life for the creative class.

The third factor consists of statements:

• Have a difficult job, the performance of which gives you a feeling of pleasure from achievements.

• Have the opportunity to fully implement skills at work

This motivation is associated primarily with the satisfaction of professional ambitions and "Professional self-realization". In the field of IT technology, high professionalism is closely connected with a successful career, and a career implies prestigious and well-paid work.

Thus, during the factor analysis, first, the original number of variables (six) was reduced to three. Secondly, the employee motivation, which are characteristic of modern IT professionals in Latvia, has been identified and described. Thirdly, the value of each factor is calculated for each respondent, i.e., the information was received to what extent a particular employee motivation is typical for a specific respondent.

Since stimuli that lead to the increase in efficiency growth of work of IT professionals are also latent variables, their detection and estimation were also based on factor analysis conducted by the method of principal components.

For this purpose, the question "Were their situations, when you worked, particularly well and fast? What factors made you work more effectively than usual?" was included in the questionnaire.

Factor analysis allowed selecting five factors that describe stimuli that make IT professionals work more effectively,

The first factor is "Material Incentives," It includes such indicators as:

- Great financial rewards
- A chance for career growth

The second factor consists of statements related to employees responsible for the results of their work. This motivator can be named as "Personal Responsibility," It includes the following characteristics:

- · Clarity and transparency of goals and desired result
- Crisis and understanding of responsibility

The third factor describes motivators for creative people. It includes the respect of the team and career perspectives. Doing something better than others, doing something that cannot be done by other team members is a significant motivator for those, who try to realize themselves professionally. This motivator can be named "Career prospects". The fourth factor is "Opportunity for self-realization". It includes such indicators as:

- Interesting, and complicated creative task
- High importance and prestige of the task

This motivator has no direct influence on a career, does not provide any material advantages, but it does affect the professional ambition of IT professionals. That is why this motivator is very effective increasing the job performance of creative professionals.

Another motivator for higher job performance is fear to be fired or lose the award and fear of disapproval by team and management. Even though this motivator is based on negative emotions, it explains only 10% of the variance of factors that influence the growth in job performance.

To determine the independent effects of age, cohort and period, Mason and his colleagues proposed an Age-Period-Cohort Analysis (APC) model (Masson., 1995).

The goal of the motivation model to improve job performance for IT professionals is to link together the values of IT professionals, incentives for job performance, demographic characteristics (gender, age, generation, and partner) with employee motivation. Building a motivational model will help to understand how the values of professionals' influence each of the identified incentives to work effectively, and how each of the analyzed incentives affects people with different employee motivation.

In order to solve this problem, seven regression models were built: 4 models for incentives for productive work and three models for employee motivation. Thus, the dependent variables are the values of the following factors obtained after the factor analysis.

Incentives for job performance:

- Opportunity for self-realization
- Career prospects
- Material incentives
- Personal responsibility
- Employee motivation
- Acquisition of freedom and independence
- Professional implementation
- Survival

The independent variables for building models, where the dependent variables are incentives to more efficient work, are the seven fundamental values calculated for each respondent according to the Schwartz method, and demographic characteristics (gender, age, and generation).

Independent variables for models with dependent variables in the form of motivations to work have become incentives for more efficient work and the same demographic characteristics, Demographic variables are customizable as follows:

Belonging to generation - 3 dummy variables (Early generation X, Traditional generation, Millennial generation), age, gender (dummy variable), the presence of a partner (dummy variable).

The table 4. and table 5. present the results of the regression analysis for incentives to work effectively

Table 4.

Regression models for management of stimulus for job performance of IT professionals (1)

	Opportunity for realization	r self-	Career prospects		
	B p-value		В	p-value	
Constant	-0,025 (0,37)	0,71	-0,25 (0,14)	0,08	
Security	-0,075 (0,092)	0,30	0,34*** (0,09)	0,00	
Comfort	-0,16*** (0,06)	0,00	0,14*** (0,06)	0,02	
Independence	-0,16 (0,88)	0,21	0,03*** (0,09)	0,01	
Risk, Novelty	-0,06 (0,091) 0,35		0,13 (0,09)	0,21	
Hedonism	-0,36*** (0,09)	0,00	0,02*** (0,09)	0,05	
Progress, Power and money	-0,11 (0,95)	0,74	0,28*** (0,1)	0,00	
Universalism, Benevolence	-0,14 (0,11)	0,17	0,19 (0,12)	0,11	
Transition generation	-0,07 (0,08)	0,25	0,046 (0,08)	0,54	
Millennial generation	-0,07 (0,09)	0,53	0,26*** (0,09)	0,00	
Age	0,00 (0,01)	0,89	-0,01 (0,01)	0,45	
Male	-0,02 (0,07)	0,89	0,01 (0,07)	0,92	
Partner	0,06 (0,08)	0,83	-0,06 (0,08)	0,40	
R2	22%		29%		

Dependent variables: Opportunity for self-realization and Career prospects

*** means p-value <0,05

Source: Constructed by the author

From the data presented in the table 4., it is clear that the incentive to work effectively in the form of the possibility of self-realization (solving complex and exciting tasks, prestigious work that will increase authority in the team) does not work at all for people whose fundamental values are connected with hedonism and comfortability. People who value traditions and are not inclined to change, like to get pleasure, will not work effectively to solve a new, complex, and prestigious

task.

The results of the regression analysis also show the universality of this motivator for the effective work of the new creative class in Latvia. To a varying degree, this stimulus acts on everyone except people who are afraid of change and hedonistic. Especially on hedonistic, since the regression coefficient in front of this variable is much greater than before the variable "comfortability".

The table 5 shows what determines the efficiency of using the incentive to work, which is associated with career opportunities, i.e., with the approval of leadership and the fear of criticism. The results of the regression analysis show that this motivator is especially useful for people with high levels of safety values, comfort, autonomy, achievements and hedonism. People who are prone to novelty and risk associated with it, people who want to take care of the environment and other people are not ready to work better to please the authorities.

Table 5.

	Material incer	ntives	Personal responsibility		
	В	p-value	В	p-value	
Constant	0,13 (0,14)	0,35	-0,06 (0,14)	0,67	
Security	-0,21*** (0,09)	0,03	0,1*** (0,01)	0,01	
Comfort	-0,06 (0,06)	0,29	0,15 (0,1)	0,30	
Independence	-0,37*** (0,09)	0,00	0,16 (0,06)	0,08	
Risk, Novelty	-0,13 (0,09)	0,06	0,19*** (0,09)	0,04	
Hedonism	-0,22*** (0,09)	0,02	0,19 (0,08)	0,42	
Progress, Power and money	-0,28*** (0,1)	0,00	0,15 (0,04)	0,11	
Universalism, Benevolence	-0,25*** (0,12)	0,02	0,26 (0,12)	0,49	
Transition generation	0,18 (0,08)	0,03	-0,07*** (0,01)	0,03	
Millennial generation	0 ,3*** (0,09)	0,00	0,07*** (0,017)	0,05	
Age	-0,03*** (0,00)	0,00	-0,018 (0,01)	0,36	
Male	-0,13 (0,07)	0,06	-0,02 (0,07)	0,81	
Partner	0,22*** (0,08)	0,01	0,08 (0,083) 0,35		
R2	27%		31%		

Regression models for management of stimulus for job performance of IT professionals (2) Dependent variables: Material incentives and Personal responsibility

*** means p-value <0,05

Source: Constructed by the author

The table shows that this incentive has a strong negative relationship with almost all the

intrinsic values. Neither people who enjoy pleasure, nor people oriented toward achievement of power nor well-being, nor people seeking care for the world around them, nor people who value independence, are willing to work more effectively for the promise of material reward or for the promise of career advancement, which is also associated with real incentives.

The Figure 7. demonstrates the model, which explains how motives to increasing job performance influence employee motivation for IT professionals belonging to different generations. This model demonstrates that there is one universal motive to increasing job performance among representatives of all generations of IT professionals in Latvia. These professionals, belonging to different generations, work particularly in order to have freedom and independence

On top of that, for all the generations, opportunity for self-realization is significant as well.

However, for the youngest and oldest generations motivation that is more significant is survival. Obviously, this motivation has different nature for both of these generations. For young generation this motivation is connected with the fact that they do not feel themselves much confident as professionals yet and have many outstanding material needs. For the older generation the motivation connected with survival can be mostly explained by the fact that representatives of this generation more and more often become behind in competitive race with representatives of the younger generations.

Fig. 7. The employee motivation model for improving job performance of IT professionals

Source: Constructed by the author

It is worth to mention that not material payout but career opportunities have become more significant motivation option. Vulnerability is more connected with position on the labor market, with existing competition not with the lack of material bonuses.

For the representatives of the middle generation professional realization is significant motivation, it is tightly connected with freedom and independence. At the same time, material payouts in this case become significant motive as well as a certain marker of professionalism.

In such a way, it is significant to consider the following point for successful management of IT professionals:

All IT professionals work to any extent to have freedom and independence in their lives. This is absolute value for this professional community.

The youngest and the oldest representatives of IT professionals have additional motivation connected with survival, meaning more stable position in the labor market.

Middle generation is not afraid to lose job of have not means of subsistence. Representatives of this generation are more interested in professional growth than in career growth, as they understand that success of their career depends on the level of their professionalism.

Any system to increasing of job performance has to include the opportunity for selfrealization and such motive works for IT professionals with any motivation.

4. VALIDATION THE MOTIVATION MODEL TO IMPROVE JOB PERFORMANCE FOR IT PROFESSIONALS

In this research validity of statistical inference was gained with the help of two approaches. Firstly, one more representative online survey was made among IT professionals, recruiting respondents using the same methodology as initial research. Secondly, the series of expert interviews with top management of the organizations, where IT professionals are employees, where managers evaluated relevance of created model.

The goal of one more online survey is to confirm and validate the structure employee motivation and motivators to increasing job performance, and statistically check links between types of employee motivation and motivator for productive work. Statistical proximity of the results gained during paired sampling provides their statistical validity.

In order to perform the online survey for validation of the research acquired model there were sent 1215 survey invitations targeting IT professionals, 375 IT professionals clicked on the survey invitation, 25 were removed as "straight liners", rushing through the survey and filling in all questions at one pattern, 350 valid questionnaires were gathered. The online survey panel was used for these purposes. Respondents were rewarded for their time after quality check was performed. The data collection took place in August 2019.

The next step in the validation was the check of the differences between mean values of indexes, which were gathered with the help of factor analysis in the research, and the mean values of indexes, which were gathered during the validation survey with the help of multidimensional scaling. For solving this task, the t-test of paired sample was chosen. Table 6. demonstrates the test results for every pair of indexes, characterizing employee motivation and motivators to increasing job performance.

Paired T-test results demonstrate that the differences between mean value of indexes, created in the research, and mean values of indexes, created in the validation survey, are not significant. In such a way, the results of the validation survey confirm not only the sense of indexes, created for the study of employee motivation and motivators to increasing job performance, but numeric values of these indexes.

Index pairs	Mean Value	Standard error	t	Significance
Mot	ivations to w	ork		
Survival (research) — Survival (validation)	0,002	0,04	0,0015	0,67
Freedom and independence (research) — Freedom and independence (validation)	0,004	0,01	0,0000	0,59
Professional realization (research) — Professional realization (validation)	0,002	0,02	0,0020	0,78
Job per	rformance sti	mulus		
Financial incentives (research) — Financial incentives (validation)	0,000	0,04	0,0008	0,63
The possibility for self-realization (research) — The possibility for self- realization (validation)	0,002	0,05	0,0023	0,89
Personal responsibility (research) — Personal responsibility (validation)	0,001	0,02	0,0009	0,85
Career prospects (research) — Career prospects (validation)	0,003	0,06	0,0017	0,74

Paired T-test

Source: Constructed by the author

To reach the complete validation of the model of motivation of IT professionals the only left to validate is the links between variables included in the model. If the tested model is correct, the model built on the results from the validation sampling will demonstrate the significance of links between same variables as the research-based model. The multiple regression analysis was done for solving this task. Results can be seen in the Table 7.

The results of regression analysis demonstrate that the latest validation sample shows same links as initial sample created for the research. Coefficients of determination in this case are lower than in the tested model, which can be explained by smaller sample size. In such a way, the model, demonstrated in the table 5 and visualized on the Figure 7. is completely valid from point of view of validity of statistical conclusion.

Table 7.

Regression models for the motivation to improve job performance for IT professionals

	Freedom and		Professional		Survival		
	independer	ice	realization				
	В	Р-	В	Р-	В	P-	
Variables		value		value		value	
Constant	0,00 (0,04)	0,06	-0,03 (0,87)	0,89	-0,06 (0,11)	0,87	
Job	performance sti	mulus					
The possibility for	0,17*** (0,02)	0,00	0,03***(0,01)	0,00	0,12***(0,0)	0,02	
self-realization							
Career prospects	-0,01 (0,04)	0,66	0,03***(0,00)	0,04	0,08***(0,0)	0,02	
Financial	0,04 (0,03)	0,12	0,03***(0,00)	0,05	0,02(0,06)	0,51	
incentives							
Personal	0,05(0,03)	0,07	0,03(0,03)	0,52	0,04(0,01)	0,15	
responsibility							
Dem	ographic charact	teristics					
Transition	-0,04 (0,09)	0,35	-0,12 (0,08)	0,08	0,17*** 0,01)	0,04	
generation							
Millennial	-0,03(0,88)	0,77	-0,19***	0,05	0,39***(0,01)	0,00	
generation			(0,06)				
A	-0,01	0,07	0,01(0,01)	0,15	-0,01(0,09)	0,12	
Age	(0,09)						
Mala	0,06	0,58	0,01 (0,07)	0,61	0,02 (0,04)	0,88	
wiale	(0,08)						
Doutnou	-0,26***	0,01	0,03	0,44	-0,13 (0,12)	0,31	
rartner	(0,07)		(0,09)				
R2	25%	<u> </u>	31%		30%	1	

resampling

*** means p-value <0, 05 *Source:* Constructed by the author

One of the research limitations is the fact that the conclusions are done based on the empirical data gathered from the IT professionals. For the triangulation of the results the series of expert interviews with managers, working in organizations, connected with IT, managing IT professionals, in order to observe motivation issue of IT professionals from another point of view.

During the interview experts shared their opinion on the following topics:

• What can be foreseen as motivation to for IT professionals from their point of view.

• Significance of material motivators to increasing job performance among IT professionals.

• Which motivators to increasing job performance are the most effective in managing IT professionals from the expert point of view.

• How demographic characteristics influence management of IT professionals.

• Which links exist between employee motivation, motivators to increasing job performance and demographic characteristics of the employees.

A number of experts noticed that this motivator has also age limits. Young employees who need professional experience, new knowledge and confidence in their abilities may be interested in career growth; they want to be managers of the group, understanding that a lot is needed to be done for it. And, if they don't see opportunities for career growth in this company, they can just leave to work in another company.

Middle-aged people, especially those who have a family, are interested in a balance between family and work, and do not really want additional obligations related to management. Older people have very great professional experience, they are valued, they know their own worth, and a career position can be one of the confirmations of this assessment. In addition to this, experts note that there is some contradiction when a very young person occupies a leading position, and his subordinate is a person of age.

An appeal to personal responsibility is a more complex motivator than an opportunity for career growth. On the one hand, experts say that the organization of the work of IT specialists itself implies responsibility of everyone and this responsibility does not need to be motivated additionally.

So, the expert survey confirmed that there are generational differences in the motivation model to improve job performance for IT professionals.

The results of the expert survey reject the universality of material motivators, which validate the results of the conducted study and confirm the relevance of the collected data.

The importance of professional realization for all IT professionals was confirmed by all experts. Moreover, the experts believe that participation in complex projects is important for professional realization, and not professional development at the expense of the company. You can get new knowledge on your own, but it is quite difficult to get unique practical experience on your own. Highly professional specialists, in experts' opinion, as a rule, do not need additional motivators. However, they need control, since they do not see the whole process, and correct problem statement not to deviate from the technical specification.

CONCLUSION AND RECOMMENDATIONS

The results of the study, the new knowledge and the theoretical insights make it possible to draw significant conclusions for improving the management of creative employees in Latvia (case of IT professionals).

- IT professionals are more flexible in: terms of looking for a job on the labor market all over the world; opportunities of remote job allow they benefit on proposals from abroad, as there is a huge need for qualified IT employees in contemporary business environment. For business organizations it is significant to employ well qualified, flexible and creative IT professionals in order to optimize their processes develop and remain competitive.
- 2. Innovational economy demands creative class as much, as creative class seeks innovational economy. Latvia also keeps paying attention to developing creativity and innovations within the economic system. The turnover of innovation-active enterprises as per cent of the total enterprise turnover totaled 67.9% that is 5.1% higher than in previous period and number of employees in innovation-active enterprises as per cent of the total number of employees in innovation-active enterprises as per cent of the total number of employees was 54.6%. In 2018, Latvia was ranked 33-d by the Global Innovation Index.
- 3. Latvia's main economic activity is concentrated in Riga and the surrounding areas. 52% of Latvian population live there and work in capital. One of the main reasons of work force concentration in Riga is the lowest unemployment rate across the country. The registered unemployment in Riga region in April 2019 was 4.1%, whereas in Latgale it was 14.9%.
- 4. IT sector in Latvia is highly developed in comparison with total EU-28 data. It has higher value added as a percentage of GDP and higher share of IT companies in total enterprises. However, the share of employees working in ICT sector in Latvia is lower than in Europe in general.
- 5. Theoretical findings showed that creative IT professionals need convenient environment and they tend to congregate in certain areas. The analysis of Latvian statistics proves this statement. Riga region accumulates only 54.89% of total posts. However, 83.84% of all posts in Information and communication sector are concentrated in Riga region.
- Analysis of current situation in Latvia shows that measures for retaining and attracting IT professionals are required. Developing creative class attracting policy should be aimed on boosting innovation and creativity in Latvian society.
- Generation Z is just starting to join the labor force. It is considered to be the first digital generation. It is possible to assume that many of the representatives of the generation will choose the path of making career in ICT sphere as it is understandable and interesting for them.

- 8. Latvian citizens that were impacted by these comprehensive changes formed different types of Generations than those formed in the countries of Western Europe and the USA. According to the research of Apsalone et al. devoted to distinguishing generations in Latvia, current Latvian labor force can be divided into the following generations: Post-War Generation, Early Generation X, Transition Generation and the Millennials.
- 9. It is possible to summarize that motivation is significant topic, which has been a focus for many academic researchers. According to theoretical framework, several factors need to be taken into account when constructing motivation model to improve job performance for IT professionals: type and character of the work they perform, generation they belong to, various motivation approaches in order to find the most suitable for specific group of employees as there are various theories regarding the factors which motivate employees to perform better and why their organization behavior has definite traits.
- 10. IT professionals differ from other professionals having higher education from other industries mostly by being highly demanded on the labor market. They have a very wide choice. They also differ by their lifestyle and value-setting pattern as it was discovered during the research. It is possible to sum up that IT professionals are very modern people, oriented towards western values and western way of life. Silicone Valley is their referent ideal way of living and work. Based on these criteria IT professionals have become a very different professional group, which differs from average Latvian citizen.
- 11. The results of the study show that the professional community of IT professionals in Latvia is not homogeneous. Differences related to age entail differences related to professional experience, ambition, and motivation. Young professionals independently master the necessary skills, often work as freelancers, value freedom, and strive to create something unique. The middle generation of professionals does not want to work as freelancers; they value stability, they are ready to change in order to maintain their professional position, but they do not seek to lead. The older generation of IT professionals value creativity, progress, and the ability to solve complex tasks in this profession.
- 12. The main demotivating factor for IT professionals is unvaried routine and lack of independence and creativity. Therefore, only awareness of the complexity and importance of the work, along with the importance of their role in the work as a part of the whole team and in solving a task, can motivate IT professionals to work more productively.
- 13. The hypothesis that IT professionals in Latvia are considered as a new professional group is confirmed and it is assumed that motivation of IT professionals is linked to their value settings.
- 14. IT professionals are not a homogenous professional group. Every professional works on

his own project or set of tasks and has his own professional direction. Managers cannot apply standard methods of evaluation of their productivity. However, managers can motivate them to increase job performance for the tasks to be accomplished in time.

- 15. From the study, it can be concluded that, according to its system of value orientations, IT professionals in Latvia differ significantly from the average Latvian resident. These differences are primarily because, residents of Latvia value security very much, and for IT professionals, security is not of great value. They perceive safety as a given, do not problematize it, and therefore do not pay particular attention to it. IT professionals in Latvia are not ready to follow traditions, behave correctly, and obey and listen to the opinions of others. This quality also significantly distinguishes them from the majority of Latvian residents.
- 16. The basic differences in values settings of IT professionals are connected with age and gender in the first place. The differences, connected with marital status and children, can be viewed as proxy effect of age and gender. Results show that IT professionals in Latvia are shaping their own professional culture, labor ethics and lifestyle. The research confirmed the hypothesis that values of IT professionals in Latvia differ from the values, which are dominant among other Latvian labor force representatives.
- 17. Motivation model to improve job performance for IT professionals demonstrates the existing generational differences in terms of which factors stimulate people work better. For the representatives of traditional generation (born 1964-1971) material stimuli are significant. At the same time material motives are negatively connected with such values as safety, independence, hedonism and universalism.
- 18. Personal responsibility has more influence on the representatives of the generation born in 1964-1971 (early generation X). This might be explained by the socialization in the soviet period. This motive is shaped among people with high level of safety values.
- 19. Younger generation (generation Y) is ready to work more productively for career development and perspective. This motive is almost universal for people sharing various values except people with altruistic values.
- 20. It is significant to notice that the difference in motives to productive work is connected with belonging to definite generation in the first place, not with the age itself. This fact demonstrates that value orientations are being formed in the process of socialization and not much transformed during lifetime. That is why motives for effective work are stable and change very slowly.
- 21. The model, which explains how motives tor increase job performance influence employee motivation for IT professionals belonging to different generations, demonstrates that there

is one universal motive for increasing job performance among representatives of all generations of IT professionals in Latvia.

- 22. These professionals, belonging to different generations, work particularly in order to have freedom and independence. On top of that, for all the generations, opportunity for self-realization is significant as well.
- 23. For the youngest and oldest generations motivation that is more significant is survival. For young generation this motivation is connected with the fact that they do not feel themselves much confident as professionals yet and have many outstanding material needs.
- 24. For the older generation the motivation connected with survival can be mostly explained by the fact that representatives of this generation more and more often become behind in competitive race with representatives of the younger generations.
- 25. For the representatives of the middle generation professional realization is significant motivation, it is tightly connected with freedom and independence. At the same time, material payouts in this case become significant motive as well as a certain marker of professionalism.
- 26. All IT professionals work to any extent to have freedom and independence in their lives. It is an absolute value for this professional community.
- 27. People with high level of altruistic values are effectively motivated with the help of thematic projects they work on. While people with values connected with changes are better motivated with ambitious, technically complicated tasks, which require outstanding solutions.
- 28. Highly professional and highly qualified IT professionals do not need additional stimulation. They work as effectively as they can on regular basis.
- 29. Technical professionals will perform better, faster and longer if the will take their material profit as a reward for more productive work.
- 30. Creative specialists (biggest part of creative class) requires more complex management system and motivation model. This model needs to consider belongingness to certain generation (not age of professional), value orientations and employee motivation.
- 31. For middle generation professional realization is necessary, for younger and older one's stability on the labor market is significant while for all of the representative's freedom and independence are significant factors as well.
- 32. The type of company plays also very significant part. It has to be a modern company with modern management: no dress code, minimum bureaucracy, modern office, minimum control, various opportunities for activity and rest during working day (sport and yoga activities, kids' room etc.). Mostly, they require everything that Western companies have

to offer. IT professionals communicate with colleagues via specialized platforms, conventions, and social media. Therefore, they know pretty well working conditions in international companies, in companies of Silicone Valley, and it becomes certain ideal for them.

- 33. In any situation, very significant motive to increase job performance is opportunity to gain new knowledge and skills, self-realization and pleasure and satisfaction from work and its results.
- 34. Modern management approach is highly appreciated (minimum bureaucracy, fair task distribution, moderate control).
- 35. The results of the research demonstrate that it is hard to manage creative class; it is a challenge, but an interesting and perspective challenge which might bring positive effect to business.
- 36. It is possible to make conclusion that it is impossible to use one of the universal existing models while managing IT professionals in Latvia. This model needs to be a combination of all the models and be notable for universality while certain elements should differ as the research demonstrated that there are several groups, which differ in professional position, gender, generation etc. This model needs to link employee motivation, job performance and attitude to work as well as relationship in a team.
- 37. The conducted research, on the one hand, realized all the tasks that had been set, and, secondly, confirmed the hypotheses that had been formulated based on the theories used.

RECOMMENDATIONS.

Based on the obtained results, several recommendations can be made that will allow to manage IT professionals effectively.

1. Business processes in companies that use work of IT professionals should be organized in such a way that minimize control over work of IT professionals. They should be based on principles of trust and justice.

2. Heads and project managers supposing to solve complex tasks should not choose people with hedonistic values for such work, as they are not ready to sacrifice their free time and independence for the sake of job. People with values of newness and openness to changes are more suitable for this type of job. They are more likely to be middle-aged people. Therefore, HR managers should not focus only on young professionals when entering employment.

3. Heads and managers of socially-oriented projects should be recommended to look for performers among people with altruistic values. Participation in such projects is an additional bonus for them, they are ready to lose a little in salary for the sake of it. And also accept the fact that such work is not always connected with career prospects. It is more likely that these performers will be young people, especially women. Companies should not give preference only to men when entering employment.

4. Companies that hire people over 45-50 years old should understand that these people have their own advantages, and it is important to use them correctly. People of this age do not have career ambitions, so this motivator does not work well for them. They are not ready to work overtime for a little additional income. But they are responsible, they can do routine work, they are willing to take a long time to make sense of the tasks they need to solve, and they are more devoted to the company than their young colleagues.

5. All companies that use work of IT professionals should provide them with an opportunity to improve their skills. It is most attractive for IT professionals to choose training courses paid by the company on their own.

6. When organizing business processes, it is useful to remember that needs of IT professionals include free time, access to good medicine, and opportunity to lead a healthy lifestyle. Therefore, free working schedule, insurance at the expense of the company, payment for fitness and organization of healthy food not only increase attractiveness of the company, but also reduce material requirements of employees. For a company, this may be more effective than salary increase.

7. In order to hire well-qualified IT professional and effectively manage his work the complex approach is needed. This approach needs to include adequate salary (which corresponds the salary in the market for the required qualification of professional); professional challenge (complex tasks, significant project); comfort working conditions (in this case individual approach is very significant as some employees require remote work, some want access to the office 24/7, some need flexible working schedule; opportunities for development (courses, conventions, competitions). These are universal obligatory requirements and they need to be supplied as a package (this is very significant and this is what differs IT professionals from other professional groups).

REFERENCES

Abner, I., Udo, E. (2019). Employees Motivation in a Competitive Service and Manufacturing Sectors Performance, *European journal of Research and Reflection in Management Sciences*, Vol.7, No, 3, pp. 1-14.

Abu-Shanab, E., Subaih, A. (2019). The Role of Knowledge Sharing and Employees' Satisfaction in Predicting Organizational Innovation, Journal of Innovation and Knowledge Management, Vol.18, No. 3, 25p.

Annell, J. and Terman, F. (2017). *What Does It Take to Make Them Stay? How Place Satisfaction Relates to Willingness to Stay of The Creative Class.* Master thesis, 2017. Kristianstad University. 80 p.

Apsalone, M., Baumane-Vitolina, I., Cals, I. & Šumilo, E. (2016). European Socio-cultural Change and Generational Diversity in the Post-Soviet Workforce. *Management and Economics Review*. Faculty of Management, Academy of Economic Studies, Bucharest, Romania, vol. 1(2), pp. 109-119.

Asheim, B. (2009). Guest Editorial: Introduction to the Creative Class in European City Regions, *Economic Geography*, 85:4, pp. 355-362.

Baltina, I. & Šenfelde, M. (2016). Current and Future Trends Affecting the Work of Public Administration and Determining the Working Environment for Institutions of the Centre of Government: EUPAN Work Group Survey Results. *Proceedings of the 4th CER Comparative European Research Conference. International Scientific Conference for Ph.D. Students of EU Countries*, United Kingdom, London, 26-30.10.2015. London: Sciencee Publishing, 2015, pp. 90-94.

Barford, I., Hester, P. (2011). *Analysis of Generation Y Workforce Motivation Using Multiattribute Utility Theory*. A Publication of the Defense Acquisition University, pp. 63-79.

Bayliss, D. (2007). The Rise of the Creative City: Culture and Creativity in Copenhage. *European Planning Studies*, 15:7, pp. 889-903.

Bejtkovský, J. (2016). The employees of baby boomer's generation, generation X, generation Y and generation Z in Selected Czech Corporations as Conceivers of Development and Competitiveness in their Corporation. *Journal of Competitiveness*, 8(4), pp.105-123.

Braithwaite, V. & Law, H.G. (1985). Structure of human values: Testing the adequacy of the Rokeach Value Survey. Journal of Personality and Social Psychology, No. 49, pp. 250-263.

Caillier, J. (2010). Factors Affecting Job Performance in Public Agencies. Public Performance & Management Review, Vol. 34, No. 2, pp. 139-165.

Central Statistical Bureau of Latvia. Retrieved from: <u>http://www.csb.gov.lv</u> Retrieved 2.06.2019 Cerasoli, C. P., Nicklin, J. M., Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological Bulletin, 140*(4), pp. 980– 1008.

Christen, M., Iyer, G., Soberman, D. (2006). Job Satisfaction, Job Performance, and Effort: A Reexamination Using Agency Theory. Journal of Marketing, Vol. 70, No. 1, pp. 137-150.

Côté, S. & Miners, Ch. (2006). Emotional Intelligence, Cognitive Intelligence, and Job Performance. Administrative Science Quarterly, Mar., Vol. 51, No. 1, pp. 1-28

Creswell, J. & Plano Clark, V. (2007). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage, 275 p.

Davar, S. (2012). Relationship between Job Satisfaction & Job Performance: a Meta-analysis. Indian Journal of Industrial Relations, Vol. 48, No. 2, pp. 290-305.

Davidov, E., Schmidt, P & Schwartz, S.H. (2008). Bringing values back. The adequacy of the European Social Survey to measure values in 20 countries. Public Opinion Quarterly, Vol. 72, No 3, pp. 420-445.

Deloitte Global Millennial Survey 2019 (2019), Retrieved from: https://www2,deloitte,com/global/en/pages/about-deloitte/articles/millennialsurvey,html 18.01.2020.

Drucker, P. (2008). Managing Oneself. Harvard Business Press. Boston. 238 p.

Elam, C., Stratton, T., Gibson, D. (2007). Welcoming a New Generation to College: The Millennial Students. *Journal of College Admission*, No 195, pp. 20-25.

Field, A. (2013). Discovering Statistics Using IBM SPSS Statistics. Sage, 2617 p.

Florida, R. (2012). *The Rise of the Creative Class. Revisited*: 10th Anniversary Edition. Basic Books, 512 p.

Gaidhani, S., Arora, L. & Sharma, B.K. (2019). Understanding the Attitude of Generation Z Towards Workplace, International Journal of Management, Technology and Engineering, Vol. 9 (1), pp.2804-2811.

Global Creativity Index (2015). Retrieved from: http://martinprosperity.org/media/Global-Creativity-Index-2015.pdf 8.09.2018.

Global Information Communication Technologies Report (2018). Retrieved from: https://www.eulerhermes.com/en_global/economic-research.html 10.09.2018.

Global Innovation Index (2017). Retrieved from: https://www.globalinnovationindex.org/gii-2017-report 5.05.2019.

Hart, P.D. & Brossard, M.A. (2002). A generation to be proud of. Young American volunteers to make a difference. The Brookings Review, Vol. 20, No. 4, pp. 36-37.

Inglehart, R. & Welzel, Ch. (2005). Modernization, Cultural Change, and Democracy. The Human Development Sequence, Cambridge: Cambridge University Press, 333 p.

Innovative People (2001). Mobility of Skilled Personnel in National Innovation Systems, OECD, 229 p.

Kubátová, J., Kukelková, A. (2014). Cultural differences in the motivation of Generation Y knowledge workers. Human Affairs, Vol. 24, pp. 511-523.

Kultalahti, S., Viitala, R.L. (2014). Sufficient challenges and a weekend ahead – Generation Y describing motivation at work. Journal of Organizational Change Management, Vol. 27 Issue: 4, pp. 569-582.

Kuvaas, B., Buch, R., Weibel, A., Dysvik, A., & Nerstad, C. G. (2017). Do intrinsic and extrinsic motivation relate differently to employee outcomes? Journal of Economic Psychology, 61, pp. 244–258.

Lasmane, A., Kāposta, I., Sautiņš, N. (2011). Work Motivation Peculiarities of Employees from Various Industries in Latvia. Journal of Pedagogy and Psychology "Signum Temporis", Vol. 2(1), pp. 34-45.

Latvian Information and Communications Technology Association. LIKTA. Retrieved from: https://likta.lv/en/industry-in-numbers/ 4.06.2019

Lehky, M. (2011). Leadership 2.0. Wie Führungskräfte die neuen Herausforderungen im Zeitalter von Smartphone. Burn-out & Co. managen. 1st ed. Frankfurt am Main: Campus. 232 p.

Lorenzen, M., Andersen, K. (2009). Centrality and Creativity: Does Richard Florida's Creative Class Offer New Insights into Urban Hierarchy? Economic Geography, Vol. 85:4, pp. 363-390.

Luther, N. (2000). Integrity Testing and Job Performance within High Performance Work Teams: A Short Note. Journal of Business and Psychology, Vol. 15, No. 1, pp.19-25

Masson, A. (1995). L'héritage au sein des transferts entre générations: théorie, constat, perspectives. Les Solidarités entre Générations Attias-Donfut. C. (ed.). Paris: Nathan, pp. 473-474.

Mendryk, I. (2016). Employees of Generation Y – Their Profile Based On Research Results, International Journal of Synergy And Research, Vol.4, No.2, pp. 76-86.

Murphy, E.F., jr., Gibson, J. W. & Greenwood, R. A. (2010). Analyzing generational values among Managers and Non-Managers for Sustainable Organizational Effectiveness. ISAM Advanced Management Journal, pp. 33-55.

O'Connor, J., Kong, L. (2009). Creative Economies, Creative Cities: Asian-European Perspectives. Research Collection School of Social Sciences, Springer Netherlands, 234 p.

OECD and Eurostat (1995). Manual on the Measurement of Human Resources Devoted to S&T – Canberra Manual. Paris: OECD, 111 p.

Pembi, S. (2019). Vroom's Expectance Theory and its Application in Management of Incentive

Scheme in Adamawa Plastic Company, Yola, Nigeria, International Journal of Trend in Scientific Research and Development, Vol.3, Issue 5, pp. 334-339.

Pratt, A.C. (2009). Policy Transfer and the Field of the Cultural and Creative Industries: What Can Be Learned from Europe? Creative Economies, Creative Cities. The GeoJournal Library, ed. by Kong L., O'Connor J., Vol 98. Dordrecht: Springer, pp. 9-23.

Puchta, D., Schneider, F., Haigner, S., Wakolbinger, F., Jenewein, S. (2010). The Berlin Creative Industries. An Empirical Analysis of Future Key Industries. Gabler Verlag. 152 p.

Pw, C. (2011). Millennials at work, reshaping the workplace. Retrieved from https://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/pdf/mtp-future-of-work.pdf 14.07.2017

Richards, G., Wilson, J. (2007). Tourism, Creativity and Development. New York: Routledge, 346 p.

Schwartz, S. (2008). Cultural value orientations. Nature and implications of national differences. Moscow: Publishing house of SU HSE, pp. 37-67.

Schwartz, S., Lehmann, A. & Roccas, S. (1999). Multimethod Probes of Basic Human Values.
Social Psychology and Culture Context: Essays in Honor of Harry C. Triandis. Newbury Park, 31p
Sykes, A., Venkatesh, V., Johnson J. Enterprise System Implementation and Employee Job
Performance. MIS Quarterly, Vol. 38, No. 1, pp. 51-72.

Tschang, T. (2009). Creative Industries Across Cultural Borders: The Case of Video Games in Asia. Vol. 98, pp. 25-42.

Vollmeyer, R., Jenderek, K., Tozman, T. (2013). How Different Motivational Aspects Can Affect Moral Behavior. Handbook of Moral Motivation: Theories, Models, Applications, ed. by K. Heinrichs, et al, Sense Publishers, pp.141-157.

Welsh, M.J. & Brazina, P.R. (2010). Gen Y anatomy lesson: they're not alien, just different. Pennsylvania CPA Journal, Vol. 81, No. 3, pp. 1-5.

Wuwei, L. (2011). How Creativity Is Changing China. Bloomsbury Publishing PLC, 160 p.

Магун, В., Руднев, М. (2010). Базовые ценности россиян в европейском контексте. Общественные науки и современность, №3, pp. 5-22.