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CONTEMPORARY SOCIO-ECONOMIC ISSUES AND PROBLEMS

MANAGEMENT – PROCESSES

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**CONTEMPORARY
SOCIO-ECONOMIC
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Editors

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EDITORS

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CONTENTS

INTRODUCTION	7
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I

BEHAVIOURAL APPROACH TO CONTEMPORARY ACCOUNTING IN THE CONTEXT OF MUTUAL INTERPENETRATION OF DIFFERENT SCIENTIFIC DISCIPLINES

MAŁGORZATA CIECIURA

1.1. Introduction	9
1.2. Psychology in economic sciences	9
1.3. Psychological aspects of accounting as an information system expressing different phenomena and processes in monetary measure ..	12
1.4. Conclusions	16

II

ARITHMETIC OR LOGARITHMIC RATE OF RETURN? THE IMPACT OF THE CHOICE MADE ON THE DISTRIBUTION MODELLING RESULTS

RAFAŁ CZYŻYCKI

2.1. Introduction	19
2.2. Methodological basis	19
2.3. Research results	22
2.4. Conclusions	29

III

WOMEN'S ENTREPRENEURSHIP AS THE WAY OF DECREASING UNEMPLOYMENT

KAROLINA DRELA

3.1. Introduction	31
3.2. Women's entrepreneurship	31
3.3. Polish women's entrepreneurship in a historical depiction	32
3.4. Economic activity of women	34
3.5. Women's entrepreneurship in Poland	37
3.6. Conclusions	39

IV

ATTRACTION AND RETENTION OF KNOWLEDGE WORKERS IN MODERN ORGANIZATIONS

IRENA FIGURSKA

4.1. Introduction	43
4.2. Knowledge workers and their characteristics	43
4.3. Attraction and retention of knowledge workers	46
4.4. Knowledge workers attraction and retention in the light of the	

research	48
4.5. Conclusions	51

V

CO₂ INTENSITY IN EU'S ROAD TRANSPORT

AGNIESZKA GOZDEK - ELŻBIETA SZARUGA

5.1. Introduction	53
5.2. Reduction of CO ₂ as a global challenge	53
5.3. Road transport in the light of CO ₂ emissions	54
5.4. Special analysis of CO ₂ intensity from road transport of European Union	57
5.5. Conclusions	61

VI

INTERDISCIPLINARITY OF TRAINING OF THE PERSONNEL AND ENERGY EFFICIENCY OF MARKETING COMMUNICATION AND LOGISTIC SERVICES OF THE ENTERPRISES

SERGII Y. KASIAN

6.1. Introduction	63
6.2. Development of institutional and educational quality of personal and reforming science in Ukraine and in the world	63
6.3. Communication ensuring promotion of energy saving technologies and logistic service at the enterprises	67
6.4. Energy marketing management implementation in the innovative industrial enterprises	69
6.5. Conclusions	71

VII

FORM OF SOCIAL CAPITAL AND A WILLINGNESS TO PERFORM CHARITABLE ACTIVITIES. A COMPARATIVE ANALYSIS BASED ON THE EXAMPLE OF POLISH AND SPANISH STUDENTS

RAFAŁ NAGAJ

7.1. Introduction	73
7.2. Social capital and altruistic tendencies in theory	74
7.3. Methodology	76
7.4. Results	77
7.5. Conclusions	81

VIII

CUSTOMER SEGMENTATION AND CREATING SERVICE OFFER BY HOSPITALITY FACILITIES

MARTA SIDORKIEWICZ

8.1. Introduction	83
8.2. Hospitality facility as a service enterprise	83

8.3. Customer segmentation in the hotel industry	85
8.4. Analysis of the service offer of hospitality facilities addressed to adult guests'	87
8.5. Conclusions	89

IX

SOCIAL SOLIDARITY AS THE NORM OF SOCIAL CAPITAL EXEMPLIFIED BY THE STUDIES AMONG POLISH STUDENTS

PIOTR SZKUDLAREK

9.1. Introduction	91
9.2. Social capital, norms and social solidarity	92
9.3. Methodology	94
9.4. Survey study	94
9.5. Conclusions	99

X

STAFF TURNOVER AS AN INDICATION OF IMPROPER FUNCTIONING OF MOTIVATIONAL ACTIVITIES IN THE HOTEL INDUSTRY

ANNA TOKARZ-KOCIK

10.1. Introduction	101
10.2. Nature of work and motivational activities in hotel enterprises	101
10.3. Nature and consequences of staff turnover in hotel business	104
10.4. Motivational activities limiting a staff turnover rate	107
10.5. Conclusions	108

XI

THE ESSENCE OF TRAINING AND OTHER FORMS OF PERFECTING THE PERSONNEL'S SKILLS AND THE DEVELOPMENT OF HUMAN CAPITAL

KATARZYNA ZIOŁO

11.1. Introduction	111
11.2. Selected theories of human capital	111
11.3. Development of human capital in organizations	113
11.4. Conclusions	118

TABLES	119
FIGURES	120
BIBLIOGRAPHY	123

INTRODUCTION

During its entire history the world has never changed as quickly as it is today. Widely understood economic consideration (political, legal, technological, etc.) as well as social conditions are changing continuously and often unpredictably. In consequence problems which the organizations, the economy and the society as a whole must face, as well as resources, methods and tools, which can help solve them, are undergoing constant changes.

Presented monograph describes selected economic and social issues and problems of modern economy from the perspective of management.

The book consists of eleven chapters. In the first chapter M. Cieciora describes behavioural approach to contemporary accounting in the context of mutual interpenetration of different scientific disciplines. In the second chapter R. Czyżycki examines the impact of the choice between arithmetic and logarithmic rate of return made on the distribution modelling results. In the third chapter women's entrepreneurship as the way of decreasing unemployment is thoroughly analysed by K. Drela. The fourth chapter by I. Figurska is devoted to issues related to attraction and retention of knowledge workers in modern organizations. In the fifth chapter A. Gozdek and E. Szaruga discuss the problem of decarbonisation of road transport and describe spatial differentiation of the intensity of CO₂ from road transport on the example of the state belonging to the UE28. In the sixth chapter S. Y. Kasian presents the problem of interdisciplinarity of training of the personnel and energy efficiency of marketing communication and logistic services of the enterprises. The seventh chapter, prepared by R. Nagaj, presents a form of social capital and analyses a willingness to perform charitable activities on the example of Polish and Spanish students. In the eighth chapter M. Sidorkiewicz rises the issue of customer segmentation and creation of service offer by hospitality facilities. The ninth chapter by P. Szkudlarek is devoted to the problem of social solidarity as the norm of social capital exemplified by the studies carried out among Polish students. In the tenth chapter A. Tokarz-Kocik examines the problem of staff turnover as an indication of improper functioning of motivational system in the hotel industry. The issue of forms of perfecting the personnel's skills and the development of human capital, is described by K. Ziolo in the chapter eleventh.

This monograph has been prepared on the basis of both the vast literature devoted to issues discussed in the individual chapters of this book and results of the authors' studies. The authors are aware of the fact that issues raised by them in

the monograph are complex and they do not exhaust the subjects. They hope that this book will arouse interest among representatives of science and business, and will inspire them to undertake further discussion and research.

BEHAVIOURAL APPROACH TO CONTEMPORARY ACCOUNTING IN THE CONTEXT OF MUTUAL INTERPENETRATION OF DIFFERENT SCIENTIFIC DISCIPLINES

1.1. Introduction

Contemporary research in psychology shows that the behaviour of people involved in the creation of economic reality should not be analysed solely on the basis of economic sciences. Calling into question the neoclassical concept of human rationality initiated a process of convergence among different scientific fields. Accounting, as a field of social science, whose attribute involves reliable measurement of phenomena and processes occurring in the economic entity, has entered into a new research stream.

1.2. Psychology in economic sciences

When analysing the relationship of accounting and psychology the starting point shall be the analysis of neoclassical economics assumptions in the issue of the rationality of decision making. It turns out that the assumptions adopted in the concept of *homo oeconomicus* affected not only economics, but they had also the influence on other disciplines from the field of economic sciences, that is finance, management sciences as well as accounting. While writing about the impact of the assumptions of *homo oeconomicus* concept on scientific discipline from the field of economic sciences, the author primarily refers to the fact of not taking into account the achievements of scientific disciplines in the field of social sciences, such as psychology and sociology in the research of the abovementioned scientific disciplines in the field of economic sciences (it primarily refers to disregarding the fact that a man is not a perfectly rational human being and when he is subject to different kind of external factors and emotional states, he is not able to be perfectly rational).

The aforementioned neoclassical economics associated a man with *homo oeconomicus*, who is characterized by the so called perfect rationality. It means that a rational man acts on the basis of full and perfect information, has unlimited possibilities of information processing and his actions aim solely at reaching his own specific interest (the aim of decision makers is, therefore, maximization of the ex-

pected utility or maximization of profit). Moreover, according to the assumptions of neoclassical economics, entities are interested only in their own, particular interest (Solek, 2010). Therefore, a man as a rationally acting human being “... *follows his intellect but not feelings, he is egoistic in his actions and is perceived as an instrument allowing to reach desired goals*” (Artienwicz, 2013). It should be underlined that the assumption of perfect rationality of an individual decision maker was treated for many years as the set of axioms, where it was presupposed that acting in accordance with the criterion of rationality must follow numerous rules, among which the following should be mentioned for the purpose of the problem analysed in this article:¹

- the assumption of completeness of preferences (the possibility of comparing any two options on the basis of utility that they give a decision maker),
- the assumption of domination (the strategy that is worse than the other ones at least in one aspect, which means it is dominated by them, and equally good in other aspects, should never be chosen),
- the assumption of unchangeability according to which the way of presenting the options of choice does not affect decision making.

Today, we already know that the concept of *homo oeconomicus* is an approach insufficient to explain the phenomena concerning making actual market choices by an individual decision maker in contemporary economy (Wojcieszka, 2014). Psychological studies have revealed that human emotionality should be considered in each part of life, also in the process of making economic (business) decisions. It implies that we cannot talk about full and pure rationality. K. Wach points out that, in the context of rationality, it is the rationality of emotions that should be analysed and considered (Wach, 2010). Taking the above into account, the mid-20th century marked the great return of taking research studies in psychology again into consideration in the research in the field of economics as well as legal or biological sciences. At the same time, over the last decades psychology has extended its research area to embrace various economic behaviours. The aim of these studies was to investigate “... *if the assumption about rationality of an economic man corresponds to the real state of human mind and cognitive abilities*” (Klimczak, 2013). The research carried out resulted in the distinction of economic psychology and behavioural economics. Some authors claim that the development of behavioural economics and economic psychology contributed to the creation of another subdisci-

¹ For more information about the assumptions of rational behaviour in the context of maximization of utility function see A. Solek (Solek, 2010) p. 22.

plines, whose aim is to gather increasingly detailed knowledge in a given field (Wąsowicz-Kiryło, 2008). These subdisciplines involve behavioural finance and financial psychology. Research on the rationality of decision making, in the light of undermining the paradigm of *homo oeconomicus*, is also conducted within the field of management studies. It involves analysing the power of influence of a human factor on business activities, confronting the factors of decision making process even with intuition. It is surprising and interesting at least because, as it is well-known, the essence of intuition is irrationality and its manifestations are associated neither with analytical consideration of facts nor with rational assessment of potential results of decisions made (Stańczyk, 2013).

The achievements of two psychologists, D. Kahneman and A. Tversky, who worked together² in the second part of the 20th century on the psychological aspects of decision making, with special attention paid to decisions taken under risk, should be considered a spectacular combination of psychology and economy (with the implication for other disciplines of economic sciences). D. Kahneman was awarded the Nobel Prize in Economics in 2002 for using tools from psychology in economic research, with particular consideration given to prospect theory being the result of the combined work with A. Tversky. Prospect theory, consisting of two main parts: the analysis of utility function and probability transformations, explains behaviour that is inconsistent with the economically understood rationality. It turns out that people are reluctant to take risks in the areas of profit (a bird in the hand is worth two in the bush), whereas they are prone to risk in the area of losses (to avoid making a smaller loss they risk making a greater one). Therefore, when analysing people's attitude to risk one should bear in mind that making a loss is more painful than enjoyment after making profits. Prospect theory implies that the preferences of decision makers may depend on the formulation of a given problem. For instance, one may say: "*this rescue plan enables us to rescue 100 people out of 500*" or "*when applying this rescue plan 400 out of 500 people is going to die*" (Dzik, 2004). In relation to the second part of prospect theory which, as was mentioned above, concerns probability transformations, it was agreed that people un-

² D. Kahneman in his book *Thinking, Fast and Slow* oftentimes emphasized that while working with his friend, A. Tversky, together they were able to create a synergistic effect, which Kahneman never experienced before or afterwards (Kahneman, 2012). In the context of psychological aspects of human functioning in the scientific, creative and economic area, it constitutes an example proving the rule that the effect of cooperative work is greater than the sum of individual work effects. It should be also emphasized that in the contemporary world it is certainly the example to follow.

derestimate the average and high probabilities, whereas they overestimate low probabilities (Zielonka, 2005).

1.3. Psychological aspects of accounting as an information system expressing different phenomena and processes in monetary measure

Contemporary research area is characterized by extensive interdisciplinarity and mutual interpenetration of numerous scientific disciplines (Wach, 2010). The example of such a convergence is e.g. the development of behavioural economics or behavioural finance. It seems that the natural consequence is the penetration of psychology also to the system of economic information, that is, accounting³. The common element of developing subdisciplines is undoubtedly a human and the process of making economic decisions. It is obvious though that decisions are made by people and not abstract economic categories.

It is well known that one of the primary characteristics of financial accounting is reflecting different phenomena and processes undergoing in an economic entity in the monetary measure. In the context of considerations made one should remember that the approach to money as a measure is significant and shall be analysed also from the psychological point of view. G. Wąsowicz-Kiryło claims that psychological approach to considerations about money differs from the economic approach in that ‘... within its framework it is taken into account, and not ignored, that people differ in terms of their approach to money, motives being the bases of financial decisions as well as the importance that they assign to various financial behaviours and their consequences’ (Wąsowicz-Kiryło, 2008).

Generally, accounting is defined as a system of measurement. E. Walińska claims: “*Accounting is the information system that is special as it concerns a complex issue, which is economic activity. What goals does it set? Firstly, the measurement of economic phenomena and, secondly, information transfer to the environment*” (Walińska, 2014). Therefore, accounting should be perceived as a specific system combining both theoretical and practical elements which reflects economic reality in the monetary measure. Value that accounting assigns to material, intangible and financial assets (as well as to the sources of their financing) is also one of the main categories in economics. In economics, there are two most frequently analysed types of value: use value and exchange value. Use value is defined as the utility of a given good, which satisfies particular consumer needs. However, exchange value stands

³ The author in her considerations focuses on the obligatory system of financial accounting.

for qualitative relationship, in which one good is exchanged for another one. The worth of one good is determined by the amount of money one can get in exchange for another one desired at a given time. It means that use value needs to be specified to determine exchange value. The problem is that use value may be assessed differently, for instance depending on the subject making an assessment and specifying preferences in the scope of the need for a given good. In the context of accounting, it should be noted that value specification is inseparably connected with valuation. Valuation is the art of calculation, whereas value is the subjective feeling of a potential owner of the good, who can either accept or disagree with the determined value (Luty, 2001). Valuation consists in determining the relationship between the valued good and value carrier, that is money. Considerations regarding economic importance of value, in the context of psychological aspects of accounting, lead to the conclusion that realization of the primary characteristic of the financial accounting system is related to subjectivity of making assessments and estimates.⁴ Subjectivism will be particularly felt in the context of using the valuation parameter, the so called fair value (which is one of valuation parameters). Given that in the contemporary economy the subject of valuation frequently involves intangible assets, which are generally hard to measure, and the valuation is performed by people who, as it turns out, are not able to make fully rational decisions, measurement in accounting is becoming one of its fundamental dilemmas⁵. The problem is compounded by the fact that great importance (of a global range) is currently attached to the information generated by accounting system, which makes reliability and accuracy of valuation absolutely essential. A. Karmańska, analysing the system of financial accounting as the information generator as well as the measurement system, refers to the so called economic value (Karmańska, 2009). The author defines economic value (emphasizing at the same time that it is an ambiguous term that is hard to define) as *“the value expressing the ability of assets to provide their owner streams of free cash flows, determined with the assumption that it uses the assets in the most productive way”* (Karmańska, 2009). In the context of ongoing considerations concerning psychological aspects of accounting, the following statement is significant: *“economic value (...) reflects – based on market analysis – judgement of a given person made in relation to every element of resources involved in the directed business activities, that is for instance: things, systems, rules, financial means and*

⁴ The literature on the subject specifies a lot of concepts of value. For more information about the concept of value in accounting see: (Hoňko, 2008).

⁵ More information about dilemmas of reliable measurement see: (Cieciora, 2014).

instruments, concepts of various business solutions (...) concerning the possibility of regarding a given element as the source of generating economic profits" (Karmańska, 2009). This statement strongly emphasizes the role and importance of a man in the process of determining value in accounting.

Throughout the years in the theory of accounting a range of rules were developed which, when followed, are supposed to ensure true, fair, reliable and full presentation of asset situation and financial standing of a business entity and its performance. However, the relationship between accounting and a human factor is analysed to a relatively limited extent. Yet, accounting undoubtedly involves the actions undertaken by people in which the final result is the information presenting the picture of a business entity in figures. M. Zygan writes: *'The knowledge of mechanisms motivating and driving people to make particular decisions seems to be the best way to understand rules governing the market'* (Zygan, 2013). It is difficult not to agree with this statement. What is more, in the case of accounting it should be underlined that *"a dynamic development of a global economy leads to new and increasingly complex economic transactions, whose measurement requires non-standard and frequently unknown in the present practice solutions"* (Walińska, 2014).

As a result of presented dilemmas and needs, the concept of behavioural accounting⁶ has developed. The subject of its research involves these issues, which deal with behaviour of people engaged in the system of accounting. In the attempt to define behavioural accounting one can assume that it is *"a field of science aiming at indicating the rules, which govern behaviours related to accounting – both in people realising accounting and working in the area of accounting as well as being data providers for accounting or recipients of information coming from accounting"* (Nowak,

⁶ Behaviourism is the paradigm in psychology which explores human behaviours and their dependence on physical and social environment (Przytula, 2008). For behaviourists the most significant are phenomena, which can be observed. The subject of psychological research may be, therefore, people's observable behaviour and not internal motives of their actions obtained as a result of introspection. According to the author of this article, it is necessary to consider the correctness of the term 'behavioural accounting'. It seems that after including psychological and sociological issues in the accounting system, it would be more appropriate to use the term 'psychological aspects of accounting'. Behaviourism, however, in its concept, does not refer to cognitive science, which deals with investigating and explaining, among others, such processes as: perception, presentation, emotions, consciousness, memory, reasoning, etc. The research area of cognitive sciences should be undoubtedly taken into account when analysing the processes within the system of accounting. It appears, therefore, that using the term 'behavioural accounting' is a kind of simplification and does not take into consideration all psychological aspects having the influence on shaping the system of accounting and its 'product', which is useful economic information. Interesting discussions on the criticism of the term 'behavioural accounting' are carried out by M. Nowak (Nowak, 2015a).

2015). Some authors claim that when developing accounting theory, behavioural approach should concentrate on “*investigating the relationship between information passed to decision makers and behaviour of various people or groups, that is, on determining the influence that the presentation of information provided by accounting exerts on the receivers of this information*” (Hendriksen, van Breda, 2002). It seems, however, that such an approach is quite narrow as psychological aspects (associated at least with decision making, making choices, looking for solutions for non-standard problems) should be taken into account and analysed at every stage of the process of creating useful economic information by accounting.

Research in behavioural accounting began in the second half of the 20th century⁷. The area of interest of behavioural accounting embraces five main schools (Artienwicz, 2013): managerial control, information processing in financial accounting, designing information system in accounting, auditing (external and internal), organizational sociology.

The examples of research carried out within particular areas of behavioural accounting are presented in Table 1.1.

Table 1.1. Examples of research conducted within particular areas of interest of behavioural accounting

Managerial control	Information processing in financial accounting	Designing information system in accounting	Auditing (external and internal)	Organizational sociology
<ul style="list-style-type: none"> – leadership – conflicts – decision making – feedback – the role in the process of budgeting and the influence of this process on organizational behaviour – the influence of individual differences on reactions on the control system 	<ul style="list-style-type: none"> – making judgements and estimates – analysis of the course of the whole decision-making process – decision-making processes of different groups of users of financial statements – perception of the entity's financial position – perception of relevance and appropriateness of disclosures 	<ul style="list-style-type: none"> – research in the selection of accounting rules by the entity's leadership – the ability of users to select relevant information depending on the structure and form of reports 	<ul style="list-style-type: none"> – decision making by auditors – the analysis of auditors' skills – the analysis of judgements made by auditors – cognitive aspects of conducting audits 	<ul style="list-style-type: none"> – the influence of environment on the accounting system organization – activities resulting in the changes in accounting systems – organizational responsibility and the influence of organizational structures on behaviour and control systems

Source: own work based on (Artienwicz, 2013).

⁷ The earliest research concerning behavioural accounting relate to the area of managerial accounting and, specifically, to analysing the influence of budgeting on the attitudes of company's employees (Szychta, 2008).

The catalogue of research conducted within the individual areas of interest of behavioural accounting is neither a closed nor a finished catalogue. The areas of interest of behavioural accounting are also an open issue. Searching for and analysing psychological mechanisms of functioning of the financial accounting system users, the impact of information generated by accounting on its recipients, the analysis of cognitive mistakes made by people involved in the creation of this system are all issues, which appear to be both necessary and interesting. Perhaps, in the era of building the company's value with intangible assets, rapid technical and technological progress, in the era of information and knowledge as well as moral values crisis, the analysis of the relationships between accounting and psychology may bring solutions, which accounting theory was not able to find based solely on economics. It seems that one of desirable directions of convergence between psychology and accounting is the area of measurement and valuation analysed in this article. In particular, in relation to the valuation parameter, it is fair value and it was pointed out in this article. Fair value is to a large extent the estimated value and in this scope it is essential to combine precise methods of valuation with a professional judgement and responsibility of people making estimates. At the same time, it is the value, which aims at demonstrating the valued asset in the current value and, therefore, it is desirable on the market.

1.4. Conclusions

In the conclusion part of the considerations made in the article, the author wishes to outline two issues. First of all, within the framework of research in behavioural accounting, emphasis should be put on the relationship between psychological aspects of human functioning and ethics. This relation is inextricable, obvious and highly essential from the point of view of accounting and realization of its primary assumptions. Ethics is, in fact, the condition necessary for the efficient functioning of accounting system and along with the major rules, it should constitute its core (Cieciura, 2015). Secondly, referring to the convergence of scientific disciplines from different fields, attention should be paid to the increasing popularity of research on the processes occurring in the human brain (which is the primary subject of research of neuroscience) and the application of these studies in such areas as: economics, finance, ethics, management and accounting. Research studies conducted in the fields of neuroeconomics, neurofinance, neuromanagement,

neuroethics⁸ and, finally, neuroaccounting, are becoming increasingly popular. The question arises: how much can the investigation of neuronal processes in economic sciences contribute to broadening the areas of knowledge analysed within the framework of these fields? However, doubts concerning finding a clear answer to the asked question do not change the fact that a broadly understood psychology and fields dealing with studying the brain have entered the areas that until recently were still unavailable for them.

⁸ It seems that the analysis of the influence of emotions on decision making in the situations of moral dilemmas would be particularly instructive for accuracy and reliability of the financial accounting system. There is an approach in psychology that dilemmas are highly interesting situations from the point of view of emotion analysis. According to researchers – neuroethicians, emotional factors take control while making decisions in the situations of personal dilemmas, whereas cognitive and control factors prevail in non-personal dilemmas (Cieciura, 2015).

**ARITHMETIC OR LOGARITHMIC RATE OF RETURN?
THE IMPACT OF THE CHOICE MADE ON THE DISTRIBUTION
MODELLING RESULTS**

2.1. Introduction

One of the most often raised problems in modern finances, associated with capital market, is the issue of proper modelling of rates of return from financial instruments. The simplest and the most often applied approach, which assumes normal distribution of rates of return, although highly practical, from the theoretical point of view is unacceptable. Analysing numerous rates of return, we can observe a number of their characteristics, which most often include (Pionek, 2005):

- leptokurtosis and fat tail effect in distributions of rates of return,
- return rate autocorrelation effect,
- return rates concentration effect,
- leverage effect,
- effect of long memory in volatility (variance),
- skewness effect.

The objective of this work is to examine the impact of selection of the type of the rate of return, the distribution and estimation horizon applied on the results of modelling of rates of return. For this purpose, normal and logarithmic rate of return will be used, and the following distributions will be taken into account: skewed normal, skewed t-Student, skewed GED and stable distribution. In addition, in order to specify the significance of maturity of the capital market on the quality of the models obtained, the rate of return from S&P500 and WIG will be subject to modelling.

2.2. Methodological basis

The rate of return is most often defined as the normal (arithmetic) or the logarithmic rate of return. In the case of analysis of the normal rate of return R_t , its value is established on the basis of the following formula:

$$R_t = \frac{P_t - P_{t-1} + D_t}{P_{t-1}} \quad (2.1)$$

While the logarithmic rate of return R^*_t is defined by:

$$R^*_t = \ln \frac{P_t + D_t}{P_{t-1}} \quad (2.2)$$

Where:

- P_t – price of security at time t ;
- P_{t-1} – price of security in period $t-1$;
- D_t – value of dividend paid in period t .

In literature on modelling of rates of return, both formats can be found. Among other things, a logarithmic rate of return assumes a lesser value than the ordinary rate of return, while the central theorem of Lindberg-Levy suggests that in the case of an appropriately long analysis period, the logarithmic rate of return will be described by Gauss distribution (Bednarz-Okrzyńska, 2014). Depending on the time horizon applied, we can analyse not only the daily (D), but also weekly (W), monthly (M) or annual rates of return. Subject to modelling in this article are distributions of the following rates of return:

- daily normal rate of return in the period of 252 quotations ($R_{t_D_252}$),
- daily logarithmic rate of return in the period of 252 quotations ($R^*_{t_D_252}$),
- daily normal rate of return in the period of 126 quotations ($R_{t_D_126}$),
- daily logarithmic rate of return in the period of 126 quotations ($R^*_{t_D_126}$),
- weekly normal rate of return in the period of 52 quotations ($R_{t_W_52}$),
- weekly logarithmic rate of return in the period of 52 quotations ($R^*_{t_W_52}$),
- monthly normal rate of return in the period of 36 quotations ($R_{t_M_36}$),
- monthly logarithmic rate of return in the period of 36 quotations ($R^*_{t_M_36}$),
- monthly normal rate of return in the period of 60 quotations ($R_{t_M_60}$),
- monthly logarithmic rate of return in the period of 60 quotations ($R^*_{t_M_60}$).

The above rates of return will be modelled starting from the first quotation, for which such modelling is possible (e.g. for a daily rate of return in the period of 252 quotations, the first model was obtained for the 254th quotation of a given index, the second model for the 255th quotation included rates of return from quotations 3 to 254 etc.), until the last quotation of year 2014. This means that in the case of index S&P500, for each of the distributions analysed, 11102 models were obtained for daily rates of return for the period of 252 quotations and 11228 for 126 quotations, 480 models for monthly rates of return for the period of 60 quotations and 504 for 36 quotations and 2139 models for weekly rates of return. In the case of WIG index, the number of models obtained was at the level of 4812 and 4938, 183 and 207 and 898, respectively.

Due to limitations associated with the article, the research results have been limited to four distributions: skewed normal, skewed t-Student, skewed GED and stable.

Distribution function of the skewed normal distribution (*snorm*), is described by the formula (Azzalini, 1985) :

$$f(x) = \frac{2}{\sigma} \phi\left(\frac{x-\mu}{\sigma}\right) \Phi\left(\lambda \cdot \frac{x-\mu}{\sigma}\right) \quad (2.3)$$

where: μ – location parameter,
 σ – scale parameter,
 λ – skewness parameter,
 $\phi(x)$ – density function of standardized normal distribution,
 $\Phi(x)$ – Cumulative distribution function of the standardized normal distribution.

Finally, function (2.3) can be recorded as follows:

$$f(x) = \frac{1}{\sigma \pi} \cdot e^{-0.5 \cdot \left(\frac{x-\mu}{\sigma}\right)^2} \cdot \int_{-\infty}^{\lambda \cdot \left(\frac{x-\mu}{\sigma}\right)} e^{-\frac{t^2}{2}} dt \quad (2.4)$$

The density function of the skewed t-Student distribution has been defined as (Jones, 2003):

$$f(x) = \frac{1}{2^{a+b-1} \cdot B(a,b) \cdot (a+b)^{0.5}} \cdot \left(1 + \frac{x}{(a+b+x^2)^{0.5}}\right)^{a+0.5} \cdot \left(1 - \frac{x}{(a+b+x^2)^{0.5}}\right)^{b+0.5} \quad (2.5)$$

where $B(\cdot, \cdot)$ – beta function, $a, b > 0$. If $a=b$, function (2.5) becomes a standard t-Student function with „2*a” degrees of freedom, if $a < b$ the function is negatively skewed, if $a > b$ – positively skewed.

Density function of skewed GED (sGED) distribution, on the other hand, is described by the following equation (Theodossiou, 2000):

$$f(x) = \frac{C}{\sigma} \cdot \exp\left(-\frac{1}{[1 - \text{sign}(x - \mu + \delta\sigma)\lambda]^k \Theta k \sigma^k} \cdot |x - \mu + \delta\sigma|^k\right) \quad (2.6)$$

where: $C = \frac{k}{2\Theta} \Gamma\left(\frac{1}{k}\right)^{-1}$,

$$\Theta = \Gamma\left(\frac{1}{k}\right)^{0.5} \Gamma\left(\frac{3}{k}\right)^{-0.5} S(\lambda)^{-1},$$

$$\delta = 2\lambda A S(\lambda)^{-1},$$

$$S(\lambda) = \sqrt{1 + 3\lambda^2 - 4A^2\lambda^2},$$

$$A = \Gamma\left(\frac{2}{k}\right) \Gamma\left(\frac{1}{k}\right)^{-0.5} \Gamma\left(\frac{3}{k}\right)^{-0.5},$$

k – shape parameter,

Γ – Gamma function.

In the case of stable distributions, the analytical format describing density of a random variable of such distribution can be found only in the case of three distribution classes: normal, Couch and Levy. In the remaining cases, numerical integration is normally used (Fourier transform) of the characteristic function in the following form (Czyżycki, 2014):

$$\phi(t) = \begin{cases} \exp \left[i\mu \cdot t - \sigma |t|^\alpha \cdot \left(1 + i\lambda \cdot \text{sign}(t) \cdot \text{tg} \cdot \left(\frac{\alpha\pi}{2} \right) \right) \right] & \text{dla } \alpha \neq 1 \\ \exp \left[i\mu \cdot t - \sigma |t| \cdot \left(1 + i\lambda \cdot \text{sign}(t) \cdot \frac{\pi}{2} \ln(t) \right) \right] & \text{dla } \alpha = 1 \end{cases} \quad (\text{II.7})$$

where $i = \sqrt{-1}$,

α – distribution stability parameter (for normal distribution $\alpha=2$ and $\beta=0$, in the case of Couchy distribution $\alpha=2$ and $\beta=0$, and for Levy distribution $\alpha=1/2$ and $\beta=1$).

In the study, the following main research hypothesis has been formed: selection of normal or logarithmic rate of return does not exert significant impact on results of modelling of the rate distribution. In addition, the following auxiliary hypothesis has been applied: the difference in probability of obtaining a distribution that would be consistent with the model in the case of developed and developing capital markets is not statistically significant.

2.3. Research results

In order to verify the main hypothesis, modelling of the normal and logarithmic rate of return has been conducted for all of the distribution variants assumed earlier. Afterwards, using the Chi-square compatibility test, it was checked for how many among the n distributions obtained, there is no reason to reject the hypothesis of these being consistent with the theoretical distribution being analysed ($p\text{-value}=0,05$). On the basis of the above information, using the test for two structure indicators, the p -value level was determined, for which it can be assumed that the frequency (probability) of obtaining of a distribution consistent with the assumptions made differs in a statistically significant manner depending on the rate of return applied (normal or logarithmic). The research results obtained are presented in Table 2.1.

Table 2.1. Statistics of the return rate distributions modelled

Distribution	n	Number of consistent distributions		p-value for test for two structure indicators
		R_t	R_t^*	
stable_WIG_D_252	4812	4325	4331	0,8389
stable_WIG_D_126	4938	4354	4356	0,9503
stable_WIG_M_60	183	182	182	1,0000
stable_WIG_W_52	898	737	736	0,9510
stable_WIG_M_36	207	190	191	0,8560
stable_SP500_D_252	11102	9818	9811	0,8834
stable_SP500_D_126	11228	9790	9794	0,9363
stable_SP500_M_60	480	366	366	1,0000
stable_SP500_W_52	2139	1733	1722	0,6696
stable_SP500_M_36	504	362	364	0,8884
sGED_WIG_D_252	4812	4203	4208	0,8780
sGED_WIG_D_126	4938	4350	4349	0,9752
sGED_WIG_M_60	183	180	180	1,0000
sGED_WIG_W_52	898	763	760	0,8437
sGED_WIG_M_36	207	196	193	0,5359
sGED_SP500_D_252	11102	9858	9860	0,9660
sGED_SP500_D_126	11228	9898	9903	0,9177
sGED_SP500_M_60	480	397	400	0,7965
sGED_SP500_W_52	2139	1745	1753	0,7514
sGED_SP500_M_36	504	405	402	0,8131
sTS_WIG_D_252	4812	3084	3071	0,7825
sTS_WIG_D_126	4938	4006	4002	0,9181
sTS_WIG_M_60	183	182	182	1,0000
sTS_WIG_W_52	898	744	728	0,3262
sTS_WIG_M_36	207	197	197	1,0000
sTS_SP500_D_252	11102	6838	6823	0,8361
sTS_SP500_D_126	11228	8434	8428	0,9262
sTS_SP500_M_60	480	387	384	0,8076
sTS_SP500_W_52	2139	1838	1836	0,9300
sTS_SP500_M_36	504	429	426	0,7923
snorm_WIG_D_252	4812	3843	3839	0,9191
snorm_WIG_D_126	4938	2581	2575	0,9038
snorm_WIG_M_60	183	179	180	0,7027
snorm_WIG_W_52	898	736	732	0,8070
snorm_WIG_M_36	207	187	188	0,8664
snorm_SP500_D_252	11102	6802	6878	0,2943
snorm_SP500_D_126	11228	3867	3834	0,6427
snorm_SP500_M_60	480	407	410	0,7857
snorm_SP500_W_52	2139	1640	1633	0,8007
snorm_SP500_M_36	504	365	360	0,7260

Source: own work.

On the basis of the results contained in Table 2.1, it can be assumed that selection of one of the two rates of return does not have a statistically significant im-

pact on increasing of the probability of obtaining a distribution consistent with the assumptions made. This applies not only to the rate of return in the strict sense of the term (normal or logarithmic), but also to the period, for which the rate has been determined (day, week, month), the quantity of data (256, 126, 60, 52, 36) and the degree of development of the capital market (the developed American market or the developing Polish market). Additional argument that supports the above hypothesis can be the results of the Kolmogorov Smirnov test (K_S), which was used to verify the hypothesis stating that empirical distributions of p-values obtained for the Chi-square compatibility test are identical regardless of whether a normal or a logarithmic rate of return is modelled. In each of the distributions modelled, there is no reason to reject such hypothesis (for p-value=0,05), which has been illustrated by Table 2.2.

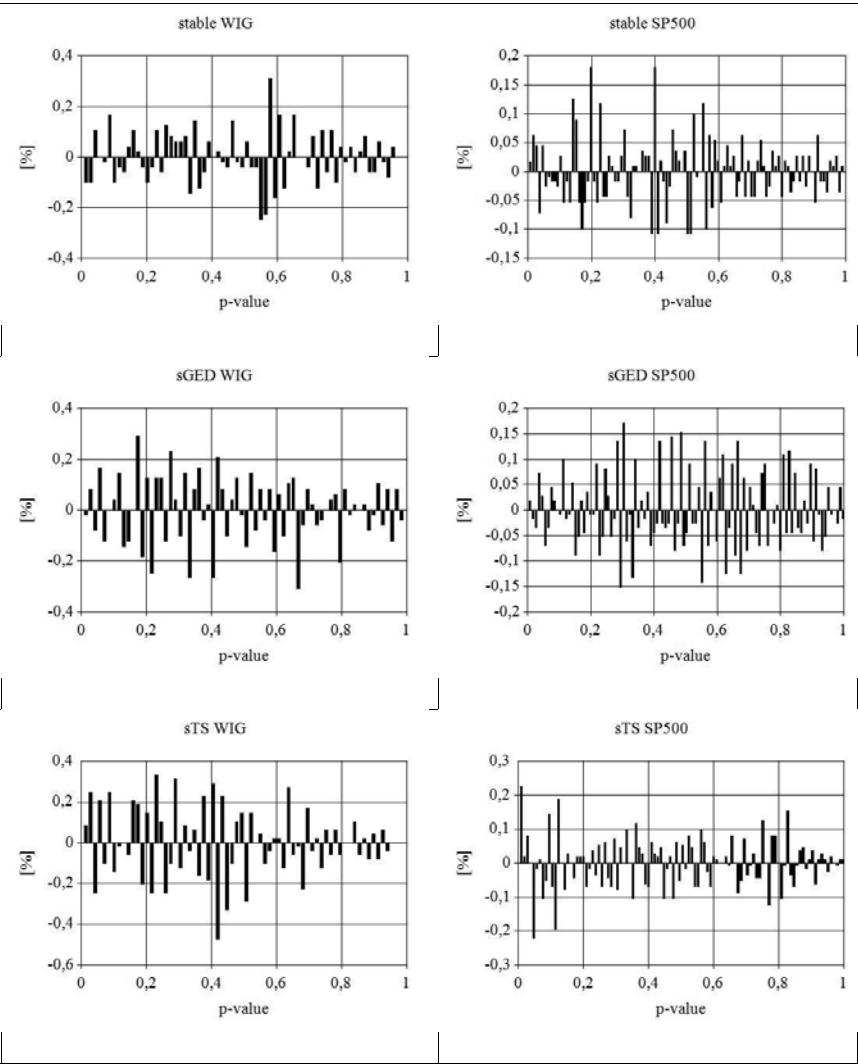
Table 2.2. Results of the Kolmogorov Smirnov test (K_S) to examine the identity of the empirical cumulative distribution function for p-values obtained for the Chi-square compatibility test in the case of modelling a given distribution on the basis of a normal or logarithmic rate of return

Distribution	K_S	p-value	Distribution	K_S	p-value
stable_WIG_D_252	0,2038	1,0000	sTS_WIG_D_252	0,4179	0,9949
stable_WIG_D_126	0,2012	1,0000	sTS_WIG_D_126	0,3220	0,9999
stable_WIG_M_60	0,6777	0,7480	sTS_WIG_M_60	0,5734	0,8974
stable_WIG_W_52	0,2594	1,0000	sTS_WIG_W_52	0,3773	0,9989
stable_WIG_M_36	0,4903	0,9698	sTS_WIG_M_36	0,5393	0,9331
stable_SP500_D_252	0,1468	1,0000	sTS_SP500_D_252	0,8187	0,5140
stable_SP500_D_126	0,2135	1,0000	sTS_SP500_D_126	0,3270	0,9999
stable_SP500_M_60	0,5947	0,8713	sTS_SP500_M_60	0,5633	0,9088
stable_SP500_W_52	0,3516	0,9997	sTS_SP500_W_52	0,3669	0,9993
stable_SP500_M_36	0,3641	0,9994	sTS_SP500_M_36	0,6518	0,7892
sGED_WIG_D_252	0,2752	1,0000	snorm_WIG_D_252	0,6421	0,8041
sGED_WIG_D_126	0,2214	1,0000	snorm_WIG_D_126	0,6339	0,8165
sGED_WIG_M_60	0,6777	0,7480	snorm_WIG_M_60	0,9383	0,3420
sGED_WIG_W_52	0,1887	1,0000	snorm_WIG_W_52	0,4717	0,9792
sGED_WIG_M_36	0,2942	1,0000	snorm_WIG_M_36	0,2942	1,0000
sGED_SP500_D_252	0,1342	1,0000	snorm_SP500_D_252	0,7784	0,5796
sGED_SP500_D_126	0,2069	1,0000	snorm_SP500_D_126	0,7807	0,5758
sGED_SP500_M_60	0,3012	1,0000	snorm_SP500_M_60	0,5343	0,9377
sGED_SP500_W_52	0,2293	1,0000	snorm_SP500_W_52	0,4433	0,9894
sGED_SP500_M_36	0,2754	1,0000	snorm_SP500_M_36	0,4541	0,9861

Source: own work.

Figure 2.1. presents, on the other hand, the differences in frequency of distributions obtained consistent with the assumptions made, in the case of modelling of normal and logarithmic daily rate of return for the estimation period consisting of 252 quotations (the positive value indicates prevalence of consistent distributions

obtained for the logarithmic rate of return, while the negative value – prevalence of distributions obtained for the normal rate).



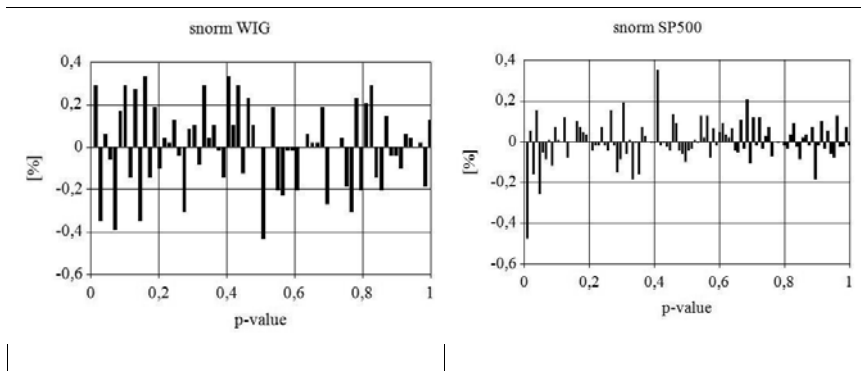


Figure 2.1. Differences in the frequency of distributions obtained being consistent with the assumptions made in the case of modelling of normal and logarithmic rate of return and the estimation period of 252 quotations.

Source: own work.

In order to verify the additional hypothesis, stating that the probability of obtaining of a distribution consistent with the assumptions made is the same for the developed and the developing capital markets, a comparison of results was conducted with regard to the modelled rates of return for SP500 and WIG indexes. Only in the case of sGED and stable distributions, modelling of normal and logarithmic rates of return on the basis of 126 quotations, as well as weekly logarithmic rates of return (and, in the case of the stable distribution, also the normal rates of return), the null hypothesis ($p\text{-value}=0,05$) – referring to identical probability of obtaining a distribution consistent with the assumptions made on both markets - could not be rejected. Detailed information concerning the results of the study conducted has been presented in Table 2.3.

Table 2.3. P-values for test for two structure indicators, examining the identity of frequency of occurrence of distributions consistent with the assumptions made for WIG and SP500 index rates of return

Distribution	p-value for test for two structure indicators	Distribution	p-value for test for two structure indicators
stable_R _t _D_252	0,0081	sTS_R _t _D_252	0,0028
stabile_R [*] _t _D_252	0,0026	sTS_R [*] _t _D_252	0,0048
stable_R _t _D_126	0,0826	sTS_R _t _D_126	2,22E-16
stabile_R [*] _t _D_126	0,0807	sTS_R [*] _t _D_126	4,44E-16
stable_R _t _M_60	9,77E-12	sTS_R _t _M_60	2,92E-09
stabile_R [*] _t _M_60	7,86E-12	sTS_R [*] _t _M_60	1,07E-09
stable_R _t _W_52	0,4971	sTS_R _t _W_52	0,0301
stabile_R [*] _t _W_52	0,3516	sTS_R [*] _t _W_52	0,0009
stable_R _t _M_36	3,6E-08	sTS_R _t _M_36	0,0002

stabile_R*_M_36	2E-08	sTS_R*_M_36	9,02E-05
sGED_R*_D_252	0,0088	snorm_R*_D_252	0
sGED_R*_D_252	0,0135	snorm_R*_D_252	0
sGED_R*_D_126	0,9102	snorm_R*_D_126	0
sGED_R*_D_126	0,8179	snorm_R*_D_126	0
sGED_R*_M_60	1,01E-07	snorm_R*_M_60	3,54E-06
sGED_R*_M_60	1,73E-07	snorm_R*_M_60	1,94E-06
sGED_R*_W_52	0,0247	snorm_R*_W_52	0,0013
sGED_R*_W_52	0,0746	snorm_R*_W_52	0,0017
sGED_R*_M_36	1,94E-06	snorm_R*_M_36	2,28E-07
sGED_R*_M_36	9,99E-06	snorm_R*_M_36	2,29E-08

Source: own work.

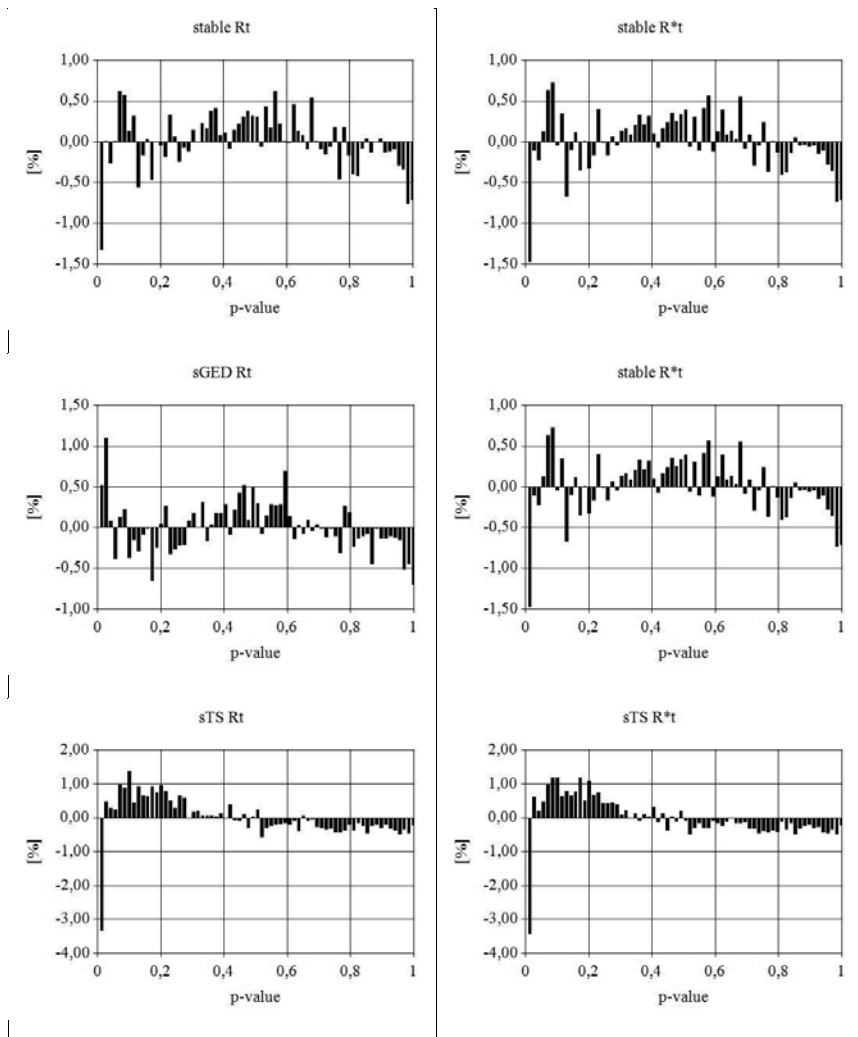
An additional argument supporting falsification of the additional hypothesis are results of the test verifying identity of p-value distributions for the Kolmogorov-Smirnov test. For each of the distribution and return rate combinations examined, the result obtained indicated clearly (p-value=0,05) that the p-value distributions for the Chi-square test examining compatibility of the model with the assumptions made differ in a statistically significant manner for SP500 and WIG indexes (Table 2.4).

Table 2.4. Results of the Kolmogorov – Smirnov test (K_S) to examine the identity of empirical cumulative distribution functions of p-values obtained for the Chi-square compatibility test, in the case of modelling of the rate of return from the SP500 and WIG indexes

Distribution	K_S	p-value	Distribution	K_S	p-value
stable_R*_D_252	2,40959	1,8109E-05	sTS_R*_D_252	5,90308	1,0812E-30
stabile_R*_D_252	2,44784	1,2488E-05	sTS_R*_D_252	6,16678	1,8592E-33
stable_R*_D_126	2,60824	2,4665E-06	sTS_R*_D_126	3,53851	2,6629E-11
stabile_R*_D_126	2,61823	2,2220E-06	sTS_R*_D_126	3,56838	1,7418E-11
stable_R*_M_60	4,25596	3,6993E-16	sTS_R*_M_60	4,28312	2,3263E-16
stabile_R*_M_60	4,38650	3,8738E-17	sTS_R*_M_60	4,71094	1,0579E-19
stable_R*_W_52	1,01615	2,5309E-01	sTS_R*_W_52	2,13961	2,1120E-04
stabile_R*_W_52	0,90880	3,8069E-01	sTS_R*_W_52	2,22076	1,0408E-04
stable_R*_M_36	2,96870	4,4258E-08	sTS_R*_M_36	3,00759	2,7804E-08
stabile_R*_M_36	3,09437	9,6423E-09	sTS_R*_M_36	3,21951	1,9855E-09
sGED_R*_D_252	2,19718	1,2819E-04	snorm_R*_D_252	10,84023	0,0000
sGED_R*_D_252	2,34341	3,3970E-05	snorm_R*_D_252	10,40061	0,0000
sGED_R*_D_126	2,70091	9,2200E-07	snorm_R*_D_126	10,97955	0,0000
sGED_R*_D_126	2,67858	1,1725E-06	snorm_R*_D_126	11,02476	0,0000
sGED_R*_M_60	5,24108	2,7660E-24	snorm_R*_M_60	5,78848	1,5763E-29
sGED_R*_M_60	5,41991	6,1072E-26	snorm_R*_M_60	6,21687	5,3774E-34
sGED_R*_W_52	0,96526	3,0911E-01	snorm_R*_W_52	1,82995	2,4681E-03
sGED_R*_W_52	1,00169	2,6820E-01	snorm_R*_W_52	1,67635	7,2471E-03
sGED_R*_M_36	2,85481	1,6676E-07	snorm_R*_M_36	3,35298	3,4349E-10
sGED_R*_M_36	2,89574	1,0415E-07	snorm_R*_M_36	3,31461	5,7298E-10

Source: own work.

The differences in empirical cumulative distribution functions p-values obtained for the Chi-square test are mainly due to a much more frequent obtaining of lower values for the SP500 index in comparison with WIG index, which has been presented by Figure 2.2.



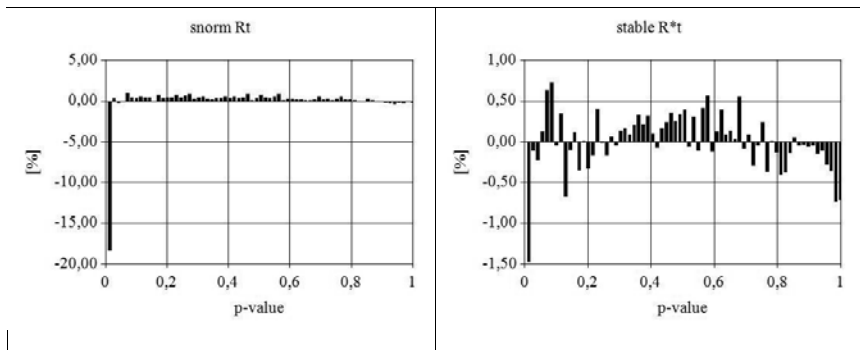


Figure 2.2. Differences in the frequency of distributions obtained, consistent with the assumptions made in the case of modelling of the rate of return for SP500 and WIG indexes and the estimation period consisting of 252 daily rates of return

Source: own work.

2.4. Conclusions

On the basis of the research conducted, it seems proper to draw the following conclusions:

- the probability of obtaining of a return rate distribution consistent with the theoretical distribution does not depend, to a statistically significant extent, on the rate of return used for modelling. Both in the case of the normal and logarithmic rates of return, the probability of obtaining a distribution consistent with the theoretical assumptions is the same, regardless of whether a daily, weekly or monthly rate is being modelled, and regardless of the length of the estimation horizon;
- of significance, on the other hand, is the level of development of the capital market. In the case of developing markets – such as the Polish capital market – the probability of obtaining of a distribution consistent with the model is significantly lower in comparison with modelling of developed stock exchange indexes (SP500).

**WOMEN'S ENTREPRENEURSHIP AS THE WAY
OF DECREASING UNEMPLOYMENT**

3.1. Introduction

The history of entrepreneurship is a phenomenon which can be defined as relatively young and still shaping itself. Despite the fact that theories connected with this phenomenon have been created by researchers and economists over the period of the last two centuries, entrepreneurship has been close to mankind since the very beginning of the management of the resources. This process, as well as the set of features linked with the discussed phenomenon, was not named then yet, and communities were not aware of its existence, but already in ancient times first treaties appeared on expeditious activity, of the army in particular. It was not until the 18th century that the defining of the studied phenomenon started, and its most active phase fell on the 19th and 20th century. Along with the study progressing and discovering entrepreneurship known at present, innovative social trends appeared, which in the beginning were thought of as insignificant, however with time they began to affect the functioning of the whole society. It should be added that along with growing unemployment there was a change in the involvement of women in the labour market. The emancipation of women also touched the economic area, although it was one of later issues as a resultant of achieving freedom and liberties in more essential questions such as public rights or the right to learning or the active right to work. The present emancipation of women is still an existing phenomenon, although no longer defined by the community as a form of women's fight with the system. However, it can be connected with entrepreneurship and treated as a factor affecting the decrease in unemployment or limiting direct and indirect discrimination of women in the labour market.

3.2. Women's entrepreneurship

Women's entrepreneurship is a significant element of the contemporary economic world and simultaneously constitutes a complicated phenomenon of the economic and socio-cultural basis. From the economic point of view, according to the scientific literature, women's entrepreneurship is an important catalyst for changes

and economic development. The researchers show that in the countries in which development of entrepreneurship among people is supported and the conditions for such development are created, the dynamics of the economic growth are much higher than in the countries where such a strategy is not practiced. This results in a conclusion that the use of so far unused women's potential in the economic field can lead to the development of the country and the society. The phenomenon of entrepreneurship among women is also a result of prevailing negative demographic trends. A decreasing number of population in Poland makes it necessary to use human resources that so far have been passed over or have not participated fully in the labour market. For this reason the observed promotion of women's entrepreneurship in Poland has logical and economic justification (Rollnik-Sadowska, 2010).

From the socio-cultural point of view women's entrepreneurship is a phenomenon of a more complicated character. This results directly from the multian-nual patriarchal tradition binding in Poland, originated from Medieval philosophy of the nobility. It means that up to the moment of women's economic revolution, women were involved exclusively in their own households and in socially determined roles of mothers and wives. Possible gainful activity out of their own households was only related with a necessity of balancing a family budget, the dominating role being still played by the man. The situation changed after system transformations in Poland, but a satisfying development of women is still hampered by stereotypes and customs prevailing in the past. Despite a significant progress in this area there still occur situations in which women face the problems and difficulties related with their new role of an enterprising woman (Lisowska, 2001).

3.3. Polish women's entrepreneurship in a historical depiction

Discussions on the relationships between women and the phenomenon of entrepreneurship in Poland should be started with a general outline showing a slow formation of possibilities of women's development and their way to economic freedom. Presenting the issue historically, it should be stated that women were subordinate to the authority of men for ages. Their role, depending on the period and the discussed area could refer to the temple of a god or giving birth to children. All that was dangerous, interesting and developmental was dealt with by men. It was them who shaped the world or created and destroyed communities. This situation, according to the constant evolution of thoughts and behaviours, did not last continuously.

At the end of the 18th century liberation movements of the oppressed people started in the United States of North America and France. Immigrant American population fought for freedom from the British control, and the French community opposed the oppression of the monarchy by means of great revolution (Tong, 2002). It was just then that ideological trends to change the situation of women began to appear. It was called the emancipation of women. The word emancipation originated from a Roman custom defining extinction, leaving the care of parents, i.e. in those times the care of the father (paternal care). The emancipation of women gained in strength only in the 19th century. Demands appeared for women's access to learning, education and universities. Women's rights to vote as well as the access to work and equal remuneration proportional to work performed were also fostered (Tong, 2002). An open-door academic policy of the universities in Europe started in the second half of the 19th century and this process lasted till the early beginning of the 20th century. It was the period of dynamically created and developed social organizations fostering emancipation ideas. Particularly active were female activists from Germany, Great Britain and the United States of America who were called women suffragists. The movement was so large that international women's congresses started to be held to formalize their activity (Tong, 2002).

Also in Poland, despite difficulties related with functioning in three partitions, women organized their own liberation desires within the frames of undertaken activities. The largest and best known organizations were: Society of Patriotic Philanthropy the Women's Union (*Towarzystwo Dobroczynności Patriotycznej Związek Kobiet*), Society Piątek (*Stowarzyszenie Piątek*), and Poznań Society Warta (*poznańskie Towarzystwo Warta*). What differentiated Polish women from other women in Europe were strong patriotic beliefs and sometimes underground activities, which made the emancipation movement much more universal and socially justified (www.wyborcza.pl, 2015).

However Polish women's entrepreneurship began to develop intensively only after 1989. After the period of system changes which took place in the post-socialist countries there were a lot deformations of a socio-economic character. This type of evolution resulted in a change for worse in the social condition of the population, and in most cases, of women. A negative feature, which affected particularly women turned out to be the form of the failure of the state system of social security. Women became endangered to a great extent by unemployment, by much worse working conditions and less paid workplaces. All these factors caused to a large degree a considerable worsening of the social conditions of women, which was defined as the

feminization of poverty (Pedagogical Encyclopaedia of the 21st century, 2003)⁹. The women who found themselves in such a situation tried at all cost to undertake, through their own initiative and abilities, attempts to gain funds which would ensure adequate conditions of life and existence of their families.

The work progress on one's own account in Poland took place in the initial period of the system transformation and was the result of the rejection of restrictions on the development of entrepreneurship at the turn of the 80s and 90s of the 20th century. Women got involved dynamically in this activity. The danger of losing the job and nearly impossible access to high rank executive positions are for women the most important reasons for being interested in work on one's own account (Cywoniuk, 2008).

3.4. Economic activity of women

Contemporary possibilities of the employment of women are very wide if they are considered in the context of future periods. The mentioned earlier liberation of women increased their chances of entering the labour market. Women seem to be very active in searching for a job and also in performing work which is confirmed by the studies, however the index of the employment of women is lower than that of men. The structure of employment in Poland according to the sex is illustrated in Table 3.1.

Table 3.1. Economic activity of people

Years	Professionally active workers				Professionally active unemployed				Professionally active			
	Women		Men	In all	Women	Men	In all	Women	Men	In all		
	in thousand persons	in %	in thousand persons		in %	in thousand persons		in %	in thousand persons			
2010	6908	44,6	8566	15474	769	44,6	881	1650	8456	61,1	5376	13832
2011	6914	44,4	8648	15562	802	48,4	856	1658	8443	61,3	5339	13782
2012	6940	44,5	8651	15591	850	48,6	900	1750	8391	61,3	5307	13698
2013	6927	44,5	8641	15568	866	48,3	927	1793	8389	61,3	5287	13676
2014	7084	44,7	8778	15862	752	48	815	1567	8321	61,4	5235	13556

Source: own work based on (The bank of local data, 2015).

The data in Table 3.1. show that the percentage of women employed in Poland in the years 2010 - 2014 amounted to over 44.4%, varying from 44.4% in

⁹ Feminism – defined as the defense of equal rights for women and men, linked with the involvement in the improvement of women's position in society. This term is used to determine multifarious ideologies, movements and social activities, theoretical concepts the subject matter of which is women's situation and position in society.

2011, 44.5% for the years 2012 and 2013. and successively: 47.7%, 47.8%, 48.3%, 48.6%, and in the last studied year it amounted to 48.3% of the total number of employees. A continuous increase in the number of the employed women in relation to men is also noticeable, however it should be remembered that the possibilities of the employment of women result from the specification of the local economy.

Among the women professionally active there is a part of them who, despite willingness, cannot find a job. A general size of this negative phenomenon in Poland over the years 2010 - 2014 was meaningful. In 2014 women constituted 48% of the unemployed according to (Central Statistical Office of Poland) (Table 3.1.).

The unemployment rate according to the criterion of the sex over the years 2010-2014 is shown in Figure 3.1.

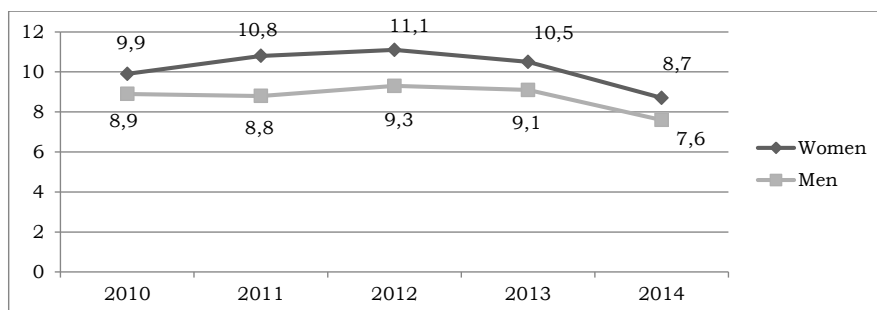


Figure 3.1. The unemployment rate in Poland according to the sex – the state at the end of the fourth quarter of the year

Source: own work based on (The bank of local data, 2015).

It should be noticed that the rate of women's unemployment in the analysed years is always higher than that of men's unemployment. It can result from demographic causes a frequent gainful emigration or decreased women's willingness to work in the grey economy. The data on the privilege to receive the allowance for the unemployed are also very approximate and they oscillate at the level of around a 1 percentage point difference in favour of women (in 2014 13% of the total number of the registered women and 13.6% of the total number of the registered men). It means that in this group there is a minimum difference as regards the work experience that is a decisive factor to grant social benefits. It can result from infrequent women's attempts at undertaking new jobs caused by intensification of activities in favour of professional stabilization at the cost of the possibility to increase income. It is more difficult for women to return to work, particularly after a longer break

connected with a maternity or parental leave. In a more difficult situation are the women looking for a job for the first time.

The phenomenon of professional inactivity is one of those elements which are characteristic for the Polish socio-economic system. Since its emergence after the system transformation in 1989 the number of professionally inactive people has still been growing. The concept of professional inactivity is meant as the situation in which a human being is not employed, does not perform any gainful work, nor does he/she search for work to take it. In 1992 the number of professionally inactive amounted to over 11 million people, and in 2006 it rose to over 14.5 million people (GUS data). Since then this number had undergone some fluctuations, however in 2014 it still remained at the level of about 14 million people – 13.556 million people (Table 3.1.).

The reasons for professional inactivity of people can be searched out in the system of education and in facilitated access to universities. The statistical studies of the economic activity of the citizens refer to people under 15 and this means that among the professionally inactive quite a large part constitutes a group of pupils and students of stationary majors. It does not mean, either, that the whole group displays signs of lack of activity, however its size affects the general quantity. Another cause of this phenomenon is quite a contrary social group of the retired and pensioners. It usually refers to older retired people who already do not undertake attempts to contrapose their own inactivity. It is especially significant as Polish legislation does not forbid retired people to be active. Sometimes such a situation is not only a well thought over and deliberate decision, but also it results directly from the tendency in the labour market or from family duties that the older people impose on themselves. A certain narrow group includes incapacitated, disabled and mentally ill people. Narrow, because more and more disabled people become active in the labour market. However, still a large number of the mentioned people condemn themselves to social and at the same time economic alienation or are discriminated by employers and by commonly prevailing unadjustedness of the municipal infrastructure that should make it easier for disabled people to function. An important cause, quantitatively marginal, but significant as far as its social harmfulness is concerned, is a group of people sentenced and released from prison. These people in a large minority go to the job centres and enter the labour market and thus enlarge the group of professionally inactive.

The reasons for professional inactivity of women are among the earlier mentioned, as women also belong to the aforesaid social groups. However in the case of

this sex there is also a set of other causes characteristic only of women. The main causative factor is larger responsibility taken by women for functioning the household and family as a basic social unit. Hence, women resign to a large degree from their own career and professional development, as they are not able to devote themselves, their time and attention to the activity related both with the household and work. It is caused by employers and the policy of the government which do not facilitate activity of the women who decided to also fulfil a mother's role. This is proved by weak access to the preschool care, which in the family situation means that an older person (most often grandmother) if it is possible, or a woman (mother) have to be professionally excluded. The discrimination by the employers does not refer only to the women who have already become mothers so they have duties out of the workplace, but also to the young women who are planning to start a family, thus they can have potential non-professional duties in the future. This relates to the employers' fear that they can lose the worker soon due to pregnancy and will have to bear costs resulting from the necessity of employing a new person. Considering the workers' discrimination caused by the sex, non-standard forms of the employment were made possible to be introduced and social campaigns were started in order to reduce the effects of discrimination and improve women's situation in the labour market.

3.5. Women's entrepreneurship in Poland

In 2012 about 34% of all the entrepreneurs in Poland were women (986 thousand), in the EU 31%. The contribution of women to the general number on entrepreneurs is much lower than that of the men - however this phenomenon occurs in all the EU countries. A definite majority of Polish women entrepreneurs (80%) ran enterprises individually and 198 thousand employed workers (Table 3.2.)

Table 3.2. The number of entrepreneurs, employers and solo entrepreneurs in Poland and EU-28 by gender, 2008 and 2012 in thousands persons

	Entrepreneurs		Employers		Solo entrepreneurs	
	Total 2012	% change 2008-2012	Total 2012	% change 2008-2012	Total 2012	% change 2008-2012
EU-28 Women	10257	2	2397	-2	7859	3
EU-28 Men	22842	-1	6976	-9	15866	2
PL Women	986	-4	198	2	788	-6
PL Men	1956	1	452	1	1504	1

Source: own work based on (Panteia, 2014).

Women entrepreneurs constituted about 14% of women in the active labour force and this index was higher than the average of the EU-28, where the index of entrepreneurship oscillated at about 10% (Table 3.3.) whereas the percentage of men entrepreneurs in the active labour force in Poland amounted to 23 % and also was higher than the average for men in the EU-28 (19%).

Table 3.3. Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender in Poland and EU-28, 2003, 2008 and 2012

Specification	2003	2008	2012
	in %		
EU-28 Women	10	10	10
EU-28 Men	19	19	19
PL Women	17	15	14
PL Men	26	22	23

Source: own work based on (Panteia, 2014).

The majority of entrepreneurs in Poland work in full time. In 2012 about 14% of women entrepreneurs worked in part time in their enterprises and this percentage was much lower than the average in the EU-28, which was 30%. In 2012 the highest percentage of women entrepreneurs in the total number of entrepreneurs referred to the sector of human and social health, whereas the lower percentage was in the groups of the building, transport and storing sector. The highest contribution of enterprising women in Poland was in the group of 25-49 years old, while in the group of 50-64 years old it was lowest, similarly to the EU-28.

On average, a woman entrepreneur worked in Poland 39 hours, which was 3 hours more than in the EU. Women entrepreneurs worked in part time on average 19 hours, in the EU 18 hours.

Despite the fact that enterprising women are better educated than men (however not as well as the women in the EU) and this could be reflected in better management of the enterprises run by them, the average net income of the women entrepreneurs amounted to 5303 Euro and was unfortunately lower than the net income of the men by 582 Euro, and lower than the net income of the women entrepreneurs in the EU.

It also must be added that the studies carried out by Polish Agency for Enterprise Development – PARP (PARP, 2011) also show that Polish women are better resourceful than men, as their motivation to work on their own account does not result from an occurring opportunity. Polish women are most often motivated by psychological factors. Most of our fellow countrywomen decide to start their own business because they cannot see better possibilities in the labour market.

3.6. Conclusions

Entrepreneurship as one of the essential economic elements and determinants of the economic development of the state should play in every case a significant role in the policy of the government as well as at the level of self-government. According to the presented information, it can be stated that in Poland, a still developing country, entrepreneurship as a national feature of the citizens becomes an unquestionable fact, particularly in the regions of high unemployment. There are still areas and branches of the economy where the ownership is not a dominating part yet, although this situation seems to tend towards entire economic freedom. Entrepreneurship as an ability to act effectively under changing market conditions in the environment requiring undertaking a risk is significant both from the economic and social point of view, and in each of these areas it generates a considerable influence. Women and men have possibilities to start a business with financial assistance from different institutions, therefore the entrepreneurship in Poland is an almost unlimited phenomenon. It takes the shape of the units determined in the law of Poland and can refer to any activity which is not illegal. Such a wide spectrum of arbitrariness creates possibilities of economic and at the same time personal development. What can be a hindrance to such a progress is the state policy at different levels, which can impede the realization of one's own ideas and goals.

The phenomenon of contemporary entrepreneurship undergoes constant changes, and the globalization processes cause that the pace and the dynamics of these changes force newer and newer and more innovative solutions necessary for maintaining competitiveness. Thus, possibilities and chances are created for activities which could not appear earlier. The progress in the field of business and economy is also bound with changes of economic awareness of citizens. Thanks to this the branches inaccessible so far, became more popular. It also refers to women and their possibilities of economic self-realization. Although globalization and its effects are, to a lesser degree and with a delay, noticeable in areas remote from the large centres of trade and industry or large metropolises, the results of this progress are still visible.

The present state of this phenomenon can be defined as satisfying and developmental. However, the factor deciding whether women will really be able to develop themselves more is the net of ties and economic processes which enable or not the development of entrepreneurship at all, including women. Women's abilities and their strong motivation allows to draw a conclusion that despite hypothetical condi-

tions in the future, impeding development of private businesses, in spite of this women will accept this form of self-realization.

On the basis of the data presented, it can be stated that there are common for European countries conditions of entrepreneurship which cause that men entrepreneurs definitely dominate at starting businesses. On the one hand it is difficult to find barriers to women's entrepreneurship in the specificity of Polish conditions considering an advantageous position of Poland in the European juxtaposition. On the other hand it should be remembered that the final effect in the form of women's contribution to the total number of women self-employed and women entrepreneurs to the total number of working women is a resultant of the influence of many factors, e.g. economic ones (i.e. relative attraction of profits from economic activity against contract work and a necessity of taking work by women because the partner's income is not sufficient to support the family), cultural (e.g. beliefs as regards the role of women in the society and family) or structural and legal (e.g. formal barriers in starting and running business activity or legal solutions conducive to starting one's own economic activity in place of contract employment) (PARP, 2011).

If the methods seeking work by women were analysed, it should be stated that undertaking attempts to organize one's own workplace that is, self-employment refers to a very small number of unemployed women, and the longer the period of remaining jobless is, the rarer the attempts of this kind are. Long periods of staying without work and negative effects of attempts to get a job, kill entrepreneurship attitudes. If the symptoms of such attitudes were present at the moment of being registered in the job centre, then after a year's ineffective search for work they certainly disappeared entirely.

In order to reduce high unemployment and a high level of professionally inactive, involving first of all women in Poland and in Central and Eastern Europe, entrepreneurship should be liberated in them. If legal solutions showing a necessity of equal treatment of both sexes in the labour market (included in the Constitution and Labour Law) do not suffice in order that women are not discriminated, on the one hand an institution should be created which will watch over obeying the law in this range and will monitor the situation of equal chances for both sexes, and on the other hand the women themselves should overcome social barriers by their entrepreneurship and using a method of an action that has already been performed without usual prior approval and thus they should become competitors like men employers.

The liberation of enterprising attitudes or learning how to be enterprising will allow women to start their own enterprises, to become employers, managers and negotiators, i.e. will enable them to fulfil the functions the access to which is now limited due to traditional comprehension of social roles. Being a woman entrepreneur also diminishes the problem of lower women's salaries and the problem of the so called "glass ceiling" i.e. invisible obstacles to promotion and to taking decision positions of a higher rank.

ATTRACTION AND RETENTION OF KNOWLEDGE WORKERS IN MODERN ORGANIZATIONS

4.1. Introduction

Nowadays, in a knowledge-based economy, effective work of knowledge workers is vital for achieving competitive advantage by organizations in which they work, therefore they have a major impact on the future of their companies. Knowledge workers are a specific group of employees and because of their characteristics, attracting and retaining these people is a true challenge for managers and organizations which want to benefit from their potential. So there was the question of what actions should be taken by organizations to attract potential talented employees to join the organization and then to retain the best of them for longer? And the next question - do organizations take identified actions in practice? Presented article attempts to address these questions.

The theoretical part of this paper is written on the basis of a vast scientific literature and the author's scientific achievements. The research part of this article is written on the basis on research conducted among employees with higher education.

4.2. Knowledge workers and their characteristics

There is not one definition of the knowledge worker that would be commonly accepted in both academic and business circles. Depending on the scientific interests of their authors, definitions of knowledge workers presented in the literature usually relate to knowledge management and/or human resources management and/or information management.

According to different authors knowledge workers are defined as people who:

- *"have high degrees of expertise, education or experience, and the primary purpose of their jobs involves the creation, distribution, or application of knowledge"* (Davenport, 2005),
- have unique skills as well as are: specialized in their profession, well-informed, active and responsible, aware of their role and their self-worth, independent participants of the organization (Morawski, 2003),

- “continually strive to understand the world about them and modify their work practices and behaviours to better meet their personal and organisational objectives” (Gurteen, 2006),
- are employed because of their knowledge of a subject matter (Serrat, 2008),
- are paid for efficiency of thinking, and their minds are regarded as the primary work tools (Skrzypek, 2009),
- work *with* and *on* knowledge and information (Nickols, 2012),
- create the greatest added value, thus affecting the value of their organizations (Davenport, 2007),
- understand, define, influence and help shape their domain of influence, knowledge, activity and responsibility (Morello, Caldwell, 2001).

Presented above and other existing in the literature definitions of knowledge workers indicate: what they have (knowledge, skills, education, experience, etc.), what features characterize them (professionalism, responsibility, independence, efficiency of thinking, etc.), what they do (work with knowledge, modify their work practices and behaviours, shape their domain of influence, etc.), and expected results of their work (creation the greatest added value, better achievement of personal and organizational objectives, etc.).

Thorough analysis of various definitions and characteristics of the knowledge worker allowed to create the author’s definition that describes such an employee as *a person whose passion, work and professional career are associated with active participation in the knowledge management processes (localization, acquiring, development, sharing, use and preservation)* (Figurska, 2015a). Knowledge worker is an employee who: *has* (knowledge, experience, social competences, values, etc.), *wants to* (develop, share and use knowledge, experience, social competences, as well as use resources, methods, tools etc.), *is able to* (use knowledge, experiences, tools, resources, methods etc. thanks to his skills), *can* (is provided by the organization the opportunity to actively participate in the realization of knowledge management processes) and *is needed* (his knowledge, experience, social competencies, engagement etc. are important for achieving the objectives of the organization).

Knowledge worker’s potential is affected by both: the *specificity of the organization* (mission, vision, strategy, organizational structure, culture, management policy, etc.) and the *external environment*, determining conditions of conducting business as well as providing the organization and its employees with widely understood resources. On the other hand, decisions and actions taken by creative and innova-

tive knowledge worker can influence both the organization in which he works and company's external environment (Figurska, 2015a).

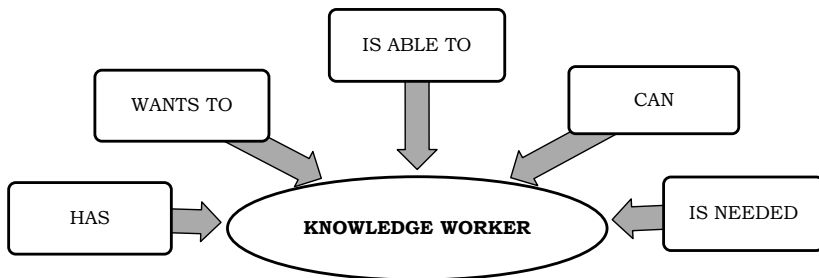


Figure 4.1. Knowledge worker characteristics

Source: own work based on: (Figurska, 2015a).

Knowledge workers are not a homogenous group of employees - they perform different duties and tasks, they also play different roles in organizations. According to Reinhardt *et. al.* (2011) knowledge workers:

- control - monitor the organizational performance based on raw information,
- help - provide information to those who need it,
- learn - use information to improve skills and competence,
- link - associate information from different sources,
- build networks - create connections with people to share information,
- organize - plan personal and/or organizational activities,
- retrieve - search and collect information on a given topic,
- share - disseminate information in a community,
- solve - find or provide a solution to a problem,
- track - monitor and react on personal and organizational actions that may become problems.

Knowledge workers perform *knowledge work*, which occurs in intellectual domains and creates value primarily through manipulation of ideas or symbols (Austin, 2002). Knowledge work is an interaction between (Bernstein 2010): *technology* driving the productivity of knowledge work, *information* being the basis for knowledge and decision making, *humans* performing the work, as well as *organizations* providing the structure and networks for knowledge work.

Referring to the definition of knowledge worker proposed by Nickols (2012), knowledge work can be defined as a work performed by employees *with* and *on*

knowledge (individual and organizational, tacit and explicit). It seems that this simple and general definition reflects the nature of the knowledge work very well.

The difficulty of knowledge work comes from the fact that knowledge resources are unstable. On the one hand they increase continuously through knowledge development and flow of information, on the other hand – for knowledge resources to be useful it is necessary to forget what is already out of date. Besides, quite often measurable effects of knowledge work can be seen only after some time, so in the short term it is difficult to assess the results of this work.

4.3. Attraction and retention of knowledge workers

Organizations which base their competitiveness on knowledge and its appropriate management, should pay particular attention to the process of attracting and retaining knowledge workers as well as gaining their full commitment.

Appropriate image of the organization as a socially responsible company, producing goods and/or providing services highly valued in the market, seen as a good employer that cares of its employees, is essential for attracting talented and at the same time demanding knowledge workers. They come to reputable organization willingly, speak about it with pride and recommend its products, thus building a good reputation of the company.

Potential candidates to work that lower evaluate their own potential, often resign from applying such a reputable organization recognizing that they do not cope with its requirements. So we can say that an appropriate, strong image of the organization is so natural, pre-selective “sieve”.

A relations of the organization with knowledge worker benefit to both parties - the organization has the ability to exploit the potential of a talented employee, while the employee increases own competitiveness in the market, learns from the best and acquires invaluable experience that will pay off irrespective of where he will work in the future.

Concluding, we can say that a good image of the organization attracts talented knowledge workers who, in turn, through their actions, presented attitudes and behaviour, strengthen the image of the organization in which they work.

Organizations that intend to gain knowledge workers should perceive recruitment as their priority and use such methods that will enable both parties assess with greater accuracy if they match each other. Thus it is recommended to use methods, which are regarded as most efficient, e.g. *assessment centre* or the *bio-data* method (Figurska, 2009).

Although attracting talented knowledge workers is not an easy task for the organization operating in knowledge based economy, retaining them in companies for a long time is even more difficult. T. Davenport (2005) noticed, that managers in organizations often spent a lot of effort recruiting knowledge workers and assessing how capable they might be before they hire them. But once they're hired managers don't do a lot to improve their performance.

Even though retaining knowledge workers is costly for the organization it is still less expensive than recruiting new ones. That is why attempts at retaining the best workers should be made by organizations.

The answer to the question "*how to retain knowledge workers*" requires on the one hand the ability to identify organization's expectations of knowledge workers, on the other hand - the ability to identify knowledge workers needs as well as the willingness and capabilities to satisfy them by the organization.

Knowledge workers are expected to actively participate in knowledge management processes, and possess such knowledge, skills, experience as well as present such attitudes, behaviours, commitment, values and other characteristics affecting directly or indirectly results of their work, that enable them this participation (Figurska, 2015b).

Knowledge workers are such a group of employees who demand much of themselves, but also expect much from organizations in which they work. Their expectations are related to many areas of performance of companies, among which the most significant seem to be:

- work characteristics - knowledge workers need appropriate work conditions (technical, organizational) which enable them to work effectively, as well as expect compliance of work performed by them with their qualification (education, knowledge, skills, experience etc.), by which their potential can be fully exploited,
- atmosphere in the organization - to feel comfortable at work knowledge workers need: to be respected as employees and as humans, to be treated as trustworthy professionals, who do not need to be under strict control, as well as need to be in friendly relations with colleagues at work,
- showing recognition - knowledge workers expects that their professional achievements will be noticed and appreciated by superiors, their opinion in professional matters will be taken into account, and they will participate in decision-making process, thus affecting decisions and actions taken in the organization,

- organization's concern about employees – knowledge workers want to know and feel that the organization cares about them, so they expect work-life balance preservation, consistency between pay level and their contribution to work as well as expect that the organization provides them a sense of security,
- professional development opportunities – widely understood development is very important for knowledge workers therefore they need opportunities to knowledge and skills development, promotion opportunities as well as they want to do work that require continuous employees improvement,
- superiors – knowledge workers expect highly competent superior, who thanks to his knowledge, experience, skills, attitude, values, etc. is authority for them, they also need a good relationship with superior, and proper management style that gives them autonomy and limits excessive control.

Gifted knowledge workers are difficult to keep in the organization for an extended period of time. They possess a strong feeling of independence and managing them is a challenge for the human resource department. They stay with the organization as long as it is beneficial for them from the development point of view (Figurska, 2009).

4.4. Knowledge workers attraction and retention in the light of the research

In March 2015 the study was conducted among working people with higher education. Overall 250 questionnaires were distributed, 210 of them were correctly filled, giving a return of 84%. The subject of the survey was knowledge workers engagement in organizations, but asked questions allowed to obtain information on actions taken by organizations in order to attract and retain knowledge workers.

Respondents were a diverse group in terms of age, although most of them were young people - 43.6% of all respondents were 25–34 years old, and 34.5% were under 25 years. Almost every eleventh participant of the survey had more than 45 years, and the rest of respondents were 35–44 years old.

The managerial positions were occupied by 20.9% of the researched group, others were employed on non-managerial posts.

Respondents were asked about determinants of attraction and retention of knowledge workers as well as evaluation of their appearance in organizations in which they work. They were supposed to allot points, where 5 points meant the

highest level of a factor, and 1 point – the lowest. Then the average of points was calculated for each factor (Table 4.1).

Mentioned above determinants of knowledge workers attraction and retention were divided into 6 identified and described in theoretical part of this article aspects of organizational functioning: image of the organization, work characteristics, atmosphere in the organization, showing recognition, concern about employees, professional development opportunities and superiors. Each aspect was characterized by three determinants (symptoms).

Table 4.1. Determinants of knowledge workers attraction and retention

Aspects	Determinants	Evaluation
Image of the organization	perceiving the organization as a good employer	3,69
	pride of being a member of the organization	3,69
	recommending products/services of the organization	3,89
	average	3,76
Work characteristics	compliance of work with qualification	3,49
	technical work conditions	3,81
	organizational work conditions	3,79
	average	3,70
Atmosphere in the organization	respect for employees	4,23
	having friends in the organization	3,38
	mutual trust	3,44
	average	3,68
Showing recognition	noticing and appreciating employees successes	3,18
	considering employee's opinion in professional matters	3,26
	participation in decision-making	3,23
	average	3,22
Concern about employees	work-life balance preservation	3,58
	employees' sense of security in the organization	3,55
	compliance of pay level with employee contribution to work	2,56
	average	3,23
Professional development opportunities	opportunities to knowledge and skills development	3,42
	work requiring continuous workers' improvement	4,07
	promotion opportunities	2,79
	average	3,43
Superiors	competences of superiors	3,89
	relationships with superiors	3,88
	management style	3,15
	average	3,64

Source: own work.

The analysis of individual aspects shows, that the highest rated aspect of companies' functioning is image of the organization (average 3,76), although this note is hardly high. Employees more often recommend products of organizations in which they work (average 3,89) than are proud to be their members (average 3,69). Unfortunately, many of the respondents do not consider their organizations as good employers (average 3,69).

Organizational and technical conditions of work were assessed at mean level (average 3,79 and 3,81 respectively). The survey results indicate, however, that knowledge workers work is not always consistent with their qualifications, what is evidenced by the relatively low assessment of this factor (average 3,49). The consequences of this situation are very unfavourable because incompatibility between work performed by knowledge workers and their qualifications means underemployment of their potential.

The appropriate atmosphere in the organization is a very important factor taken into account by knowledge workers in the process of deciding whether to stay in the company in which they work, or not. Respondents assessed the atmosphere in the organization to 3.68. The highest rate received respect for employees (average 4,23), which means that knowledge workers generally feel that are respected in their organizations. On the other hand, only some of survey participants have friends in the organization (average 3,38), and the level of mutual trust (being the average of trust in their: superior, colleagues and the organization) was rated at 3.44, which speaks poorly of the culture of the organization.

In case of most knowledge workers taking part in the survey, their work requires a systematic improvement of them (average 4,07), but opportunities to knowledge and skills development are relatively small (average 3,42) and promotion opportunities - even smaller (average 2,79). It means that although knowledge workers' work is challenging, organizations don't make their professional development easier.

As it was already stated, the level of showing recognition reached the lowest level from among all analysed aspects of organization's functioning. Employees successes are relatively rarely noticed and appreciated by superiors (average 3,18), their opinion in professional matters is not always and/or not in all organizations taken into account (average 3,26) and their involvement in decision-making in organizations is insufficient (average 3,23). Low level of showing recognition is not conducive to retaining talented people in the organization for a long time.

For many survey participants, work-life balance is not maintained, as evidenced by the average rating for this factor (average 3,58). Work in their present organizations don't give many of them a sense of security (average 3,55), and generally they believe, that pay level does not reflect their contribution to work (average 2,56). But organizations need to be aware, that although pay level is not always the most important motivator for knowledge workers, it is always important.

A huge role in the process of gaining and retaining knowledge workers play their superiors. So the respondents were asked about competences of their superiors, a relationships with them and their management style. Overall, survey participants evaluated their superiors at 3.64, which is not a high grade. None of the factors characterizing superiors of knowledge workers did not reach even a good grade – their competences were estimated at 3,89, relationships with them – at 3,88, but their management style was the most severely evaluated, receiving the lowest assessment - 3,15. It must be remembered, however, that appropriately managed knowledge workers can lead the organization to success, but improperly managed – can bring the organization to collapse.

4.5. Conclusions

Today, in the knowledge-based economy, the ability to attract and retain in the organization talented, creative, innovative, but at the same time independent and aware of their own worth knowledge workers, has become one of the core competencies of organizations which base their competitiveness on the effective knowledge management.

However, the results of the study clearly indicate that organizations do not attach sufficient importance to taking actions aimed at attracting and retaining knowledge workers for longer. Of all the elements mentioned in the survey only *respect for employees* and *work requiring continuous worker's improvement*, have been evaluated by the respondents positively. However, a lot more elements characterizing organizations' functioning have been assessed relatively low.

Answers given by knowledge workers taking part in the survey show, that following elements constitute significant barriers in the process of attracting and retaining employees realization:

- inadequate pay level to employees contribution to work,
- limited promotion opportunities,
- ignoring achievements and successes of employees,
- not engaging knowledge workers in decision-making process,
- inappropriate management style,
- ignoring employees opinion in professional matters,
- atmosphere that is not conducive to building mutual trust and friendly relationships in the organization,
- limited opportunities to knowledge and skills development,
- incompatibility of knowledge workers' work with their qualifications.

Identifying these barriers is the first step on the road to overcome them and win knowledge workers loyalty and engagement in work.

Knowledge workers attraction and retention is a complex problem. The following article doesn't deplete the topic and is only a basis for further considerations.

CO₂ INTENSITY IN EU'S ROAD TRANSPORT**5.1. Introduction**

The article raises the question of the problem of decarbonisation of road transport and spatial differentiation of the intensity of CO₂ from road transport on the example of the state belonging to the UE28.

It consists of three parts. The first describes the global challenges facing policy makers. The second part discusses the role of road transport in the context of decarbonisation. The third part presents an analysis of the spatial intensity of CO₂ from road transport by verifying the clustering and High-High and the Low-High in the context of the impact on neighbouring countries.

This article aims to identify the countries influenced by the relatively high carbon dioxide emissions from road transport.

5.2. Reduction of CO₂ as a global challenge

The side effect of human activities is the emissions of greenhouse gases. Individual countries of the world, groups, political actors for decades guided programs, initiatives and economic and legal instruments to reduce carbon dioxide emissions. Only a common, global action will allow for a noticeable reduction of harmful emissions into the atmosphere. Raising citizens' awareness will give the opportunity to choose the less polluted option.

According to directive 'greenhouse gas emissions' means the emission of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆) expressed in terms of tonnes of carbon dioxide equivalent (Decision No 406/2009/EC). In order to minimize the negative climate change global challenge is to reduce carbon dioxide, the main greenhouse gas responsible for these changes.

The European Union has adopted targets for energy and climate change. These objectives were included in the strategy 'Energy 2020. A strategy for competitive, sustainable and secure energy' (COM/2010/639 final). Sustainable aspect is characterized by a strong shift towards a low carbon economy. The EU's

objectives include (Sustainable growth - for a resource efficient, greener and more competitive economy, 2012):

- reducing greenhouse gas emissions by 20% compared to 1990 levels by 2020¹⁰,
- increasing the share of renewables in final energy consumption to 20%,
- moving towards a 20% increase in energy efficiency.

The most important instruments for reducing GHG emissions are EU Emissions Trading System (EU ETS) and the Effort Sharing Decision (ESD) (Eurostat, 2015, p. 84).

Sectors covered by EU Emissions Trading System are (International Carbon Action Partnership, 2015):

- phase I (2005-2007): power and heat generation, industry: oil refineries, coke ovens, iron and steel plants and production of cement, glass, lime, bricks, ceramics, pulp, paper and board,
- phase II (2008-2012): in addition to Phase I sectors, commercial aviation starting in 2012,
- phase III (2013-2020): in addition to Phase II sectors, CCS installations, production of petrochemicals, ammonia, non-ferrous metals, gypsum and aluminium, nitric, adipic and glyoxylic acid.

Effort Sharing Decision covers sectors such as (Effort Sharing Decision, 2015): transport (road and rail, but not aviation or international maritime shipping), buildings (in particular heating), services, small industrial installations, agriculture and waste.

The reduction effort is shared out as follows (Effort Sharing Decision, 2015):

- a 21% reduction in emissions from sectors covered by the EU emissions trading system (EU ETS) compared to 2005 levels,
- an around 10% reduction from most other sectors compared to 2005. These sectors are covered by the Effort Sharing Decision (ESD).

5.3. Road transport in the light of CO₂ emissions

The desire to reduce the level of environmental pollution is one of the features of sustainable transport. EU targets for transport in terms of reducing greenhouse gas emissions by 60% by 2050. For a competitive and resource efficient transport system have been presented in the *White Paper. Roadmap to a Single Eu-*

¹⁰ The EU is prepared to go further and reduce by 30% if other developed countries make similar commitments and developing countries contribute according to their abilities, as part of a comprehensive global agreement

ropean Transport Area – Towards a competitive and resource efficient transport system (White Paper, 2011). One of the main problems, which meets EU transport is 96% dependence of the sector on fossil fuels, what is worth mentioning the most energy is consuming by road transport (The EU explained: Transport, 2014).

According to study of the International Energy Agency (IEA) in 2012 emitted globally into the atmosphere were 31 743.3 million tons of CO₂ emissions from fuel combustion, with the transport – 7 187 million tons. It is worth emphasizing that the share of road transport in CO₂ emissions accounted for 73% of emissions from all modes of transport (OECD, IEA, 2014).

According to statistical data OICA, the share of world motor vehicles (cars, light vans, trucks) in greenhouse gas emissions is less than 16%. The organization emphasizes comprehensive action across all sub-sectors of human activity related to the reduction of CO₂ emissions (Organisation Internationale des Constructeurs d’Automobiles, 2015).

GHG emissions generate costs, called external costs. Due to air pollution include the following elements (Bağ, 2009): the cost of health loss, material damage, crop losses and future losses to the ecosystem. One of the most listed categories are costs of health loss, mainly due to the particulate matter emissions from the burning of fuels and reaction with other pollutants. The most important factor in determining the level of external costs of air pollution is the population density in the vicinity of emission sources, specifying the size of the population exposed to pollution. The other factors, also important, in road transport include vehicle emission standards, speed, type of fuel used, combustion technology used in the vehicle and the type of used catalysts, the size of the vehicle, its capacity, type of road and vehicle capacity indicator (Bağ, 2009).

With regard to vehicle emission standards, the European Union introduced a maximum standards for toxic substances in distinction to the motor vehicle. Currently, the highest so called *emission standard*, is the euro VI. The table 5.1. shows the values of harmful substances.

Table 5.1. Admissible levels of the pollutants emission in the Euro VI depending on the type of engine

Items		Limits [g/km]				
Engine type	Valid from	CO	HC	NO _x	HC + NO _x	PM
Petrol engine	08/2014	1,00	0,10	0,06	-	0,005
Diesel engine	08/2014	0,5	0,09	0,08	0,17	0,05

Source: (NGK, 2015).

According to European Union statistics, passenger cars are responsible for two-thirds of emissions from road transport (The EU explained: Transport, 2014, p. 8). Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 *setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles*, which sets the average CO₂ emissions for new passenger cars at 130 g CO₂/km, and from 2020 onwards, of 95 g CO₂/km. To further reduce the pollution emitted by cars, the EU introduced a ban on the marketing of leaded petrol and the obligation to make the EU sulfur-free fuels (EC No 443/2009) .

Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009 *on the promotion of clean and energy-efficient road transport vehicles* requires entities an obligation to take into account lifetime energy and environmental impacts, including energy consumption and emissions of CO₂ and of certain pollutants, when purchasing road transport vehicles, with the objective of promoting and stimulating the market for clean and energy-efficient vehicles (Directive 2009/33/EC). The European Commission carried out an analysis of environmental impacts, which show that even a small degree of variation in tolls on the basis of the cost of air pollution and noise pollution, would bring significant social benefits in the form of reducing pollution, improving road safety and optimizing the use of infrastructure. By reducing fuel consumption, reduce emissions of CO₂ from the road transport (Bak, 2009, p. 259).

In the road transport GHG emissions associated with vehicles, can be reduced by four kinds of measures (Ribeiro, et al., 2007, p. 336):

- reducing the loads (weight, rolling and air resistance and accessory loads) on the vehicle, thus reducing the work needed to operate it,
- increasing the efficiency of converting the fuel energy to work, by improving drive train efficiency and recapturing energy losses,
- changing to a less carbon-intensive fuel,
- reducing emissions of non-CO₂ GHGs from vehicle exhaust and climate controls.

The transport sector remains one of the most challenging areas to improve energy efficiency. The International Energy Agency (IEA) estimates that improving energy efficiency in transport would allow for energy savings in the range of 30 EJ (exajoules) per year by 2030, compared to 2009, or the equivalent of annual oil consumption in the European Union. The IEA has presented 25 recommendations on various areas in order to achieve significant energy savings. Those priority areas are

(OECD, IEA, the European Commission, 2011): cross-sectoral, transport, buildings, industry, appliances and equipment, energy utilities, lighting.

The International Energy Agency has recommended three main ways in which the transport and logistics sectors may by 2050 reduce CO₂ emissions by half (Goodyear Dunlop Tires Europe B.V., 2012):

- extensive use of fuels with low carbon dioxide emissions, e.g. hydrogen, electric traction and biofuels,
- increasing energy and logistics efficiency of vehicles,
- reducing traffic and shifts towards more energy-efficient means of transport, e.g. railway transport.

Among the recommendations regarding road transport are used mainly (Goodyear Dunlop Tires Europe B.V., 2012):

- the implementation and strengthening of mandatory fuel efficiency standards for light-duty vehicles and heavy-duty vehicles,
- implementation of policies to improve the efficiency of tires, air conditioning system, lighting and other unconnected with engine components that affect fuel efficiency of vehicles,
- the adoption of measures such as labelling, tax incentives and encouraging sales of vehicles more efficient,
- promotion of eco-driving,
- to allow an efficient transport system at the national, regional and local levels, and promotion of modal shifts in passenger and freight transport on the more energy efficient modes of transport.

In the case of the last hyphen, it is advisable to adopt a transport policy that ensures that the user pays the economic, environmental and energy security costs related to the transport system. It should also be noted that transport infrastructure is built and maintained to support the most energy efficient, economical and environmentally friendly modes of transport.

5.4. Spatial analysis of CO₂ intensity from road transport on the example of European Union

As previously it was noted, the carbon dioxide emissions are the a global problem in the contemporary economy. Transport as a key element for the functioning of the whole economy of European Union, also participates in the production of carbon dioxide emissions.

Transport activity is all the more crucial point of reference, since it cannot be arbitrarily restricted (for example by minimizing transport performance), because it can produce undesirable effects on the growth of the entire economy. Therefore, the importance of decoupling paradigm takes, that the new terms of the separation of exclusively negative consequences of transport activities (including carbon dioxide emissions) from economic growths, rather than the entire transport activity from economic growth (Załoga, 2013, pp. 125-132).

In the context of the analysis of the decoupling, important role played by the spatial analysis of carbon dioxide emissions. The comparisons between countries, CO₂ emission should be analysed through the prism of the intensity of CO₂, which is a relative measure in relation to GDP. Absolute values do not reflect the spatial differentiation of these emissions in an international perspective.

Analysis of spatial differentiation of the intensity of carbon dioxide emissions (in mln kg/mln PPS) in 2012 were to the countries of the EU28 subjected. The data came from the Eurostat database (Eurostat Database, 2015).

In the accompanying cartogram (Figure 5.1) shows the spatial differentiation of intensity of carbon dioxide emissions from road transport in each country in 2012.



Figure 5.1. Percentile of intensity of CO₂
Source: own elaboration based on (Eurostat Database, 2015).

The diversity of the phenomenon studied in different locations using percentile (measure better than average or median) presented the state rate for all the

countries. As can be seen three countries: Cyprus, Luxembourg, Slovenia are among the countries with the highest intensity of carbon dioxide emissions from road transport. In other words, 90% of countries characterized by a lower level of intensity of CO₂ emissions than Luxembourg or Cyprus or Slovenia. In contrast, 50% of the country was characterized by a lower level of CO₂ emission intensity than, for example Poland.

At Figure 5.2 basic descriptive statistics for the intensity of CO₂ from road transport for countries UE28 in 2012 are presented. As it is apparent median 0.06601 and 0.06609 standard, which means that more than half of observation, were below the mean value.

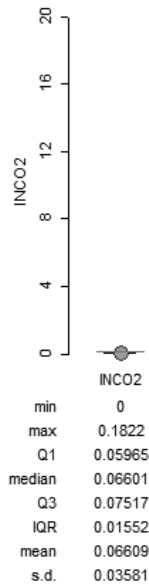


Figure 5.2. Descriptive statistics for the intensity of CO₂ from road transport
 Source: own elaboration based on (Eurostat Database, 2015).

Spatial analysis is based not only on the highlighted countries with the high- est or lowest value of CO₂ intensity, but also to verify the country of a similar na- ture due to the test feature. This study should be supported by the presence of the relationship between the studied locations. This is done with spatial autocorrela- tion, which expresses the degree of correlation observed intensity values of CO₂ emissions from road transport in one location with the value in another. The result

of these analyses is to group similar values and setting states of a HIGH-HIGH, LOW-LOW, LOW-HIGH, HIGH-LOW and not significant (Figure 5.3).

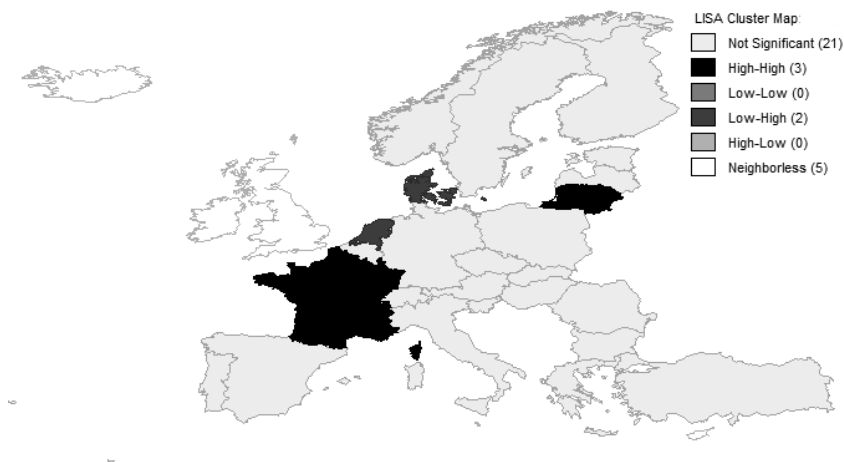


Figure 5.3. Local statistics of Moran's I

Source: own elaboration based on (Eurostat Database, 2015).

As can be seen from figure above, the three countries: Luxembourg, Lithuania, France can be found in the cluster HIGH-HIGH. This means that these countries are located in the neighbourhood of the countries with a relatively high level of intensity of carbon dioxide emissions from road transport and at the same time significantly participate themselves in the production of such relatively large emissions of carbon dioxide (CO₂ intensity). Thus affecting other countries.

In contrast, Denmark and Netherlands are LOW-HIGH clustered. This means that they are in the vicinity of countries whose intensity of CO₂ from road transport is substantial, while they themselves have a relatively low intensity indicators of CO₂ from road transport. In other words, although the intensity of CO₂ emissions from transport is little influenced by countries whose intensity is relatively high CO₂.

The next figure shows the scatterplot - Moran's I statistic for the intensity of CO₂ in road transport for example UE28 countries. As the graph shows, there is a positive spatial autocorrelation between the objects studied at 0.011.

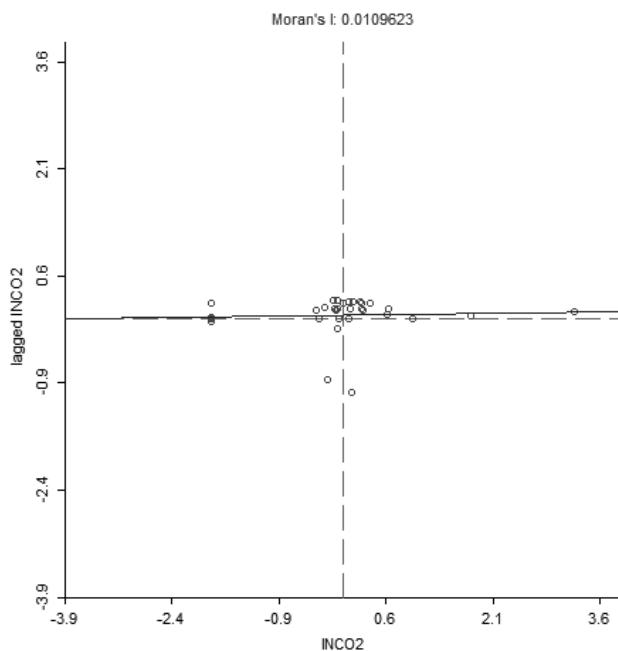


Figure 5.4. Scatterplot - Moran's I statistic

Source: own elaboration based on (Eurostat Database, 2015).

5.5. Conclusions

Article is of inspection and analytical. In the first and second part of the paper we present key challenges for road transport in the European Union in the near term, which is the starting point for the presented analysis. The third part presents the basic statistics of spatial analysis for the category in 2012 for the countries surveyed. With it man can verify the state that remain under the influence of countries with the highest CO₂ emissions from transport, which translates into the condition of the air quality of a country which is under the influence of other countries. Identification of these countries and verification of basic relationships between neighbours allows for the appointment of additional policy priorities decarbonisation not only globally, but also in terms of mezzo-level (personalized to the state). The study is only a preliminary stage to perform a detailed analysis using a method LMDI and determine the causal relationships using co-integration techniques, which will also be presented by the authors in the next article.

**INTERDISCIPLINARITY OF TRAINING OF THE PERSONNEL AND
ENERGY EFFICIENCY OF MARKETING COMMUNICATION AND
LOGISTIC SERVICES OF THE ENTERPRISES**

6.1. Introduction

Modern world expansion trends of innovative introduction in the educational sphere causes attention information organization aspects increase of marketing, educational process and scientific researches in high technology markets. In the conditions of strengthening of the competition in the markets of educational and scientific services important means of improvement of quality of the contents and structure of marketing programs is formation marketing interactions, in particular in the Ukrainian and Polish enterprisers. Human and organizational problems: analysis of motivation, behaviour, perceptions, and barriers for the participants of the process (from policy makers to employees) in the sector, and the knowledge about organizational factors affecting the efficiency of energy use.

It is necessary to remain competitive, to limit ecological degradation and to optimize effective use of resources, it is necessary to develop more effective use of resources. Have to be developed new competitive ecological innovative processes, within transition to more effective use of resources, steady circulation of economy. Increase of profitability and growth rates of productivity of small and medium business has to happen by association and transfer of the new knowledge in innovative spheres of the industry.

6.2. Development of institutional and educational quality of personal and reforming science in Ukraine and in the world

One of the interdisciplinary educational programs key results was the acknowledgement that even the best ideas cannot always be imported into one's own institution. This was also one of the most important premises that were identified in the workshop: that any attempt to develop institutional quality cultures further towards an ideal of improvement and enhancement has to take into account the cultures that are already in place. The general practice of the Post-Soviet countries and nowadays fixes a priority of the state interests over the public. In this re-

gard as key agents of quality are the government and administration. These institutes formulate requirements to quality the interdisciplinary programs, independently check and estimate activity of participants of the market of educational services. Thus the system of ensuring quality the interdisciplinary training programs of the higher education in Ukraine is also created (Finikov, Sharov, 2014).

The main participants of quality assessment system of an educational programs in Ukraine are citizens (entrants, students and their parents), public administration (the Ministry of Education and Science of Ukraine exercising control in the sphere of the higher education, local government) (<http://mon.gov.ua>), economy (employers, customers of educational and scientific services, the market of researches, consulting and innovations), civil society (media, scientific, educational and enterprise societies, the civil, political and international organizations), internal society of higher education institutions (administration, scientific, pedagogical and other workers).

Key to high quality of education at the level of the organization of interdisciplinary international postgraduate study is conscious creation of culture of quality thanks to interaction of all participants of the academic community. Within system of providing and improvement of quality of training in interdisciplinary postgraduate study at each faculty and chair of the Ukrainian higher education institution the faculty or cathedral system of providing and an improvement of quality of educational and scientific programs has to be created respectively.

For today the analysis of system and mechanisms of ensuring quality of the higher education of Ukraine in new institutional conditions is important. The Higher Education law of Ukraine opened a way to institutional transformation of system of the higher education of Ukraine. Thus search of optimum institutional trajectories of development of system of the higher education of Ukraine at all levels is carried out. The very issue of the quality of education has a most crucial role at the Ministry of Education and Science, through whom a distinct agency is shortly being launched (<http://zakon4.rada.gov.ua/laws/show/1556-18/page>).

The National Agency for Quality Assurance in Education is independent of the Ministry structure, and will work under principles of professional independence under a quota system. Its members will include representatives from universities, the National Academy of Science, students and employers. Ukraine needs to create a new environment in education. It's importance of the tough implementation of the *Higher Education Law of Ukraine*, which requires the development of more than 40

legal Acts, amendments to legislation and government regulations, as well as demanding an understanding of higher education establishments.

It is expedient to investigate the European crowdfunding platforms which work for development of cultural projects and those who want them to support. From the moment of the foundation in 2010 Ulule (France) helped to raise funds for more than 4900 creative, innovative or public projects from 67% probability of success. Crowdculture, Sweden – in this crowdfunding platform the financing method is interesting. The project can attract money of both private investors, and means from the state fund (part of the cultural budget of the country). Goteo, Spain – this platform not only for joint fund raising on socially significant projects, but also for their subsequent joint realization. Derev, Italy – the strongest interactive platform in Italy for introduction of social innovations. It gives the chance not only to raise funds for projects, but also signatures for petitions that allows to use widely this technology in marketing. In our opinion, the mentioned crowdfunding platforms are intended for complex development of cultural marketing, financing of the communication actions enriching society (<http://culturepartnership.eu/article/9-kraudfanding-platform-dlya-finansirovaniya-kulturnyx-iniciativ>).

If modern product is tangible, the customer can touch and see the product before deciding to make a purchase. According to many scientists, informational, educational and touristic services are not tangible, which can make them more difficult to promote and sell than the ordinary product. As for us measuring the quality of a product is easier than measuring the quality of a modern information service. With services in information economy marketing managers are to consider the perceived value, price, location, advertising, process, people and proof. Perceived value is the amount of money consumers would expect to pay for the product before they see the actual price. However, attendant circumstances and too much customization would compromise the standard delivery of the service and adversely affect its quality.

O. Melentsova objectively made a decisions about the stages in development of institutions of external economic relations as rationalization of public interests. She investigated the fundamental and relevant structure of relations functions in economy of knowledge (Melentsova, 2014). Similarly, most service providers strive for success to incorporate certain tangible elements into offering to enhance customer experience.

The focus of the reform of higher education of Ukraine is the quality of education and university autonomy, making sure that each university is indeed auton-

omous and taking responsibility for quality. Also stressed the importance of reforming science and its interaction with the university community. For example, on 20 March 2015 a signing ceremony was held to formalize the Agreement between Ukraine and the EU on Ukraine's accession to the *Horizon 2020* program for Research and Innovation (<http://mon.gov.ua/activity/mizhnarodni-zvyazki/uchast-u-programax-es-e-razmus-ta-gorizont-2020/gorizont-2020.html>). Faculty of Economics at the Oles Honchar Dnipropetrovsk National University was established in 1976. Formation and development of the department was accompanied by the reorganization of the existing and opening new chairs. Therefore in 1981 the Chair of Economic Cybernetics in 1989 – the Chair of Finance were opened. Nowadays there are seven chairs and about 120 employees, including 12 doctors and professors PhD degree and 40 lecturers have academic rank of assistant professor. 768 students study at the Faculty of Economics. Technical base of faculty allows staff to organize profound computer training, computer labs of the faculty provide access to the Internet. In the building of Faculty of Economics there is library for economists. Among the graduates of the Faculty of Economics there are many leaders of the banking sector and enterprises, government financial agencies, prominent scientists (http://www.dnu.dp.ua/en/faculty_of_economics).

Information Centre of the European Union, attached to the Oles Honchar Dnipropetrovsk National University, organized a regional interdisciplinary semi-final Ukrainian Youth Championship brain-ring “Learning Europe – Changing Ukraine” with the EU Delegation to Ukraine. Special guests of the event were Ambassador of EU Delegation to Ukraine J. Tombinski and documentary officer of Press and Information Section of the EU I. Stadnychuk. Intellectual competition on the European topic is a major project of the European Union “*Euroquiz. Europe begins with you*” is about to acquaint Ukrainian young people with the EU in casual form. Information Centre of the European Union at DNU was opened in October 2007. One of goals of this Centre is to disseminate information on the European Union, we see significant interest to the European integration among students, graduate students, university and city schools. Regularly our centre organizes “*round tables*” for students where they are involved in the debates on European issues (<http://www.dnu.dp.ua/ennews/31>).

The “*Innovative University and Leadership*” Project. Representatives of Faculty of Economics DNU participate in 2014-2015 in the “Innovative University and Leadership” project which is realized on the basis of University of Warsaw with as-

sistance of the Union of Rectors of Higher Educational Institutions of Ukraine and the International Fund of Researches of Policy Education.

Effects of training – effects of sphere. The effects of training defined for the training program – effects in the directions. The effects of training defined for specialty – effects on specialties (Jasiński, Konieczna-Salamatin, 2014). The most important problems of the system for evaluating the quality of education of personal of enterprises are presented in the Figure 6.1.

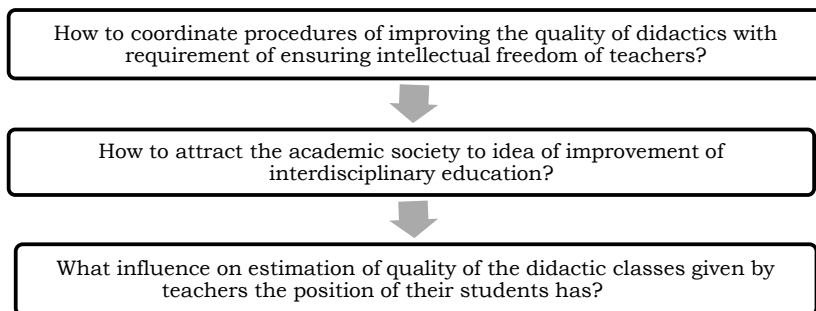


Figure 6.1. The most important problems of the system for evaluating the quality of education of personal of enterprises

Source: (Jasiński, Konieczna-Salamatin, 2014).

As for us, interdisciplinary – a trend of master and postgraduate education, it's very important experience of Poland and Ukraine in this field. Specialists of Faculty of Economics of Oles Honchar Dnipropetrovsk National University take part in realization of interdisciplinary postgraduate study within the international scientific project "Forming quality of products and services with particular consideration of the markets of Central and Eastern Europe" with cooperation of Poznan Economic University, Poznań (Poland).

6.3. Communication ensuring promotion of energy saving technologies and logistic service at the enterprises

The mechanism and procedure of communication explanation of using alternative energy sources importance, environmentally safe economic activity of economic agents in the EU and Ukraine will consider a sequence and communication components interaction of the marketing communications complex that ensure the promotion of energy saving technologies based on alternative sources generation. The complex of integrated marketing communications companies aimed to the clarification, awareness of market processes participants about the urgency of economic

efficiency of introduction of new energy saving technologies, including based on alternative energy sources (solar, warm soil and air) will include creation of a quickly renewable and modern Internet site, where will be accumulated available communication developments (promotional video, audio clips, text handling, bouquets newsletters, which systematically promote to the complex issues of energy efficiency in modern temporal terms).

A complex mechanism for providing logistic services and distribution logistics marketing organization during the planning and coordination of energy and information flows in terms of industrial and municipal sectors in the EU, particularly in the EU member states from Central and Eastern Europe, will be based on the calculation of minimizing energy loss while driving and coordination of energy flows and designed on a base of the relevant information communication provision using technology solutions system as Smart Grid (Kasian, Smyrnov, 2015).

Organizational and informational marketing promotion mechanism of innovation safe energy technologies on goods and services markets in the EU and Ukraine is based on a permanent organizational interaction and interactive informational support (building flexible online information systems) while implementation of modern technological developments into the energy services market in the EU (Central and Eastern Europe).

Technical capabilities, scientific potential can be real prerequisites of significant increase in energy production from such sources as a wind, the sun, a water stream of the small rivers, and also use of biofuel from waste. One of the directions of change of part of traditional power sources in the city is biogas use. Thus production of biogas in the conditions of the city possibly by utilization of dumps, sewer drains (installation in sewer treatment facilities), organic waste of private households and the enterprises. The newest technologies of renewable power allow to reduce negative influence which arises at operation of traditional power sources, to a minimum. The estimates made a number of the organizations showed that development of systems of renewable power will allow not only to save fossil fuel, but also to simplify the solution of environmental problems for creation of favourable sanitary and living conditions of life and work of the population.

The procedure of marketing communications interaction of economic agents on energy and industrial markets of the EU will include strengthening of partnership between all participants in the energy services market, including an integrated implementation of interactive dialogue within the social and corporate information networks.

Professor of Lviv Polytechnic, Y. Krykavskiy, is a great authority in field of logistics investigate a question of logistic distribution. He describes computer-aided design in field of logistics. Moreover, scientist reasonable defines sphere of influence marketing strategy to logistical conception (Krykavskiy, 2004). Until recently crowdsourcing played important roles in functioning of modern economy and society. Crowdsourcing is a process that involves outsourcing tasks to a distributed group of people. This process can occur both online and offline. The main goal of crowdsourcing is satisfying customers' needs with necessary computers ensuring.

There are many who will work hard to achieve these goals. A certain percentage of the profit of marketing research organizations ensuring if manager should motivate or direct and lead instead of commanding. In opinion of P. Drucker managers perform five operations: set objectives, organize, motivate & communicate affectively, measurement, exploitation of success, development of social skills, analytical abilities, understanding of human beings (social being determines consciousness) (Drucker, 2000). Now, in conditions of economy of knowledge so much that was not is beginning to be.

C. Coldren describes four factors that distinguish services marketing. Invisibility or intangibility is just one factor that distinguishes services marketing from product marketing. Along with inseparability, variability and perishability, these four characteristics affect the way clients behave during the buying process and the way organizations must interact with them. Moreover, these characteristics influence the development of marketing strategies and the more tactical marketing-mix – from the “packaging” and pricing of services bundles, to defining distribution plans and promotions options (Coldren, 2006). Consequently, customer service training for staff has become a top priority for many organizations today.

Mechanisms to overcome barriers of implementation energy management systems in the industrial enterprises. Methodical provision of training, seminars, forums, conferences, workshops on energy management. Programs of seminars, forums, conferences, training sessions on energy management.

6.4. Energy marketing management implementation in the innovative industrial enterprises

Today is to create an informational and educational platform to intensify the processes of reduction the energy consumption in the industrial processes. Energy management in SME enterprises and industry: increasing the availability of qualified energy auditors, diffusion energy management systems, and the best practices.

Tools development is involved in order to provide availability of comprehensive and useful information about energy efficiency for the industry (Kasian, Smyrnov, 2013).

The draft adopted with the principles of sustainable development. Due to the implementation of sustainable development there is provided a combination of environmental, economic and social problems of conducting production processes. The realization of these objectives is provided with:

- improving the organization of production processes by reducing the production energy intensity, i.e., using an economic approach of using energy resources,
- structural and technological restructuring of production,
- improving the different levels employees' qualification in the field of energy management for the successful development of production processes and successful reduction of energy consumption.

As a result, the marketing communications in energy saving will set up an information system to support management decisions by the level of energy management. It will be also reviewed the effectiveness of energy management implementation on the reduction processes of energy consumption and, as a consequence, reduction of the negative impact on the economic situation and indirect influence on the change in the perception of the quality level of consciousness and perception of organizational factors of energy saving. Today it's necessary to contribute to the achievement of:

- ensure the promotion of energy saving technologies based on alternative sources of generation,
- minimizing energy loss while driving and coordinating energy flows,
- explanation and awareness of market processes participants about the urgency and economic efficiency from implementation new energy saving technologies, including based on alternative energy sources (solar, warm soil and air).
- creating marketing and logistics foundations through appropriate communications support, including the Internet (Borkowski, 2012).

Considering the considerable scientific capacity of Ukraine and the predicted increase of demand for industrial raw materials and innovative production in the world markets, the high-tech sphere has to play an important role in economic development of the country. It in turn makes increased requirements to the domestic enterprises which economic activity is characterized by instability.

The draft provides a methodology of economic evaluation of investments in modern energy-saving technologies based on the alternative sources and thermal energy using in the EU (including the countries of Central and Eastern Europe) taking into account the temporal component of marketing analyse of investments. It will also take into account the acceleration and consolidation of a time component of a permanent financial resources movement in a distribution area of modern energy flows.

Also it is needed to work according to the international standards. Due to large-scale implementation of energy management in domestic enterprises, the opportunity of investment cooperation with foreign companies is appeared. Potential investors are interested in the quality of energy management and also in the financial statements (Kwaśnicki, 2013).

The main ways of energy saving activity and the main solutions of this problem for enterprises are concluded in the following areas:

- equipment replacement (technical re-equipment), energy resources, processed materials are the most favourable if they have the best technical, energetic and economic indicators,
- modernization of industrial equipment, especially technological devices, with an increase the useful energy use in it and reduction of losses, primarily energetic,
- improving the use of energy within the technological and energy-using enterprises, reduction of direct losses and corresponding increase in the CPI.
- improving the use of secondary energy resources,
- increasing the reliability of energy supply in order to prevent accidental shutdown and downtime associated with material and energy losses.

The most efficient way is to replace old equipment with new one, progressive and cost-effective, i.e. modernization, affecting primary production and energy consumption of the enterprises and requires a sound investment. An expected effect from the implementation of introduced products will cause a 30% economy of used energy resources. Such approach provides a mechanism for marketing promotion of the results.

6.5. Conclusions

Key to high quality of education at the level of the organization of interdisciplinary international postgraduate study is conscious creation of culture of quality thanks to interaction of all participants of the academic community. It is expedient

to investigate the European crowdfunding platforms which work for development of cultural projects and those who wants them to support. As for us, Interdisciplinary – a trend of master and postgraduate education, it's very important experience of Poland and Ukraine in this field.

The expected effect are considerable measurable improvements of a state of affairs in the field of the address of waste in city and suburbs, and also with practical realization of approach of a city metabolism of a sustainable development of the cities and reductions of negative impact on environment (for example, health care) in the cities. We expect noticeable increase in short-term / medium-term from introduction of evidence-based decisions and planning in the sphere of waste management, prevention of risks and land use as an integral part of development of marketing city.

Such programs promote emergence of systematic effects and consolidation of resources for implementation of investment projects and their joint financing from different sources. Considering specified, we consider that the main directions of modernization of the industrial sphere and development of the enterprises of processing industry are:

- increase of competitiveness of an industrial production,
- acceleration of technological modernization of the industry,
- improvement of activity of the centres of a transfer of technologies of higher education institutions,
- creating favourable conditions for functioning of cluster associations.

The solution of these tasks substantially depends on effective cooperation of scientists, the personnel of the innovative enterprises, authorities and public organizations.

**FORM OF SOCIAL CAPITAL AND A WILLINGNESS TO PERFORM
CHARITABLE ACTIVITIES. A COMPARATIVE ANALYSIS BASED ON THE
EXAMPLE OF POLISH AND SPANISH STUDENTS**

7.1. Introduction

In modern scientific studies, individualism has become less and less emphasized and the need for cooperation and participation in social activities is being more and more emphasized. What is more important, is that human skills and attention to self-interest is not diminished, and what it is emphasized, is the need to support both the development of human and social capital. The significance of social capital is emphasized especially in the context of supporting socio-economic development in the long term. Social capital is understood as „*networks together with shared norms, values and understandings that facilitate co-operation within or among groups*” (OECD 2001), and is formed by many factors and, moreover, can be various its forms and dimensions (see Figure 1, In: Rouxel *et al.*, 2015). One of the factors determining the level of social capital is also a level of trust and willingness to help others. The literature indicates that these relationships work both ways and the level of social ties can also affect the altruistic attitudes of people. In this paper it was assumed that the form of social capital may affect the level of willingness to help others and participate in charitable activities.

The analysis of forms of social capital and the tendency to perform charitable activities will be examined amongst students of the Faculty of Economics and Management in Poland and students of the Faculty of Economics and Business Administration at University of Vigo in Spain. The aim of the study is to evaluate whether there are any dependencies and differences between the two surveyed groups of students in the area of social capital and their willingness to help others. Although the analysis based on respondents does not allow us to generalize conclusions for the whole population in the analysed countries, it will us to observe whether there is such a relationship between social capital and charitable activities. The hypothesis being that the willingness to help others and participate in charity activities is higher in a social group, where bonding social capital dominates.

7.2. Social capital and altruistic tendencies in theory

The existence of social capital and its importance for socio-economic life was discovered a long time ago and has been widely described in the literature. As noted by Robert Putnam „*life is easier in a community blessed with a substantial stock of social capital. In the first place, networks of civic engagement foster sturdy norms of generalized reciprocity and encourage the emergence of social trust. Such networks facilitate coordination and communication, amplify reputations*” (Putnam 1995). However „*despite the possibility that a society may have too much social capital, it is doubtless worse to have too little*” (Fukuyama 2000).

In the literature, there are three basic approaches to social capital, i.e. those presented by Pierre Bourdieu, James Coleman and Robert Putnam. According to Bourdieu „*social capital is the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition*” (Bourdieu, Wacquant 1992). He believes that social capital is not a public good, and the benefits of it are not achieved by the whole society but by individuals who are involved in such networks. For this reason, social capital might not be useful, but can be also exclusionary.

A broader view of social capital was presented by J. Coleman. In his opinion, social capital „*is not seen only as stock held by powerful elites, but notes its value for all kinds of communities, including the powerless and marginalized*” (Gauntlett 2011). According to Coleman „*it is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible*” (Coleman 1998). So social capital serves a common action and is a public good. As reported Coleman, „*the public goods quality of most social capital means that it is in a fundamentally different position with respect to purposive action than are most other forms of capital. It is an important resource for individuals and may affect greatly their ability to act and their perceived quality of life. They have the capability of bringing it into being*” (Coleman 1998).

Third approach to social capital is presented by R. Putnam. He claims that „*social capital refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit*” (Putnam

1995). According to Putnam, social capital is a common good. Putnam believes that thanks to social capital, both private individuals and whole communities obtain benefits. Because the units are organized into groups, individuals are more productive and bring benefits for other entities and the community. In addition, the unit belonging to the formal and informal social networks are more willing to devote their time and money in good intentions, than those who exist in social isolation (Putnam 2008). It means that the functioning within the social networks promotes tendencies to manifest altruistic attitudes, including participating in various charity activities. A connection between charity activities and social capital shows World Bank in a conceptual framework, which assumes that there are six dimensions of social capital. These are: Groups and Networks, Trust and Solidarity, Collective Action and Cooperation, Information and Communication, Social Cohesion and Inclusion, Empowerment and Political Action (Grootaert *et al.*, 2004). On the other hand, the tendency to perform charitable activities co-creates Collective Action and Cooperation.

It is worth noting that helping others or participating in charitable activities may provide potential benefits. This is confirmed by numerous scientific studies. Such benefit is presented, for example, in the helper principle (Pagano *et al.*, 2011; Reissman, 1965), according to which „helping others has a positive impact on the helper. Besides, helping others is a resource for coping with life's conflicts, as someone reaching out to care for others is distracted from his or her own problems and destructive levels of self-absorption are reduced” (Oman, Thoresen, McMahon, 1999, In: Melkman *et al.*, 2015). Finally, on “a social level, caring for others is a way for people to become more integrated into their community, and it is well established that social integration yields both positive physical and mental health effects” (Cohen, 2004, In: Melkman *et al.*, 2015). Besides “*inducing empathy for one individual promotes favouring him or her at the expense of the group, whereas inducing empathy for one-among-others leads to helping these others individually, instead of as a group*” (Oceja *et al.*, 2014).

Meanwhile Kindsey and Cresswell claim that “*self-compassionate feelings can mobilize pro-social behaviours*” (Kindsey, Cresswell, 2014). In turn Oarga *et al.* (2015) in their studies suggest that “*helping behaviour was more strongly related to life satisfaction in countries where providing help represents a strong social norm*” (Oarga *et al.*, 2015).

According to Putnam (1995) social capital is not homogeneous, and within it different forms can be identified, depending on the type of bonds or who creates

them. Putnam identifies bridging social capital and bonding social capital. *“Bonding refers typically to relations among members of families and ethnic groups. Bridging social capital refers to relations with distant friends, associates and colleagues”* (OECD 2001). Of course, both types of social capital are significant and occur in the societies, but not everywhere the same kind of social capital dominates or it is at the same level.

Meanwhile Curry and Dunbar (2011), Buskens (2002) and Gambetta (1988) underline that social integration plays an important role on altruistic behaviour. They find that the level of altruism depends on the characteristics of individuals and on properties of the larger social network in which they are embedded.

Thus, if the willingness to help others is at different levels depending on the country, as a form of social capital, and the altruism depends on properties of social network, so it can be assumed that the level of willingness to help others and participate in charitable activities is diversified depending on the form of social capital in society.

7.3. Methodology

In this paper, it is assumed that level of willingness to help others and participate in charity activities changes and follows the form of social capital (bridging social capital and bonding social capital). For this purpose, an assessment of social capital and willingness to participate in charitable activities among students from Polish and from Spain was carried out. The analysis was based on the results of a survey conducted by the employees of the Department of Macroeconomics the Faculty of Economics and Management University of Szczecin. The survey was conducted among bachelor's degree first-year students of business studies. The survey was conducted within statutory research funded by the Ministry of Science and Higher Education, entitled Knowledge and Social Capital. Part I. Bridging type of social capital¹¹. In Poland the students of the Faculty of Economics and Management University of Szczecin (in 2013/2014) and in Spain the students of the Faculty of Economics and Business Administration at University of Vigo (on 26 November - 4 December 2013) were surveyed. The students taking part in this survey constituted 58% and 52% of all first-year students studying at each faculty, respectively. In the research survey, the technique of a paper questionnaire was used. The questionnaire consisted of respondent's particulars and questions concerning social capital (Milczarek, et al., 2015). The questionnaire part was prepared according to

¹¹ Survey number: 503-2000-230-342.

the logical scheme proposed by the World Bank (Grootaert, et al., 2004). For the purposes of this paper, 7 questions were selected for the analysis. It lead to assess what form of social capital dominates in Poland and Spain and what is the willingness to participate in charitable activities amongst both groups of students.

7.4. Results

As a result of data analysis, a lot of data on social capital in Poland and Spain has been obtained. Figure 1. shows what percentage of respondents in Poland and Spain feels affection for persons from immediate surroundings and from distant surroundings.

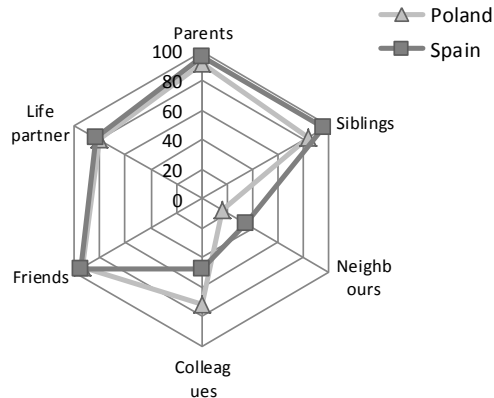


Figure 7.1. Positive attitude of Students to the following persons
Source: own work.

Analysis of the data indicated that surveyed persons in Poland and in Spain declare a positive attitude mainly to parents, friends and siblings. While in Poland, most of the respondents feel a positive affection for parents and friends (92.3% and 94.2%), in Spain they have such feelings mainly for parents and siblings (96.6 and 95.6%). It is also worth noting that the surveyed students from Spain have a positive attitude to people from further environments to a greater extent (higher share of the population) than students in Poland. Also in Spain 34.5% of respondents declare a positive attitude to neighbours, in Poland only 16.2%.

Figure 7.2 shows what percentage of surveyed students trust others and people from closest surroundings.

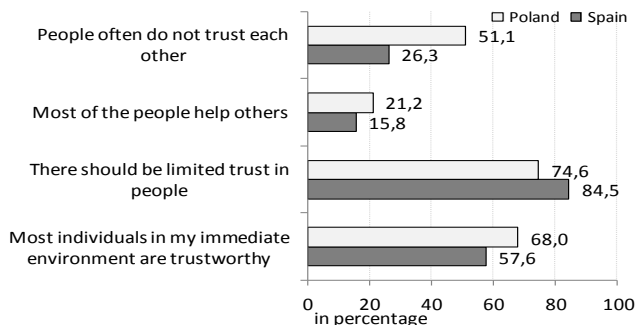


Figure 7.2. Agreement with the following statements

Source: own work.

It was found that the share of the surveyed students in Poland, who do not trust other people is on a higher level than in Spain. While half of respondents in Poland believe that people often do not trust each other, in Spain only every fourth respondent believed this. Another difference is the fact that the surveyed people in Poland are characterized by having a greater confidence in people from their immediate surroundings than respondents in Spain. In Poland 68.0% of respondents believe that most individuals in their immediate environment are trustworthy, while in Spain only 57.6% of surveyed students agreed with that statement.

The conclusion that surveyed students in Poland are characterized by having a greater confidence in people from their immediate surroundings than the Spaniards, is confirmed by results of the analysis shown in Figure 7.3. Figure 7.3 shows how much students trust the following kind of person or institution.

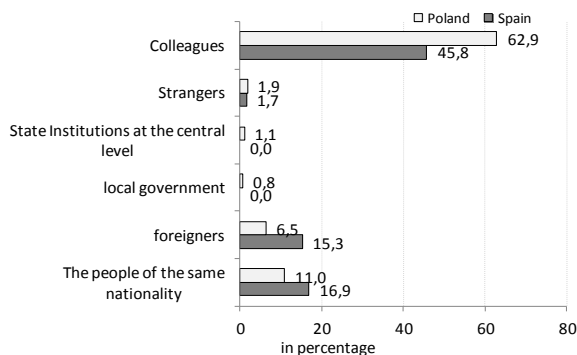


Figure 7.3. Percentage of students trusted the following kind of person or institution

Source: own work.

Results of the analysis showed that respondents from Poland, show greater confidence in people from closer environments than students in Spain. While in both countries there is a low level of trust in state institutions, or strangers, in Poland 62.9% of respondents trust colleagues, while in Spain it is less than half the respondents (45.8%). It is also worth noting that the Spaniards trust foreigners more than the Poles (respectively 15.3% and 6.5%) and trust the people of the same nationality (respectively 16.9% and 11%). It may suggest that students from Spain are more open to strangers, than students from Poland. The answer to this question “Why” is explained by data presented on Figure 7.4 and Figure 7.5.

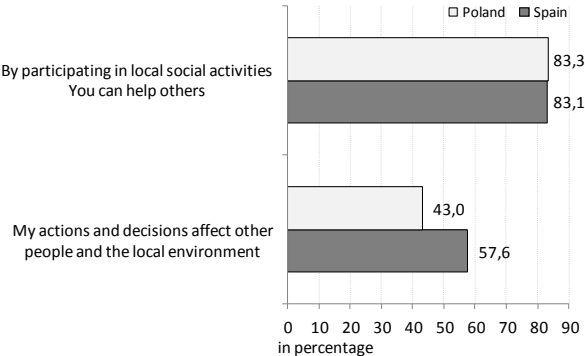


Figure 7.4. Agreement with the following statements
Source: own work.

The data indicates that the surveyed students in Spain more often prefer taking part in social activities than students in Poland. While both groups of students to a similar extent agreed that by participating in local social activities one can help others (over 83%), Spaniards are much more likely to take part in such actions. Less than half of respondents in Poland (43%) admit to such activities, while in Spain the share of students is higher by about 15 percentage points.

It is also worth noting, that respondents from Poland are more willing to participate in meetings with politicians or make complaints to the police, while the Spanish often take part in social campaigns and in the demonstrations. There is larger social activity in Spain than in Poland. All this shows that there is a more positive attitude of Spanish people towards bridging social capital as to Polish people where one can observe higher level of bonding social capital.

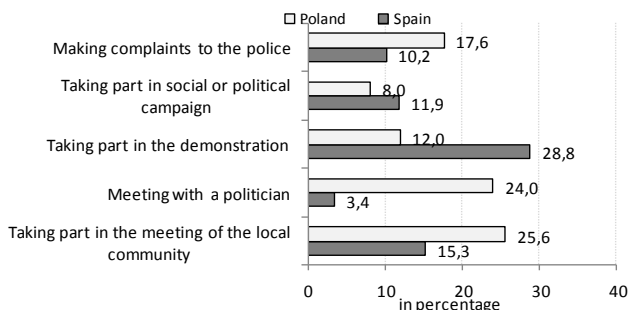


Figure 7.5. Attendance at meetings with communities during last year

Source: own work.

After analysing the social capital and its forms dominant among respondents in both countries, it is worth examining what is the tendency towards charitable activities. Figure 7.6 shows the preferred ways of support given to charities by the respondents.

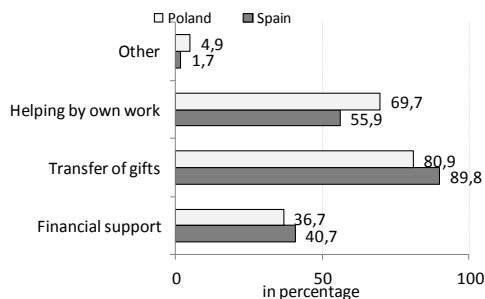


Figure 7.6. Opinion of the respondents about the best way to support charities

Source: own work.

The preferred way to support charities by the respondents is by the donation of gifts, whilst financial support is a less frequently used way to support charities. But what is noteworthy is, surveyed students from Spain are much more likely to support others through donations of gifts or money than their Polish counterparts. In turn, surveyed people in Poland are more willing to help by their own work (a difference of 14 percentage points). This may seem surprising in light of the fact that there is an observed higher level of bridging social capital in Spain.

As it turns out, there are little differences between countries in terms of times of participating in charity activities. Figure 7.7 presents the data in this area of research.

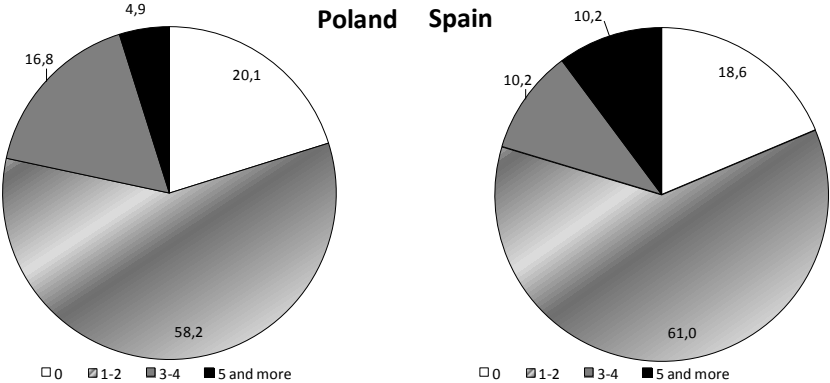


Figure 7.7. The answer to the question “how many times during the year, households of respondents were involved with charitable activities”
Source: own work.

The analysis showed that both the Spanish and Polish rarely participated in charitable activities. Nearly 80% of respondents’ households, did not participate in charitable activities during last year or did only 1-2 times. It is worth noting that despite the fact that the proportion of people participating in charitable activities more than 3 times a year is similar in both countries, the Spanish tend to support others more than the Polish. This figure was 4.9% in Poland, and 10.2% in Spain.

7.5. Conclusions

The paper tried to answer the question, does the type of social capital (bridging social capital and bonding social capital) affect the willingness of entities to charitable activities. According to the literature social integration plays an important role in altruistic behaviour. Besides helping behaviour is stronger in countries where there are stronger social networks. The conducted analysis showed that surveyed students in Spain are characterized by a greater degree of trust in others, they are more open to strangers and more often take part in social campaigns and in the demonstrations, i.e. in activities where cooperation is needed. All this shows that there is a more positive attitude of Spanish people towards bridging social cap-

ital as is the opposite in Polish people where one can observe a higher level of bonding social capital.

Within the willingness to perform charitable activities, the analysis showed that students in Spain tend to more often support others by donation of gifts or money, whilst surveyed students in Poland preferred to help by doing their own work. The analysis of the frequency of participation in charitable activities showed that a greater proportion of surveyed Spaniards took part in such actions than the Poles, but these differences are very small.

To sum up, it maybe be concluded that in Spain, where bonding social capital plays a significant role, the tendency to help others is at a higher level than in Poland, but this difference is small.

It is therefore difficult to state with any certainty or clarity, that the type of social capital affects the level of willingness to help others and participate in charitable activities. For this reason, further research is needed to be carried out.

**CUSTOMER SEGMENTATION AND CREATING SERVICE
OFFER BY HOSPITALITY FACILITIES**

8.1. Introduction

The sophisticated taste of consumers and large competition on the market cause that many modern hospitality facilities do not limit themselves only to the provision of hotel and catering services. Modern times force entrepreneurs running such a business to create an attractive and individualized service offer and to focus much more on diverse target customer needs.

When creating a hotel service offer, it is very helpful to segment customers in order to distinguish homogenous sets of customers characterized by similar needs yet different from other sets. Thus, in order to achieve professional success, a modern entrepreneur operating on the hotel market has to be absolutely customer-oriented in his activities.

The objective of the study is to present a hotel enterprise as a creator of an attractive service offer which results from customer segmentation, on the example of activities of hotels addressed to 'adult guests'.

The content of the paper is a result of using mainly the desk research method in form of the analysis of secondary sources, professional press reports and an exploration of web portals referring to the analysed issues. Furthermore, logical operations (mainly deduction and induction as well as reduction in order to simplify the presentation of the part of problems) and an observation method (especially in terms of practical aspects) were also applied.

8.2. Hospitality facility as a service enterprise

Taking account of a product which it distributes, a hospitality facility is included in a set of service enterprises. Therefore, what makes a service enterprise stand out from others is the subject of its activities.

In secondary sources, a service enterprise is defined as a business entity distinguished in terms of economic, legal, technical and organizational aspects which provides services satisfying particular needs of customers. A service enterprise constituting an economic category is an organizational form of economic undertak-

ings which constantly provide diverse services (including hotel services) and operate independently to make profit, in their own name and at their own risk (Filipiak, Panasiuk, 2008).

The subject of activities of service enterprises is services defined as a useful non-material product which is produced as a result of human work (activities) in the process of production, through affecting the structure of a particular object (a human or a material product) in order to satisfy human needs (Daszkowska, 1998) and they can be characterized by such features as, among others: being non-material, simultaneity of the process of providing and consuming, impermanence, no possibility of owning and heterogeneity.

The subject of activities of hotel enterprises is hotel services which according to the Polish law involve short-term and generally available rent of houses, apartments, rooms, accommodation places as well as places for tents or caravans, and services connected with that on their premises" (Act of 29 August 1997 on Tourist Services). Hotel services can be provided in hospitality facilities, which are included in the fundamental hotel industry (e.g. hotels, boarding houses, motels, campsites) as well as in other facilities where such a service is the basis of a business or is supplementary to other basic business in which hotel services are complementary (Milewski, Pawlicz, Sidorkiewicz, 2010).

According to the Polish law, the following hospitality facilities can be distinguished [Act of 29 August 1997 on Tourist Services]:

- hotels - with at least 10 rooms most of which are single or double rooms, provide a wide range of services connected with the guest stay,
- motels - located alongside roads, provide a parking area, with at least 10 rooms most of which are single and double rooms,
- boarding houses - with at least 7 rooms, provide client with full board,
- campsites - guarded areas which enable accommodation in tents, campervans or caravans as well as preparation of meals and provide a car park and services connected with the guest stay; additionally, they may enable accommodation in cabins or other types of buildings,
- guest houses - may accommodate at least 30 people, are adjusted to self-service and provide a minimal range of services connected with the guest stay,
- youth hostels - addressed to individual and group youth tourism, adjusted to self-service,

- mountain huts - located outside built-up areas, near tourist trails, provide a minimal range of services connected with the guest stay,
- tent sites - not guarded areas, enable accommodation in tents.

Due to their complexity, hotel services are divided into accommodation, catering and additional services (Turkowski, 2010), thanks to which, in particular, hotel offers which satisfy individual guest needs may be developed.

A hotel service is not usually a consumption end in itself and it is defined as a service enabling and facilitating travelling and staying in a travel destination (Turkowski, 2010). However, nowadays it may become an end in itself together with additional elements and develop a product. A hotel service meets human needs understood as a feeling of the lack of a factor essential for a human to feel physically and mentally well (Orfin, Sidorkiewicz, Wolna-Samulak, 2012).

8.3. Customer segmentation in the hotel industry

The main objective of segmentation is to distinguish particular groups of consumers, which are, in general, purchasers of a product, so that a company offering a service has an opportunity to create financial benefits. The essence of segmentation may not only be a selection and choice of segments which may be served in a given area, but also a choice of such purchasers that determine achieving appropriately high profits by a region (Obrębalski, 1998).

Therefore, enterprises do the market segmentation, that is choose a certain group of people who their market offer will aim at (Nowacka, Nowacki, 2004), in order to focus on customer needs, preferences and expectations.

In the sources, the most popular point of view on needs was presented by A. Maslow who formulated the assumption that each human has basic needs (in other words - motivational dispositions):

- physiological needs,
- safety needs,
- love and belonging needs,
- esteem,
- self-actualization needs.

Apart from the listed needs, Maslow distinguished additional ones in the form of: a desire for knowledge and understanding as well as aesthetic needs (Karapuda, Sidorkiewicz, 2014). The latter ones may be special from the point of view of a hotel service (Mikuta, Sawicka, Świątkowska, 2007). Maslow describes physiological and safety needs as basic level needs whereas the rest of them are

higher level needs (Bańka, 2002). According to Maslow, if basic level needs are not satisfied, it is not possible to satisfy higher level needs.

A hospitality facility enables satisfying two most important levels of needs altogether: safe satisfaction of a physiological need for sleep (Piasta, 2007). Physiological needs include: needs for survival, satisfying hunger, water, air, sleep and human biological functioning. On the other hand, safety needs concern mental and emotional spheres. They include, among others, such elements as providing private safety in a facility, security, order, justice and eliminating dangers (Karapuda, Sidorkiewicz, 2014).

Providing hotel services is based on particular activities, including: providing tourists with appropriate accommodation and catering and other additional services (e.g. wellness & spa services).

Modern trends in the hotel service market influence a type of offered service packages or served market segment which respond to dynamically changing customer needs.

Depending on types of hospitality facilities, their size and, mainly, service potential (material and human), the selected examples of hotel products can be indicated (Panasiuk, Szostak, 2008): weekend-related (accommodation, catering, recreational and sport services), conference-related (accommodation, catering with service during a conference, providing a conference room and conference service), recreation-related (accommodation, catering, wellness & spa services) and occasion-related (e.g. holiday suppers, Women's Day) (Orfin, Sidorkiewicz, Wolna-Samulak, 2012).

Thanks to segmentation, there is a possibility of addressing a particular hospitality facility to a given market segment - e.g. a hospitality facility serving conference tourists, families with children or, what is the result of current trends of the hotel market development, 'adult guests'. As a rule, hospitality facilities try to be flexible and adjust their offer to a large group of customers, but also there have emerged such facilities on the market which want to develop their competitive advantage through providing services for only one hermetic market segment creating a one of its kind enclave.

The market of purchasers of hotel services can be segmented according to various criteria. With the help of a correctly conducted segmentation process, particular groups of consumers (market segments) with certain preferences and homogenous requirements regarding a hotel offer can be distinguished. Additionally, defining features of the target market can be highly beneficial during levelling ef-

fects of seasonality which have a significant impact on achieving expected profits by a hotel company. It is customer movement that causes seasonality and, as a consequence of this movement, increases and decreases demand (Piasta, 2007), affecting a profit of a hotel enterprise at the same time.

The execution of gradual marketing activities in the service sector involves determining individual tastes of consumers of a hotel product, taking account of various categories of hotel offer customers. These activities are the essence of the hotel market segmentation.

8.4. Analysis of the service offer of hospitality facilities addressed to 'adult guests'

Case study:

The result of the observation of the hotel market is that particular hospitality facilities, in order to make their service offer stand out from the others, do not offer many different products addressed to a wide range of customers, but they increasingly often specialize in service of a one, specific target group. To create such a service offer, they use market segmentation. For the purposes of this paper, according to information available on official websites of the selected hospitality facilities, the analysis of hospitality facilities characterized by the aforementioned market behaviour was conducted. Out of many service offers available on the hotel market, in order to present the discussed issue, three hospitality facilities specializing in service of 'adult guests' were chosen. Such a selection of the target group, being the result of market segmentation, stems from innovation of this type of a service offer in the hotel industry which is dictated by modern social and cultural trends. The issue concerns an adult customer who wants to spend free time in a hotel facility where there are no small children, thus the assumption is that there will be such added values guaranteed as peace and quiet.

This trend is followed by a three-star hotel, *Amber Suite* in Międzywodzie located 200 metres from the beach and around 100 km away from Szczecin (a voivodeship city in the northern western part of Poland). *Amber Suite* can accommodate 35 people in designer and comfortable apartments and rooms which interior design is the result of the work of architects and owners who fulfilled there their dreams creating the special atmosphere of the place. The collection of 35 paintings by a well-known Danish painter complements the hotel interior design. Guests can use a swimming pool in an orangery, a steam bath with a relax zone, a massage room and Jacuzzi situated in a viewing terrace. The hotel restaurant with an excel-

lent cuisine appeals to taste of the most demanding food lovers. The hotel meets the highest standards and it is adjusted to the needs of the elderly. Since it uses renewable energy sources, the hotel is ecological and environment-friendly. *Amber Suite* is a perfect place to rest in all seasons and spend holidays at the seaside. Its owners consequently create an enclave for adults. According to the idea, the hotel only accepts guests over 12 years old. There are no additional beds in rooms, feeding chairs in the restaurant and during meals there is no animation for the youngest. The head of the marketing department of the analysed hotel describes it using a motto: "We love children, but parents sometimes need holiday" (<http://www.ambersuite.pl/> 2015).

The next example of a hospitality facility addressed to adults is a four-star hotel, *Manor House SPA* in Chlewiska near Szydłowiec which since 2014 has been 'an enclave for adults', that is a hotel without children - in many countries called 'children free zone'. Being located in a quiet and picturesque region, far away from the hustle and bustle of city life, it allows its guests to rest comfortably. Guests can spend relaxing time in the modern and holistic SPA zone. The hotel offers its clients 59 individually designed rooms. Thanks to the idea of a hotel for adults, guests can rest peacefully and quietly. The hotel is open for teenagers over 12 years old because, as the owners explain, 12-year olds are no longer children who only need to play, but they are young people who can accompany their parents in a swimming pool or even in a sauna. The hotel for adults, *Manor House SPA* does not completely refuse family stays. During Christmas, Easter, "long weekends" and winter holidays, the hotel offers stays for the whole families (<https://www.manorhouse.pl/hotel-dla-doroslych.php>, 2015).

The last example of a hospitality facility which promotes itself (even in the logo) with a slogan: 'adult-friendly hotel' is a four-star hotel, *Prezydent MEDICAL SPA & WELLNESS* in Krynica Zdrój. Through the implementation of this type of customer service policy and a number of initiatives, the hotel can offer guests a unique atmosphere of relaxation which is hard to experience in other places. Guests can freely use many facilities and attractions addressed to adults which can together create exceptional memories of a stay. The SPA zone offers a number of treatments and rituals aimed at regenerating the mind and body. In the evenings, a music club located in the area of the hotel enables guests to have fun in order to forget about all daily problems. Since the guests are people expecting peace and quiet, the hotel is open for teenagers and adults over 15 years old. The owners of the analysed place hold a view that people at that age can respect the atmosphere in the hotel

and will easily help to maintain it. The hotel provides guests with 66 comfortable rooms and apartments which can accommodate up to 179 people (<http://www.hotelprezydent.com/hotel-przyjazny-doroslym>, 2015). Just as in *Man-or House SPA*, people who want to stay in the hotel with children have such an opportunity. It concerns such periods which involve religious holidays, winter holidays or, so called, “*long weekends*”.

Summing up the presented hospitality facilities, it should be emphasized that “*adult-only*” hotels attract not only singles but also childless couples. Increasingly often, one can meet their parents who, in search of few days of rest, entrust their children to the family's care and find it in hotels which space is aimed at relaxation, concentration and calm. The popularity of hotels for adults increases around the world and travel agencies note an increase in sales of stays in such places. Until recently, the idea of establishing a ‘no-family’ hotel in Poland would be consider as outrageous, however, it is no longer a taboo. It is not the movement against families, just the opposite, it often helps to improve family relationships. Consequently, new opportunities have emerged for those who, instead of listening to, even happy, children's shouting, prefer to relax in SPA centres. The policy of hotels for adults enables having fun with friends or spending a romantic weekend for two in order to return with new energy and joy to household duties (Hotelarz, 2015).

8.5. Conclusions

On the basis of the presented examples, it can be observed that a service offer of hospitality facilities is currently changing, namely it is more precisely addressed to specific customers, what is the result of market segmentation. The distinction of customer segments made by employees managing a hotel in terms of developing a service offer should be a process which is a fundamental stage of planning an effective marketing strategy. It is thanks to segmentation that a service enterprise (including hotels) can adjust its offer to customers' needs, what contributes to an increase in sales and competitiveness of products on the market.

The offers described in the article can be only created by facilities which, apart from accommodation and restaurant functions, have an additional function - e.g. facilities such as SPA centres, since their wellness and spa offer includes many services which are part of an extended product which, in fact, creates this type of special offers. Therefore, in terms of the most universal hospitality facility such as a hotel, it must meet at least a 3-star standard. According to the Regulation of the Minister of Economy and Labour from 29 August 2004 on Hotel Facilities and Other

Facilities where Hotel Services Are Provided, in terms of requirements concerning "Basic and Complementary Service Offers", only hotels of that standard are required to provide baggage services (requirement no. 9), catering services (requirement no. 46) and wellness and spa services (requirement no. 49) (Orfin, Sidorkiewicz, 2014).

To sum up the discussed issue, it can be concluded that thanks to an effective execution of all stages of customer segmentation, a market entity decreases the risk of failure connected with wrong product decisions and has an opportunity to follow changes in the environment and to adjust to them systematically. For each enterprise on the market, it is essential to assess its chances of satisfying customer needs. These activities also optimize expenses connected with marketing activities, more precisely determine the time of promotional campaign intensity and contribute to the development of a solid image of an enterprise.

SOCIAL SOLIDARITY AS THE NORM OF SOCIAL CAPITAL EXEMPLIFIED BY THE STUDIES AMONG POLISH STUDENTS

9.1. Introduction

After 1989, essential institutional changes occurred in Poland. Political, economic and social issues gained quite a different dimension. Unfortunately the free market and democracy were not used effectively by everyone. There are people who cannot find themselves in such reality and they very often need assistance. It can be both of a formal character - from different governmental and non-governmental organizations, and informal i.e. an ordinary reaction of human solidarity. As Tischner shows - "*a human being is always solidary with someone and to someone*" (Tischner, 2005), in relation to whom we feel a certain duty, for whom we feel responsible, and whose future is not alien to us. Feeling solidarity with other people tears us from privacy and enables us to overcome our own egoism (Kochman, 2009). Social solidarity is treated in this article as the social norm which is a component of social capital. Its formation is very important in the context of socio-economic development of Poland (*Polska 2030*, 2009).

The aim of the article is to issue a description of social solidarity of Polish students as the norm of social capital. The article includes both deliberations of theoretical nature concerning social capital, social norms and solidarity, and also an analysis of empirical data. Their source is a survey carried out on a group of students of the Faculty of Economics and Management of the University of Szczecin at the turn of 2013 and 2014¹². The results of the survey were worked out statistically to achieve the aim of the study. It should be emphasised that the drawn conclusions concern a group of Polish students community.

¹² The survey research was conducted by the research workers of the Faculty of Economics and Management of the University of Szczecin, Department of Macroeconomics within the frames of statutory research financed by the Ministry of Science and Higher Education entitled *Knowledge and social capital (Wiedza a kapitał społeczny). Part 1 (Część I). A bridging type of social capital (Typ pomostowy kapitału społecznego)*, nr 503-2000-230-342.

9.2. Social capital, norms and social solidarity

The concept of social capital was introduced to social sciences in the second decade of the 20th century. In 1916 an inspector of country schools J. Hanifan used it to underscore the importance of bonds, good will and sympathy in local rural communities (Hanifan, 1916, after: Conrad, 2007). He acknowledged that along with intensification of contacts of a single individual with other people social capital accumulates and thus it fulfils his/her social needs. Individuals left to their own devices are helpless (Hanifan, 1916, after: Putnam 2000). In the middle of the 20th century Canadian sociologists used the concept of social capital for the description of the members of a suburban club and the urbanist J. Jacobs for the description of neighbourhood relations in a metropolis contemporary to her, which strengthened public safety. The economist G. Loury analysing social heritage of slavery acknowledged that social capital is one of the resources defining individual's potential connected with family and society relations which are conducive to his/her education and socialization (Coleman 1988, after: Frykowski, Starosta, 2008). Whereas for P. Bourdieu social capital is *“the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition”* (Bourdieu, Wacquant, 1992). He thus considers social capital as a private rather than public good (Bourdieu, 1986, 1993). R. Putnam defines social capital as *“moral obligations and norms, social values (especially trust) and social networks (especially voluntary associations) which facilitate co-operation and mutually supportive relations in communities and nations”* (Putnam, 1995). This capital can also reach beyond these organisations thus reinforcing general social solidarity. R. Putnam distinguishes between bonding social capital and bridging social capital. The preceding is formed in communities (such as families and friends) where the bonds between members are inclusive. These communities strive to develop their own values or ideas and are pessimistic about implementing others [Putnam, 2008]. The bridging social capital, on the other hand, is formed in groups oriented outwards. They form outward looking ties characteristic of heterogeneous groups such as acquaintances, colleagues, neighbours. They are essential for *“making progress”* in the community (Putnam, 2008). F. Fukuyama argues that social capital is *“the existence of a certain set of informal values or norms shared among members of a group that permits cooperation among them”* (Fukuyama, 1997). Social capital permits establishment of new human relationships, formation of groups, associations and institutions of the civil

society operating spontaneously in the space between families and the state (Fukuyama, 1997, 2003, after: Klimczuk, 2012). According to J. Coleman, just like other forms of capital, social capital is also productive. It enables realization of certain goals the achievement of which would be impossible if it did not exist (Coleman 1988, after: Rymysa, 2007).

In accordance with a normative approach accepted in the description the source of social capital are, apart from values, certain common norms. They occur in the situation of mutual social relations between individuals, when there is a need of creating a collective interest different from the interest of particular individuals. Thus, norms play a significant role in solving a problem of common good. According to K. Offe and S. Fuchs (Offe, Fuchs, 2002, after: Frykowski, Starosta, 2008) norms are located within the frames of component social capital defined by them as "*attention*". By "*attracting attention*" they understand cognitive disposition of an individual staying in opposition to opportunism, ignorance and indifference. While in D. Halpren's concept social norms consist, among other things, of principles and values, and they can manifest themselves as neighbourhood assistance or local patriotism (Halpren 2005, after: Frykowski, Starosta, 2008). In the context of the subject matter of the description a particular attention should be drawn to the norms of reciprocation and responsibility. The former means an individual's obligation to maintain the process of an exchange by actual or symbolic rewarding people by whom he/she was rewarded earlier. The latter (Etzioni 2003, after: Frykowski, Starosta, 2008) means, that an active individual subordinates his/her own egoistic affair to the social interest, and is willing to act in some situations in favour of other individuals without expecting any direct rewards from them. A good example of that can be an attitude of social solidarity. In a narrower depiction it is understood as an expression of identification with those who support a certain common rightful matter. Such people joined by common values and ideas constitute a certain community and have a feeling of bonds. It can also be an expression of opposition to another group or other values (Kochman, 2009). In a wider depiction solidarity does not need to be directed against someone. It is understood as a positive force which is oriented towards building some common good or such one which is to support and help all those who experienced a misfortune. Just such an approach was accepted in the article focusing on issues concerning help given to others. It should be noticed that the other kind of solidarity is much more difficult as it is related with the problem of overcoming both individual and group egoism. (Kochman, 2009). However, if it is assumed that solidarity is a certain socially accepted norm, then

the individual obeying it should feel a specific sense of his/her own value (Kiciński, 1998). It is interesting that Z. Bauman thinks differently. According to him, those who succeeded in their life can leave people deprived of adequate financial means to their own fate. What is more, they can aim at removing them from the list of public worries (Bauman, 2000).

9.3. Methodology

The survey was conducted within statutory research funded by the Ministry of Science and Higher Education, entitled Knowledge and social capital. Part I. Bridging type of social capital¹³. Statistical research using a questionnaire survey was carried out among bachelor's degree students of the 1st year studying at the Faculty of Economics and Management, University of Szczecin. The aim of the research imposed employment of purposive sampling: to prepare a description of social capital, including social solidarity, among students of the first year of the studies¹⁴. The sample comprised approx. 58% (n = 239) of all the 1st year students. The survey was conducted on 2013/2014. The survey was based on a paper questionnaire consisting of two parts: demographics and a set of questions concerning social capital. The demographics characterized respondents by age, gender, marital and family status, country of origin and residence, employment and income. In the description the criterion of the respondent's place of birth was used. The questions were developed according to a logical model proposed by the World Bank (Grootaert *et al.*, 2004). This part of the questionnaire consisted of 36 closed- and open-ended questions regarding social capital, without differentiation between its types (Milczarek *et al.*, 2015). For the purpose of the analysis the author selected seven questions concerning the characteristic of the solidarity attitude of the students.

9.4. Survey study

In accordance with the aim of the research, a characteristic of social solidarity of the Polish students expressed by help given to others will be carried out. Figure 9.1. shows data concerning the attitude of the students towards help given to others.

The study shows that a definite majority of the students answering "rather Yes" and "definitely Yes" agree with the statement that help given to others in their difficult situation is an obligation.

¹³ Survey number: 503-2000-230-342.

¹⁴ the survey will be repeated in the third year of the studies.

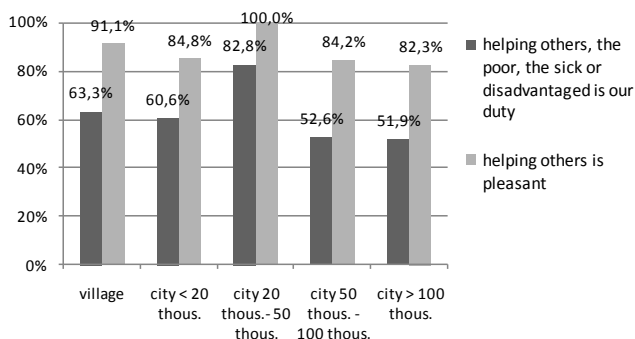


Figure 9.1. The students' attitude towards help given to others (answers "rather Yes" and "definitely Yes")

Source: own work.

Such an explicit opinion was expressed first of all by students coming from towns of 20-50 thousand inhabitants (82.8%), more rarely by students from larger towns, i.e. those of 50-100 thousand and above 100 thousand inhabitants. With such a standpoint, agree, respectively, 52.6% and 51.9% of the students. The students feel that help given to others is pleasant. Most of them agree with such a statement, particularly students coming from towns of 20-50 thousand inhabitants (100.0%) and from villages (91.1%).

Help given to others can take different forms. Figure 9.2. shows data concerning preferred by students forms of help given to third persons.

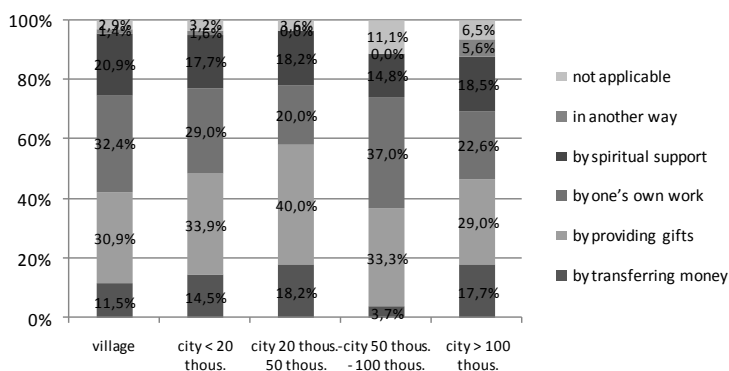


Figure 9.2. Forms of help given to third persons declared by students

Source: own work.

A definite majority of students help other people by handing over gifts or by their own work. The first way is preferred first of all by students coming from towns of 20-50 thousand inhabitants, (44.0%), more rarely than students from towns of above 100 thousand inhabitants (29.0%) and from villages (30.9%). Their own work is offered first of all by students coming from towns of 50-100 thousand inhabitants (37.0%), more rarely from towns of 20-50 thousand (20.0%). Spiritual support is usually offered to third persons by students coming from villages (20.9%), most rarely by students coming from towns of 50-100 thousand inhabitants (14.8%). The study shows that students offer financial support within a very limited range. Low is also the percentage of those students who, independently of their place of origin, help third persons in another way or do not help at all.

The study carried out among students also shows a solidarity attitude expressed by a financial support declared by them for indicated people/groups of people (Table 9.1.). This shows a structural aspect of the question of social solidarity.

Table 9.1. Declared in the first place financial support for selected social groups (in %)

STUDENTS' BACKGROUNDS	Social groups								
	friend (male)/ friend (female)	person in need from your home town	neighbour (female)	parents	colleague	persons under the care of charitable foundations	brother/ sister	parents	student of your uni- versity (WNEiZ)
village	38.0	2.5	3.8	81.0	6.3	5.1	55.7	54.4	0.0
city < 20 thous.	27.3	0.0	3.0	90.9	3.0	0.0	48.5	57.6	3.0
city 20 - 50 thous.	31.0	0.0	0.0	75.9	6.9	6.9	51.7	48.3	3.4
city 50 - 100 thous.	26.3	5.3	15.8	73.7	0.0	5.3	42.1	47.4	5.3
city > 100 thous.	31.6	1.3%	3.8	75.9	3.8	6.3	43.0	43.0	1.3

Source: own work.

Students would direct their support first of all to their closest environment, parents, brothers and sisters or grandparents. This proves that there are strong inclusive bonds which are a feature of binding social capital. Support for parents is declared first of all by students coming from towns of 20 thousand inhabitants (90.9%) and from villages (81.0%). Support for brothers and sisters is declared first of all by students coming from villages (55.7%), and support for grandparents by

students also coming from villages (54.4%), but first of all by those coming from towns of up to 20 thousand inhabitants (57.6%). It is worth noticing that such a possible kind of support for the family is shown, in a smaller range, by students coming from larger towns. Definitely smaller is the percentage of students who, independently of their backgrounds, declare their financial support first of all for the remaining people or groups indicated in the questionnaire.

One of the forms of expressing social solidarity is participation in charity events. Figure 9.3. shows data concerned with frequency of participation of students' households in charity events.

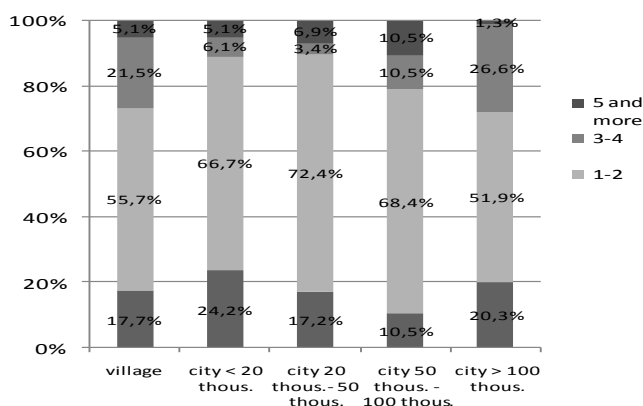


Figure 9.3. Participation of students' households in charity events

Source: own work.

The students show that their households in most cases participate in 1 to 2 charity events during a year. Such a number of participation is declared by students coming from towns of 20-50 thousand inhabitants (72.4%), more rarely by students coming from towns of above 100 thousand inhabitants (51.9%). Participation in 3-4 such events during a year is shown by students coming from towns of above 100 thousand inhabitants (26.6%), and also by students coming from villages (21.5%). In the studied group of students the smallest part constitute those whose households do not take part in charity events at all or in 5 and more during a year. In the first case the largest share is that of the students coming from towns of up to 20 thousand inhabitants (24.2%), and in the other case that of the students coming from towns of 50-100 thousand inhabitants (10.5%).

Supporting charitable institutions as an expression of social solidarity can take a different character (Figure 9.4).

A definite majority of students think of handing over gifts and assisting other people by their own work as the best forms of supporting charity institutions. The former is preferred first of all by students coming from villages (44.7%), more rarely by students coming from towns of above 100 thousand inhabitants (40.6%).

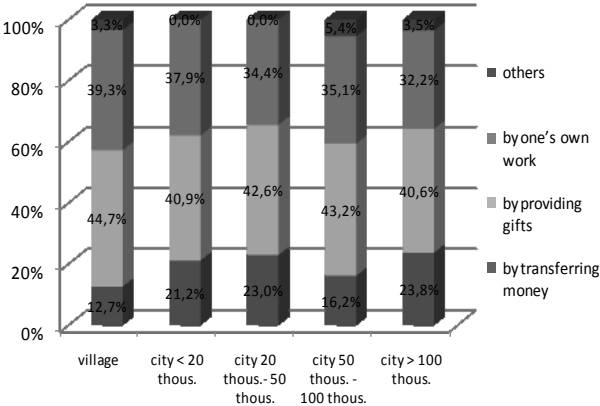


Figure 9.4. The best forms of supporting charity institutions
 Source: own work.

Also supporting by their own work is most often preferred by people coming from villages (39.3%), and more rarely by students coming from towns of above 100 thousand inhabitants (32.2%). The study shows that the students particularly those coming from villages do not think of financial support for charity institutions as the best form their assistance (12.7%). This form of support is most often shown by students coming from towns of above 100 thousand inhabitants (23.8%).

The study carried out among the students makes it possible to show the causes discouraging them from giving help to others (Figure 9.5).

Students show different causes discouraging them from giving help to others. First of all the attention should be directed towards partial and incomplete use of means handed over for charity goals. This is the opinion first of all of students coming from towns of above 100 thousand inhabitants (33.6%), more rarely by students coming from towns of up to 20 thousand inhabitants (23.1%). The students also emphasize that help given to others is encouraged by corruption in public in-

stitutions. At this problem attention is directed first of all by students coming from towns of up to 20 thousand inhabitants (26.2%).

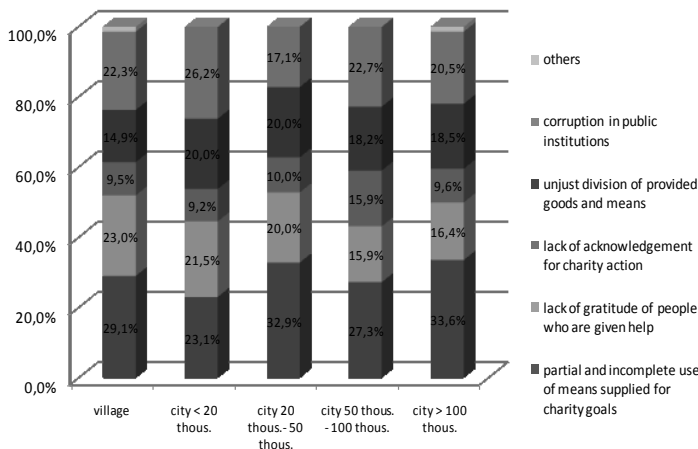


Figure 9.5. Causes discouraging students from giving help to others

Source: own work.

The students (particularly those from villages) also show lack of gratitude of people who are given assistance and unjust division of handed over goods and means (students coming from towns of up to 20 thousand and 20-50 thousand inhabitants). To a smaller degree students are discouraged to give help to others by lack of social acknowledgement for such activity.

9.5. Conclusion

The study shows that students, independently of their backgrounds, are a sensitive community and ready to give help to others. Their social solidarity as the norm of social capital can undoubtedly support their cooperation in solving the problem of common good. It is not directed towards anyone, but it is a positive force which is to support and help those who are in need. Their attitude is clearly in opposition to opportunism and indifference. What is more, giving help to others is for the students a norm of responsibility for other people and simultaneously gives them satisfaction. It is in accordance with the studies carried out by CBOS, which show that Poles in considerable majority (61%) regard supporting interpersonal solidarity (*Potential of social ...*, 2012).

The study shows both similarities and differences between students, independently of their backgrounds, concerning forms and the range of giving help to others. Students, independently of their origin help other people help other people by providing gifts or by their own work. Within a smaller range they offer spiritual or financial support. These are however more popular with students coming from villages and less popular with students from larger towns. Students and their households also participate in charity events. In this case a larger activity than average can be noticed among students coming from larger towns. Students, independently of their backgrounds, also support charity institutions. However, it should be noticed that providing gifts or offering their own work is more often declared by students coming from villages and small towns. More rarely they offer financial support, while this way is more frequently performed by students coming from large towns. Students are discouraged from giving help to others by partial or incomplete use of the means supplied for charity goals. To lesser degree students are discouraged from giving help to others by lack of social acknowledgement of charity action. The study also enabled a structural depiction of social solidarity issue. Students have strong inclusive bonds which are a domain of binding social capital. However it manifest itself more by students coming from villages or small towns than by students from larger towns.

Undoubtedly, the issue concerning social norms as a social attribute of social capital expressed in this article by social solidarity is nowadays very important in the context of socio-economic development of Poland. In a wider aspect it seems to a key one also due to the economic problems of some EU countries and growing social tension connected with the inflow of immigrants from Africa. It is just solidarity attitudes of one country towards others that can become key ones in maintaining unity of the EU.

STAFF TURNOVER AS AN INDICATION OF IMPROPER FUNCTIONING OF MOTIVATIONAL ACTIVITIES IN THE HOTEL INDUSTRY

10.1. Introduction

Staff turnover (fluctuation) is the inflow and outflow of employees in an enterprise. In practice, the issue of employment fluctuation is still valid. Many enterprises have problems not only with finding suitable employees but also with retaining them.

Initiative, cooperation and commitment of the whole staff are needed for the survival and development of a hotel business in an increasingly more competitive environment. The way how the personnel treat their duties depends on motivational activities undertaken by a hotel enterprise. The adjustment of motivational tools to real needs of employees is the precondition of effectiveness of these activities. Wrong decisions in terms of motivation may lead to a high employment fluctuation rate.

The objective of the article is to present an impact of staff turnover on the operation of hotel enterprises. The article constitutes the result of literature studies and an analysis of available secondary data on the analysed issue.

10.2. Nature of work and motivational activities in hotel enterprises

A hotel enterprise consists of a team of people, as well as tangible and financial assets that form a separate entity with its own economic, technical, spatial and legal nature, and is engaged in professional business activities of offering accommodation (rooms) against payment and providing services related to it.

The work process in a hotel enterprise is of a different nature than the one found in production enterprises. This dissimilarity is mainly a result of the specific nature of hotel services as they cannot be made-to-stock, stored or delivered to clients' places of living (Ciesielski, 2000).

Hotel services are quite specific services and providing them often poses a great challenge for hotel staff. Guests who spend longer periods of time outside home expect that many of their needs will be satisfied (Puczkowski, 2005), i.e.:

- subsistence needs (food, hygiene, sleep),

- additional needs (entertainment, recreation, sightseeing),
- emergency needs (medical assistance, change of plans).

Such numerous types of guests' expectations require from hotel staff to be highly available and engaged.

The simultaneity of production and consumption of services is a factor that influences the employment structure and work organization in hotel enterprises. This characteristic means that work in the hotel industry is continuous, multi-shift and includes the whole week, with Sundays and holidays (Rapacz, 2001). Thus, it is hard to standardize the work time and limit it to 8 hours a day. Hotels must operate 24 hours a day and, additionally, the tourism movement is intensified during the tourism season, what increases the workload of operational staff. Despite the technological development, machines cannot replace humans in the process of providing hotel services. The essence of hotel work is still a direct contact of a staff member with a tourist and this entails the necessity of employing relatively large personnel.

Attitude and predispositions of guest service employees have a decisive influence on the quality of a hotel product. Therefore, it is of a vital importance that personnel carry out their duties with the utmost engagement. This will be possible if they are properly motivated.

The basic aim of a motivation system is to stimulate people to fulfil their company missions and reach the company goals, while taking account of the needs and expectations of employees (Kopertyńska, 2009). People are motivated to work if they expect that their actions will lead to achieving a goal and getting a valuable reward – one that will satisfy their needs (Armstrong, 2000).

Motivating employees to work involves a range of individually personalized motivational instruments. Compensation is considered to be one of the most important and often dominating motivator. Therefore, developing a compensation structure is one of the basic processes through which motivational function is being implemented in hotel businesses. Apart from direct compensation, the effectiveness of a motivation system is determined by offered perks and benefit packages. They may include such elements as a corporate mobile phone, laptop, private health insurance, additional life insurance, coupons for free lunch in a hotel restaurant, holiday vouchers, coupons for free stay at one of hotels of the chain. Nonfinancial motivating tools also include: intangible rewards (letters of commendation, diplomas, commemorative medals and cups), in-kind rewards (albums, books with dedications) etc. These instruments are most often less expensive than financial incen-

tives and, under some conditions, they are more effective. Creating opportunities for employees to develop their qualifications is also part of efficient motivation. As a result, it is essential to develop a comprehensive training programme that is tailored to the expectations of workers and the goals of a hotel business.

In 2014, an analysis of motivation and staff turnover in the hotel industry was conducted. The survey was aimed at hotel management staff in Poland. Managers from 250 hotels, across all sixteen voivodeships, participated in this research. The largest group of survey respondents (85%) consisted of managers from three-star hotels. The next group size-wise (12%) managed four-star hotels. Other respondents represented one-, two- and five-star hotels.

The research has shown that the majority of hotel managers see the necessity of developing staff qualifications. As many as 91% respondents said that they provide training to their workers (Figure 10.1.).

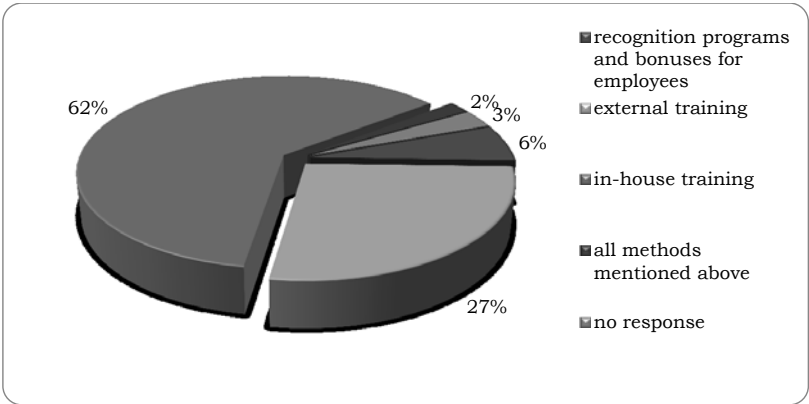


Figure 10.1. Staff motivation methods in analysed hotels in Poland

Source: own work.

The fact that only 8% of the surveyed managers use employee motivation methods other than training, such as best employee programmes or bonuses, is alarming.

Tangible and intangible motivational incentives stimulate desired employee behaviours; however, their effectiveness depends mainly on how they are assessed by employees.

An improperly executed employee motivation process may lead to an ill-understood competition, feeling of unfair treatment, envy or resentment that nega-

tively affect the work effectiveness of individuals, teams and the whole company. Mistakes in motivation can also contribute to high staff turnover in hotels.

10.3. Nature and consequences of staff turnover in hotel businesses

A high staff turnover rate is a significant problem for hotel managers. The rate at which employees resign from work varies depending on the position held (Figure 10.2.).

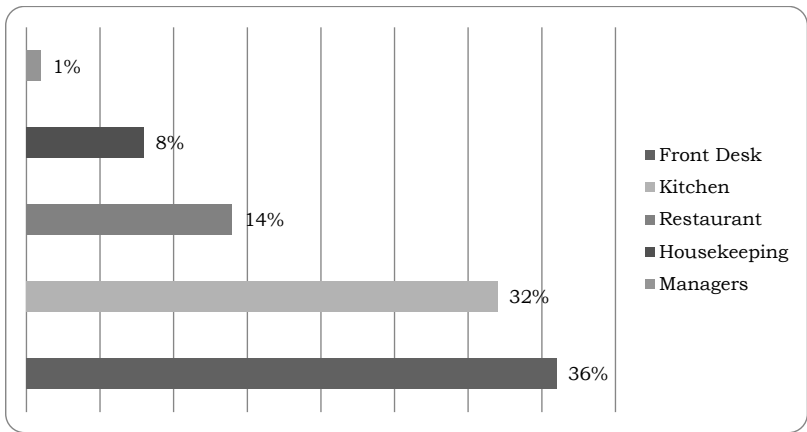


Figure 10.2. Hotel departments in which the staff turnover rate is the highest
Source: own work.

According to 36% respondents, a high turnover rate (over 50%) can be most often found at the Front Desk. Other hotel departments with high staff fluctuation rates are Kitchen and Restaurant (32% and 14% of responses, respectively). It is also quite common in hotels that housekeeping employees resign (8% of responses). A rather high retention rate is observed on the managerial positions, as only 1% of the researched businesses indicated a high turnover rate in that workforce group. None of the surveyed hotels registered voluntary turnover among the administration employees.

We may look at staff fluctuation as an involuntary phenomenon, which results from legal regulations or employer’s will (e.g. contract expiration, reduction in force, retirement), or a voluntary one. There are much more reasons behind voluntary resignation and they mainly depend on an individual approach of an employee or may be a sign of mistakes in the motivation process (Figure 10.3.).

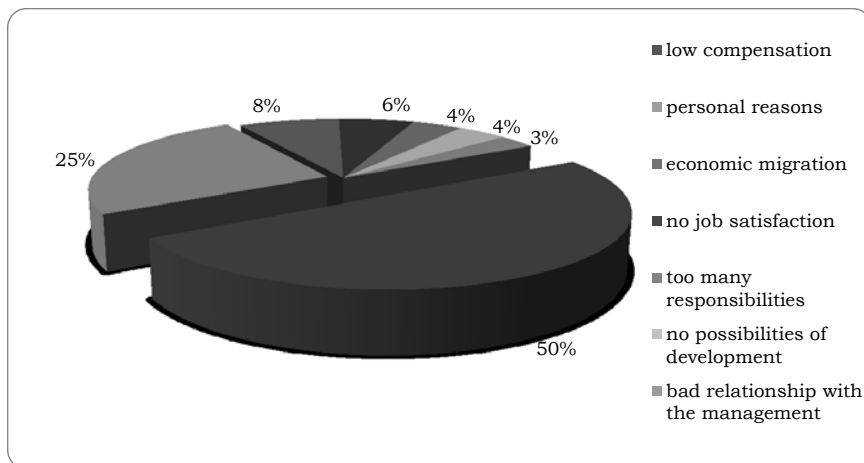


Figure 10.3. The reasons for staff turnover

Source: own work.

The research showed that the main reason behind resignation from work for 50% respondents is unsatisfactory compensation. Among other factors indicated by respondents were personal reasons, economic migration or lack of development possibilities.

Employee compensation is one of the most neglected motivational functions in hotel businesses. Salaries in the hotel industry in Poland are lower than the average ones in this economy. Median salary in the hotel industry in 2013 was PLN 3000 gross in comparison to PLN 4050 gross in the national economy (Raport, 2013). In addition to the fact that salaries in the hotel industry are relatively low, one may find dysfunctional activities occurring in terms of compensation in hotel businesses. These are connected with not informing employees about the compensation methods. Other problems related to a pay policy are:

- delayed salary payment,
- disproportionately high compensation of relatives and their acquaintances in relation to workload;
- no payment for overtime.

Apart from low salaries, the research findings point to the limited promotion and career development opportunities as well as lack of respect and support from a superior as significant reasons for employees leaving a company. All of these factors demotivate and contribute to high staff fluctuation in hotel businesses.

A high staff fluctuation rate brings a range of negative consequences for a hotel business and its workforce (Taylor, 2006), namely:

- additional responsibilities for remaining hotel personnel,
- costs of a new recruitment and selection process,
- loss of employee's knowledge and experience for the benefit of competition,
- negative image of a hotel as an employer,
- lower quality of service,
- loss of regular customers.

If an employee resigns from work, it reflects negatively on the hotel remaining personnel who have to deal with additional responsibilities while simultaneously carry out tasks planned earlier. Some workers see this as an opportunity to stand out, but others cannot cope with the new situation and are unhappy. It is often the case that these employees are required, irrespective to their regular responsibilities, to help with training new staff. If this only happens occasionally, the necessity of taking up additional workload does not become a problem. However, if a staff turnover rate is too high and results in an almost permanent workforce deficiency than the morale of staff may go down and they might be less engaged in their work.

The staff fluctuation phenomenon involves the need to hire new employees and this in turn means additional costs for a business. Their largest component is most often expenses related to the recruitment process, which are fees and charges for placing job advertisements in the press or work agency fee. Another element is work time cost of managers involved in the recruitment and selection process for the replacement of a departing employee. It may turn out that several job interviews have to be conducted or the Assessment Centre method have to be used in order to fill some positions. There are also costs of induction to a position and proper training of a new employee, as well as administrative costs related to introducing a new person in the organization (preparing a job contract, setting up personal files, etc.). While the abovementioned procedures are being executed, the position remains vacant. For a company, it means that productivity will be lower for a few weeks. Furthermore, workers need to be paid for overtime. That is why it is difficult to estimate a total cost of this process. The scale may vary a lot and depends on the position.

Besides generating direct costs, employment fluctuation causes loss of other resources, especially if an employee undergoes intensive training in a hotel and resigns from the position before the employer gets return on this investment. The situation is even worse when this employee resigns in order to be hired by the competition. In such a case, a hotel not only loses such resources as knowledge and expe-

rience, which an employee usually obtains at the hotel's expense, but it must also consider that they will be used by another employer to gain a competitive advantage (Pocztowski, 2009).

A high staff turnover rate is also disadvantageous for a company because of the competition on the labour market. If a hotel cannot retain employees, it will quickly gain a reputation of a bad employer. As a result, job-seeking professionals will not consider a particular hotel as a viable option in their career plan.

It should be noted that employment fluctuation may be also negatively perceived by customers. This aspect may be very important for positions which require from employees to know individual clients' needs and preferences as it has a key impact on the reputation of an organization. If staff are dismissed or changed too often in a hotel company (e.g. front desk staff, waiters, kitchen staff, masseurs), in the best case scenario, it will result in lower customer loyalty but, in the worst case, it will lead to a general opinion that the service levels are significantly lower, which in turn means a negative company image on the market.

10.4. Motivational activities limiting a staff turnover rate

Voluntary redundancy is a symptom of lack of job satisfaction. Job satisfaction is most commonly understood as positive attitude and emotions towards the work environment and professional duties performed by a person (Staples, Higgins, 1998). Research on direct relations between job satisfaction and employee behaviour allowed determining the correlation between an increase in job satisfaction and staff turnover at the level of -0.40, which means that the increase in job satisfaction lowers a staff turnover rate (Chmiel, 2007). Job satisfaction depends on the balance between what a person invests in their work (e.g. time, engagement), and what they receive in return (promotion, development opportunities, friendly relations), which are a motivational activities. In order for them to be efficient, it is necessary that managers in a hotel recognize the employees' needs and adapt the motivation methods to them. The feedback to this will be increased employee engagement in the process of carrying out duties and staff loyalty. The main benefits of employee loyalty for a company are (Lipka, 2011):

- employment retention,
- increased work efficiency,
- customer retention.

The advantage of employee loyalty is that the longer an employee works in a given company, the more work experience they gain (Schüller, Fuchs, 2005). Staff

with more experience in a hotel have a unique knowledge about the individual customer preferences or product characteristics, thus they provide better customer care. Employee loyalty also determines customer loyalty. Employment stability is significant for positions which require from employees to know individual client needs and preferences. The result of changing staff in a hotel company (e.g. receptionists, waiters, chefs, masseurs) is a gap in customer service, which leads to customer dissatisfaction and a discrepancy between the client expectations and real experience (Hill, Alexander, 2003).

Therefore, it is of the utmost importance to properly develop employee loyalty through the use of appropriate motivating stimuli. These should be adjusted to the needs and expectations of employees. A hotel should take into account that not only needs evolve due to age, new qualifications or occupied position, but also their hierarchy and the preferred method of satisfying them.

The multitude of factors that differentiate personal goals of each employee in a company requires that a company develops such a motivation system that enables all employees to fulfil their individual personal needs and simultaneously ensures that an organization reaches its own goals.

Employers have to change their approach to building relationships with employees. One solution may be to personalize the career path and replace the so-called corporate ladder with a corporate network. A corporate ladder includes traditional hierarchy, promotion path and assumes that employees' needs do not change with time. On the other hand, corporate network gives employees multiple career paths that allow them to maintain work-life balance. Career path personalization, which is based on an individual career development pace of an employee, gives a possibility to choose workload and work time, as well as a position and the scope of responsibilities.

10.5. Conclusions

A high staff turnover rate remains one of the fundamental problems of the hotel industry. It is partly caused by a high increase in numbers of hotel businesses and demand for experienced employees. However, the main reason behind this phenomenon is not competitive enough remuneration and motivational rules applied by hotel companies.

Usually, only some general human behaviour patterns are taken into consideration when building a motivation system in a hotel company, while it is necessary

to analyse many different conditions related to the characteristics of a person to whom various motivators are applied.

A variety of motivational tools may be used to influence employee engagement. It is important that they are accurately selected, tailored to the type of employee's tasks and value system and that cohesion of motivational activities is ensured, or even that they enhance each other. Employee motivation and engagement in achieving company goals is most efficient when employee and organization goals are identified (Borkowska, 2007).

In order to increase the efficiency of a motivation system in a hotel company, it is necessary to regularly verify motivational activities connected with identifying irregularities. Therefore, hotel companies should:

- devise individual procedures for assessment of the efficiency of a motivation process,
- identify dysfunctionalities of a motivation process using the results of periodic employee evaluation,
- conduct a regular analysis of employees' expectations and aspirations.

It is obvious that employees' expectations are changing, while the principles of a motivation system are formal and are of a static nature. Therefore, the assessment of a motivation system should be conducted on a regular basis and its principles and enforcement should be adjusted by correlating them with the changing expectations of employees.

One should remember that there are differences between employees in terms of their qualifications and engagement within each company. That is why the repercussions of their resignation from work may vary. Some people can be easily and cheaply replaced, while others are difficult to replace, especially if the same level of efficiency is to be achieved. For that reason, each group of employees should be treated differently. Motivational activities should be focused on employees that possess extensive professional knowledge and whose resignation may cause most problems for an organization and generate high costs.

THE ESSENCE OF TRAINING AND OTHER FORMS OF PERFECTING THE PERSONNEL'S SKILLS AND THE DEVELOPMENT OF HUMAN CAPITAL

11.1. Introduction

Human capital ensures organizations a possibility of creating innovative goods and services, processes and technologies. It creates suitable conditions for the development of information systems and data bases. As one of the element of human capital it is a source of maintaining good, difficult to copy, relations with clients, based on mutual respect, patience and loyalty. It also enables organizations to conquer new markets and new groups of clients. Therefore it is so important to invest in the development of workers of the organization and to take care of their professional improvement. Investments in the development of human capital make it possible to develop the remaining elements of intellectual capital and ensure the organization a successful existence and activity in the market.

11.2. Selected theories of human capital

In the literature many diverse theories concerning human capital can be found. It results both from lack of a commonly accepted definition of this concept and from the fact that it is depicted at different levels: macro, micro or as a unit and also from its relation to a definite scientific field.

The concepts of human capital change along with the cultural context, binding fashions, paradigms, metaphors, customs and linguistic customs of a given author and his/her times. The existing differences make it possible to uncover more fully the complex structure of the phenomenon, and at the same time sophisticated practical use of the concept (Król, Ludwiczynski, 2006).

In some definitions the component elements of human capital are emphasized and then it can be understood as an amount of knowledge and skill acquired in the process of education and professional practice as well as an amount of health and vital energy (Kożuch, 2000). Human capital is also described as knowledge, abilities, skills and other features of a human being, which enable people to create personal, social and economic welfare (OECD 2001). According to G. Łukasiewicz,

it is a resource of knowledge, abilities, skills, qualifications, attitudes, motivation and health, of a definite value, being a source of future earnings or satisfaction, and at the same time, renewable and continuously enlarged human potential (Łukasiewicz, 2009).

Other definitions of human capital refer to its value for the organization. Król and Ludwicyński recognize it as a total of specific features and properties embodied in workers, which have a definite value. They also constitute a source of future income for both the worker - the owner of human capital and for the organization which uses it under definite conditions (Król, Ludwicyński, 2006). Thus, it can be stated that human capital constitutes a driving force of the development, in which enormous motivational possibilities are hidden and which are revealed only when the organization is run effectively (Juchnowicz, 2004). It means that human capital underscores the diversity of the organization in the environment and has a significant influence on creating its competitive advantage and its positive image in the purchasers' eyes.

In M. Rybak's opinion the strength of human capital of an enterprise lies not only in acquired general knowledge but also in a possibility of showing one's skill in the profession, abilities not revealed yet, aspiration, one's own deep motivation for work and learning, creativity, readiness to take a risk and a personal sense of responsibility for the success of the firm. Thus, human capital refers to people able to co-work, people permanently linked with the firm and its mission (Rybak, 2003). All the workers involved in activity for the enterprise constitute human capital. These are creative, self-reliant workers, able to overcome difficulties (Sajkiewicz, 1999).

Among the mentioned conceptions there are various elements composing human capital. This diversity results from equivocalness of this conception. Table 11.1. shows a list of selected definitions with particular attention paid to the structure of human capital.

In definitions included in the table quite a lot of common elements can be found. Almost all refer to the concept of competence, recognized values and features related to personality. The authors of the aforementioned conceptions also underscore the role of abilities as a significant component of human capital. From many descriptions of human capital emerges its image as a set of elements which consists of: competence, knowledge, motivation, abilities, skills, health, attitudes, relations, values, intellectual cleverness.

Table 11.1. Elements of the human capital structure according to the selected authors

The author	The structure of human capital	Elements of the human capital structure
J. Ross, G. Roos, N.C. Dragonetti	Attitudes	motivation, views declared, behaviours
	Competences	knowledge, skills, possibilities
	Intellectual ability	skill in analysing and synthesising, adjusting oneself to new conditions, implementing innovations
Skandia Group	Relations	motivation, interpersonal relations, ability to share knowledge and confidence
	Competences	knowledge, skills, abilities, styles of action, personality
	Values	the system of values and norms accepted by co-workers, resulting from the culture of the organization
J. Fitz-enz	Features	intelligence, energy, attitude, involvement
	Abilities	receptiveness of mind, common sense, creative abilities
	Motivation and knowledge	sharing information, team spirit
M. Bratnicki, J. Strużyna	Competence	talents, knowledge, practical skills
	Intellectual cleverness	innovativeness, ability to emulate, entrepreneurship
	Motivation	willingness to act, personal predispositions, involvement, organizational power, management leadership

Source: (Samul, 2013).

Human capital constitutes the most important component of intellectual capital, as it is this capital on which depends how the remaining kinds of capital will be shaped. Human capital is first of all a source of innovation and development, know-how in the enterprise. Thanks to the science and professional training, people acquire knowledge, which results in raising qualifications. An increase in the level of experience causes larger workforce productivity. The higher quality of human capital, the more dynamically intellectual capital grows (Stalończyk, 2012).

The mentioned definitions present a little different point of view, each of them also refers in a different way to the possibility of practical development of this area by the organization. However, it should be emphasized that they underline just these embodied elements that constitute the source of competitive advantage and result in the creation of permanent relations with the partners of the enterprises.

11.3. Development of human capital in organizations

Along with a good quality of human capital also goes a high quality of provided services and offered products, and faster production. This results in a better flow of knowledge in the organization and better understanding of goals to achieve.

Investments in a human being is defined as a total of activities that affect the future financial and physical income achieved by increasing resources in people: knowledge, competences, motivation, etc. (Domański 1993). A characteristic feature of investments in a human being is the fact that they reimburse expenditures in a long-term perspective. In the subject matter literature six areas are mentioned in which activities can be carried out, raising the quality of human abilities at the macro-economic level and which are defined as investments in a human being or in human capital. These are (Domański 1993):

- broadly understood services and facilities related to health care, affecting the lifespan and vitality of a human being,
- professional training during working time,
- formal school education at all levels,
- programmes of studies for adults,
- migration of people to find a better job, to adjust to changing conditions,
- seeking information on the economic situation of the firms and professional prospects.

The workers are inclined to invest in themselves after they have completed the basic period of education, choosing a job that enables them to do general training (Becker, 1975) and receive additional experience. They accept lowered initial remuneration as compared with alternative possibilities, expecting higher pay in the future instead, when the costs training begin to reimburse (Blaug, 1995).

The aforementioned ways of investment in people are not the only ones. Taking into account heterogeneity of the concept of human capital, possible diverse forms of the development of this capital adjusted to its individual elements should be considered. At the level of the organization the following forms of the professional improvement of the personnel, which affect the development of human capital should be discussed:

- training and courses,
- implementation of the concept of the learning organization,
- coaching and mentoring,
- individual paths of development,
- personal marketing,
- participation of the workers in management of the organization,
- movement of the workers inside the organization,
- professional training programmes,

- subsidization of formal education,
- participation in conferences, workshops and seminars.

Professional training allows the workers to raise their qualifications and competences and constitutes the basic and popular form of personnel improvement. They are defined as a total of goal and systematic procedures initiated by the enterprise, aiming at the support of learning of their members and in consequence increasing their contribution to the effectiveness of the enterprise (Danielewicz, 2004). Professional training of the personnel aims at the development of their skills to meet present as well as future needs of the organization (Armstrong, 2004). Professional training, apart from the fact that it causes improvement of the duties performed by the workers, also constitutes an element of motivation systems, and thus it positively affects motivation and involvement (i.e. important component elements of human capital).

The data included in the report of the 5th project of Bilans Kapitału Ludzkiego (the Balance of Human Capital) (Turek, Worek, 2015) show that among the solutions within the range of investments in human capital, the most popular were non-obligatory (optional) courses, training and subsidizing the workers' self-education (e.g. through the purchase of books, subscription of magazines). In 2013 45% of the entities invested in the former one and 40% in the latter (Figure 11.1).

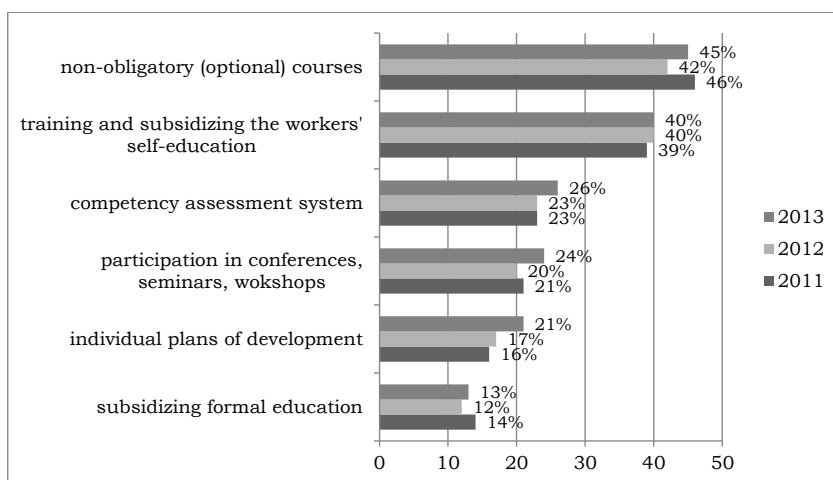


Figure 11.1 The use of individual forms of investment in the development of workers among firms and institutions in Poland in the previous calendar year
Source: (Turek, Worek, 2015).

Among the forms of development presented in the diagram above, the most rarely used were subsidizing formal education and preparing individual plans of development. The studied enterprises also preferred to invest in self-education of workers rather than in their participation in conferences, seminars or workshops.

From the same report one can learn that the majority of the studied entrepreneurs in 2013 preferred to employ an outer entity for conducting courses and training rather than to train their workers by themselves. A similar tendency can be also observed in the two previous years. The detailed data referring to this subject are presented in Figure 11.2.

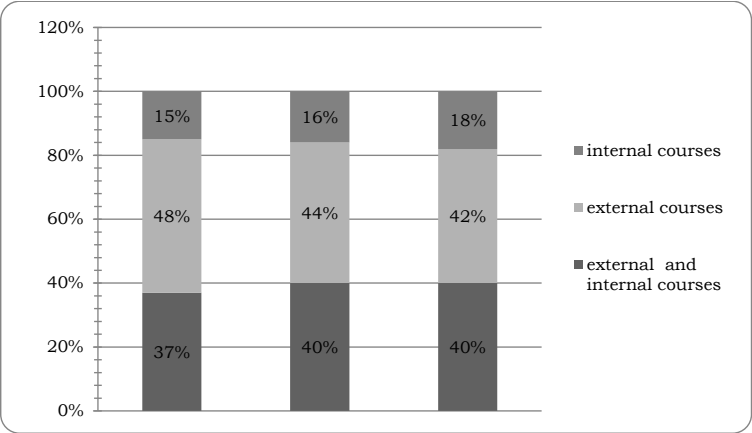


Figure 11.2. The way of the organization of courses for the workers
Source: (Turek, Worek, 2015).

Among the studied enterprises 40% used the mixed strategy, i.e. they decided to carry out both outer courses and inner ones. According to the authors of the report popularity of the mixed strategy grew along with an increase in the size of the entity. In large entities it was used by as many as 75%, in micro ones only by 35%.

Also movements of the workers inside the organization can be classified as important forms of improving human capital. They embrace changes of the work positions both by individual people and by certain groups of workers inside defined organizational cells and between them. These changes can occur horizontally and vertically. Workers, changing their positions, get acquainted with a new technique of work, learn new things and problems. They broaden qualifications acquired so far. Movement of the workers results in better use of working hours, op-

timization of the employment structures, making use of professional qualifications and the increase in the satisfaction from work. All this influences an increase in the effectiveness of managing human resources (Pocztowski, 2007).

Noteworthy are also training programmes which constitute a complex system of education. It consists of many coordinated, in relation to the subject matter and time, techniques of teaching. Training programmes are oriented towards a defined group of addressees. These are most frequently university and vocational university graduates. The content of the programmes includes elements of professional training both at the workplace and out of it. The training programmes embrace on the whole a period from 6 to 12 months (Pocztowski, 2007).

More and more popular forms of the development of workers are coaching and mentoring. The former is defined as an interactive process which helps individual people or organization in the acceleration of pace of the development and improvement of the effects of action. Coaches work with clients within the ranges related to business, development of careers, finances, health and interpersonal relations (Budzisz, 2011). Using this method workers learn to determine concrete aims to realise, they acquire skills to make decisions and become able to use fully the potential embedded in them.

While mentoring consists in a long-term relation with a person of a definitely larger load of experience and knowledge, who supports a person of smaller experience or a shorter internship in his/her development. The mentor is a leader who possesses broad knowledge and constitutes a role model for a tutee to whom he/she gives advice concerning not only concrete tasks but also personal development and shaping the career path. It is assumed that the mentor possesses high competences in the area of the tutee's activity and who himself/herself succeeded in the past in similar activities and was involved in the activity of the same institution (Szelągowska, Makowska, 2007). The application of mentoring in the organization results in uncovering real motives of the workers and creating their inner motivation. It also enables recognising strong and weak sides, developing competences and also stimulating creativity.

Quite a popular form of the development of the personnel is also participation in conferences, seminars or workshops, although this solution is rather used with the reference to managers. The participation in this type of events supports broadening knowledge of the employed, and also gives them a possibility of the exchange of points of view with other individuals occupying similar positions or facing similar problems and challenges.

11.4. Conclusions

Summing up the above discussion it should be stated that the investments in the development of human capital contribute to the development of the whole organization. The larger the diversity of these forms, the larger the possibilities of improvement of the quality of the component elements of human capital. Ensuring the workers various forms of improvement, adjusted to their needs makes it possible to affect the level of their motivation and involvement and also to strengthen their loyalty towards the organization. Investments in human capital also strengthen a positive image of the enterprise as an employer and enable using possessed intellectual capital to a maximum extent.

TABLES

Table 1.1.	Examples of research conducted within particular areas of interest of behavioural accounting	15
Table 2.1.	Statistics of the return rate distributions modelled	23
Table 2.2.	Results of the Kolmogorov Smirnov test (K_S) to examine the identity of the empirical cumulative distribution function for p-values obtained for the Chi-square compatibility test in the case of modelling a given distribution on the basis of a normal or logarithmic rate of return	24
Table 2.3.	P-values for test for two structure indicators, examining the identity of frequency of occurrence of distributions consistent with the assumptions made for WIG and SP500 index rates of return	26
Table 2.4.	Results of the Kolmogorov – Smirnov test (K_S) to examine the identity of empirical cumulative distribution functions of p-values obtained for the Chi-square compatibility test, in the case of modelling of the rate of return from the SP500 and WIG indexes	27
Table 3.1.	Economic activity of people	34
Table 3.2.	The number of entrepreneurs, employers and solo entrepreneurs in Poland and EU-28 by gender, 2008 and 2012 in thousands persons	37
Table 3.3.	Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender in Poland and EU-28, 2003, 2008 and 2012	38
Table 4.1.	Determinants of knowledge workers attraction and retention	49
Table 5.1.	Admissible levels of the pollutants emission in the Euro VI depending on the type of engine	55
Table 9.1.	Declared in the first place financial support for selected social groups (in %)	96
Table 11.1.	Elements of the human capital structure according to the selected authors	113

FIGURES

Figure 2.1.	Differences in the frequency of distributions obtained being consistent with the assumptions made in the case of modelling of normal and logarithmic rate of return and the estimation period of 252 quotations	26
Figure 2.2.	Differences in the frequency of distributions obtained, consistent with the assumptions made in the case of modelling of the rate of return for SP500 and WIG indexes and the estimation period consisting of 252 daily rates of return	29
Figure 3.1.	The unemployment rate in Poland according to the sex – the state at the end of the fourth quarter of the year	35
Figure 4.1.	Knowledge worker characteristics	45
Figure 5.1.	Percentile of intensity of CO2	58
Figure 5.2.	Descriptive statistics for the intensity of CO2 from road transport	59
Figure 5.3.	Local statistics of Moran's I	60
Figure 5.4.	Scatterplot - Moran's I statistic	61
Figure 6.1.	The most important problems of the system for evaluating the quality of education of personal of enterprises	67
Figure 7.1.	Positive attitude of Students to the following persons	77
Figure 7.2.	Agreement with the following statements	78
Figure 7.3.	Percentage of students trusted the following kind of person or institution	78
Figure 7.4.	Agreement with the following statements	79
Figure 7.5.	Attendance at meetings with communities during last year	80
Figure 7.6.	Opinion of the respondents about the best way to support charities	80
Figure 7.7.	The answer to the question " <i>how many times during the year, households of respondents were involved with charitable activities</i> "	81
Figure 9.1.	The students' attitude towards help given to others (answers " <i>rather Yes</i> " and " <i>definitely Yes</i> ")	95
Figure 9.2.	Forms of help given to third persons declared by students	95
Figure 9.3.	Participation of students' households in charity events	97
Figure 9.4.	The best forms of supporting charity institutions	98
Figure 9.5.	Causes discouraging students from giving help to others	99
Figure 10.1.	Staff motivation methods in analysed hotels in Poland	103
Figure 10.2.	Hotel departments in which the staff turnover rate is the highest.....	104

Figure 10.3. The reasons for staff turnover	105
Figure 11.1 The use of individual forms of investment in the development of workers among firms and institutions in Poland in the previous calendar year	115
Figure 11.2. The way of the organization of courses for the workers	116

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