

**RIGA TECHNICAL UNIVERSITY**

Faculty of Engineering Economics and Management

Institute of Business Engineering and Management

**Iveta OZOLIŅA-OZOLA**

Doctoral Student of the Study Programme “Management Science and Economics”

# **EMPLOYEE TURNOVER CHALLENGES AND MANAGEMENT SOLUTIONS AT COMPANIES**

**Summary of the Doctoral Thesis**

Field: Management Science

Sub-field: Entrepreneurship Management

Scientific Supervisor

Professor *Dr. oec.*

ELĪNA GAILE-SARKANE

RTU Press

Riga 2017

Ozoliņa-Ozola, I. Employee Turnover Challenges and Management Solutions at Companies. Summary of the Doctoral Thesis. – Riga: RTU Press, 2017. – 51 p.

Printed according to the decision of the Institute of Business Engineering and Management, Faculty of Engineering Economics and Management, Riga Technical University as of July 3, 2017, Minutes No. 22700-2/14.



The Doctoral Thesis has been elaborated within the 5.2.7. project “Involvement of the Society in Social Innovation for Providing Sustainable Development of Latvia” of the National Research Program 5.2. “Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community (EKOSOC–LV)”.

**ISBN 978-9934-10-987-4**

# **DOCTORAL THESIS PROPOSED TO RIGA TECHNICAL UNIVERSITY FOR THE PROMOTION TO THE SCIENTIFIC DEGREE OF DOCTOR OF ECONOMICS IN MANAGEMENT SCIENCE**

To be granted the scientific degree of Doctor of Economics, the present Doctoral Thesis has been submitted for the defence at the open meeting of Riga Technical University's Promotion Council "RTU P-09" on September 29, 2017 12:00 at the Faculty of Engineering Economics and Management, Kalnciema Street 6, Room 209.

## **OFFICIAL REVIEWERS**

Professor *Dr. oec.* Inga Lapiņa  
Riga Technical University

Professor *Dr. sc. administr.* Andris Sarnovičs  
BA School of Business and Finance, Latvia

Professor *Dr. oec.* Iveta Mietule  
Rezekne Academy of Technologies, Latvia

## **DECLARATION OF ACADEMIC INTEGRITY**

I hereby declare that the Doctoral Thesis submitted for the review to Riga Technical University for the promotion to the scientific degree of Doctor of Economics is my own. I confirm that this Doctoral Thesis had not been submitted to any other university for the promotion to a scientific degree.

Iveta Ozoliņa-Ozola ..... (signature)

Date: .....

The Doctoral Thesis has been written in Latvian. It consists of an Introduction; four Chapters; Conclusions and Proposals; 33 figures; 42 tables; 14 appendices; the total number of pages is 164. The Bibliography contains 201 titles.

The Doctoral Thesis and Summary are available at the Scientific Library of Riga Technical University, Paula Valdena Street 5, Riga.

To submit reviews, please contact the Secretary of Riga Technical University's Promotion Council "RTU P-09" – Professor *Dr. oec.* Konstantins Didenko (Riga Technical University, Kalnciema Street 6, Riga, LV-1048, Latvia; e-mail: *konstantins.didenko@rtu.lv*).

# Content

GENERAL DESCRIPTION OF THE THESIS .....	5
1. ESSENCE OF EMPLOYEE TURNOVER INDICATOR AND ITS APPLICATION ISSUES.....	14
1.1. Socio-Economic Significance of Employee Turnover.....	14
1.2. Development of Scientific Research on Employee Turnover .....	16
1.3. Contemporary Approach to Employee Turnover Measurement .....	17
2. THEORETICAL ANALYSIS OF FACTORS INFLUENCING EMPLOYEE TURNOVER .....	19
2.1. Analysis of Employee Turnover Models .....	19
2.2. Analysis of Interrelation between Individual and External Factors with Employee Turnover.....	22
2.3. Determination of Correlations between Organisational and Job Factors and Employee Turnover.....	22
3. CORRELATIONS BETWEEN COMPANY HUMAN RESOURCE MANAGEMENT AND EMPLOYEE TURNOVER .....	25
3.1. Reasons for Job Change by Working-Age Population in Latvia .....	25
3.2. Influence of Human Resource Management on Employee Turnover Rate at the Latvian Companies .....	27
4. MANAGEMENT SOLUTIONS FOR EMPLOYEE TURNOVER .....	30
4.1. Employee Turnover Management Methods and Stages.....	30
4.2. Reliability Assessment of Employee Turnover Management Methods.....	41
CONCLUSIONS AND PROPOSALS.....	45
LIST OF SOURCES USED IN THE SUMMARY .....	49

# GENERAL DESCRIPTION OF THE THESIS

## **Topicality of the Research**

Globalisation, digitalisation and population ageing are the main tendencies characterising the development of modern economic and social processes in the world. The success and sustainability of business to a great extent are dependent on the ability of a company to follow these trends. The challenges created by open economy, technical innovations, international migration of the personnel and labour force contraction in the European countries, including Latvia, are topical in both company and human resource management.

Within globalization context, one of the main tasks of the company is to adjust to the local circumstances and simultaneously integrate its own activities on the international scale. Company performance is assessed taking into consideration the ability to deal with heterogeneous cultural, institutional and competitive environments, as well as to coordinate geographically and culturally dispersed resources and promote innovations. Within the context of human resources it implies the ability of a company to introduce a human resource management system, which would take into account cultural differences of the local labour force, proposing relevant management practices. Having studied the mainstream research conducted in the field of human resource management, it can be concluded that national culture characteristics may have significant influence on the correlation established between a considerable part of work and personnel indicators, such as work productivity, employee turnover and absenteeism, job satisfaction, commitment, etc., and human resource management practices. Despite the fact that the role and influence of the cultural factors on the development of effective human resource management strategy have been stressed in the academic literature, small economy states lack scientifically substantiated information on the correlation between work and personnel indicators and human resource management practices.

As a result of digitalisation, the content and structure of the work changes as it becomes even more knowledge-intensive, simultaneously increasing the value of human resources as a competitive advantage of the company. In compliance with the theories on human resource management systems, the companies with strategically valuable and unique human resources should implement human resource management focusing on the development of loyal and long-term working relationships. This approach envisions a range of activities aimed at key employee retention.

The necessity to retain employees and develop long-term working relationships within companies are conditioned by the changes occurring on the local labour market. The international migration processes in the European Union indicate that with the abolition of the internal borders there is population resettlement from low income countries to high income countries. Germany, the UK, France, Spain and Italy are the most popular migration destinations for the citizens from other EU member states (Eurostat, 2015). The labour markets of those states are being significantly complemented by economic migrants from different countries, including Latvia. Latvia, Lithuania and Estonia are the only EU member states, from which the number of departing permanent residents surpasses the number of departing abroad-born residents (Eurostat, 2015). According to the results of the research on emigration from

Latvia conducted by Mihails Hazans (Hazans, 2015), one of the most frequent reasons for emigration mentioned is the opportunity to earn more money abroad. Alongside with the tendencies for the number of permanent residents and the number of working-age population to decline, it becomes even more complicated to find suitable employees on the Latvian labour market. Similar demographic processes are forecasted in Lithuania, Bulgaria, Portugal, Greece and Slovakia, where the number of permanent residents can decline by about 30 % until 2080 (Eurostat, 2015). Therefore, labour force supply problems may become critical in those states.

In general, internal and external mobility contributes to the creation of the dynamic labour market, which in its turn can improve efficient employability. However, the excessively intensive labour force mobility may have negative effect due to human capital losses. According to *Eurofound* research (2015), before the period of economic recession (2002–2007) the employees from Latvia had the lowest average uninterrupted length of service or uninterrupted employability for one employer among all EU member states. Even though the economic situation has improved, this indicator is still considerably low in Latvia in comparison with other countries of continental Europe. In Latvia in 2014 only every second employee had at least 5 years of uninterrupted length of service.

In Latvia, almost a half of company managers believe that employee turnover is a serious problem, which endangers successful performance of the company. Every fourth employee is considering changing the current job and every tenth employee is uncertain whether s/he is going to continue working for the company. Moreover, there is a tendency for the share of the employees loyal to the current company to reduce. (TNS Latvia, 2015a, 2015b, 2016a)

Employee turnover leads to the range of direct and indirect costs. There is sufficient empirical evidence to the fact that high voluntary employee turnover rate has a negative effect on such company's indicators as productivity and profitability, labour force performance level, commitment of employees, instrumental communication, social and organisational capital of the company or the so-called knowledge base, etc. It should be noted that the negative effect high voluntary employee turnover rate produces on the company's indicators to a great extent appears because employees, who have demonstrated high performance level or who have worked on the positions demanding high involvement or commitment, leave the company. On the other hand, it might be even desirable for a company if employees, demonstrating low performance level or occupying the positions with no demand for high involvement or commitment, decide to voluntary leave.

In compliance with the theories on organisational effectiveness, the indicators of the company's personnel can be upgraded by improving management functions or internal development enhancing processes. Managerial processes approach is based on the concept of rationality, which bridges individual needs with the functional goals of an organisation. The organisation is considered to be effective if different internal processes contribute to the achievement of desired results and behaviour, which, in their turn, facilitate reaching the organisation goals. Human resource management has a more direct influence on personnel indicators, including employee turnover.

The issue of the impact human resource management has on employee turnover has been addressed quite extensively in scientific research on the global scale. In the scientific literature,

the impact of human resource management on employee turnover is analysed establishing correlation between human resource management effectiveness or human resource management system as the combination of certain practices and organisation performance results, including employee turnover; identifying employee turnover dependence on human resource management system; measuring the degree of correlation between employee turnover and a particular human resource management practice or a particular method adopted within this practice. The interconnectedness of human resource management and employee turnover is described within employee turnover research reviews, as well as within employee turnover models. The reasons for employee turnover are investigated in the range of economic, psychological and sociological studies. These reasons may be not directly related to management, however, they can be influenced by human resource management methods.

It should be noted that the existing employee turnover models are quite general and provide only limited guidance to particular human resource management practices. Despite the existing impressive number of studies on employee turnover and its influencing factors, there is a lack of contemporary comprehensive reviews concerning the impact of human resource management practices on employee turnover, there are also no substantiated, applicable employee turnover management guidelines.

It is scientifically proved that in order to achieve the desired performance and personnel indicators, it is necessary to apply a set of human resource management practices rather than select single practices. The academic literature provides information on different types of sets or systems of human resource management practices – high-performance work system, high-involvement work system, high-commitment work system, control human resource management system, etc. However, the set of human resource management practices intended for employee turnover management has not been investigated to the sufficient degree. It has been attested in the studies that employee commitment is not always related to employee turnover rate, and factors, which convince an employee to stay with the company, differ from the factors, which make the employee leave. Therefore, high-commitment human resource management system cannot be directly correlated with low or high employee turnover rate.

Taking into account the initial theoretical research on employee turnover management, within the framework of the present Doctoral Thesis the following **research questions** are raised:

1. What factors have been analysed in the preceding theoretical and empirical research on employee turnover? What correlations have been established?
2. What human resource management practices and in what way influence employee turnover rate in the Latvian companies?

**Research object** – the Latvian companies.

**Research subject** – employee turnover and possible solutions for its management.

**The aim of the Doctoral Thesis** is to identify factors influencing employee turnover and develop management solutions for companies.

In order to achieve the aim of the Thesis, the following **tasks** have been formulated:

1. to analyse socio-economic significance of employee turnover and suitability of measurements for assessing company's general and human resource management effectiveness;
2. to summarise results of the preceding research on the factors influencing employee turnover and to identify possible employee turnover management scenarios;
3. to identify the main reasons for job change among employees working in Latvia and to establish correlation with socio-demographic parameters of the employed and with labour market situation;
4. to establish correlation between human resource management practices adopted in the Latvian companies and employee turnover rate;
5. to develop and approbate employee turnover management solutions in the Latvian companies.

### **Research Limitations**

Within the framework of the Doctoral Thesis, the concept of "human resource management practice" is used to address the activities in the field of work or work relations performed by company management or a structural unit, or a person responsible for human resource management.

Within the framework of the given research, the non-market sector organisations, i.e. legal persons, which provide services free of charge or for economically insignificant payment have not been analysed (CSP, 2014). Within such organisations, personnel management is to a great extent determined by institutional factors – relevant laws and regulations governing organisation performance, for example, Law "On Public Administration", Law "On State Civil Service", etc., – and amendments to them. These regulations are not subject of the present research.

Within the framework of the empirical research on Latvian companies, private and public sector companies with 200 employees or more are considered. There is an objective necessity to systematise human resource management processes within the companies with a large number of employees. Human resource management practices are measured and arranged on the dichotomous scale, i.e., "present" or "not present" in the company. The company labour costs are determined in relative measurement units as percentage from company operational costs.

The following **theses** have been proposed for defence:

1. at the individual level, socio-demographic parameters are more significant than the situation on the labour market for the employee making a decision to change a job;
2. company human resource management practices may directly influence employee turnover rate;
3. to manage employee turnover rate a complex approach should be applied, i.e., the set of interrelated human resource management practices.



## **Research Methods and Theoretical (Methodological) Substantiation**

For the needs of the present Thesis, scientific research methods recognised in the field of management have been applied. To obtain and process the data, document analysis methods (traditional document analysis, content analysis, systematic review), surveys, description, comparison, classification, descriptive statistical methods, and inferential statistics methods have been applied. Content analysis has been performed applying *Nvivo10* software; for the analysis of statistically significant differences and relationships *IBM© SPSS© Statistics Version 23* software has been used.

The main data and information sources are anonymous individual data from “Income and Living Conditions Survey” provided by the Central Statistical Bureau of the Republic of Latvia, and publicly accessible databases on the organisation homepage; as well as the databases of the Organization for Economic Co-operation and Development, academic databases *Scopus* and *EBSCOhost Web*, etc.

The theoretical and methodological foundation of the research consists of theoretical and practical research results:

- in the field of research on socio-economic significance and measurement of employee turnover – M. Abelson, B. Baysinger, A. Bluedorn, M. Campion, D. Dalton, W. Tudor, D. Krackhardt, P. Muchinsky, P. Morrow, T. Hinkin, J. Tracey, A. Tziner, A. Birati, M. Armstrong, J. Price, L. Peiseniece, I. Vorončuka and others;
- in the field of research on employee turnover factors – J. March, H. Simon, L. Porter, R. Steers, W. Mobley, R. Mowday, P. Muchinsky, P. Morrow, C. Rusbult, D. Farrell, J. Sheridan, E. Jackofsky, C. Hulin, T. Lee, T. Mitchell, P. Hom, R. Griffeth, J. Price, R. Steel, C. Maertz, M. Campion, D. Allen, B. Holtom, B. Pettman, J. Cotton, J. Tuttle and others;
- in the field of research methodology – J. Creswell, V. Clark, B. Kitchenham, M. Petticrew, H. Roberts and others.

The **scientific novelty** of the Doctoral Thesis:

1. taking into account the analysis of employee turnover models, a theoretical model of the factors influencing employee turnover has been developed;
2. the results of the empirical research on the correlation of employee turnover with individual and external alternative factors have been systematised; the working age population job change process and its reasons have been analysed in connection with socio-demographic parameters of the population and labour market indicators in the period of 2005–2014;
3. the results of empirical research on the correlation of employee turnover with job and organisational factors have been summarised; it has also been determined what human resource management practices in the Latvian companies are related with lower or higher employee turnover rates;
4. the set of human resource management practices to be included in employee turnover management has been developed;

5. human resource management practices for employee turnover rate forecast have been identified;
6. the algorithm for selection of human resource management practices to diminish employee turnover rate has been proposed.

#### **Scientific Publications:**

1. Ozolina-Ozola, I., Gaile-Sarkane, E. (2017). Job Change in Latvia: The Role of Labor Market Conditions and Employees' Socio-Demographic Characteristics. *Procedia Computer Science*, Vol. 104, pp. 197–204. DOI: <https://doi.org/10.1016/j.procs.2017.01.106>.
2. Ozolina-Ozola, I. (2016). An exploratory study of the role of human resource management in models of employee turnover. *International Journal of Learning and Change*, Vol. 8, No. 3/4, pp. 231–244. DOI: <http://dx.doi.org/10.1504/IJLC.2016.081644>.
3. Ozolina-Ozola, I. (2015). Reducing Employee Turnover in Small Business: An Application of Employee Turnover Models [online]. *Proceeding of the 2nd International Conference on Mathematics and Computers in Sciences and Industry (MCSI 2015), August 17–19, 2015*. Sliema (Malta): MCSI, pp. 139–144. Available at: <http://www.inase.org/library/2015/books/bypaper/MCSI/MCSI-26.pdf>.
4. Erina, I., Ozolina-Ozola, I., Gaile-Sarkane, E. (2015). The Importance of Stakeholders in Human Resource Training Projects. *Procedia – Social and Behavioral Sciences*, Vol. 213, pp. 794–800. DOI: <https://doi.org/10.1016/j.sbspro.2015.11.477>.
5. Shatrevich, V., Sceulovs, D., Ozolina-Ozola, I. (2015). Development of E-recruitment as E-business Model Based on Business Model Ontology [online]. *Proceeding of Selected Papers of the 15. International Scientific Conference “Perspectives of Business and Entrepreneurship Development: Economic, Management, Finance and System Engineering from the Academic and Practitioners View”, May 28–29, 2015*. Brno: Brno University of Technology, pp. 402–414. Available at: [https://www.konference.fbm.vutbr.cz/ic\\_2015/useruploads/files/SELECTED\\_PAPERS\\_2015.pdf](https://www.konference.fbm.vutbr.cz/ic_2015/useruploads/files/SELECTED_PAPERS_2015.pdf).
6. Ozolina-Ozola, I. (2014). The impact of human resource management practices on employee turnover. *Procedia – Social and Behavioral Sciences*, Vol. 156, pp. 223–226. DOI: <https://doi.org/10.1016/j.sbspro.2014.11.178>.
7. Lobanova, L., Ozolina-Ozola, I. (2014). Innovative Trends in Human Resource Management: a Case Study of Lithuanian and Latvian Organisations. *International Journal of Transitions and Innovation Systems*, Vol. 3, No. 2, pp. 131–152. DOI: <http://dx.doi.org/10.1504/IJTIS.2014.062812>.
8. Lobanova, L., Ozolina-Ozola, I. (2014). Internationalization Processes and Effective Practices of HRM: Employee Performance and Commitment in Latvia and Lithuania [online]. *Selected Papers of the 8th International Scientific Conference “Business and Management 2014”, May 15–16, 2014*. Vilnius: Vilnius Gediminas Technical University, pp. 389–398. Available at: [http://old.konferencijos.vgtu.lt/bm.vgtu.lt/public\\_html/index.php/bm/bm\\_2014/paper/view/401](http://old.konferencijos.vgtu.lt/bm.vgtu.lt/public_html/index.php/bm/bm_2014/paper/view/401).
9. Lobanova, L., Ozolina-Ozola, I. (2014). Comparative Evaluation of the Practical Areas of Human Resource Management in Lithuania and Latvia. *Procedia – Social and Behavioral*

Sciences, Vol. 110, pp. 607–616. DOI: <https://doi.org/10.1016/j.sbspro.2013.12.905>.

10. Ozoliņa-Ozola, I. (2011). Cilvēku resursu vadīšanas efektivitātes novērtēšanas problēmas. *Ekonomika un uzņēmējdarbība*, 21. sējums, 67.–75. lpp.

#### **International Scientific Conferences:**

1. University of Latvia 75<sup>th</sup> Annual Scientific Conference; report *“Impact of Higher Education and Research Institutions on the Development of Entrepreneurship Ecosystem in Latvia: the Results of Stakeholder’s Opinion Survey”*; Latvia, Riga, 3 February 2017.
2. Riga Technical University 57<sup>th</sup> International Scientific Conference “Scientific Conference on Economics and Entrepreneurship (SCEE’ 2016); report *“Job change in Latvia: the role of labour market conditions and employees’ demographical characteristics”*; Latvia, Riga, 30 September 2016.
3. Vilnius Gediminas Technical University 4<sup>th</sup> International Scientific Conference “Contemporary Issues in Business, Management and Education’ 2015”; report *“An exploratory study of the role of human resource management in models of employee turnover”*; Lithuania, Vilnius, 12–13 November 2015.
4. Riga Technical University 56<sup>th</sup> International Scientific Conference “Scientific Conference on Economics and Entrepreneurship (SCEE’ 2015):
  - report *“Challenges faced to the promotion of social innovation in Latvia: from the perspective of management”*;
  - report *“The organisational and job factors in employee turnover models”*; Latvia, Riga, 15 October 2015.
5. 15<sup>th</sup> International scientific conference “Perspectives of Business and Entrepreneurship Development: Economic, Management, Finance and System Engineering from the Academic and Practitioners View”; report *“Development of e-recruitment as e-business model based on Business Model Ontology”*; Czech Republic, Brno, 28–29 May 2015.
6. 20<sup>th</sup> International scientific conference „Economics and Management – 2015” (ICEM–2015); report *“The importance of stakeholders in human resource training projects”*; Lithuania, Kaunas, 6–8 May 2015.
7. 19<sup>th</sup> International scientific conference „Economics and Management – 2015” (ICEM–2014); report *“The impact of human resource management practices on employee turnover”*; Latvia, Riga, 23–25 April 2014.
8. Vilnius Gediminas Technical University 2<sup>nd</sup> International Scientific Conference “Contemporary Issues in Business, Management and Education’ 2013”; report *“Comparative evaluation of the practical areas of human resource management in Lithuania and Latvia”*; Lithuania, Vilnius, 14–15 November 2013.
9. Riga Technical University 53<sup>rd</sup> International Scientific Conference “Scientific Conference on Economics and Entrepreneurship (SCEE’ 2012); report *“Personāla mainība kā cilvēku resursu vadīšanas rādītājs”*; Latvia, Riga, 11 October 2012.
10. Riga Technical University 51<sup>st</sup> International Scientific Conference “Scientific Conference on Economics and Entrepreneurship (SCEE’ 2010); report *„Cilvēku resursu vadīšanas efektivitātes novērtēšanas problēmas”*; Latvia, Riga, 15 October 2010.

### **Participation in Academic Projects:**

- 2014–present – National Research Programme 5.2. “Economic Transformation, smart growth, governance and legal framework for the state and society for sustainable development – a new approach to the creation of a sustainable learning community – EKOSOC–LV”, Project No. 5.2.7. “Involvement of the society in social innovation for providing sustainable development of Latvia”; Project manager – *Dr. paed.* Karine Oganisjana; position – scientific assistant.
- 2016–2017 – Norway grant project “EU policies impact to the transformations of the higher education and research system in Norway and Latvia”; Project promoter – University of Latvia, Partners – Nordic Institute for Studies in Innovation, Research and Education, Riga Technical university, Stockholm School of Economics Riga; position – researcher.

### **Approbation and Applicability of Research Results**

Research results have been reported at ten international conferences and published in ten scientific papers. Employee turnover and its management problems have been addressed in the author’s papers published in the popular scientific journal “Business Psychology” as well as in the business issue “Handbook of Personnel Management”. The results of empirical research concerning Latvian companies have been presented and discussed with the members of the Latvian Association for People Management, *CRANET* research participants and other people within the framework of the seminar “Human Resources Management Practices in the Large Latvian Companies” organised by BA School of Business and Finance.

Research results have been approbated within Project 5.2.7. “Involvement of the society in social innovation for providing sustainable development of Latvia” of the National Research Programme 5.2. “Economic transformation, smart growth, governance and legal framework for the state and society for sustainable development – a new approach to the creation of a sustainable learning community – EKOSOC–LV”.

Research results are applied within the framework of study courses within different education cycles – “Personnel Management”, “Human Resource Economics”, “Managerial Psychology”, “Entrepreneurial Process Management”, etc. implemented at Riga Technical University. Employee turnover management solutions developed by the author of the Doctoral Thesis can be applied by managers at different levels, personnel management specialists in Latvian medium and large companies assessing, planning and coordinating human resource management practices to achieve the desired employee turnover rate.

### **Structure and Contents of the Thesis**

The Doctoral Thesis comprises 164 pages excluding appendices.

The Thesis consists of four chapters. In the first chapter, the author conducted theoretical analysis on the socio-economic significance of employee turnover, scientific research development in Latvia and abroad, as well as employee turnover measurement problems.

In the second chapter of the Thesis, factors influencing employee turnover have been analysed. The research of the factors influencing employee turnover is based on qualitative and quantitative (content-) analysis of employee turnover models, the summary of the empirical

research results on employee turnover relationships with individual and external alternative factors, and the systematic review of employee turnover relationships with work and organisational factors performed by the author.

In the third chapter of the Thesis, the results of two empirical studies are provided. The first empirical research has been conducted on job change tendencies on the Latvian labour market, in particular on how many people of working age change their job, what is job change dynamics and what are the main reasons for it; how it is connected with population socio-demographic parameters and labour market indicators. Within this research, it has been determined what sets of factors – socio-demographic parameters or labour force indicators – are more significant for job change related to accepting better job proposal or searching for a better job.

The second study in the third chapter of the Thesis concerns the correlation existing between employee turnover rate and human resource management practices in the Latvian companies. Within the framework of the research, it has been investigated what is the average employee turnover rate in such companies, how employee turnover rate is related with company performance indicators, personnel structure, personnel management organisation, application of particular human resource management practices and the set of practices. Human resource management practices under investigation comprise such fields as reducing labour force costs, staffing, performance appraisal, training and development, monetary and non-monetary benefits offered to personnel, labour relationships and internal communication.

In the fourth chapter of the Thesis, empirical solutions for employee turnover management in the companies have been developed: the set of human resource management practices has been designed, which can be used to determine what practices should be applied for managers, specialists, administrative staff or blue-collars, the effect of these practices depending on a particular company or personnel parameters have been assessed; human resource management practices for forecasting employee turnover rate have been identified; the decision making algorithm for choosing human resource management practices to reduce employee turnover rate has been developed; the perfect employee turnover management process has been described. In conclusion, the results of expert surveys and case studies are provided for testing employee turnover management solutions developed within the framework of the given Thesis.

# **RESEARCH RESULTS OF THE DOCTORAL THESIS**

## **1. ESSENCE OF EMPLOYEE TURNOVER INDICATOR AND ITS APPLICATION ISSUES**

### **1.1. Socio-Economic Significance of Employee Turnover**

The sub-chapter comprises six pages, it contains three figures and one table.

Employee turnover rate in a company indicates instability or, vice versa, stability of its staff. This is one of the most frequently applied indicators for assessing company, institution and other organisation management in general and human resource management effectiveness in particular (Armstrong, Taylor, 2014; Vorončuka, 2009). In Latvia, 72 % or 47 of the companies participating in the survey have confirmed they calculate employee turnover rate (Peiseniece, 2009).

Employee turnover has a controversial influence on an individual, company performance, labour force situation and on the society in general, as it can have both positive and negative effect. At the individual level, the consequences of employee dismissal depend on different circumstances, including the fact whether the decision of the employee to resign has been taken voluntary or under pressure. Voluntary resignation due to a better job proposals or opportunity to improve living conditions may contribute to a more efficient use of one's potential, or to ensure higher level of economic or psychological prosperity. At the same time, voluntary or forced resignation may cause an individual to suffer from depression, low personal and professional self-esteem, health problems (Muchinsky, Morrow, 1980).

At the company level, employee turnover causes different direct and indirect costs (Abelson, Baysinger, 1984; Griffeth, Hom, 2001; Hinkin, Tracey, 2000; Tziner, Birati, 1996) (see Figure 1.1.). According to the research conducted by Līga Peiseniece in 2009, human resource management effectiveness assessing method is not commonly used for calculation of costs related to employee turnover at big Latvian companies.

There is sufficient empirical evidence to the fact that high voluntary employee turnover rate has a negative effect on such company's indicators as productivity and profitability (Brown, Garino, Martin, 2009; McElroy, Morrow, Rude, 2001), personnel performance level (Shaw, Gupta, Delery, 2005), commitment of employees, instrumental communication (Mueller, Price, 1989), social and organisational capital of the company or the so-called knowledge base (Eckardt, Skaggs, Youndt, 2014; Shaw et al., 2005), etc. It should be noted that the negative effect high voluntary employee turnover rate produces on the company's indicators to a great extent appears because employees, who have demonstrated high performance level (Jackofsky, 1984; Dess, Shaw, 2001; Shaw, Gupta, Delery, 2005) or who have worked on the positions demanding high involvement or commitment, leave the company (Siebert, Zubanov, 2009). On the other hand, it might be even desirable for a company if employees, demonstrating low performance level or occupying the positions with no demand for high involvement or commitment, decide to voluntary leave.

In order to maximize work productivity rate, the optimal employee turnover rate should be achieved at the company. To date in the human resource management theory and practice there is no optimal methodology for measuring employee turnover rate, therefore its development is highly topical.

#### EMPLOYEE TURNOVER COSTS

	<i>Before termination of employment</i>	<i>Vacancies available</i>	<i>After filling the vacancy</i>
<b>Direct costs</b>	<ul style="list-style-type: none"> <li>Administrative costs of termination of employment</li> <li>Severance benefit</li> </ul>	<ul style="list-style-type: none"> <li>Costs of search and selection of candidates (for administration of these processes, job advertisements, headhunter company services, telephone interviews, stationery for document printing and copying, etc.)</li> <li>Additional payment for extra work or overtime work to current employees;</li> <li>Employee transport costs;</li> <li>Subcontracting costs</li> </ul>	<ul style="list-style-type: none"> <li>Costs of initiation period and training of a new employee (premises, study materials, trainer salary, business trips, etc.)</li> <li>Difference between salaries of new and previous employee</li> </ul>
<b>Indirect costs</b>	<ul style="list-style-type: none"> <li>Losses from reduced work productivity and quality level of the employees, who plan to resign</li> </ul>	<ul style="list-style-type: none"> <li>Unexecuted amount of work at the particular job position</li> <li>Unexecuted amount of work due to the fact that managers and specialists participate in candidate attraction and selection procedures</li> <li>Losses from reduced work productivity and lower quality level of the current employees due to overload and/or lack of the required skills</li> </ul>	<ul style="list-style-type: none"> <li>Losses from insufficient work productivity and quality level of new employees</li> <li>Unexecuted amount of work due to the fact that managers or specialists participate in the initiation and training of new employees</li> </ul>
<ul style="list-style-type: none"> <li>Losses from reduced work productivity and quality level of the employees because of low loyalty, bad moral climate, lack of cohesiveness and solidarity or instability of work relationships.</li> </ul>			
<b>Direct costs</b>	<ul style="list-style-type: none"> <li>Overpayment for employee work (difference between payment for the same level job offered by a company and on the external market – including salary, additional payments, bonuses)</li> <li>Other costs for employee retention, not directly connected with the salary (corporate events, training and professional advancement, free lunches, etc.)</li> </ul>		
<b>Indirect costs</b>	<ul style="list-style-type: none"> <li>Losses, which occur from permitted absence, e.g., training, additional holidays (unexecuted amount of work, errors of other employees due to overload, overtime payment, etc.</li> <li>Losses from reduced work productivity and quality due to “sticking to habits” and lack of innovation</li> </ul>		

#### EMPLOYEE RETENTION COSTS

Figure 1.1. Employee turnover and retention costs (designed by the author).

In general, free movement of labour force contributes to the creation of a dynamic labour market, which in its turn can raise efficient employability. However, excessively intensive labour force mobility may have negative effect due to human capital losses (Cedefop, 2015).

In Latvia in 2014, the employees with the uninterrupted length of service for one employer – 10 year or longer – comprised 30 % of the total employee number, which is slightly lower in comparison with the average level of 32 % in other member states of the Organization for

Economic Co-operation and Development, but it is considerably lower than the same indicator in the countries of continental Europe (OECD, 2016).

The development of long-term employability in Latvia results in both favourable conditions for return on investments into human resource maximisation and new challenges in maintaining high motivation level of the current labour force, as well as new labour force attraction. According to the data from the research on the Latvian labour market changes in the period of 2008–2013 conducted by the specialists from Latvian banks (Fadejeva, Krasnopjorovs, 2015), from 2010 it has become more difficult for the local employers to introduce corrections to the salaries of the current employees than in the period of crisis. At the same time, there are companies which face the lack of qualified labour force, and this lack according to medium and long-term demographic forecasts (Ministry of Economics, 2015) is becoming even more evident, and it is going to be problematic to find the required employees. Even with the improvement of company's financial prosperity, which leads to safe investments into human resources, negative demographic tendencies, contraction of the working age population in particular, will create competition among companies in the field of employee attraction and retention.

## **1.2. Development of Scientific Research on Employee Turnover**

The sub-chapter comprises three pages.

Scientific approach to research on employee turnover emerged at the beginning of the 20<sup>th</sup> century. First known studies with the focus on employee turnover problems originated in Germany and were published in the German issue "The Papers of Social Policy Union" in 1910 (Douglas, 1932). The authors of the issue, namely, Marie Bernays and Stanislaw von Bieńkowski to mention a few, paid attention to social aspects of employee turnover, having stated that the high employee turnover rate is the result of employee dissatisfaction with job and indicates work relationships problems (Bernays, 1910; Bieńkowski, 1910). Economic aspects of employee turnover at that time were extensively addressed by the USA researchers. Magnus Alexander, Sumner Slichter, Paul Douglas, Boyd Fisher, etc. have considerably contributed to research on employee turnover.

In Latvia, employee turnover problems became topical later, as at the beginning of the 20<sup>th</sup> century. Till the beginning of the 1930s, it was a typical agrarian state (Skujenieks, 1938). After World War II, in the early 1950s, the problem of employee turnover in different fields of the national economy – agriculture, civil engineering, manufacturing industry, etc. – was often raised in the newspapers. The results of scientific research on employee turnover (and its reasons) in the companies on the territory of Latvia, as well as methodological materials for accounting and analysis of employee turnover were first published in the mid-1960s.

Historically, the concept of employee turnover has been addressed relatively inconsistently. It is generally accepted to perceive employee turnover as employee movement indicator, which indicates the share of dismissed employees irrespective of the dismissal reasons in the average number of employees in the certain period of time (Colvin, 1919; Heery, Noon, 2008; Martin,



2010). Within this reading of this employee turnover concept, there are two important aspects: first – employee turnover is seen as an indicator, which can be calculated by particular formula; second – employee turnover is related to employee dismissal, both voluntary and forced, but it is not related to employee recruitment. Alongside with the dominating meaning of the employee turnover concept, there have always been more specific interpretations of the concept, which, however, do not contradict the widely accepted definition of employee turnover, as its essence is present in particular types of employee turnover.

### 1.3. Contemporary Approach to Employee Turnover Measurement

The sub-chapter comprises seven pages, it contains two figures and one table.

Peter Hom and Rodger Griffeth compiled classifications of employee turnover types into a unified taxonomy, within which other types of employee turnover are subordinated to the voluntary employee turnover. This taxonomy is designed to highlight “voluntary, dysfunctional and avoidable” type of employee turnover, which, according to Hom and Griffeth, is undesirable and should be reduced. However, it is a narrow view on undesirable employee turnover. Undesirable employee turnover can be initiated by the administration of a company, when, for instance, due to internal disagreement, efficient or potentially efficient employees are dismissed. Undesirable employee turnover rate may be both high and vice versa, too low, therefore, it is absolutely essential to know how to manage “functional employee turnover”. The wider view on what employee turnover is should be substantiated by comprehension of the optimal employee turnover, which in its turn demands reassessing the taxonomy of employee turnover types proposed by Hom and Griffeth.

	<i><b>Dysfunctional</b></i>	<i><b>Functional</b></i>
<i><b>Controllable</b></i>	<i><b>Forced</b></i> Dismissal of an efficient employee due to termination of temporary employment agreement	<i><b>Forced</b></i> Dismissal of an inefficient employee due to employer's notice because of violation of working regulations and professional unsuitability
	<i><b>Voluntary</b></i> Dismissal of an efficient employee due to his/her notice because of dissatisfaction with job or because of a better job proposal	<i><b>Voluntary</b></i> Dismissal of an inefficient employee due to agreement of both parties, proposing an employee a more favourable offer to leave.
<i><b>Uncontrollable</b></i>	<i><b>Forced</b></i> Dismissal of an efficient employee due to employer's notice because of request from third parties or because of court verdict	<i><b>Forced</b></i> Dismissal of an inefficient employee due to employer's notice because of request from third parties or because of court verdict
	<i><b>Voluntary</b></i> Dismissal of an efficient employee due to his/her notice because of family commitments	<i><b>Voluntary</b></i> Dismissal of an inefficient employee due to his/her notice because of family commitments

Figure 1.2. Example of employee turnover types (designed by the author).

Taking into account the range of employee turnover research results and opinions on what the optimal employee turnover is (Abelson, Baysinger, 1984; Campion, 1991; Hancock et al., 2013; Shaw, Gupta, Delery, 2005; Siebert, Zubanov, 2009), the taxonomy of employee turnover types proposed by Hom and Griffeth should be complemented including eight employee turnover types (see Figure 1.2.). Hence, in the employee turnover management, particular attention should be paid not only to averting both voluntary and forced dysfunctional employee turnover, but also to promoting both voluntary and forced functional employee turnover. Assuming that for achieving and maintaining the optimal employee turnover rate it is necessary to regulate dysfunctional and functional employee turnover, it is advisable to rename “unavoidable” and “avoidable” employee turnover respectively as “uncontrollable” and “controllable” employee turnover. Hereinafter in the Doctoral Thesis the focus is placed on the controllable employee turnover.

In order to precisely assess personnel movement processes within the company and to identify negative tendencies, it is required to calculate different employee turnover types. To ensure the optimal employee turnover rate the best policy recommended is to keep track of controllable functional and dysfunctional employee turnover rate.

## 2. THEORETICAL ANALYSIS OF FACTORS INFLUENCING EMPLOYEE TURNOVER

### 2.1. Analysis of Employee Turnover Models

The sub-chapter comprises 13 pages, it contains four figures and five tables.

Since the early 20<sup>th</sup> century, comprehensive research on employee turnover in the fields of psychology, sociology, management and economics, including analytical reviews of the employee turnover research progress, has been conducted. Despite the existence of several different employee turnover models, few attempts have been made to compare these models. A significant contribution to synthesis of employee turnover models has been made by Robert Steel and John Lounsbury (2009). However, in the review of employee turnover models carried out by the researchers a few drawbacks can be identified: firstly, it is based only on the “process” models; secondly, register of components of the basic and secondary employee turnover mechanisms is incomplete and somewhat controversial; thirdly, “organisational and job factors” and some human resource management tools are put in a one-way dependency on the employee attitude variables – it is not shown that the work attitude and other separate employee parameters (e.g., length of service, professionalism) may be affected by the targeted human resource management, i.e., it does not highlight the correlation between these factors.

Taking into account the shortcomings of Steel and Lounsbury’s theoretical review of employee turnover models, a new selection of employee turnover models and qualitative and quantitative analysis of these models have been performed in the Doctoral Thesis. Research of employee turnover models relies on the mixed methods approach, in particular, on the study of embedded designs, in which qualitative analysis of the models plays the primary role and quantitative analysis – the secondary role.

Based on the publication search results in the electronic databases (*Scopus, EBSCOhost Web, Google Scholar, ScienceDirect, Springer Link*) with the pre-set keywords and especially employee turnover research reports found (Allen, Hancock, Vardaman, 2014; Holtom et al., 2008; Steel, Lounsbury, 2009; Maertz, Campion, 2004), at least 50 publications were selected, of which according to the criteria – integrity, level of analysis, originality, significance – ultimately 16 publications describing employee turnover models, or 16 employee turnover models were selected for further analysis.

To find out what kind of factors affecting employee turnover are most frequently indicated in the employee turnover models content analysis of the corresponding publications was made with the help of *Nvivo10* software. Content analysis results indicate that the group of organisational and job factors is most widely covered in the description of these models (see Figure 2.1.). In turn, in the group of organisational and job factors work content-related characteristics are best indicated (autonomy and responsibility, work uniformity, work complexity, etc.), congruence of the level of wages and work role with other employee roles in life (see Figure 2.2.).

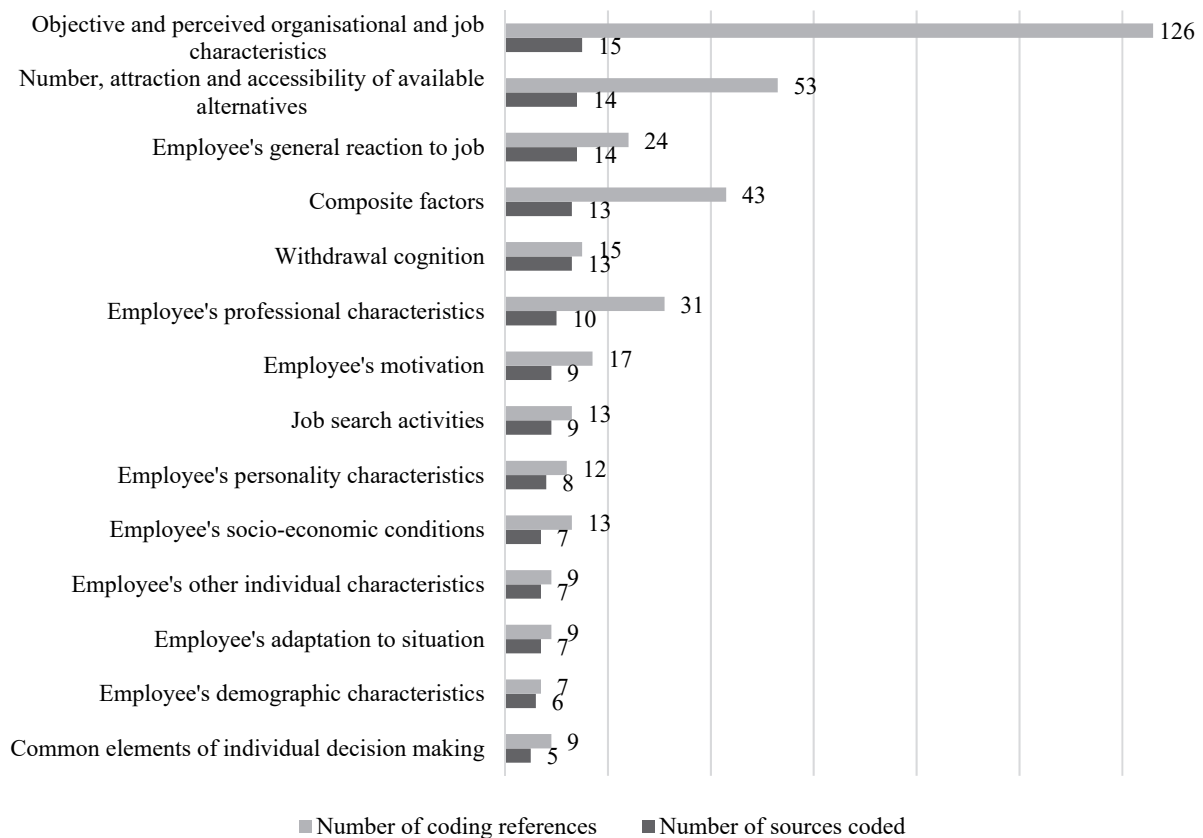


Figure 2.1. The results of content analysis: thematic groups of elementary factors and their quantitative indicators (designed by the author).

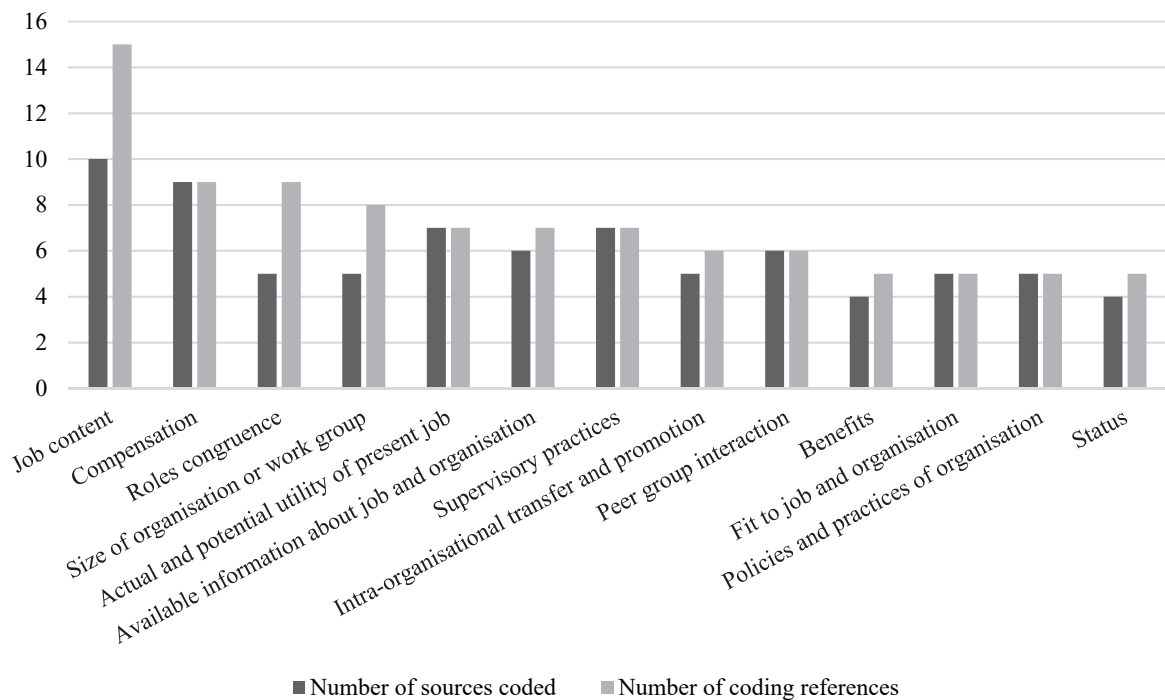


Figure 2.2. The results of content analysis: the organisational and job factors and their quantitative indicators (with number of coding references at least 5; designed by the author).

Summarising the results of employee turnover model analysis, it can be concluded that employee turnover is explained by three groups of basic factors – individual factors, external factors, organisational and job factors (see Figure 2.3.). In the majority of external factors of employee turnover models, the influence of organisational and job factors is described through the prism of individual factors. What concerns the set of organisational and job factors, these factors are mostly described in general, and there are relatively few references to specific human resource management practices or those references have a general formulation that does not notify managers and human resource management specialists with what specific means and in what context the level of employee turnover can be regulated. Objective parameters of the organisational and job factors in employee turnover models, including practices of human resource management proclaimed and implemented in the organisation, are often viewed as causes of the employee’s attitude towards work, without emphasising the potential dependence of these parameters on the characteristics of personnel and personnel movement trends.

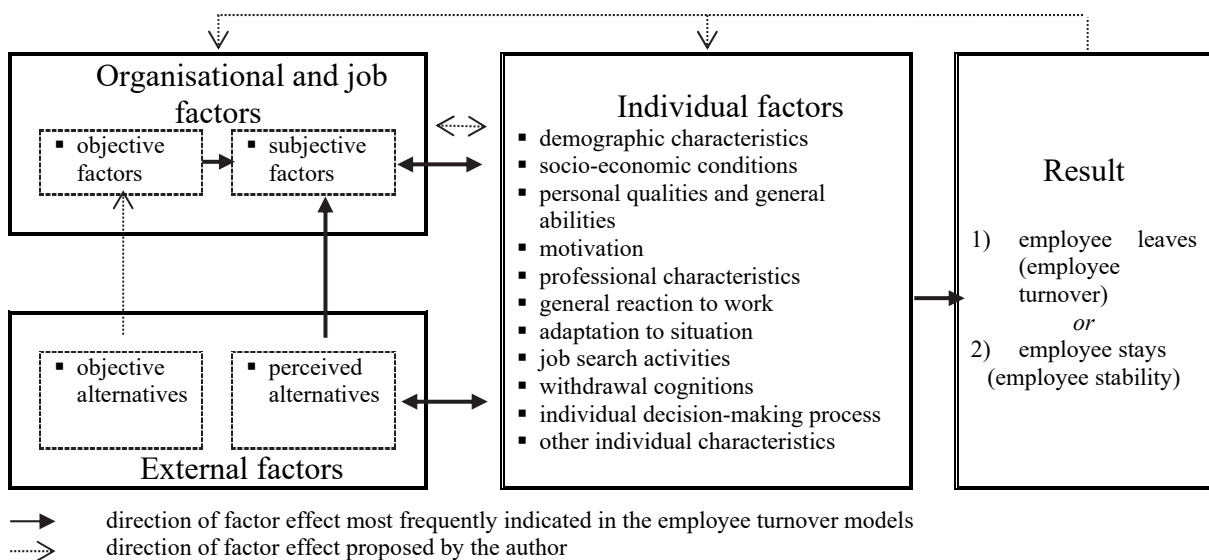


Figure 2.3. Theoretical model of basic factors affecting employee turnover (designed by the author).

To gain full comprehension of the employee turnover management in addition to basic factor correlations identified in the employee turnover models, it should be assumed that the objective parameters of the organisational and job factors can be derived from external social, economic and legal environments, from the socio-demographic, professional and psychological characteristics of staff, as well as the desired employee turnover level. Such assumptions comply with the systems approach in management, in particular, in contextual approach to human resource management that is based on it (Martín-Alcázar, Romero-Fernandez, Sánchez-Gardey, 2005), according to which human resource management practices and other internal organisation elements are formed within the external socio-economic context and there are interrelations between human resource management results, human resource management practices and employee parameters.

## 2.2. Analysis of Interrelation between Individual and External Factors with Employee Turnover

The sub-chapter comprises 16 pages, it contains 10 tables.

In order to find out how closely the factors described in employee turnover models are associated with employee turnover, empirical research analysis of employee turnover has been conducted in the Doctoral Thesis. Studies on the interrelation of employee turnover with such individual factors as employee demographic parameters, socio-economic conditions, personal and intellectual qualities, motivation, professional parameters, job satisfaction, trust in the organisation, job search activities, intentions to stay or leave the job have been reviewed, the Thesis also reviews research on the interrelation of employee turnover with external alternative factors – unemployment, the need for additional labour force, perception of job opportunities, quality of alternatives, and resignation costs. After summing up the results of empirical research on the interrelation of the individual factors and external alternative factors with the employee decisions to stay or leave the job, it can be concluded that the impact of each individual factor is not clearly interpreted and its impact often depends on the context, or a combination of several factors.

## 2.3. Determination of Correlations between Organisational and Job Factors and Employee Turnover

The sub-chapter comprises 21 pages, it contains 11 figures and one table.

In order to find out the evidence of the impact of organisational and job factors on employee turnover in the previous studies, a systematic review method has been used in the Doctoral Thesis. Using the guidelines on the methods to conduct systematic review developed by Kitchenham (Kitchenham, 2004), *PRISMA* (Moher et al., 2009) and *PICOC* (Petticrew, Roberts, 2008), 60 studies were selected. After analysis of these studies, it can be concluded that the correlation between employee turnover and remuneration and other material benefits has been mostly explored (see Table 2.1.). The impact of intangible factors, such as job characteristics and internal business communication, has also been studied relatively often. As business performance and in particular the movement of personnel is determined not by one isolated factor, several studies pay attention to complex human resource management practices.

Table 2.1.

The reviewed organisational and job factors

Thematic group	Reviewed factors
Remuneration and other material benefits (33)*	Salary (7), organisation of payment, including tariff system, integration of a variable remuneration element depending on the employee performance or merit (7), financial participation (4), tangible benefits (4), salary growth (3), integration of a variable remuneration element depending on the performance of a structural unit (2), complex system of tangible incentives (2), equal pay (2), covered education costs (1), equal availability of benefits for managers and non-managers (1).

Thematic group	Reviewed factors
Workplace (29)	Autonomy (6), team work, including problem-solving and autonomous work groups (6) workspace design, including the use of flexible work schedule or a range of duties (4), work schedule (1), diversity of work (2), variety of applied skills (2) and complexity level (1) work analysis (1) uniformity of task (1), importance of task (1), division of labour (1), high psychological demands (1), physical working conditions (2).
Complex human resource management practices (19)	High-involvement management practices (6), high-performance management practices (3), job performance-enhancing practices (1), skills-enhancing practices (1), motivation-enhancing practices (1), autonomy-enhancing practices (1), gender-focused human resource management (1), human resource management practices customised for family needs (1), individualised human resource management (1), control- or trust-oriented human resource management (1), investment and encouragement practice (1), effectiveness of strategic human resource management (1).
Internal business communication (16)	Participation in decision-making (6), information about the organisation's plans and results (4), obtaining feedback from employees through surveys (3), labour dispute or complaint handling procedures, (2) improvements since the last survey (1).
Personnel selection (13)	Personnel selection, including applicant selection criteria, level of demands (10), realistic job description (3).
Staff training (10)	Staff training (7), new employee training (2), manager training (1).
Recruitment (10)	Recruitment, including staffing from the internal human resources, employee suggested people, accuracy of information about the vacancy (9), automated electronic application system (1).
Performance assessment (8)	Performance assessment (4), feedback on performance (2), electronic monitoring (1), monitoring intensity (1).
Personnel advancement (8)	Promotions, including promotion criteria (4), growth prospects (3), satisfaction with the development and career path (1).
Social environment at work (7)	Support from manager (4), social activities, including corporate events, competitions, celebrations, greetings (1), managerial support of social activities (1), unfavourable social environment or psychological terror (1).
Culture and values of an organisation (5)	Culture and values of an organisation (1), learning-oriented organisation (1) organisation's internal support (1), human resource manager involvement at the strategic level of organisation management (1), ensuring equal opportunities for different groups of personnel (1).
Employee representation (5)	Proportion of trade union members in the total number of employees (4), collective bargaining institutions (1).
New staff induction and socialisation (4)	New staff induction (2), socialisation tactics (2).
Employment stability (4)	Employment or job stability (4).
System of tangible and intangible incentives	Involvement promotion incentives (1).

\* the frequency of the corresponding variable in the selected group of studies is indicated in the parentheses.

Complex human resource management practices is a group of different practices that characterises the organisation's human resource management system, or part of this system. The selected studies inform about 13 complex human resource management practices in total (see Figure 2.4.). There is more evidence that employee retention is promoted by high-involvement management practices (Batt, 2002; Batt, Colvin, 2011; Cottini, Kato, Westergaard-Nielsen, 2011; Doellgast, 2008; Guthrie, 2001) than that they have a neutral effect (Wood, de Menezes, 2008). It has also been observed that lower employee turnover rates are recorded in the organisations that implement strategic human resource management (Richard, Johnson, 2001); "investments and inducements" practices (Batt, Colvin, 2011); skills,

motivation or empowerment-enhancing practices (Gardner, Wright, Moynihan, 2011); commitment human resource management (Arthur, 1994) or gender-focused human resource management (Ali Metz Kulik 2015).

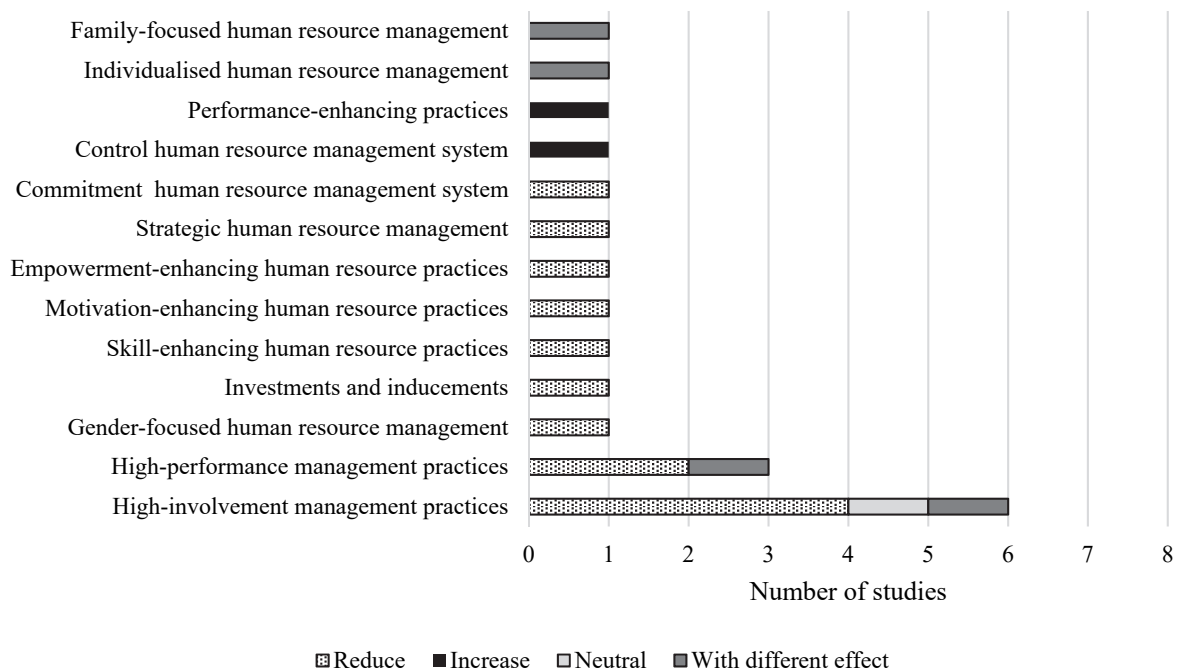


Figure 2.4. Empirical research results regarding the connection between complex human resource management practices and employee turnover.

Comparing the results of complex human resource management practices with the results of specific organisational and job factors, it can be concluded that there is more controversial information about specific factors. The existence of this contradictory information can be explained by methodological inconsistencies of the studies, the objective differences that may result from specifics of the researched selection and disregard of the impact of other organisational and job factors. In general, the results of complex human resource management practices are similar, i.e., depending on the composition/structure of these practices, they either increase or reduce employee turnover rate. This means that for effective employee turnover management not separate instruments should be used, but a coherent set of instruments.



### 3. CORRELATIONS BETWEEN COMPANY HUMAN RESOURCE MANAGEMENT AND EMPLOYEE TURNOVER

#### 3.1. Reasons for Job Change by Working-Age Population in Latvia

The sub-chapter comprises 10 pages, it contains four figures and two tables.

In order to clarify the reasons for work change among the working age population and their interrelation with socio-demographic parameters of this group, as well as with labour market indicators, anonymised individual data provided by the Central Statistical Bureau of the Republic of Latvia and databases that are publicly available on the institution's website have been used. The anonymised individual data were obtained from "Statistics on Income and Living Conditions" (hereinafter – EU-SILC) for 10 reporting years (2005–2014). *IBM® SPSS® Statistics Version 23* software was used for data processing. Statistical tests were applied for quantitative analysis of the data to identify significant differences and the relationship between the investigated variables selected from the database. Statistically significant differences were tested with the Chi-Square test, Mann-Whitney test, Kruskal-Wallis test and Jonckheere-Terpstra test. Spearman's rank correlation coefficient ( $r_s$ ) was used for checking statistically significant correlations.

Although the results of the investigated statistically significant differences confirm that employees who have changed jobs differ in a number of socio-demographic parameters, further analysis of statistically significant correlations reveals that there is a weak correlation or statistically insignificant correlation between these parameters and job shift. Employee age demonstrated the highest correlation coefficient with the change of jobs in all reporting years ( $r_s = -0.092$ – $(-0.148)$ ;  $p < 0.001$ ). In general, the values and statistical significance of the correlation coefficients of the investigated socio-demographic parameters and the change of job are inconsistent, which can be explained by the potential impact of other factors.

Analysing the reasons for job change, it can be concluded that acceptance of a better job offer or search for a better job has dominated in all reporting years (see Figure 3.1.). In 2006–2008 and 2014, this was the reason why 70–76 % of employees changed their jobs. In 2009, the proportion of employees who were forced to change jobs (due to company closure, redundancy, early retirement, dismissal, etc.) dramatically increased – 36.64 %, which is the highest rate in the reporting period. Since 2011, involuntary job change tends to decrease.

Similarly to what has previously been determined about the interrelation between socio-demographic parameters of employees and job change, there is a weak correlation or statistically insignificant correlation between these parameters and job change causes, and the values of correlation coefficients and their statistical significance change from year to year. During the reporting period, the highest correlation coefficient with job change reasons most frequently has been observed for employee's economic status indicator ( $r_s = 0.116$ – $0.238$ ;  $p < 0.05$ ). The least significant correlation of job change reasons has been observed with the employee's gender, region of residence and level of education.

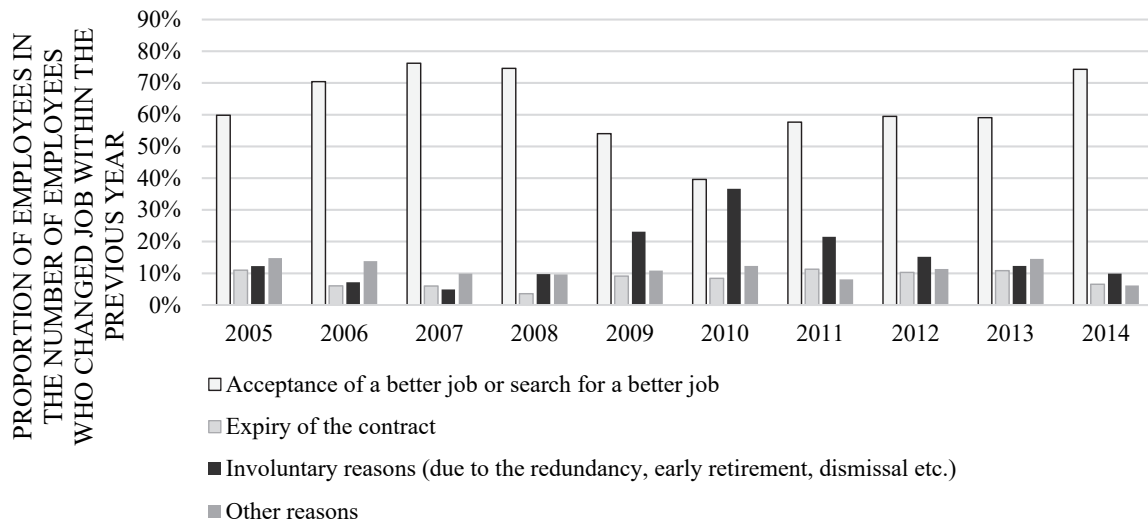


Figure 3.1. Job change reasons 2005–2014 (designed by the author according to the data provided by the Central Statistical Bureau of the Republic of Latvia).

In order to determine the impact of labour market indicators on employee job change and its reasons, the significance of such indicators as the number of occupied work places (in the country, separately in the public and private sectors, separately in permanent employment with time tracking), the number of vacancies (in the country, separately in the public and private sectors) and the unemployment rate has been analysed. The results of this analysis indicate that all of the studied labour market indicators have at least median correlation with the number of employees, which have changed the job in the previous year: the higher the number of occupied or vacant positions is, the more employees change their job ( $r_s = 0.552\text{--}0.709$ ;  $p < 0.05$ ); the same but in the opposite direction refers to unemployment ( $r_s = -0.648$ );  $p < 0.05$ ).

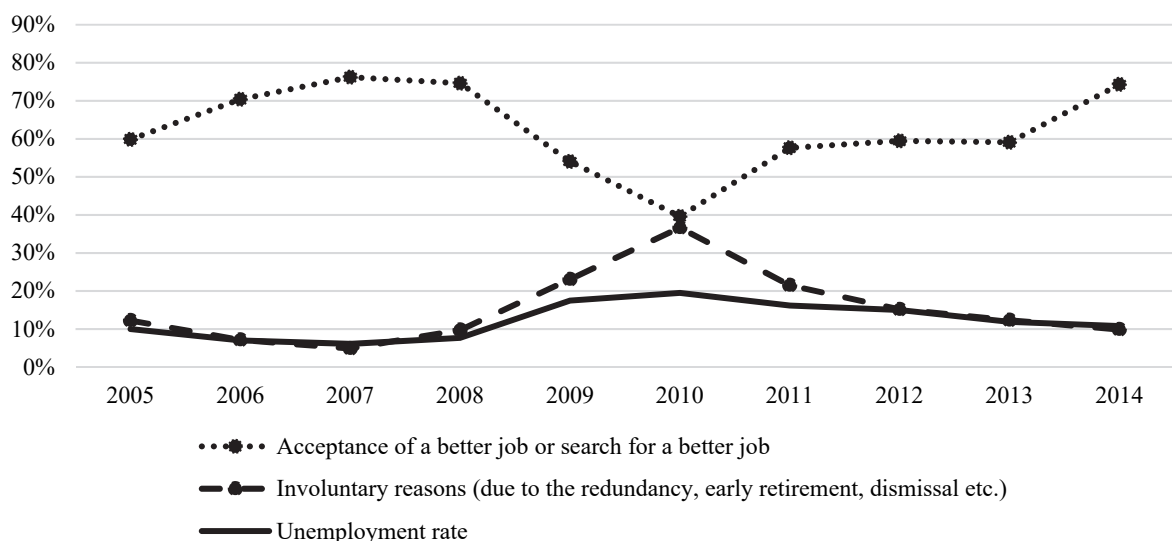


Figure 3.2. Unemployment rate and the number of employees who changed job within the previous year in relation to the total number of employees by reasons for job change in the period of 2005–2014 (Designed by the author on the basis of the data provided by the Central Statistical Bureau).

The significance of the investigated labour market indicators is more accurately revealed in their relation to job change reasons (see Figure 3.2.). All labour market indicators demonstrate close correlation with the employee's job change due to acceptance of a better job offer or search for a better job ( $|r_s| = 0.721\text{--}0.952$ ;  $p < 0.01$ ), due to the forced conditions ( $|r_s| = 0.697\text{--}0.770$ ;  $p < 0.05$ ; except for the number of the occupied work places in the public sector, which showed no significant correlation with this job change reason) or due to taking care of a child and other dependent persons ( $|r_s| = 0.648\text{--}0.794$ ;  $p < 0.05$ ). In turn, the studied labour market indicators do not show statistically significant correlations with such job change reasons as expiration of employment contract, change of residence due to cohabiting partner's job or marriage, selling or closing of own or family's company (except for the number of the occupied work places in the public sector, which medially closely correlate with job change due to selling or closing of the company ( $r_s = -0.588\text{--}(-0.636)$ ,  $p < 0.05$ )).

Although the research results demonstrate that at the regional level (except Pierīga Region) job changing trends are associated with labour market indicators of employees' region of residence, these indicators play an insignificant role at the individual level. Statistically significant correlation of unemployment rate, the number of occupied work places or job vacancies in the employee's region of residence with the job change is seldom observed, and it does not exceed value ( $|r_s|$ ) of 0.085.

The calculations carried out within the Doctoral Thesis confirm that job change, and specifically job change due to accepting a better job offer or searching for a better job, is related to the employee's socio-demographic parameters rather than to the labour market indicators. Both the fact of job change and job change due to accepting a better job offer or searching for a better job are more closely associated with the employee's age rather than the unemployment rate, the number of occupied work places or job vacancies in the region of residence ( $z > z_{\text{krit}}$ ; at  $z_{\text{krit}} = 2.575$  ( $p = 0.01$ )). However, the observed correlations are assessed as weak.

As the correlation of the employee's job change with socio-demographic parameters and labour market indicators is weak, it can be concluded that job change is caused by other factors. Further studies should determine the role of economic situation, professional and psychological parameters in job change. As far as the labour market indicators are concerned, it can be stated that job change is likely to be affected by job quality characteristics rather than the number of available job vacancies.

### **3.2. Influence of Human Resource Management on Employee Turnover Rate at the Latvian Companies**

The sub-chapter comprises 30 pages, it contains three figures and 18 tables.

To assess the impact of human resource management on the employee turnover rate, the *CRANET* (Cranfield Network on International Human Resource Management) database acquired within the framework of the research has been used. The *CRANET* questionnaire has been translated from English into Latvian and adapted to the target culture by the academic staff of the BA School of Business and Finance. The data have been collected by the academic

staff and students of the BA School of Business and Finance and the Faculty of Engineering Economics and Management of Riga Technical University. At the Faculty of Engineering Economics and Management of Riga Technical University, data acquisition process has been supervised by Deniss Ščeulovs and Iveta Ozoliņa-Ozola.

The *CRANET* survey provides descriptive statistical results of each survey question, not including data analysis of specific issues. The Doctoral Thesis provides a separate and independent analysis of the influence of human resource management practices on the employee turnover rate using the data acquired in the research.

General target group is the companies with 200 and more employees. According to the list of companies provided by *Lursoft* Ltd., at the beginning of 2014 there were 310 such companies in Latvia. The sample of respondents was constructed using the list of company contact information provided by *Lursoft*. The representatives of the chosen companies or employees directly responsible for personnel matters were contacted either by phone, e-mail or meeting in person to invite them to participate in the *CRANET* survey and devote time to completing the questionnaire. The completed valid questionnaires were received from 67 companies or from approximately 21.61 % of the companies of the general set. This corresponds to the average level of response observed in the *CRANET* studies (Cranet, 2009).

Employee turnover rate has been mentioned by 46 companies. As it is a small sample, the empirical data were tested for the presence of extreme values. Using the graphical data analysis method – box plot creation – eight cases or companies that indicated a significantly higher rate of employee turnover were identified. To further use statistical criteria for significant difference and correlation testing, such extreme cases were removed from the sample under study and analysed separately. Thus, the main sample consists of 38 companies or approximately 12.26 % of the companies of the general set.

*IBM® SPSS® Statistics Version 23* software was used to process the data. The data on the employee turnover rate at the companies were tested for statistically significant differences and correlations with all the variables using the appropriate statistical tests. The total number of the variables characterising the company, its personnel, human resource management practices and respondents themselves is 484, including 118 variables created by the author. To determine a statistically significant difference, Mann-Whitney test, Kruskal-Wallis test, Jonckheere-Terpstra test and the median test were used. Spearman's rank correlation coefficient and Kendall rank correlation coefficient ( $\tau_b$ ) were used to test statistically significant correlations. To determine whether the pair correlation depends on the influence of other variables, partial correlation analysis method was applied using the Spearman's rank correlation coefficients. As a result of the analysis performed, a significant correlation between the employee turnover and human resource management practices was identified. Correlation parameters affecting the company performance and characterising its personnel were taken into account to develop management solutions to reduce employee turnover.

Comparing systematic review results with the empirical research results of the Latvian companies, relationships between numerous human resource management practices with the employee turnover rate were either confirmed or disposed. The results of both systematic review and empirical research coincide in the observation that a lower employee turnover rate

is observed at the companies that use project group work, which not only helps employees perform certain tasks or deal with work-related issues, but also serves as an instrument for professional development of the project team members. The results of both studies are similar with respect to employee involvement in decision-making: a variety of vertical and horizontal communication methods are associated with a lower employee turnover rate. In both studies, a weak correlation was observed between the employee turnover rate and the application of performance evaluation results in the employee career change and the use of employee surveys as a tool to ensure feedback.

The results of research of the Latvian companies demonstrate that there is rather no correlation between the employee turnover rate and non-typical forms of employment in the companies under consideration, staffing of the internal human resources, recruitment through existing staff recommendations, personnel training, promotion, performance evaluation system and employee financial participation. Such correlation is rather observed between the employee turnover rate and recruitment methods, which help the company to better assess candidates' suitability for using different material benefits, variable pay application with respect to the individual or structural unit performance. This does not contradict the results of the systematic review, which provides controversial evidence of the correlation between human resource management practices and employee turnover.

Compared to the systematic review results, the research of the Latvian companies provides contradictory results in terms of the relationship between employee turnover and the HR manager participation in the company's management at the strategic level, training of managers and new employees, pension funds, the proportion of trade union members to the total number of employees and provision of information about the company's business plans. In the Latvian companies, no significant correlation has been found between all these factors, except for the last one, and the employee turnover rate. Contrary to the systematic review results, provision of information about the company's business plans plays a major role in the Latvian companies – this practice is related to a lower employee turnover rate.

To sum up, it should be noted that the comparison made provides specifying information. The systematic review comprises only a few studies that determine the differences in the correlation between employee turnover and human resource management practices in companies of different sizes. This is not related to the lack of data considered within the systematic review, but rather to the situation in the research of employee turnover factors. The fact that the size of the company plays a significant role in the relationship under examination has been confirmed by the research results of Wu and his colleagues (Wu et al., 2015). Thus, the results of the research on the correlation between employee turnover and human resource management practices in the Latvian companies elaborate on the prevailing scientific research on employee turnover.

## **4. MANAGEMENT SOLUTIONS FOR EMPLOYEE TURNOVER**

### **4.1. Employee Turnover Management Methods and Stages**

The sub-chapter comprises 15 pages, it contains four figures and three tables.

Employee turnover management is a sub-system of human resource management, which is based on the following three main principles:

- 1) the principle of management method complexity (Arthur, 1994; Guest, 1997; Dyer, Reeves, 1995; Huselid, 1995);
- 2) the principle of internal consistency of management methods (Guest, 1997; Wright, Snell, 1991);
- 3) the principle of external consistency of management methods (Guest, 1997, Martín-Alcázar, Romero-Fernandez, Sánchez-Gardey, 2005).

According to the first principle, a set of several practices should be used in employee turnover management. On the basis of survey results of the Latvian companies previously presented in the Doctoral Thesis, a set of human resource management practices has been developed. The set indicates the practices that should be applied to the basic groups of professionals in order to reduce the employee turnover rate (see Figure 4.1.). The practices are grouped by conventional human resource management operational areas (e.g., Armstrong, Taylor 2014) into nine functional blocks, which will be further explained in detail.

The second principle of employee turnover management – internal consistency of management methods – envisages that practices should be complementary to create a synergetic effect. To make sure that the chosen set of human resource management practices is internally consistent and can be further used as a tool to identify factors affecting employee turnover, reliability assessment of practice list or “scale” has been performed using Cronbach’s alpha method. As equal measurement of scale-forming indicators (i.e., human resource management practices) is one of the pre-requisites for the application of this method, measurements of separate practices have been transformed into a dichotomous variant as it is in the majority of the chosen practices. Except for the practices “promotion of people with disabilities” and “work in the international environment”, the alpha coefficient of 0.892 has been obtained, which indicates relatively high internal consistency of the scale. If the 23<sup>rd</sup>, 24<sup>th</sup>, 26<sup>th</sup> and 29<sup>th</sup> practices are withdrawn from the list of practices (see Table 4.1.), the Cronbach’s alpha coefficient increases to 0.897.

According to the third principle – external consistency of management methods – employee turnover management practices should be adapted to the company’s business plans and conditions specifics of staff composition, they also should be similar or better than those used by competitors, taking into account the socio-economic and legal context.

Administrative or blue-collar staff	Company's human resource management strategy										Internal communication
	Electronic human resource management system										
	Recruitment agencies Career fairs Internship programmes	Individual interviews Skill test/Task performance observation	Training for employees under the age of 25 years Job promotion offer to: - people with disabilities, - low-skilled workers, - women who are returning to work after a break	The average number of training days	Participation in the project in the group work Work in the international environment	Sources of information used in evaluation: - employees, - subordinates, - colleagues	Additional payment for individual work Bonuses based on the achievement of team's objectives	Private health improvement plans Flexible benefits/free meals	Main issues are discussed: - together with senior management, - via trade union representatives, - at regular meetings	Information on: - business strategy, - organisation of work	
Specialists	Recruitment	Selection	Special programmes for personnel integration	Training and development	Performance appraisal	Benefits provided					

Figure 4.1. Human resource management practices in employee turnover management (designed by the author).

Table 4.1.

The reliability of the chosen set of human resource management practices (scale mean  $\bar{x} = 12.58$ ; scale variance = 43.277)

No.	Items	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's Alpha if item deleted
1	Company has drawn up a human resource management strategy document	12.13	38.982	0.642	0.885
2	Company has electronic human resource management system for employees	12.32	40.276	0.495	0.888
3	Managers are recruited using career fairs	12.50	41.608	0.452	0.890
4	Managers are recruited by recruitment agencies	12.26	41.064	0.330	0.891
5	Managers are recruited using internship programmes	12.53	42.148	0.367	0.891
6	Administrative or blue-collar staff are recruited using career fairs	12.37	40.023	0.590	0.886
7	Specialists are selected by individual interview	11.76	41.375	0.346	0.891
8	Specialists are selected by skill test/task performance observation	11.97	39.270	0.606	0.885
9	Administrative or blue-collar staff are selected by assessment of applications	11.76	40.456	0.534	0.887
10	Administrative or blue-collar staff are selected by skill test/task performance observation	12.11	39.881	0.491	0.888
11	Administrative or blue-collar staff are selected by technical skill test	12.13	40.496	0.394	0.890
12	Training for employees under the age of 25 years	12.45	41.930	0.277	0.892
13	Job promotion offer to women who are returning to work after a break	12.50	42.095	0.312	0.891
14	Job promotion offer to low-skilled workers	12.50	42.095	0.312	0.891
15	Self-assessment is used in managers performance appraisal	12.21	39.576	0.563	0.886
16	Assessment from subordinates is used in manager performance appraisal	12.34	40.015	0.564	0.887
17	Assessment from colleagues is used in manager performance appraisal	12.34	39.583	0.647	0.885
18	Assessment from colleagues is used in specialist performance appraisal	12.37	40.131	0.568	0.887
19	Self-assessment is used in administrative or blue-collar staff performance appraisal	12.24	39.969	0.506	0.888
20	Participation in the project group work is used for employee career development	11.87	40.280	0.478	0.888
21	Specialists receive bonuses based on the achievement of team's objectives	12.16	40.785	0.351	0.891
22	Administrative or blue-collar staff have additional payment for individual results	12.16	39.866	0.500	0.888
23	<b>Administrative or blue-collar staff receive bonuses based on the achievement of team's objectives</b>	12.18	41.344	0.265	<b>0.893</b>
24	<b>Company has private health improvement plans</b>	12.21	41.360	0.267	<b>0.893</b>
25	Company has flexible benefits/free meals	12.39	41.056	0.411	0.890
26	<b>Main issues are discussed together with senior management</b>	11.79	42.117	0.185	<b>0.894</b>
27	Main issues are discussed via trade union representatives	12.11	40.529	0.387	0.890
28	Main issues are discussed at regular meetings	11.79	40.873	0.423	0.889
29	<b>Specialists are formally briefed about company's business strategy</b>	12.21	41.684	0.215	<b>0.894</b>
30	Specialists are formally briefed about organisation of work	11.79	39.900	0.614	0.886
31	Administrative or blue-collar staff are formally briefed about organisation of work	11.92	40.183	0.470	0.888



To find out the parameters characterising the company and its staff that play a role in employee turnover management, the impact of 16 parameters on the correlation between the employee turnover rate and human resource management practices (those listed in Table 4.1.) has been tested on the basis of empirical research data of the Latvian companies using the Spearman partial correlation analysis. As a result, it has been found that the correlation between the employee turnover rate and human resource management practices is not affected by the company's business sector, market situation and the existence of personnel department.

#### Block 1. Strategic Human Resource Management

Employee turnover management should be based on the company's human resource management strategy or long-term human resource management principles, plan or programme. The employee turnover management programme can be one of this strategy components. Properly developed and reported human resource management strategy is a landmark for managers in resolving personnel-related issues, as well as for employees and potential labour force – for the creation of adequate job expectations at a company.

Human resource management strategy as a single document covering all the company's personnel is particularly important in mixed-professional groups and mixed-sex companies. Equal attention to managers, specialists, administrative and blue-collar staff or equal approach to all employees create a common employment framework. Greater effect of the human resource management strategy can also be achieved at the national companies, service companies, and if the company significantly increases the number of full-time employees as a result of merger or business growth.

#### Block 2. Electronic Human Resource Management System

Large and medium-sized enterprises have a more complicated communication system than small enterprises; therefore, to promptly resolve personnel issues or timely inform on the current events it is useful to have an internal electronic human resource management system, which should also be available to employees. Such a system should perform not only the above-mentioned pragmatic function, but also serve as a communicative means for the joint development and implementation of corporate culture.

#### Block 3. Recruitment

Low employee turnover in the Latvian companies is more related to the search for managers rather than other professional groups of employees, in particular, apart from traditional personnel search methods, recruitment agency services, career fairs and training programmes are used. Branches of international companies, companies employing predominantly female employees or specialists are an exception, as in this case in addition to other personnel search methods personnel staffing agency services are used for senior management search, which is associated with a higher employee turnover rate.

The choice of personnel search methods is affected by the company's financial resources, preferred professional qualification level of the candidates and human resource management policy as a whole. As the recruitment agency services are relatively expensive, this personnel search method can be justified when looking for employees to occupy positions associated with

high responsibility or level of complexity. Resorting to recruitment agency services in senior management search can help the company to find highly skilled managers who could introduce innovations and effectively organise the working environment. The managers with the required qualifications can be selected from university students or graduates who participate in the company presentations at career fairs or accept internship offers. Providing an opportunity to young professionals to occupy skilled jobs and further qualify for higher positions can result in commitment of young people to the company.

The company's participation in career fairs to recruit administrative or general staff is also related to a more stable composition of the team. Such face-to-face meetings, direct negotiations on job opportunities help not only students to choose their preferred job but also the company to employ motivated young specialists.

Career fairs for attraction of potential managers, administrative or blue-collar staff are particularly effective practices in employee retention in the service sector.

#### Block 4. Selection

To prevent new employees from leaving, at the selection stage, apart from taking into account general impression of the candidates, their professional knowledge and skills should be assessed at an individual interview (for specialists) or by assigning practical tasks and following the candidate's performance during the probation period (for specialists, administrative or blue-collar staff). Individual interviews should also be used as an opportunity to tell candidates in detail about their job responsibilities, rules and procedures, salary, etc. so that they get as realistic picture as possible of their potential job.

Assessment of applicants for administrative or general staff positions and testing their technical skills are more effective practices in services companies rather than in manufacturing companies.

According to the results of systematic review carried out within the framework of the Doctoral Thesis, to reduce short-term employee turnover – a new employee leaving in six months – it is necessary to devote attention to selection criteria such as the applicant's work experience, motivation to get a job, social relationships in the company (the applicant's relatives or friends work for the company), and trust level. To retain employees for a period longer than six months, attention should be devoted to the applicant's conscientiousness and emotional stability.

#### Block 5. Special Programmes for Employee Induction

In order to prevent increased employee turnover, the company needs to pay attention to the training of young workers and to offer career development opportunities to less competitive personnel groups such as low-skilled workers, women returning to work after a long break (often after maternity leave). Career development opportunities offered to the mentioned personnel groups are more effective in service companies and companies where employees with higher education constitute less than ¼ of the total number of employees.

#### Block 6. Training and Development of the Employee Members

Regardless of the company's employee professional group proportions, employee stability is connected with a number of training days for administrative employee members or blue-collar staff. Training of members of technical personnel contributes to the development of the

skills needed for work and therefore it reduces the risk of employee resignation due to low-performance level, dissatisfaction with working conditions and salary, in case it depends on individual work performance.

In addition to the traditional training and development methods, various professional groups of employees may be retained by involving them in group projects, thereby contributing to employees' social ties within the company.

#### Block 7. Performance Evaluation

In order to control the functional and dysfunctional employee turnover, the company should establish a work performance evaluation system. This system will provide the basis for exemption of poor performers from work (which will lead to the functional employee turnover) and proper reward of good performers (which will eliminate the dysfunctional employee turnover). In order to have a fair performance evaluation in addition to the manager evaluation, other sources of information are to be used – specialist should have to receive evaluation from his/her colleagues and administrative employee members, as well as conduct his/her self-evaluation.

Objective evaluation by personnel managers is very important for employee stability. In addition to the senior management evaluation, employees have to receive appraisal from immediate managers, as well as evaluation from peers. A comprehensive manager evaluation has several advantages in dealing with employee turnover: a manager has to focus on cooperation; co-workers should have the opportunity to express their opinion on what should be improved; senior management will be able make a decision regarding changes in the salary and future career of the manager.

#### Block 8. Proposed Benefits

To increase functional employee turnover and to prevent dysfunctional employee turnover, employee wages should be connected to their individual work performance or to the variable remuneration elements, which depend on the employee's personal skills and his/her attitude.

Overall employee turnover rate can be reduced by introducing bonus system for work achievements. Such bonus system may be more valuable in the departments that work as a team, or where the result depends on the overall employee effort or teams' successful cooperation. Similar to that, employees can be retained in the company if they are provided additional benefits not offered by competitor employers or benefits that are better than competitor employers may offer.

#### Block 9. Internal Communication

For personnel stability a systematic communication between employee members and senior managers should be maintained. Together they should be able to discuss the main problems. In order to do so, regular meetings should be held. Employees whose work involves long-term impact on the company's well-being, must be informed about the company action plans.

Communication with senior managers is more effective in the companies where employees who are over 49 years old constitute less than  $\frac{1}{4}$  of the total number of employees; or employees with higher education constitute more than  $\frac{1}{4}$  of the total number of employees.

In order to determine the impact of the previously described human resource management practices on the employee turnover rate, multiple regression analysis was carried out using IBM® SPSS® Statistics Version 23 software. In order to create the regression model, the so-called Stepwise method was used, after which the factorial signs or human resources management practices were included or excluded from the model depending on the partial  $F$ -test value ( $F_j$ ): the sign was included if  $F_j > 0.5$ , and excluded, if  $F_j < 0.10$ . During the examination of the regression model, all necessary conditions were met. The resulting model of regression analysis (4.1.) is statistically significant ( $F = 13.589$ ;  $p = 0.001$ ) and depending on the value of the adjusted determination coefficient ( $R^2_{adj}$ ) explains 50.5 % of the total variance of employee turnover level ( $P_m$ ).

$$P_m = 15.584 - 3.954x_1 - 4.853x_2 - 3.644x_3, \quad (4.1.)$$

where  $x_1$  –whether members of administrative staff (or blue-collar staff) are formally briefed about organisation of work (yes = 1; no = 0);

$x_2$  –whether main issues are discussed with employees via trade union representatives (yes = 1; no = 0);

$x_3$  –whether during the selection of the members of administrative staff (or blue-collar staff) skill tests or task performance observations are used (yes = 1; no = 0).

All factorial signs included in the regression model are statistically significant, and judging by the value of the standardised coefficient ( $\beta$ ), communication with employees about the key challenges via trade union representatives makes the greatest contribution to forecasting employee turnover level (see Table 4.2.).

Table 4.2.

Regression coefficients

	Unstandardized coefficients		Standardized coefficients	$t$	$p$	$b$ confidence level (95.0 %)	
	$b$	Standard error	$\beta$			lowest	highest
(Constant)	15.584	1.223		12.745	0.000	13.099	18.069
Administrative or blue-collar staff are formally briefed about organisation of work	-3.954	1.418	-0.349	-2.788	0.009	-6.836	-1.072
Main issues are discussed via trade union representatives	-4.853	1.264	-0.450	-3.840	0.001	-7.421	-2.285
Administrative or blue-collar staff are selected by skill test/task performance observation	-3.644	1.338	-0.338	-2.723	0.010	-6.363	-0.924

To determine what practices and in what sequence should be used by human resource management to reduce employee turnover level, the practices that contribute to the highest contrast between the four groups for the following pairs were identified (group 1 – companies with employee turnover rate 12.01–21.00 %; group 2 – companies with employee turnover rate 6.01–12.00 %; group 3 – companies with employee turnover rate 3.01–6.00 %; group 4 – companies with employee turnover rate 0.00–3.00 %). Based on this data, a decision-making algorithm for selecting the appropriate practices was created (see Figures. 4.2–4.3.).

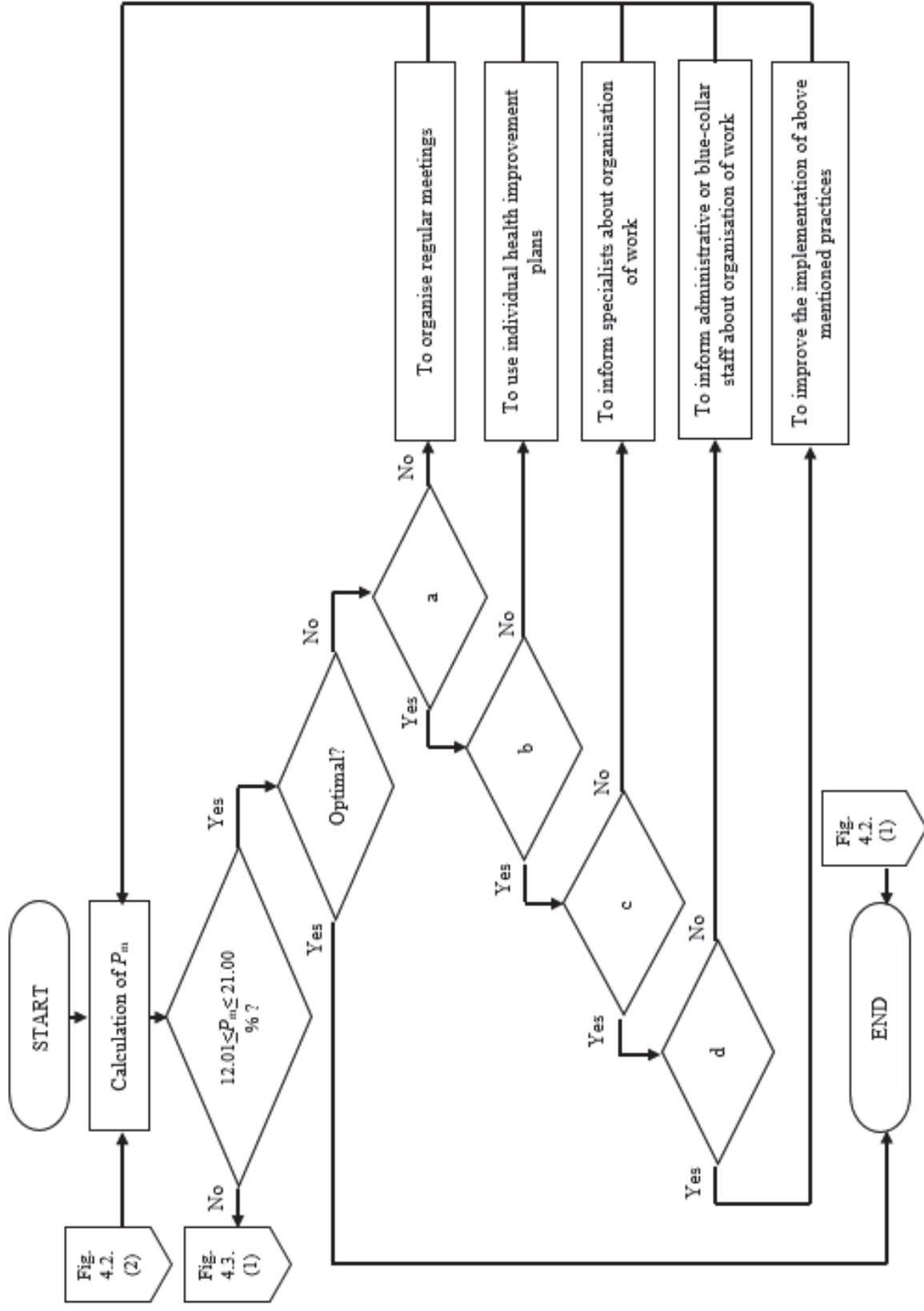


Figure 4.1. The algorithm for selecting human resource management practices to reduce employee turnover rate, Part 1 (designed by the author).

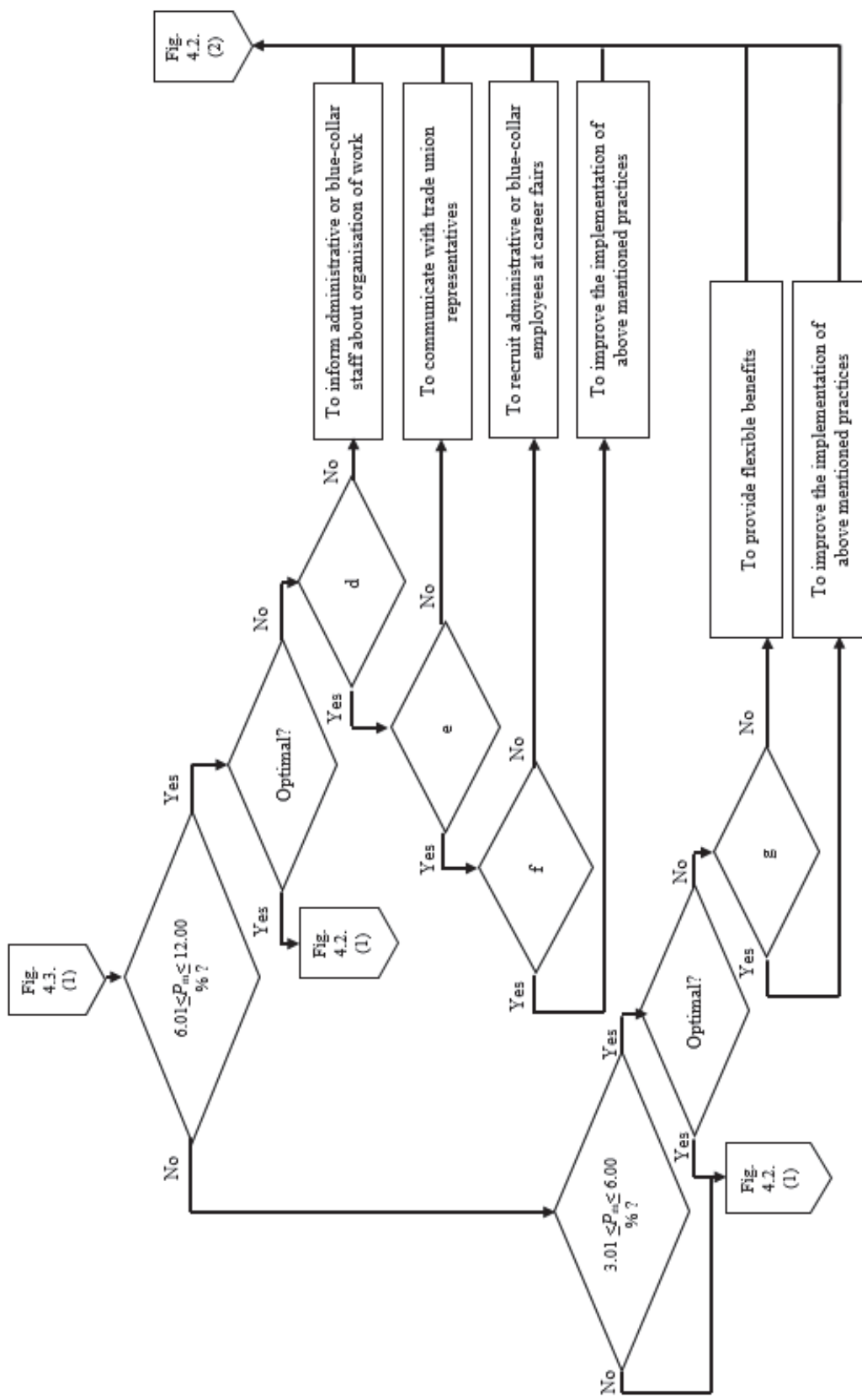


Figure 4.3. The algorithm for selecting human resource management practices to reduce employee turnover rate, Part 2 (designed by the author).

Tree method classification was used to identify human resource management practices that contribute to the greatest contrast in employee turnover level. With the help of *IBM® SPSS® Statistics Version 23* software, six tree classifications were obtained. In order to classify the companies, Chi-Square Automatic Interaction Detection technique was applied, also known as automatic correlation determination after the  $\chi^2$  criterion;  $\chi^2$  criterion was calculated by applying Pearson's formulas; five companies were chosen in the minimum number of cases, these companies were located in the top node, i.e. at top of the tree diagram, and three companies were located in the bottom node; the nodes were formed and company groups were combined with regard to statistical significance of 0.05 using Bonferroni correction method; in order to evaluate classification models, maximum of 100 iterations were used assuming the minimum change value of cell thickness of 0.05. The resulting company classification models have been considered adequate, as error probability is 6.3–27.2 %.

Based on the created company classification model, a decision-making algorithm for selection of human resource management practices to reduce employee turnover level was developed, it includes three main decisions, namely: whether the company's actual level of employee turnover falls in a particular range; whether the actual employee turnover rate is optimal for the company; in case the actual employee turnover rate is not optimal for the company, or is higher than required, whether the company implements particular human resource management practices. With regard to the last type of decision, seven questions were set within the algorithm:

- “a” – “Are the main problems discussed with the employees at the regular meetings?”;
- “b” – “Does the company have individual health improvement plans?”;
- “c” – “Are the specialists formally informed about organisation of work?”;
- “d” – “Are members administrative staff (or blue-collar staff) formally informed about organisation of work?”;
- “e” – “Is communication with the employees on the main issues maintained through trade union representatives?”;
- “f” – “Do members of administrative staff (or blue-collar staff) search for career opportunities at career fairs?”;
- “g” – “Does the company provide flexible benefits, such as free meals?”

If human resource management practices determined within the algorithm are implemented at the company, but still there is a need to reduce employee turnover rate, these practices should be improved so that they create a greater effect. The use of certain practices can be improved in three areas: to improve practice implementation quality, to increase its frequency and coverage.

The company's employee turnover management process as a whole is shown schematically in Figure 4.4. This process is divided into 10 stages, which are human resource management process components used in pursuing the company's aims.

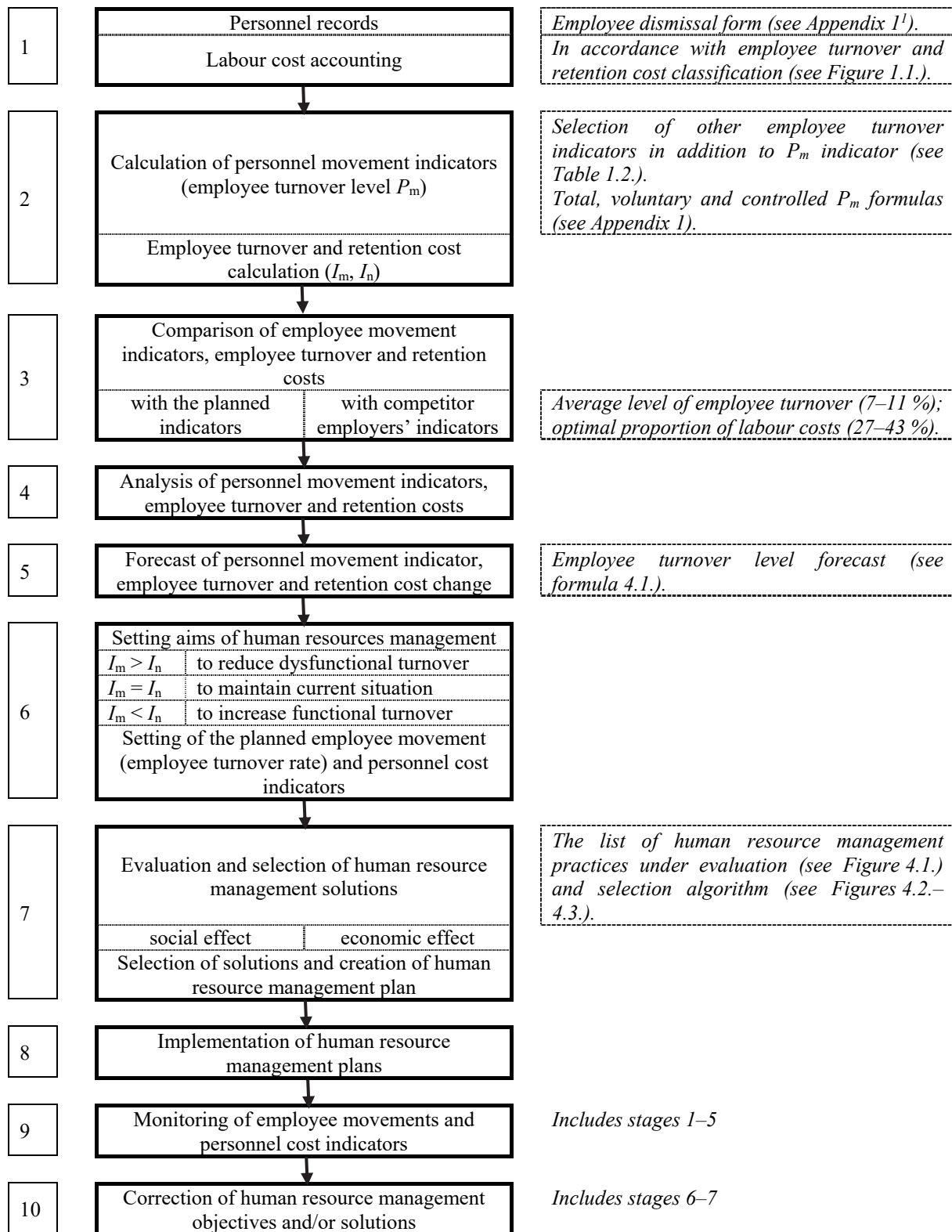


Fig. 4.2. Stages of employee turnover management (designed by the author).

<sup>1</sup> References to appendices, tables, figures and formulas correspond to the numbering in this Thesis.



## 4.2. Reliability Assessment of Employee Turnover Management Methods

The sub-chapter comprises six pages, it contains two figures and one table.

In order to assess whether human resource management practices are appropriate for managing employee turnover, the expert survey and case study method have been used.

During the research, 12 experts were interviewed, seven of them have three or more years of experience in human resource management (58 %), the other five have less than three years of experience (42 %). At the moment the survey was conducted, five experts held the following positions – head of the personnel management department, human resource specialist, psychologist or similar positions (42 %), four experts were working in the following fields – general management of the company or company's departments (33 %), and three experts were dealing with consulting services, education and training (25 %).

Expert survey questionnaire was created, it included the following questions – whether certain practices affect employee turnover rate and if they do, then in which field; in addition to that, the experts had to choose five most effective practices that might help reduce employee turnover. Expert opinions with a probability of 99 % were evaluated as coherent – in task 1  $\chi^2 = 87.102$  and in task 2  $\chi^2 = 95.480$ , so in both cases  $\chi^2 > \chi^2_{kr}$  ( $\chi^2_{kr} = 50.892$ ;  $df = 30$ ). However, this coherence level is low – Kendall's coefficient of concordance, or  $W$ , is 0.290 and 0.265, respectively. Such a low level of coherence in experts' opinions can be explained by different experience and a relatively large number of practices offered for evaluation (31 practices). As the overall expert-level coherence is statistically significant, the expert survey data can be analysed further.

According to expert opinions, the majority of human resource management practices affect employee turnover rate. The influence of these practices has been confirmed. Looking for administrative staff or blue-collar staff at career exhibitions is an exception – six out of 12 experts have noted that it has no influence on employee turnover. In contrast to expert evaluations, tree classification method results show that this practice allows distinguishing companies with an average employee turnover rate from the companies with very low employee turnover rate.

Most experts hold the same opinion that employee turnover can be reduced introducing private health improvement plans and team-work results based on a bonus system for administrative employee members and blue-collar staff (considers by all experts), as well as flexible benefits in the company and team-work results based on a bonus system for professionals (11 experts from 12). Two of these practices – private health improvement plans and flexible benefits – are also included in human resource management practices for employee turnover reduction.

Average expert evaluations about the impact of human resource management practices on employee turnover are presented in Figure 4.5. Since the scale is ordinary, the median index has been used for average trend analysis. For all practices, the median index is not lower than 2.5 and the median index of 77 % practices is equal or higher than 3.5. Thus, according to expert opinions, the majority of human resource management practices reduce employee turnover rate.

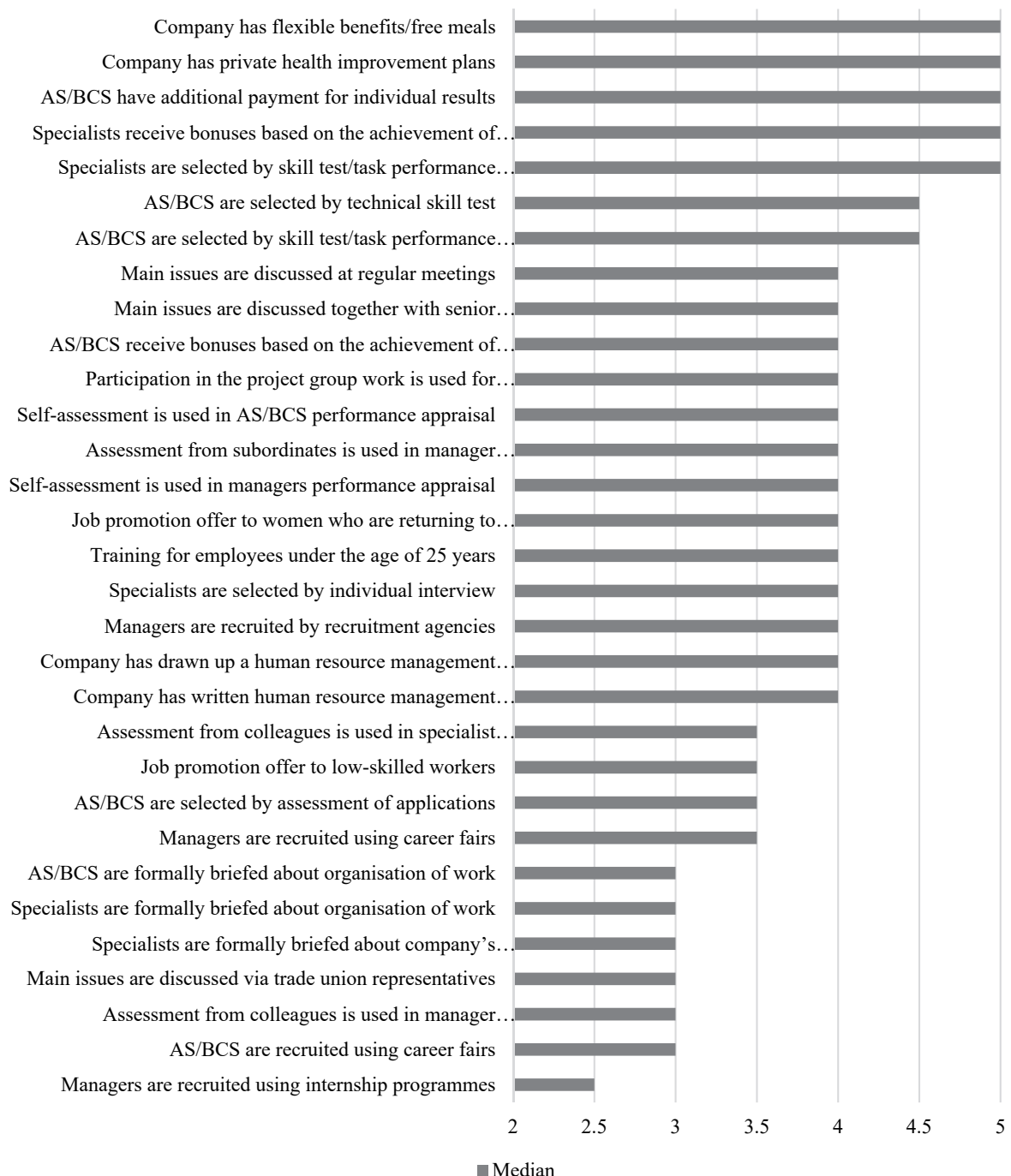


Figure 4.3. Expert average evaluation of the impact of human resource management practices on employee turnover (5 = decrease; 1 = increase; AS / BCS – administrative staff / blue-collar staff).

One of the practices most highly evaluated by the experts has been included in the regression formula for employee turnover level forecasting – “Skill test/work assignment assessment is used in administrative staff/blue-collar staff selection”, and three other practices – flexible benefits, health improvement plans, and regular employee meetings – are included in the decision-making algorithm.

From five most effective practices to reduce employee turnover rate selected by experts, four practices were emphasized (see Figure 4.6). These practices were highly valued also previously (see Figure 4.5.). Regarding the practices that are connected with employee remuneration, such as extra payments to administrative staff members or blue-collar staff for their individual work and bonus system for specialists for their achievements working as a team, the experts added that it may be an effective tool for reduction of employee turnover in case extra payments or bonus system is affordable, fairly applied, or if it does not overly depend on other colleague work performance.

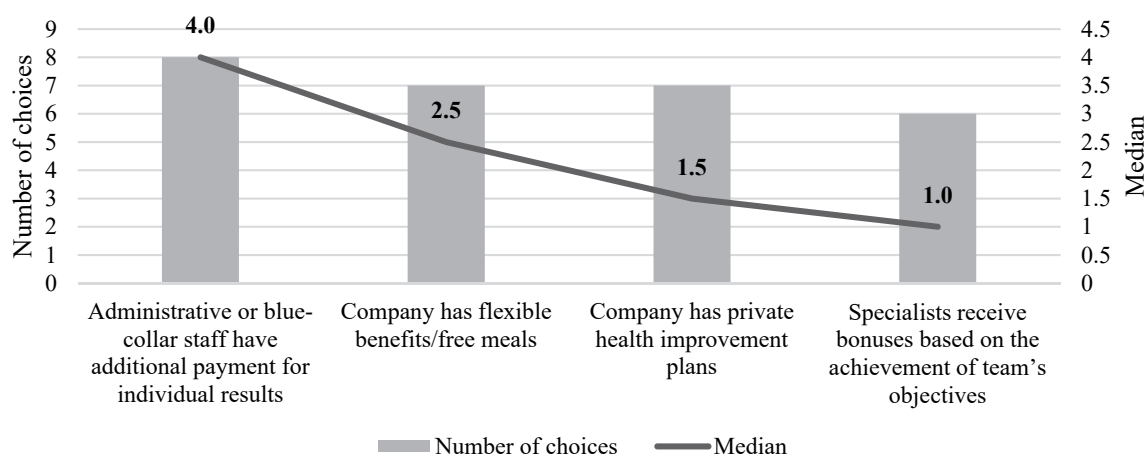


Figure 4.4. Average expert choice of the most effective human resource management practices to reduce employee turnover (“top 5”; 5 = the most effective practice).

Considering factorial signs included in the regression formula, the lowest evaluation from the experts was received by the following practices – to communicate with employees about the main issues via trade union representatives and to inform service or general staff about the work organisation. Experts believe that participation of trade union representatives in internal communication is rather related to conflicts between employers and employees that normally exist in companies with a high turnover rate, which trade union representatives cannot significantly affect. Only one expert identified involvement of representatives as a favourable circumstance for employment stability. With regard to informing the members of service and general staff on the issues of work organisation, experts expressed the opinion that this employee group tends not to be interested in the issues which do not directly affect them, so such information will not have any effect. A similar explanation was expressed about the practice to communicate with employees about the main problems at the regular meetings and to inform the specialists about work organisation – the practices included in the decision-making algorithm created by the author.

It can be concluded that the list of human resource management practices for employee turnover management based on the results of the survey proposed by the author is reliable. At the same time, factorial signs of the regression formula and decision-making algorithm have been confirmed partially.

Employee turnover rate forecasting regression formula has been checked comparing the actual rates of company employee turnover with the calculations carried out using this formula. The output data for the company employee turnover rate and human resource management practices were taken from the reports drawn the students of Professional Bachelor Study Programme “Human Resource Management” in the academic years 2012/2013–2015/2016.

Test results of employee turnover rate forecasting regression formula show that the actual level of employee turnover lays within the estimated employee turnover rate at its lower and higher limits. Three companies demonstrated a negative value of the lowest limit of employee turnover rate, which means that using the current human resource management practices these companies have reduced employee turnover rate and it is possible to facilitate increase of the functional employee turnover. The overall conclusion is that the proposed formula can be used to predict employee turnover rate.

## CONCLUSIONS AND PROPOSALS

Taking into consideration the results of the conducted theoretical and empirical research within the framework of the given Doctoral Thesis, the author has arrived to the main conclusions and proposes the following recommendations.

### Conclusions

1. The results of the research on the socio-economic significance of employee turnover prove that employee turnover can have both positive and negative effect on an individual, company performance, labour force situation and on the society in general. Short-term work relationships may result from the fact that the employee has accepted a better job proposal, or the company exchanges inefficient employee for efficient ones, there is a free movement of the labour force on the labour market. Short-term employability may evoke uncertainty of the future within the individual, create additional costs to the company due to unproductive work and costs for staffing, force employers and employees to pursue immediate benefits from work.
2. Within the framework of current theory and practice, employee turnover is recognised as an indicator assessing effectiveness of the management in general and human resource management in particular, however, calculation of employee turnover related costs is not widespread in practice. Knowledge of managers concerning direct and indirect costs of employee turnover would create a realistic view of employee turnover problem. Moreover, in order to make correct management decisions it is necessary to be aware of the company's employee retention costs.
3. Historically, the concept of employee turnover has been addressed inconsistently. Different employee turnover definitions do not contradict the commonly accepted understanding of employee turnover, as they characterise one of the types of employee turnover. Voluntary employee turnover is the most well-researched type of employee turnover, as well, major focus is put on averting dysfunctional employee turnover. Analysis of the studies on employee turnover indicates that advantages of the functional employee turnover have not been assessed to the sufficient extent.
4. In accordance with economic interpretation of the optimal employee turnover rate, the maximum work productivity can be achieved controlling dysfunctional and functional employee turnover, should it appear due to voluntary or forced reasons. The optimal employee turnover rate allows getting better profit from human resource application.
5. In order to control personnel movement processes as well as the costs related to them, it is necessary to keep corresponding records. To supervise the optimal employee turnover rate it is necessary to collect data on particular employee dismissal reasons as well as employee performance rate.
6. Within the employee turnover models organisational and job factors are assigned a significant role, however, the influence of those factors on employee attitude to work and on the decision to change the job is mainly described as being one-way, i.e. lacking feedback with characteristics of staff and personnel movement tendencies. Not to mention that

employee turnover models are difficult to apply in human resource management, as they contain limited guidelines to particular human resource management practices, or these guidelines are too generally formulated.

7. The results of content analysis of employee turnover models show that these models provide different list of organisational and job factors. Work content related parameters and work payment rates are the most frequently listed factors.
8. Having summarised the results of the empirical research on the correlation of individual and external factor with employee turnover, it has been confirmed that the influence of particular factors is very frequently context-bound, i.e., is dependent on the combination of several factors. The most reliable method to forecast employee turnover is to follow employee job seeking activities and intentions to stay at work or change it.
9. The results of systematic reviews of employee turnover correlations with organisational and job factors provide controversial information on significance of those factors – one and the same factor may have positive, negative and/or neutral relation to the decision of the employee to change job. These contradictions can be explained by the differences in research methodologies, specificity of research objects and isolation of research factors from the context, whereas the results of complex human resource management practices are similar – depending on their sets, they can either enhance or reduce employee turnover.
10. The results of the research on job switching activities of the Latvian working age population demonstrate that the employees, who have changed job differ with respect to several socio-demographic parameters, however, the correlation between those parameters and job changing is considered weak. Relatively high significance is assigned to employee age. In general, there is unstable correlation between job changing and socio-demographic parameters of the employees, which can be explained considering the influence of other factors.
11. The dominating reason for job change in Latvia is acceptance of a better job offer or search for a better job. Similar to what has been concluded regarding the correlation established between socio-demographic parameters of employees and job change, correlations between socio-demographic parameters and the reasons to change jobs are considered insignificant and unstable. Job change due to better job offers or search for a better job relatively frequently is related to the economic status of the employee.
12. In the Latvian regions, except for Pierīga Region, the number of employees who have switched the job is related to labour market indicators at the employee's place of residence, such as unemployment rate, number of available and occupied workplaces. However, at the individual level, the role of these labour market indicators is insignificant. Therefore, employee job change is most likely to be conditioned not by the quantity of the objectively available workplaces, but by the indicators characterising workplace quality.
13. The provided comparison of the correlation between employee socio-demographic parameters and labour market indicators with job change proves that socio-demographic parameters in general, and employee age in particular, have a more significant influence on job change process than labour market indicators.

14. In the Latvian companies, employee turnover rate is connected with existence of human resource management strategy, use of an electronic human resource management system, employee hunting, selection, training and advancement, work performance evaluation, and internal communication practices, as well as benefits provided to employees. The role of a particular human resource management practice in employee turnover differs depending on what personnel group – managers, specialists, administrative staff or blue-collars – it is going to be applied to.

## **Proposals**

The results of the research conducted within the framework of the Doctoral Thesis, as well as conclusions and proposals, may be suitable for **managers, personnel management specialists or other persons responsible for human resource management** working at medium and large companies, who can:

1. Ensure maximum productivity, determine optimal employee turnover rate keeping records of employee turnover and retention costs in compliance with the improved costs classification provided within the framework of the given Thesis.
2. Calculate controllable functional and dysfunctional employee turnover rates to supervise optimal employee turnover rate, making effective use of the proposed controllable employee turnover procedure.
3. Apply the acquired results of the research on the average employee turnover rate and the optimal share of the labour force costs in the operating expenses as the basis for assessment and planning of the company's corresponding indicators.
4. Develop human resource management strategy and propose complex human resource management plans, which would comprise staffing, training and advancement, performance rate assessment, provided benefits and internal communication, in order to achieve and maintain the optimal employee turnover rate.
5. Introduce work performance assessment and variable compensation linked to individual work results, thus attracting and retaining efficient employees in order to promote functional employee turnover.
6. Apply the regression model developed within the framework of the Doctoral Thesis to forecast employee turnover rate and to use decision making algorithm to select human resource management practice in relation to employee turnover rate reduction.

The **researchers** in the fields of human resource management and economics are invited to:

7. Specify record keeping, calculation and analysis methodology of the employee turnover and retention costs, which can be applied at companies for assessing human resource management and planning the introduction of necessary changes;
8. Conduct research in Latvia on employee turnover trends in different fields, types of companies and employee groups, as well as on correlations established between human resource management practices and employee turnover and company performance indicators;

9. Identify typical human resource management systems, which are based on the combination of external company environment, operation strategy and personnel parameters, and to clarify the most suitable solutions for employee turnover management.

**The Central Statistical Bureau of the Republic of Latvia** is invited to:

10. Publish statistical data on population job change activities and reasons governing them, as well as keep records and publish statistical data on employee dismissal reasons in order to promote theoretical and applied research on employee turnover.

**Higher education institutions** are invited to introduce changes in the curriculum of the field-specific study courses of the study programmes, including the themes on:

11. personnel movement parameters, employee turnover record keeping and analysis, employee turnover and retention costs, employee turnover management into the study programmes on human resource management;
12. personnel movement parameters, record keeping and analysis of employee turnover and retention costs into the study programmes on economics;
13. personnel movement parameters, employee turnover and retention costs, employee turnover management into the study programmes on business administration.

**Professional organisations operating in the field of management in general and human resource management** in particular (Employers' Confederation of Latvia, Latvian Chamber of Commerce and Industry, Latvian Association of Business Consultants, Latvian Association for People Management, etc.) are invited to:

14. organise informative events for managers, human resource management specialists or other people responsible for human resource management on employee turnover trends in different fields, types of companies and employee groups, as well as on employee turnover management solutions and best practices.

Summarising the results of the research, the author concludes that the aim of the Doctoral Thesis has been achieved and the theses have been confirmed.



## LIST OF SOURCES USED IN THE SUMMARY

1. Abelson, M. A., & Baysinger, B. D. (1984). Optimal and dysfunctional turnover: Toward an organizational level model. *Academy of Management Review*, 9, 331–241.
2. Ali, M., Metz, I., & Kulik, C. T. (2015). Retaining a diverse workforce: the impact of gender-focused human resource management. *Human Resource Management Journal*, 25, 580–599.
3. Allen, D. G., Hancock, J. I., & Vardaman, J. M. (2014). Analytical mind-sets in turnover research. *Journal of Organizational Behavior*, 35, 61–86.
4. Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice* / 13th Edition. Kogan Page.
5. Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37, 670–687.
6. Bernays, M. (1910). Auslese und Anpassung der Arbeiterschaft der geschlossenen grossindustrie. Dargestellt an den verhältnissen der "Gladbacher spinnerei und weberei" a.-g. zu München-Gladbach im Rheinland. *Schriften des Vereins für Socialpolitik*, 133 (Leipzig : Dunker & Humblot).
7. Bienkowski, von S. (1910). Auslese und Anpassung der Arbeiterschaft in der Elektroindustrie, Buchdruckerei, Feinmechanik und Maschinenindustrie. *Schriften des Vereins für Socialpolitik*, 134 (Leipzig : Dunker & Humblot).
8. Campion, M. A. (1991). Meaning and measurement of turnover: Comparison of alternative measures and recommendations for research. *Journal of Applied Psychology*, 76, 199–212.
9. Cedefop (2015). *Skills, qualifications and jobs in the EU: the making of a perfect match? Evidence from Cedefop's European skills and jobs survey*. Luxembourg: Publications Office. Cedefop reference series; No 103. <<http://dx.doi.org/10.2801/606129>>.
10. Colvin, F. (1919). *Labor turnover, loyalty and output: A consideration of the trend of the times as shown by the results of war activities in the machine shops and elsewhere*. New York, London : McGraw-Hill.
11. Cranet (2009). *Network information*. <<http://www.cranet.org/home/Pages/default.aspx>>.
12. CSP (2014). *Metadati*. <<http://www.csb.gov.lv/dati/metadati-36202.html>>.
13. Dess, G. G., & Shaw, J. D. (2001). Voluntary turnover, social capital, and organizational performance. *Academy of Management Review*, 26, 446–456.
14. Douglas, P. H. (1932). Labor turnover. In: *Encyclopaedia of the Social Sciences* / Editor-in-chief Edwin R.A.Seligman; associate editor Alvin Johnson. New York : The Macmillan company, vol.VIII, 709–712.
15. Dyer, L., & Reeves, T. (1995). Human resource strategies and firm performance: What do we know and where do we need to go? *International Journal of Human Resource Management*, 6, 656–670.
16. Eckardt, R., Skaggs, B. C., & Youndt, M. (2014). Turnover and knowledge loss: An examination of the differential impact of production manager and worker turnover in service and manufacturing firms. *Journal of Management Studies*, 51, 1025–1057.
17. Ekonomikas ministrija (2015). *Informatīvais ziņojums par darba tirgus vidēja un ilgtermiņa prognozēm*. <[https://www.em.gov.lv/lv/nozares\\_politika/tautsaimniecibas\\_attistiba/informativais\\_zinojums\\_par\\_darba\\_tirgus\\_vidēja\\_un\\_ilgtermiņa\\_prognōzēm/](https://www.em.gov.lv/lv/nozares_politika/tautsaimniecibas_attistiba/informativais_zinojums_par_darba_tirgus_vidēja_un_ilgtermiņa_prognōzēm/)>.
18. Eurofound (2015). *Job tenure in turbulent times*. Luxembourg: Publications Office of the European Union.
19. Fadejeva, L., Krasnopjorovs, O. (2015). *Latvijas darba tirgus pārmaiņas 2008.–2013. gadā: Uzņēmumu aptaujas rezultāti*. <<https://www.makroekonomika.lv/petijums-latvijas-darba-tirgus-parmainas-2008-2013-gada-uznemumu-aptaujas-rezultati>>.
20. Griffeth, R. W., & Hom, P. W. (2001). *Retaining valued employees*. Sage Publications.
21. Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *International journal of human resource management*, 8, 263–276.
22. Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management*, 39, 573–603.

23. Heery, E., & Noon, M. (2008). "labour turnover" *A Dictionary of Human Resource Management*. Edmund Heery and Mike Noon. Oxford University Press, 2008. <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t162.e695>>.
24. Hinkin, T. R., & Tracey, J. B. (2000). The cost of turnover. *Cornell Hospitality Quarterly*, 41, 14–21.
25. Hom, P. W., & Griffeth, R. W. (1995). *Employee Turnover*. Cincinnati, OH: South-Western College Pub.
26. Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 635–672.
27. Jackofsky, E. F. (1984). Turnover and job performance: An integrated process model. *Academy of Management Review*, 9, 74–83.
28. Kitchenham, B. (2004). *Procedures for Performing Systematic Reviews*. Keele, UK: Keele University, 33.
29. Maertz, C. P., & Campion, M. A. (2004). Profiles in quitting: Integrating process and content turnover theory. *Academy of Management Journal*, 47, 566–582.
30. Martin, J. (2010). *Key concepts in human resource management*. Sage Publications.
31. Martín-Alcázar, F., Romero-Fernandez, P. M., & Sánchez-Gardey, G. (2005). Strategic human resource management: integrating the universalistic, contingent, configurational and contextual perspectives. *The International Journal of Human Resource Management*, 16(5), 633–659.
32. McElroy, J. C., Morrow, P. C., & Rude, S. N. (2001). Turnover and organizational performance: A comparative analysis of the effects of voluntary, involuntary, and reduction-in-force turnover. *Journal of Applied Psychology*, 86, 1294–1299.
33. Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., & The PRISMA Group (2009). *Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement*. PLoS Med 6(6): e1000097. <<http://www.prisma-statement.org/statement.htm>>.
34. Muchinsky, P.M., & Morrow, P.C. (1980). A multidisciplinary model of voluntary employee turnover. *Journal of Vocational Behavior*, 17, 263–290.
35. Mueller, C. W., & Price, J. L. (1989). Some consequences of turnover: A work unit analysis. *Human Relations*, 42, 389–402.
36. OECD (2016). "Labour Market Statistics: Employment by job tenure intervals: persons", *OECD Employment and Labour Market Statistics* (database). <<http://dx.doi.org/10.1787/data-00295-en>>.
37. Peiseniece, L. (2009). *Personāla vadības novērtēšana Latvijā*. Banku augstskolas biznesa un finanšu pētniecības centra ziņojums.
38. Petticrew, M., & Roberts, H. (2008). *Systematic Reviews in the Social Sciences: A Practical Guide*. John Wiley & Sons.
39. Shaw, J. D., Gupta, N., & Delery, J. E. (2005). Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Academy of Management Journal*, 48, 50–68.
40. Shaw, J. D., Duffy, M. K., Johnson, J. L., & Lockhart, D. E. (2005). Turnover, social capital losses, and performance. *Academy of Management Journal*, 48, 594–606.
41. Siebert, W. S., & Zubanov, N. (2009). Searching for the optimal level of employee turnover: A study of a large UK retail organization. *Academy of Management Journal*, 52, 294–313.
42. Skujenieks, M. (1938). *Latvijas statistikas atlase*. Rīga. <<http://www.csb.gov.lv/statistikas-temas/nodarbinatiba-un-bezdarbs-tema-32573.html>>.
43. Steel, R. P., & Lounsbury, J. W. (2009). Turnover process models: Review and synthesis of a conceptual literature. *Human Resource Management Review*, 19, 271–282.
44. TNS Latvia (2015a). Darbinieku atvērtība jauna darba meklējumiem un gatavība darba maiņai / Tavs neredzamais sabiedrotais 45. <[http://www.tns.lv/newsletters/2015/45/?category=tns45&id=pp\\_a\\_darba\\_maina](http://www.tns.lv/newsletters/2015/45/?category=tns45&id=pp_a_darba_maina)>.
45. TNS Latvia (2015b). Latvijā iezīmējas pozitīva darbinieku piesaistības rādītāja dinamika / Tavs neredzamais sabiedrotais 44. <[http://www.tns.lv/newsletters/2015/44/?category=tns44&id=pp\\_darbinieku\\_piesaistiba](http://www.tns.lv/newsletters/2015/44/?category=tns44&id=pp_darbinieku_piesaistiba)>.

46. TNS Latvia (2016a). Darba ņēmēju vidū nostiprinās pārliecība par iespējām atrast labāk apmaksātu darbu / Tavs neredzamais sabiedrotais 48. <[http://www.tns.lv/newsletters/2016/48/?category=tns48&id=pp\\_a\\_darba\\_maina](http://www.tns.lv/newsletters/2016/48/?category=tns48&id=pp_a_darba_maina)>.
47. Tziner, A., & Birati, A. (1996). Assessing employee turnover costs: A revised approach. *Human Resource Management Review*, 6, 113–122.
48. Wright, P. M., & Snell, S. A. (1991). Toward an integrative view of strategic human resource management. *Human Resource Management Review*, 1, 203–225.