BUSINESS ENTITIES
IN THE FACE OF CONTEMPORARY ECONOMICS

Editors

Aneta Sokół
Anna Drab-Kurowska
Agnieszka Budziewicz-Guźlecka

BRATISLAVA 2017

BUSINESS ENTITIES
IN THE FACE OF CONTEMPORARY ECONOMICS

REVIEWER

Prof. Ellena Shevtscova

LECTOR

Aneta Sokół, PhD.

EDITOR IN CHIEF:

Aneta Sokół,. PhD.

CONTENTS

V

МАРКЕТИНГОВОЕ ВЗАИМОДЕЙСТВИЕ ПРИ ДИСТРИБУЦИИ ЭНЕРГИИ АЛЬТЕРНАТИВНЫХ ИСТОЧНИКОВ И РАЗВИТИИ ЗНАНИЙ ПЕРСОНАЛА ПРЕДПРИЯТИЙ

SERHII Y. KASIAN

VI

LOGISTICS SYSTEM OF A LAW FIRM IN THE DATABASE SYSTEM

EWA KULIŃSKA

VII

THE CONSUMER ON THE EUROPEAN MARKET – SELECTED ISSUES

JUSTYNA MAJCHRZAK-LEPCZYK

VIII
HUMAN RESOURCE MANAGEMENT IN THE FRAMEWORK
OF TQM CONCEPT

MARCIN OLKIEWICZ

IX
SOCIO-PUBLIC COOPERATION IN POLISH
CONDITIONS

KATARZYNA PETER-BOMBIK

X
E-LEARNING MEANING IN EDUCATION MANAGEMENT ASPECT

JOANNA ROSAK-SZYROCKA

INTRODUCTION

Research monograph "Business entities in the face of contemporary economics" attempts to describe the efficiency of business processes occurring in a turbulent environment, with regard to enterprises, financial institutions and non-profit organisations.

The monograph is expected to identify the importance of actions undertaken in a quickly changing environment. The authors refer to various issues – from very general ones pertaining to economic development to more detailed situations concerning processes occurring within enterprises. Chapters of the study are based on extensive literature and numerous examples.

The authors realise that both the limited volume and character of the material only allow signalling of problems significant, which may be identified in a dynamically changing environment, from the theoretical and practical point of view. They do hope, however, that this will become an inspiration for undertaking further discussions and research.

The study may also be interesting to students interested in the above subject area. The monograph constitutes one of many sources of information on the topics covered herein, but the authors hope it will be a useful compendium.

_____

I

THE WORKING ENVIRONMENT OF PUBLIC HOSPITAL AS RISK FACTOR IN PHYSICIANS' BURNOUT

_____

BENEDYKT BOBER

EWA MATUSKA

1.1.

INTRODUCTION

The dynamics of the healthcare market development and differences on economic expenditures in different types of medical institutions cause the significant imbalances in the working environment. This influences the quality of delivered services and the global vocational satisfaction of the medical staff. To reach the expected high quality of public medical services undoubtedly needed are financial investment in infrastructure of hospitals, but also - the efforts to ensure a sufficient amount of physicians and a good work environment conditions for them. In terms of job security generally increases the amount of risks at work due to generally positive fact - development of civilization, which brings technical and informational progress and pressure for economic results of work. However, the a growing amount of information and its transfer rate, also increases the complexity of the work, its intensification, personal responsibility for decisions, etc. This impact affects first people professionally active, with a high degree of motivation, picking from themselves high demands at work, often striving to perfect fulfilment their professional duties, those who perceive the meaning of life mainly in the professional successes. Precisely, just a such professional group most frequently represent physicians. In addition, in this key medical occupation intensively are changing the patterns of careers, nature of work, social relationships and the psychological climate.

This phenomena are especially "sensitive" in case of public hospitals. Violation of the psychological contract, the rising quantitative and quality requirements, weakening of the authority of a doctor as profession in the environment, all of it causes growing dissatisfaction with work among physicians of public hospitals. Often, this situation leads to chronic fatigue, emotional exhaustion, routine behaviour towards patients and lack of a sense of work - they develop so called "burnout syndrome" (Strykowska, 2002).

Symptoms of burnout are considered result of prolonged stress at work, lack of balance between the employee's invests in their work, and what he/she receives in return from the employer and organizational surroundings (it is a process of dynamic structure). This syndrome reveals the most frequently in the form of negative features of organizational behaviour, characteristic for public hospitals, such as: lack of identification with the mission of the organization and its objectives, significant absenteeism and high fluctuation, routine approach to patients. These facts signalize that morale among physicians in public hospitals is generally on a medium/low level and the human resources management – is not sufficiently effective (Bober & Matuska, 2014).

The creators of the concept of burnout - J. H. Freudenberg and Ch. Maslach say that burnout occurs most often among the representatives of the profession based on helping and empathetic relationship with another human being, thus in human services and helping professions. Affected by this phenomenon, feel the negative attitude to work, helplessness, discouragement, loneliness, incompetence, low self-esteem and even the feeling of being isolated (Freudenberg 1974, Maslach, 2011). Also other authors point out that burnout is threatening primarily those employed in occupations involving work with people on intensive contacts and relates specifically to those professions whose work is helping others (Wilsz,2008, Sęk, 2000). Similarly, more recent research dedicated to widely seen "work-related stress", reports psycho-social risk factors at work as more challenging than any other risks (ESENER – 2, European Agency for Safety and Health at Work, 2016). Moreover, human health sector is on the first position between different economy sectors were psycho-social risk factors related to work had been identified. It indirectly indicate also the high risks of burnout syndrome among medical professions. Although recently, there is also spread of burnout evidence in profes-

sions not related to helping, but connected with the different types of personal services: financial, sales, administration, etc (Matuska, 2011).

Undoubtedly, the risk of burnout concerns the physician profession in which the fundamental role play social skills, close, interpersonal contact and the need for commitment and emotional exchange with patients. This profession has a long tradition, ethics, code of conduct, formal and viable structure. Requires high professionalization, it is dependent upon the aspirations and motivation, especially professional aspirations, but also cultural and material ones. If a doctor can implement them as part of their profession, it identifies with it, and its degree of professionalization increases. The social mission of the physicians' profession connected with highest responsibility for the lives and health of other people, undoubtedly brings internal tension and easily generates stress. Long lasting occupational stress together with responsibility and idealistic attitude in work – very probably will cause the burnout syndrome. Even when physician doesn't realize he/she suffers with it (very often it happens as it was realized in our study) – objectively this syndrome exists, and the social surroundings – doctor's patients, co-workers, family members, will notice the problem very soon. The issue of the coaching of physicians, treated as regular HR practice, till now remains *terra incognita* in the management systems in public hospitals. Negative emotions at work experienced by physicians (malaise, job dissatisfaction, loss of commitment or frustration) certainly negatively affect the quality of medical services. The aim of the managers in public hospitals should be a systematic evaluation of the level of risk of burnout and implementation adequate methods and tools, which in a rational manner will prevent/control its occurrence.

The aim of the study is to look for the key factors potentially optimizing the work environment of physicians and the maintenance of the quality of medical services in public institutions (Głowacka et. al., 2010). The obtained results hopefully can also be helpful in building a more efficient incentive systems in public hospitals.

1.2.

CHARACTERISTICS OF THE WORK ENVIRONMENT
IN A PUBLIC HOSPITAL

On the basis of the literature review it can be assumed that the work environment is an integral part of the global efficiency of public hospital and is influencing both on its economic performance, as the quality of life and satisfying of stakeholders. The work environment evaluation is determined, among others, via: a sense of autonomy, feedback received from supervisors and customers, supervisor's and co-workers support, possibility to agree professional compromises, clarity of the definition of professional roles, requirements and decision-making rules, possibility to develop own creativity and competences at work(Bruce et. al., 2005). Also important is the work atmosphere as the processes of interpersonal communication formed by the leaders of multidisciplinary teams. In addition, as is was showed by the analysis carried out, that an autocratic management style (characterize by lack of confidence, high level of control, combined with a lack of positive feedback, insufficient support from superiors) easy leads to an increase in symptoms of burnout among workers (De Hoogh, et., al., 2009). This management style (unfortunately) dominates in a whole medical sector and, especially in public hospitals.

The specificity of public hospitals as places of work easy may contribute to the appearance of burnout syndrome in a group of doctors. It is a derivative of excessive burdens at work, inability to exercise control and decision-making regarding the roles performed, insuf-

ficient pay, lack of equitable distribution of benefits and the experience and the conflicts of values. In addition, insufficient safety of the work environment in the hospital may be manifested by the failure to adapt working conditions to the ergonomic requirements and not respecting limited psycho-physiological conditions of doctors' usually overloaded at work. Too long shifts (including nights), excessive weekly load of hours, no weekends off, responsibility for the life of the patients, etc, all that often exceeds the limits of cardiovascular organisms. In addition, public hospitals are often reported as hovers of classic pathology of labour relations, such as: bullying, "emotional illiteracy", discrimination (e.g. ageism, sexism), intolerance, etc (Kozak, 2009). It is worth noting that the increased risk of burnout of physicians accompanied impediments in the decision-making process related to the diagnostic and therapeutic work, because it requires additional physical and emotional effort from side of doctors (Bakker et al., 2007).

The improper organization of working environment causes firstly low overall work efficiency, secondly – activates the desire to change employer. The high level of fluctuation in public hospitals causes problems with the costs of apprenticeship new doctors to work and the loss of information which is in their possession. It also testifies to their low level of loyalty to the organization (Filipowicz, 2008). Recent Gallup survey (online, 2016) has showed that working conditions determine the identification of the employee with the organization and the work performance is the result of behaviour and management style of the immediate supervisor, not just the result of policies of the organization and the level of wages offered to employees.

Supportive work environment in which outweigh the positive factors (especially the autonomy measures adequate to the requirements of the working environment and support) creates conditions for realization of the goals and expectations of doctors employed in public hospitals. It allows to experience professional success, builds self-esteem, resulting on the one hand increased internal motivation to work, and on the other hand - improved quality of life of workers and care of the environment (Piecuch & Piecuch, 2011). In a stressful environment, where prevail negative factors, employees can't pursue their goals in life and obtain enough to meet current needs. Often accompanied by a sense of defeat and failure, which leads to loss of sense of purpose of the work, increase the risk of decision-making, and in turn - can lead to the appearance of symptoms of burnout. The same is true in the case of doctors employed in public hospitals.

Research on burnout shows that the most destructive factors associated with the work environment include: excessive responsibilities and work overload, conflicting requirements, tote decision, guilt provided insufficient support, environmental and bureaucratic pressures (Fengler 2000). In addition to the aggravating features of the work environment, in the phenomenon of burnout also play role personality traits of employee, which are responsible for a specific way of perception and interpretation of reality that surrounds him. These include such personality features as: low self-esteem, lack of self-acceptance, a low level of autonomy, excessive idealism, high perfectionism, hypersensitivity, excessive ambitions, irrational and extreme beliefs (Marine, et al., 2009). Cherniss, however, claimed that stress at work is rooted primarily in the conditions of work and to a lesser extent, depends on the characteristics of the unit (1990). In general, there are pointed three major sources of burnout syndrome:
- associated with the structure of personality,
- related to specific nature of interpersonal relations in the workplace,
- connected with organisational factors.

The working environment in public hospitals is directly related to an emotional exhaustion as a first stage of burnout process (see next subchapter), and the resources of individuals decide to drop the feeling of professional achievement (second stage of burnout), and to some extent – if depersonalization (the third stage of burnout) will occur. In addition, little

rewarding work environment may also be a source of difficulties of adaptation, generate un-modifiable long-term stress, and with it - aggravates the symptoms of already present burnout. The causes of burnout doctors of public hospitals most likely to lie firstly in the organizational and structural factors hospitals, and secondly - in specific characteristics of the personality of individuals engaged in this profession.

Hospital administrators should understand the sources of burnout and appreciate the risk of its occurrence. They should take specific actions in the field of prevention of occupational stress and absolute intervention when diagnosed are the symptoms of burnout. Some studies suggest that an important role in this process can play HR functions initiating measures aimed at preventing dysfunctions and pathological labour relations in hospitals (Lewicka, 2014).

1.3.

BURNOUT SYNDROME DESCRIPTION

The phenomenon of burnout describing the physical and emotional exhaustion is a relatively new concept developed in the field of organizational psychology and first identified in the 70s of the twentieth century by H. Freudenberg, introducing the term burnout to the world of science (scientific language). Burnout describes the symptoms appearing in people carrying professions in which a close, full involvement of interpersonal contact is necessary, and where the personality traits of a professional are the basic tools that determine the level of the professionalism and achieved success (Freudenberg, 1974). Burnout syndrome occurs most often in a situation of chronic stress action so characteristic for the work environment of physicians. There is also a lack of the appropriate relationship between high requirements of the working environment, the type of work performed and the personal and social resources, which man has, including his personal values (Ogińska-Bulik, 2006). It is subjective, negative reaction to these aspects of the work that threaten self-esteem and well-being (Marine, et. al., 2009). The term "burnout" and attempts to define it from the beginning gave rise to much controversy. Symptoms of burnout have a negative impact on human functioning, relate itself to the emotional, motivational, cognitive and physical aspects of life. This condition manifests itself slowly or suddenly arises as a result of long-term negative feelings developing on the job. Burnout is changing self-image of a man - from positive to negative as a result of long-term work overload. Reduces productivity, brings exhaustion, ease irritability, stiffness behaviour and social withdrawal (Schultz et. Al., 2002). It also indicates the decline of vital energy due to the overwhelming problems of other people - usually charges: students, patients, etc (Freudenberger, 1983). Burnout is a process in which human attitudes and behaviour negatively change under constant tension at work (Cherniss, 1990) and the final step in a series of unsuccessful attempts to cope with the impact of occupational stress (Farber, 1983). Anna M. Pines defines burnout as: *state of physical, emotional and mental exhaustion manifested by chronic fatigue. Accompanied by a negative attitude towards work, people and life, a sense of helplessness and hopelessness position. Reduced self-esteem manifests a sense of their own inadequacy, incompetence and apathy* (Pines, 2011). Christina Maslach, author of the most disseminated recognition, defines burnout as a process running in three stages, which are in turn:
- syndrom of emotional exhaustion,

- depersonalization - as an attempt to reach a mental distance towards the person with whom you work. Symbolic receive supplicant humanity and treating it as a "case" allows for smaller involvement in the processes of interpersonal, and
- reduced sense of personal accomplishment (Maslach, 2011).

Interpersonal aspect of burnout is the Maslach opinion the most important for the understanding of its concepts. The author also draws attention to the important role of the "client" in the phenomenon of burnout, especially its dissatisfaction and negative feedback (not always based on facts) provided to him by the helper. Following a similar trail, J. Syroka defines burnout as: *multi-dimensional phenomenon, which consists of a sense of exhaustion of work, a cynical attitude towards work and the factors associated with it and the lack of efficiency at work* (2003). On the other hand, H. Sęk believes that burnout is a syndrome occurring in social professions in which close interpersonal contact, full of commitment, and personality traits of a professional are the basic instruments of professional activities that determine the level of the profession, successes or failures of professional (2004a). While T.S. Kristensen, as the essence of burnout indicates fatigue and exhaustion confronted with the appropriate sphere of human activity. This author distinguishes two types of burnout: personal burnout and work-related burnout in dealing with customers.

- *burnout in dealing with clients* - a state of "physical and mental fatigue and exhaustion felt by a person in dealing with customers",
- *personal burnout in the work* – defined as "experienced by a person physical and mental fatigue and exhaustion" (Kristensen et. al., 2005, Borritz, 2006).
- The roots causing burnout can be located in the three planes:
- *Individual* - personality factors that make it difficult or even completely impossible to adapt to the requirements of the existing situation,
- *Interpersonal* - interpersonal conflicts that their participants are not able to be solved, also due to lack of interpersonal skills, and
- *Organizational* - where autocratic management style imposes strictly defined and rigid organizational rigor which makes impossible discretion and elastic behaviour of the employee, appropriate to the situation.

J. Syroka (2003) sees also a symbolic other "victims" of burnout: a person affected by the burning process is the customer in contact with the burned employee, and the organization in which he works. T. Rongińska and W. A. Gaida (2003) pointed out that the relationship of employee to their tasks responsibilities is not passive and an individual pattern of behaviour and experience is created by the person which is jointly responsible for what happens in the workplace, whether it becomes a source of satisfaction or leads to dissatisfaction and disappointment. They also believe both in the prevention and combating the negative consequences of burnout, are essential the individual resources of the employee.

1.4.

**MANAGING WORK ENVIRONMENT SAFETY AND QUALITY
IN PUBLIC HOSPITAL**

Quality and safety of the working environment is one of the most important categories of problems which should be considered in reducing risk factors of burnout. In the case of Poland, the kind of "lens" focusing risks of burnout in medical institutions are just public hospitals. These institutions necessary should more intensively implement modern approaches to management, including occupational stress management methods and techniques. General management in public hospitals in Poland has changed a lot during last two decades, but still, especially in the field of the management subsystem of the quality and environmental safety

(hygiene) at work it is a lot to do. Managing work quality and safety covers comprehensively the activities of a public hospital in providing quality and safe working conditions for physicians, as well as the issue taking care of the environment (Piecuch & Piecuch, 2011).

The burnout syndrome has to be perceived as an important destructive factor to the functioning of the professional doctors providing work for public hospitals and should be controlled by the quality management system of hospitals and included into holistic system of human resources management. The process approach in managing quality and safety at work takes into account the fact that the risk of accidents, sicknesses, in addition to technical and natural reasons, are usually caused by so called human factor - different organizational, economic and social aspects. The negative effects of the lack of sufficient safety at work interpreted both of in terms of accidents or as well as occupational diseases (e.g. burnout) cause significant economic and social losses (Grajewski, 2003).

The need for quality management and work safety in hospitals is mainly due to the harmonization of procedures and practice required from European Union Member States. One of its results was implementing process management approach to the regular work of safety and hygiene controlling in public hospitals (Cyfert, 2006). Desired both because of the need to comply with laws, social expectations, and the possibility of obtaining positive economic effects for stakeholders of public hospitals. Comply with the requirements of PN-N 18001: 2004, the quality and occupational health management at the hospitals include:

- identification of hazards that may occur in a hospital environment,
- assessment and risk reduction training covering the all employed staff,
- formulation of policies and objectives in the field of occupational health and safety,
- planning and organization of activities required to achieve the objectives,
- training and motivating employed staff to work safely,
- control of working conditions and the conduct of staff (PN-N-18001, 2004).

Implementation and maintenance the subsystem of health and safety management at work in public hospitals is based on a model of continuous improvement (Kaizen), in accordance with so-called Deming's cycle. In addition, they contain the obligations of a public hospital, confirmed by the management as the policy guidelines the hospital, like:

- prevention of accidents at work and occupational diseases,
- striving for constant improvement of safety and health at work in a hospital environment,
- fulfilment of the relevant legislation of applicable law and other requirements for other medical entities (e.g. industry regulations),
- continuous improvement efforts to manage occupational health and safety,
- providing the resources and means to implement the policies of health and safety in the hospital,
- improving the qualifications of hospital staff in health and safety at work and take into account their role in the process of engagement to improve the working environment.

On the basis of the procedures, instructions and records developed and implemented documentation of quality management and health and safety are carried out internal audits. They are designed to provide an objective assessment of the fulfilment of the criteria also in terms of prevention of the phenomenon of burnout, but mostly they are focused on assessment technical aspects of health and safety at work. It is why so important is physician's self-awareness about the risk of burnout syndrome (the syndrome develops usually for a long time, during which period the body physician sends different alarm signals) and his abilities/skills to take measures to prevent its occurrence. In this process, it is particularly important equipment of doctors in adequate socio-*psychological competences* allowing for effective stress management as well as creating favourable conditions in the work environment. These include autonomy in the style of work, the ability to undertake a variety of activities

(i.e. a "wealth" of work, the opposite of monotony), effectiveness of available methods and tools, positive interpersonal relationships, social support and positive feedback, especially from superiors. L. Sandrin, based on the results of C. Cherniss recommends what may significantly reduce the risk of burnout syndrome:

- act towards improvement working environment,
- create conditions for the development of individual interests,
- develop competence countermeasures - continuing to raise qualifications and professional competence,
- develop the skills to negotiate at work,
- select personnel in a more rational manner and properly prepare it for the planned duties,
- provide greater independence, while also better support (recognition and positive feedback, especially from superiors),
- assist in the development of individual creative thinking and problem solving skills, eliminating reconstructive routine operations,
- left to professionals leading role in planning their work and make changes (Sandrin, 2006).

The burnout syndrome can be also prevented by appropriate attitude towards life – focus on experiencing and positive assessment of the events. Significant is the optimism of life and mature professional philosophy of physician, in which the most important is to accept the risk of burden and awareness of the need for continuous development and improvement of each other (appreciation of himself in the role of mentor). Core values are the motivator that makes the work in a public hospital is attractive not only because of earning money. When the conflicts of values would occur, the discrepancy between the objectives of a public hospital and objectives and expectations of a physician is the source of considered alternatives: the physician looks for the solutions, including making decision about leaving work in hospital, or even about leaving the home country to find better working conditions.

Based on literature review and on the own research it can be assumed that more prone to burnout are those doctors who have unrealistic professional expectations and an idealistic attitude towards their work. Thus, typically young doctors, starting work in a public hospital. According to the "P-J Theory" (Person - Job Theory, or "fit concept", Edwards, 1991)[1], the burn-out syndrome develops when the demands of the working environment, which creates a public hospital does not meet the expectations of the employee. Such discrepancies can be easily caused by for example too meticulous control executed by the head physician, uncertainty of receiving time job in hospital after the completion of the internship, excessive bureaucracy overloading physician's daily work, chaos or the deprivation of opportunities to participate in decision-making, etc. Similar situations too often take place in a strongly hierarchical, rigid structure of public hospitals, where young doctors have to undergo a long apprenticeship and respect paternalistic control of their work by the "masters" - older colleagues engaged in managerial positions.

1.5.

THE COSTS OF BURNOUT OF PHYSICIANS

The increase in risk factors for burnout can be seen a consequence of inadequate organization of the working environment - the "*costs of non-compliance*" between work environment

---

[1] "Person-Job Theory" *(* Edwards, 1991) have followed the former concept of "P-E Theory" - Person-Environment Theory (Caplan, R. D., 1987).

and personal expectations of employee. In contrast, the lower productivity, absenteeism or turnover of physicians, due to burnout, undoubtedly contributes to the creation of the so-called *"lost opportunities costs"*. Doctors providing work for public hospitals feel the weariness in dealing with patients and thus they focus mainly on the disease unit, treat the patients' objectively, shortening home visits and do not believe in the inefficiency of diagnostic and therapeutic process (Baranski, 2005). Because the consequences of burnout also affecting patients, burnout not only significantly reduces the quality of medical services in hospitals, but also produces the risk of not humanistic approach to the patient. The effects of burnout go also beyond the individual and the organization also impacting on society (Lipka et. al, 2010). The increase in costs because of burnout is caused by the absences of physicians, a decrease in their productivity, fluctuation of highly qualified medical personnel, and hence - the necessity to engage the new apprenticeship students. These costs are charged to all citizens, even if the burning is not directly concern them. For example, in the US the costs incurred by the employer for the employee's absence due to physical trauma amount to $ 9,000, while in the case of psychological or psychosomatic trauma these costs increase to USD 18,000 (Morrow, 2010). According to the European Commission the cost of work-related stress in the EU countries is about 20 billion Euros per year (Brun et. al, 2006). The Boorman's report (2009) assumes hospitals, which give priority to issues of health care and welfare of staff achieve better results, note the increase in the quality of life of patients, improving quality of services, have a high level of employee retention and low levels of staff absenteeism due to illness. Acquiring information on early signals of burnout not only allows to develop strategies to prevent this negative phenomenon at work, but also start the opposing to the firing syndrome - mechanisms of work engagement.

The consequences of developed burnout syndrome in case of physician bear the doctor and the hospital, as their employer, and therefore both parties should be interested in changing of this situation. It is extremely important to know the factors that allow better predict and prevent burnout. The main arguments in favour of controlling burnout of physicians are following:
- reducing number of illnesses and psychosomatic ailments of doctors,
- improvement quality of medical services (an increase in the quality of life of patients and the improvement of the image of public hospitals),
- reducing fluctuation of physicians (the withdrawal of the resignation to stay employed or withdrawal from the decision on work emigration).

According to authors of this paper, the implementation of regular controlling the risk of physicians' burnout may allow management to discern changes in the level of satisfaction of stakeholders and timely implement the appropriate repair and preventive actions, which will hopefully allow for:
- increase physicians' internal work motivation and engagement,
- prevention of pathological phenomena in the working environment of public hospitals,
- streamlining information channels (increasing the quality of information processes also via e-channels), and
- global increase the efficiency and quality of work performed in public hospitals.

The improvement of the efficiency of hospital as the organization via its better work environment should facilitate the prevention of burnout syndrome of physicians. This kind of actions not only will help doctors and their patients, but probably will also contribute to significant reduce health care system costs and the costs of particular public hospitals.

1.6.

CONCLUSIONS

Authors' own research findings, described in details elsewhere (Bober & Matuska, 2014), as well as the analysis of the literature, allow to assume that stressful situations experienced by physicians of public hospitals in Poland contribute to their deterioration at work and consequently - in their probable burnout. In research conducted in 104 public hospitals located in three provinces (Pomerania, Warminsko-Mazurskie, Wielkopolska) as most painful category of organizational stressor was identified improper organization of the working environment, as it was exactly described: "not adequately organized diagnostic and therapeutic processes". Organizational deficiencies cause that doctors providing work for public hospitals suffer significant discomfort at work, which, in their opinion, is consisted with primarily such occupational stressors as:
- load with too many tasks and responsibilities,
- lack of sufficient support from superiors and colleagues,
- not clear division of responsibilities in wards,
- problematic teamwork,
- non sufficient autonomy at work.

On the organizational, crucial, cause of the physicians' burnout may also impose an "individual impact" of the physicians as the persons, like:
a) Gaps in social competence including:
- asymmetrical (one-way) communication in relationships with patients and their families,
- poorly developed ability of teamwork and reach compromises,
- lack of sufficient trust in co-workers,
- inability granting and using feedback,
- refraining from job coaching,
- poor practical skills in stress management.
b) Risk factors connected with acquired personality traits including:
- self-absorption resulting from a sense of professional mission,
- idealism and perfectionism in their approach to tasks,
- acceptance and cultivating a rigid hierarchy of positions in the profession,
- individualistic career conception based on a narrow path of medical specialization.

Above-mentioned behavioural and personality features of doctors can be interpreted as the "weak areas" in their professional preparation. Deficits in social competence of physicians are caused mainly by traditional model of medical education which is focused on delivering professional knowledge and skill sets, and insufficiently - on shaping the right attitudes in the profession. This model is still cultivated not only in medical academies, but also later, during internships and medical practice in hospital. It is also worth to consider the professional motives of physicians, when start their careers. Many of them are driven by the vision of fast material benefits in the profession, and because of the frustration in their finance expectations – they can easy drop into burnout syndrome.

It can be concluded the problem of the risk of burnout among physicians working in public hospitals, evaluated from side of the efficiency of managing work environment, indicates at least two fields of deficits:
1) Deficits of human resources management system including:

problem of supply - insufficient number of doctors employed on positions in hospital brings extreme quantitative demands put to individual physician, what directly leads to their overloading at work,

lack of effective HRM selection procedures – psychological assessment tools during physicians' recruitment are not used because lack of sufficient amount of candidates to fill positions,

– *not clear definition of organizational roles* – overlapping tasks and responsibilities lead to tension and chaos in working order,

– *not adequately used HRM procedures of periodical employees' assessment* - the assessment is treated as a formal duty, not as a motivational tool. There is not delivered superior's feedback, not proposed training/coaching help to physicians,

– *mistakes of leadership* – leaders in public hospitals not offer valuable feed-back and guide coaching of their subordinated, hardly use participative style of management, prefer not effective autocratic style without possibility of meta- communication.

2) Deficits of quality management system including:

– *selective quality controlling* - procedures of quality control are focused on technical evaluation of work environment and not evaluate all ergonomic and "people's work risks: usually it is not individually assessed: total amount of working hours, amount of night shifts in month, ergonomic equipment of the physician's work place (furniture, computer screens, etc),

– *lack of psycho-social risks assessment* - procedures of quality controlling usually not include assessment of psycho-social risks like occupational stress, bullying, burnout, etc.,

– *insufficient use of IT systems* - IT systems are not commonly use or are not enough effective, or not modernized as often as they should be (e-processing medical information, collecting e-documentation, etc.).

For the purposes of this paper we assume that the objectives of the process of burnout risk assessment should be integrated into quality management system which also should revised its parts dedicated to controlling human – related work risks (HRM issues). Must be taken systemic action formulated from a functional organizational strategy of public hospital. Its overriding aim should be to optimize system of operations and management practices (Anczewska et. al, 2005).

The proposal to change the management model of public hospitals should strive to eliminate diagnosed organizational of public hospitals as well as the deficits in competences of doctors performing work on behalf of those entities.

The reduction of identified risk factors for physicians' burnout syndrome should include:

– regular assessment of the psycho-social work related risks as an important factors of working environment,

– monitoring individual psycho-somatic and psychological threats (the study of periodic health in case physicians should include psychological evaluation),

– full use of HR tools for the improvement of the organizational structure and purposeful staffing. Especially recommended are: modern recruitment/selection procedures, competence-based job description on particular positions, personnel conclusions from the system of periodic assessment, improving systems of motivation and remuneration, coaching offered by external specialists,

– organizational solutions - technical relieving doctors in their tasks, administrative and diagnostic,

- shaping the social support system in a public hospital through comprehensive training in "soft skills" for the entire medical staff, also - for the managers (especially, promoting skill sets of granting/using feed-back at work by doctors),
- the development of holistic health and safety management system including controlling of psycho-social work – related risks and corresponding with comprehensive system for the management of public hospitals.

_____

II

ЧУВСТВО СТРАХА НА РАБОЧЕМ МЕСТЕ В СВЯЗИ ДЕРЕКРУТИНГОМ – РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЙ

_____

JOANNA CEWIŃSKA

ANNA KRASNOVA

2.1.

ВВЕДЕНИЕ

Страх является одним из основных чувств в мире человеческих переживаний. По определению, страх это беспокойство, вызванное неизбежной опасностью или чем - то неизвестным, что кажется опасным (Bralczyk, 2008). Свое начало страх берет в инстинкте выживания; он появляется в чрезвычайной ситуации; являет собой своего рода "систему охранной сигнализации, которая информирует о надвигающейся опасности, и с помощью которой ее можно избежать (Kępiński 2002).

Люди чувствуют страх в самых разных обстоятельствах, в том числе и на рабочем месте. Этот страх обусловлен, например: возможностью потерять работу, властью, изменением среды, неопределенностью, возможностью понести наказание, риском и даже предвкушаемым успехом (Suarez, 1994; Briksin, 1996; Appelbaum, Bregman & Moroz, 1998) и воздаянием (Pelletier & Bligh, 2008 [in:] Cure, 2016). Страх на рабочем месте может быть также вызван такими ситуациями как: собеседование, публичные выступления, вопросы со стороны руководителя, процесс передачи обратной информации подчиненным, работа с оборудованием с использованием новейших технологий, невыполнение определенных задач, проявление некомпетентности (Berent, Lemley, 2010; Williams D.K., Scott M. M. 2016,; Workplace Fright 2016).

Согласно анализу литературы, сотрудники чувствуют страх в связи с реализуемым или возможным дерекрутингом. Для целей данной статьи принято, что дерекрутинг является процессом снижения уровня занятости в организации, т.е. внешний дерекрутинг (увольнение работников работодателем, увольнение сотрудников по собственному желанию, обмен сотрудниками), а также внутренний дерекрутинг (деградации и изменение рабочего места в случае ликвидации организационных подразделений и рабочих мест).

Цель статьи состоит в том, чтобы представить обстоятельства, связанные с появлением чувства страха на рабочем месте, вызванного процессом дерекрутинга. Для достижения поставленной цели, в статье представлены результаты собственных исследований, проведенных среди работающих лиц, при помощи использования биографического метода.

4.2.

ЦЕЛЬ И МЕТОД ИССЛЕДОВАНИЯ

Для достижения поставленной цели, сформулированной во введении к статье, необходимо было найти ответы на следующие вопросы:
- Случалось (случается) ли сотрудникам испытывать страх на рабочем месте в связи с дерекрутингом?
- Какие обстоятельства вызывают этот страх?
- Каковы последствия страха в связи с дерекрутингом?

Из-за деликатности обсуждаемых вопросов в исследованиях было решено использовать биографический метод (Bednarz-Łuczewska & Łuczewski, 2012). Авторы обратились к респондентам с просьбой описать их жизненные ситуации в соответствии с определенными инструкциями. Авторов биографий проинформировали об анонимности исследования и подчеркнули важность честности в описанных ими

ситуациях. Исследование было проведено в первом квартале 2016 года. В нем приняли участие студенты факультета менеджмента Лодзинского Университета (бакалавриата, направление - Управление человеческими ресурсами и магистратуры, направления - Логистика и Менеджмент). Отбор пробы респондентов был целенаправленным. Прежде всего, к участию в исследовании были приглашены работающие студенты и те, кто продемонстрировал понимание проблематики исследования, а также заявил о своей готовности принять в нем участие, что повышает вероятность получения достоверных данных.

Автором статьи удалось получить 119 биографий, размером от 5 до 12 стандартных страниц каждая. Преобладали личности в возрасте 25-30 лет, представляющие различные организации, как по количеству сотрудников, так и по отрасли, в которой действует предприятие работодателя, а так же по формам собственности (государственные и частные).

В данной статье представлены результаты качественного исследования. Согласно названию статьи, основная его тематика концентрируется исключительно на эффектах появления чувства страха у сотрудников в связи с дерекрутингом. В тексте авторы ссылаются непосредственно на цитаты респондентов. Арабские цифры указывают на связь с биографическим описанием, с которого были взяты конкретные цитаты.

На основании описанных респондентами ситуаций, можно сделать вывод о том, что "*Страх на работе является довольно распространенным явлением*" (64). Сотрудники боятся, среди прочего, того, что не справятся с поставленными перед ними задачами, что не будут хорошо восприняты остальными сотрудниками, что сделают ошибку, которая принесет компании убытки, что не будут иметь возможности совмещать работу и личную жизнь. "*Тем не менее, основной причиной появления чувства страха является возможность потерять свое рабочие место*" (3) "*Увольнение*" (99), а также "*необходимость изменения рабочего места на худшее, например, перевод в другой отдел*" (2).

<h3 align="center">4.3.</h3>

<h2 align="center">ИЗМЕНЕНИЯ В ОРГАНИЗАЦИИ И СПОСОБ УПРАВЛЕНИЯ[2]</h2>

Экономическая ситуация в последние годы привела к тому, что многие компании, опасаясь потерять преимущества финансовой ликвидности, воспользовались услугами аутсорсинговых фирм, значительно сокращая при этом уровень персонала. В случаях, описанных респондентами, появлялись ситуации, в которых работодатель, прежде нанимавший конкретных работников в соответствии с трудовым договором, после ликвидации рабочих мест и увольнения, повторно пользовался их услугами, однако работники эти трудоустроены были через агентсво по трудоустройству. Такие сотрудники, несмотря на то, что работают в компании, где они работали ранее, а "*издержки их трудоустройства введены в аутсорсинг*" (17) боятся потерять свои рабочие места. В компаниях, претерпевающих изменения "*постоянно эволюционирующие структура и реализованные стратегии побуждают появление страха перед сокращением рабочих мест*" (17).

Другим случаем "сокращения расходов" являются перерывы в трудовых договорах. Работодатели, чтобы защитить себя от возможных негативных последствий, вызванных необходимостью снижения уровня занятости (например, выплаты

---

[2] Числа в скобках указывают на порядковый номер биографической истории, в которой были опубликованы используемые в статье цитаты.

компенсации работникам, трудоустроенным по трудовому договору) по истечении второго временного трудового договора не заключают с сотрудником третьего, только подписывают гражданско-правовой договор. Подобный маневр позволяет нарушить непрерывность трудовых договоров и тем самым избежать необходимости подписания безвременного трудового договора. "*Единственный страх, который я чувствую, связан с нестабильностью, вытекающих из найма на работу по гражданско-правовому договору. Раньше у меня был трудовой договор*" (75), - пересказывает один из респондентов. "*Теперь он заключил со мной договор только на месяц (...) Пока я не смогу подписать трудовой договор на неопределенный срок, который дал бы мне стабильность и комфорт*" (93) – описывает другой исследуемый. Такие ситуации вызывают страх потери рабочих мест не только среди сотрудников, которые изменили форму занятости, но и тех, кто остается в компании на прежних условиях, т.е. у постоянного персонала. Как видно из рассказов респондентов, последствиями неопределенности, связанной с формой занятости являются: беспокойство, напряжение и стресс. Эти чувства, в свою очередь, вызывают потерю сотрудников. Многие не выдерживают и добровольно отказываются от работы у такого работодателя. "*Большая текучесть кадров усиливает страх среди сотрудников, потому что чем больше вы работаете с людьми, которые только начинают внедряться, тем меньше у вас возможности добиться поставленной цели*" (37). Кроме того, "*сотрудники, которые встретяться с такой компанией на своей карьерной тропе, в ближайшее время попрощаются с ней, потому что она не отвечает их основным ожиданиям*" (43).

Многие респонденты высказали мнение, что "*причиной ухода многих специалистов являются не только реалии рынка, размер заработной платы, но и в целом изменение отношения работодателя к работникам. Появляется все большее давление со стороны начальства, чтобы получить выгодные контракты и ожидание того, что сотрудник будет готов к работе двадцать четыре часа в сутки*" (117).

Респонденты также отмечают, что в любой организации можно найти таких людей, которые не могут позволить себе отказаться от работы у «плохого» работодателя. Вследствие чего, чувство страха перед необходимостью оставаться в компании, вызывает постоянное эмоциональное напряжение, что повышает вероятность заболеваний, ухудшение отношений с окружающими, а иногда даже приводит к тяжким депрессиям и потери трудоспособности.

Респонденты обращали свое внимание на тот факт, что часто страх о потере рабочих мест появляется в момент внесения изменений в организации на уровне управления. В одном из случаев смена руководства была непосредственно связана с расширением круга обязанностей. В связи с растущими требованиями, сотрудники начинают опасаться возможных негативных последствий, если не выполнят поставленных перед ними дополнительных задач. Об этом свидетельствует следующее утверждение: "*Основные опасения, связанные с описанной выше ситуацией базируются на боязни потери работы. Новое начальство может быть более требовательное. Если я не оправдаю ожиданий, я могу быть уволен*" (96). В фирме другого опрошенного "*накидывают все более высокие уровни продаж, отсутствие реализации данных целей несколько раз подряд заканчивается увольнением. Многие люди боятся этого, потому пытаются решить задачу любой ценой*" (89). Другой респондент рассказывает: "*было много ситуаций, когда я чувствовал страх, например: страх - потерять свою работу, когда выполнение одного из заданий требовало от меня слишком много усилий, и я не был в состоянии его выполнить так, как положено, в то время, как меня уже ждали другие обязанности*" (62).

Плохо продуманное распределение задач между сотрудниками может привести к тому, что некоторые из них будут иметь больше обязанностей, в то время как другие -

меньше. Один из респондентов описывает эту проблему так: "*после того, как у меня забрали часть моих обязанностей по проекту, появился страх связанный с вероятностью увольнения меня с работы. Расторжение договора по инициативе работодателя, привело бы к значительным осложнениям в моей жизни и мешало бы мне найти новую работу*" (115). Подобные ситуации приводят к тому, что работник чувствует себя недооцененным, теряет мотивацию к работе и часто сам начинает искать новое место работы.

В некоторых организациях, как замечают сами респонденты, "*проводимые изменения не работают и приносят потери финансового и кадрового характера*" (89). Один из респондентов описывает, что "*последним из таких изменений, было объединение двух отделов, которые выполняют совершенно разные задачи. Были выдвинуты требования к сотрудникам, чтобы они занимались всеми обязанностями. Это привело к тому, что лучшие сотрудники уволились, клиенты ушли, и через два года отдел снова разделили на два более мелких - вернувшись к исходной формуле*" (89).

Как было подчеркнуто респондентами страх, вызванный изменениями в организациях "*прежде всего, появляется из-за того, что сотрудники не имеют никакого влияния на происходящие изменения*" (2) и плохо информированы. Свидетельствует об этом следующее утверждение: "*В последнее время, была такая ситуация: вплоть до дня встречи в штаб-квартире банка, мы не знали, будут ли у нас изменения в сфере занятости, удастся ли нам сохранить работу и каковы цели и стратегии, изложенные новым директором. Это вызвало снижение мотивации и приверженности к работе, спекуляции среди работников, накручивающих негативное мышление. Все это привело к уменьшению степени реализации поставленных целей*" (83).

Одним из основных источников страха потерять работу, как показывают результаты исследования, является руководство. Причина появления этого чувства среди сотрудников обусловлена способом управления людьми в организациях. Непосредственный начальник часто является поводом для беспокойства сотрудников о том, будут ли они иметь возможность продолжать работать в данной фирме, или же будут вынуждены считаться с возможностью увольнения. "*Менеджеры первой линии часто сами дают понять сотрудникам, что чем выше в иерархии находиться твое рабочее место - тем больше у тебя возможностей, а это значит, что лучше не рисковать и не раздражать начальника, чтобы не потерять свою работу*" (89) - упоминает в своем рассказе один из респондентов. "*Страх потерять работу настолько силен, что практически абсолютно все, подчиняются приказу начальства*" (55) - описывает другой респондент.

Главной задачей начальника является не только контролировать и координировать работу подчиненных, но и мотивировать сотрудников, их вознаграждением или наказанием. В случае одной из компаний "*каждый проступок рассматривался по-разному. Многое зависело от настроения "супервайзера". Следствием совершения сотрудниками ошибок, могло быть предупреждение или выговор. Через некоторое время, такого сотрудника вызывали «на ковер» и тогда он мог получить предупреждение об увольнении или даже быть освобожден од занимаемой должности*" (103). "*Управляющие угрожают нам, что уволят, если мы восстанем против них и их требований. У меня жена и ребенок, страх потерять работу очень велик*" (105) - описывает ситуацию по месту работы другой респондент. Страх перед потерей источника дохода, часто является фактором принуждающим сотрудников к безоговорочному подчинению, неприемлемой воле управляющего.

Бывает так, что непосредственный начальник убежден в беспомощности своих сотрудников, и поэтому позволяет себе превышение служебных полномочий. Один из

описываемых респондентами менеджеров, в связи с преобладающей на рынке безработицей, применял политику управления, заключающуюся в том, что "*рабочий, прибитый к стене" будет послушным и сделает почти все, потому что найти новую работу в регионе граничит с чудом*" (55), о чем с удовольствием норовил напомнить своим подчиненным.

Внимания заслуживает также история одного из исследуемых, в которой фаворитизм руководителем одного из сотрудников способен привести к увольнению по собственному желанию другого работника: "*Атмосфера на работе была постоянно напряженной, что было почти невыносимо. Начальник фаворизировал младшую сотрудницу, несмотря на то, что она этого не заслуживала. Я чувствовала себя недооцененной и невостребованной. Тогда я решила уволиться со своей должности. Мне было достаточно постоянного «использования» меня начальником и другими сотрудниками и я сразу же начала сочинять, что я напишу в уведомлении об увольнении*"(119).

Респонденты часто упоминали, что их начальство злоупотребляет властью, а используемый ими стиль управления, можно охарактеризовать следующим высказыванием одного из респондентов: "*Президент фирмы... относится к своим подчиненным так, как если бы это он дал им «спасение» в виде работы в компании*" (58). Невыполнение распоряжений начальника, во многих случаях, означало немедленное увольнение. Например, отказ от выполнения сверхурочной работы сверх нормы ежедневной или еженедельной, считался серьезным проступком перед боссом и в дальнейшем, как правило, становился причиной увольнения. Это подтверждается еще один из респондентов: "*на каждом шагу, показывают, что одним движением руки могут уволить любого сотрудника. Очень часто говорят нам, что это они нам платят, и в некотором смысле они, как это говорит один из начальников, являются нашими «Богами»* (102).

Некоторые из руководителей требовали от сотрудников выполнения задач, противоречащих принятым в организации нормам и принципам, и даже угрожающих здоровью и жизни заинтересованных сторон, для которых компания предоставляла свои услуги. "*Однажды, мы (врачи) получили указания по выписыванию рецептов на чрезвычайно дорогие лекарства. Многие препараты, которые были предписаны пациентам, могли бы быть легко заменены дешевыми препаратами, действие которых было бы таким же или гораздо лучше, кроме того, с меньшим количеством побочных эффектов. Врачам, которые не хотели следовать указаниям, угрожала потеря места работы*" (33), - говорит один из респондентов. В этом случае, очевидный страх потери работы вынуждал сотрудников вести себя против их убеждений.

Способ, при помощи которого начальник достиг занимаемой им должности, также может влиять на работников и вызывать у них боязнь. Одна из начальниц, описываемых респондентом, после трудоустройства достаточно быстро поднялась по карьерной лестнице и заняла высокую должность. В конечном итоге, занимая одну из самых высоких позиций в организационной иерархии компании "*в течение года поменяла всех предыдущих сотрудников в ее отделе и лишила должности человека, который нанял ее на работу, заняв его позицию. Эта ситуация вызвала страх среди работников*" (6) - сообщает участник исследования.

В некоторых организациях складывались ситуации, в которых метод, используемый руководителем для управления персоналом, в конечном счете, привел к дерекрутингу, вызванному инициативой сотрудников. Подтверждением чему является заявление одного из респондентов: "*несколько раз было так, что люди не могли больше*

выдержать сотрудничество с директором, так что на их место пришли другие сотрудники" (51).

Иногда страх потери работы у сотрудников был обусловлен почти полным отсутствием вовлеченности шефа в дела команды. *"Из-за очень маленькой вовлеченности босса в торговую деятельность персонал не придавал большого значения тому, чтобы сделать свою работу наилучшим образом (...). Начальник игнорирует проблемы, с которыми сотрудники к нему обращаются. Такие ситуации приводят к тому, что моя вовлеченность в служебные обязанности уменьшается, так как я считаю, что нет смысла вкладываться в работу, которую я вскоре могу потерять, т.к. магазин закроют"* (124) – выражает свой страх один из опрошенных.

Ошибки, совершенные начальством часто вызывают чувство страха среди подчиненных, т.к. сотрудники боятся, что только они понесут ответственность за допущенные проступки. *"Я боялась за последствия в виде письменного предупреждения и, в худшем случае, непродления трудового договора. Я чувствовала жар, обдающий мое тело, а мои руки дрожали от волнения. Страх от возможных последствий превратился в злость, которая вывела меня из равновесия и вызвала отсутствие рационального мышления"* (83) - упоминается в рассказе, однин из респондентов. *"Оказалось, что возникла коммуникационная проблема между руководителем отдела и моим непосредственным начальником. Крайний срок для выполнения поставленной мне задачи был передан мне неправильно, отсюда и произошла задержка с реализацией"* (83) – добавляет она.

Кроме того, страх потери работы появляется в результате ошибок, допущенных сотрудниками при выполнении служебных обязанностей. В некоторых случаях начальство не ищет причин совершенных ошибок, и выдвигает обвинения против "формальных" виновников. О такой ситуации рассказывает одна из респонденток: *"я продумала все и решила не скрывать этого, рассказав обо всем начальнику. Через час мы все были приглашены к нему в кабинет, и я была уверена, что потеряю работу, а он обвинит меня в краже"* (86).

Однако и начальники боятся, поэтому применяют, в некоторых случаях, запрещенные методы управления. Находясь одновременно зависимым от работодателя, и выполняя управленческие функции, они также чувствуют страх перед потерей работы. Этот факт подчеркивают не только те сотрудники, которые выполняют данную роль в компании: *"Я знаю, что в филиале фирмы, где я работаю, в другом городе, супервизора уволили дисциплинарно в связи с недолжным надзором, проводимым им над подчиненными"* (125). Но и рядовые работники: *"боятся все, даже те, кто занимает руководящие должности"* (12); *"В случае сотрудников нижнего уровня представленные ими идеи используются для улучшения функционирования компании, однако, никто не ценит их авторов. Это связано со страхом непосредственных начальников перед утратой своей должности и прием на нее одного из подчиненных"* (115).

В некоторых биографиях авторы указывали на то, что *"начальство кажется слишком послушным по отношению к директорам, они не готовы защищать своих подчиненных, потому что боятся за свои собственные рабочие места"* (2).

4.4.

СТРАХ, ВЫЗВАННЫЙ ДЕРЕКРУТИНГОМ, В ДРУГИХ СПЕКТРАХ УПРАВЛЕНИЯ РАБОЧИМ ПРОЦЕССОМ

Когда поставленные работникам требования и цели слишком трудны, чтобы их достичь, страх потерять работу становится широко распространенным явлением. "*Мы должны были выработать норму, которая изо дня в день увеличивается, но которую практически невозможно выполнить. Ошибки становились обычным явлением, о чем люди были сразу проинформированы. Подходит начальник и говорит, что либо кто-то не справляется, либо у него на счету уже несколько ошибок и это может привести к тому, что такого сотрудника выкидывают с работы. Люди чувствовали себя запуганными, они были нервными, и часто можно было видеть, как бегают с телегами, наезжая друг другу на ноги*" (103). Эта история, пересказанная одним из участвующих в исследовании, свидетельствует о том, что страх потерять работу может непосредственно отразиться на правильности выполнения сотрудниками своих обязанностей, что приводит к ухудшению качества работы. Кроме того, в таких моментах, возникает реальная угроза безопасности, потому как сильные эмоции, связанные с паническим страхом потерять свои рабочие места, не позволяют сотрудникам мыслить рационально.

Систематические встречи и разговоры с сотрудниками, несомненно, улучшают координацию команды и являются важным элементом управления человеческими ресурсами. Часто, однако, сам факт проведения беседы с руководителем вызывает страх среди сотрудников. "*Эти разговоры затрагивают вопросы, связанные с выполняемыми мной заданиями. Несмотря на то, что я добросовестно и как можно лучше их выполняю, такие встречи с начальством вызывают у меня чувство страха, боязнь перед последствиями, например, такими как увольнение*" (99) - подчеркивает один из участников исследования.

Другой респондент пересказывает ситуацию, в которой он чувствовал явный страх, ожидая беседы с менеджером: "*ситуация, в которой я чувствовал страх, была связана с ожидающим меня разговором с начальником. Во время беседы мы должны были обсудить результаты моей работы, от чего зависело, продлят ли со мной трудовой договор. В этот день уже утром у себя дома я не мог ни на чем сосредоточиться. Я не хотел ничего есть, чувствовал боль в животе. В машине, когда ехал на работу, я обдумывал, что сделаю, если сегодня меня уволят. Когда разговор все-таки начался, я очень нервничал, одним из симптомов этого были слегка дрожащие руки*" (102). "*Часто, когда приезжали люди из штаб-квартиры, выбранных консультантов приглашали на личные интервью. Эти встречи также вызывали чувство страха. Некоторые сотрудники после таких встреч получали большие планы по направлению их успеваемости (часто такие, которые не возможно было осуществить). Неосуществление прописанных там условий, приводило к расторжению трудового договора. Страх, сопровождающий описанные ситуации, основывался на нарушении внутреннего равновесия, а за ним шел страх потери работы, унижения или занижения собственной ценности*" (92) – описывает другая респондентка.

Страх потери работы может быть вызван сменой руководства. "*Новая дирекция может приказать, например, учреждение нового отдела, ликвидацию или реорганизацию работы тех отделений, которые функционировали в фирме до того. Наряду с изменениями в организационных подразделениях, появляется и*

обеспокоенность по поводу потери рабочих мест" (2) - обеспокоен один из респондентов.

Респонденты также описывают ситуации, в которых чувство страха было вызвано увольнением другого работника: *"первые признаки страха я испытала, когда дело дошло до судебного процесса, вызванного увольнением одного из работников, который домогался компенсации за несправедливое увольнение. Конечно, прежде чем расторгнуть с ним договор, я консультировалась с начальством и пыталась объяснить, что говорится в трудовом кодексе по поводу ликвидации рабочего места. Однако мое объяснение не дало существенных результатов, потому что работодатель решил уволить его "по своему" в атмосфере гнева и показать, кто здесь более важен. Не смотря на то, что это была явная ошибка начальника, я чувствовала страх, потому что в случае победы работником в суде, я пострадала бы больше всех в независимости от того, по чьей вине это произошло. Здесь появляется и страх потерять работу. Работодатель никогда не ошибается, для этого у него есть люди, которые должны за него думать. Но действительно ли шеф позволяет нам это?"* (58). То, что не было возможности принять самостоятельное решение об увольнении работника в данной ситуации, стало причиной того, что респондентка сама чувствовала страх потерять работу.

Другая участница исследования приводит следующий пример: *"На данный момент, страх на рабочем месте вызван у меня тем, что нашу фирму покинула одна из наиболее опытных коллег. Я боюсь того, кто будет принят на ее место, будет ли новый сотрудник столь же компетентный, можно ли будет на него положиться, захочет ли он интегрировать с другими сотрудниками отдела. Это опять-таки, страх перед неизвестным"* (73).

"Из-за высокой ротации работников, оставшиеся сотрудники, часто вынуждены выполнять больше обязанностей. Из-за проблем в общении с коллегами, появляются непонятные действия некоторых из них, целью которых является создание мне трудностей и ослабление моей эффективности... Вся негативная атмосфера, которая формируется на рабочем месте, вызвала у меня панический страх. В последнее время, я чувствую, что меня моббингуют. Все это заставляет меня серьезно задуматься о смене работодателя и передачи дела в суд. С течением времени, я все больше и больше начинаю чувствовать страх" (115).

"Фактором, который вызывает страх... является непрерывная текучесть кадров" (124). В связи с тем, что сотрудники постоянно меняются, члены коллектива не могут друг другу полностью доверять, им трудно вместе выполнять какие-то задания и быть слаженной командой.

В некоторых компаниях, страх приводит к патологическим, по мнению респондентов, ситуациям. Одним из таких случаев является увольнение за неделю до Рождества, одной из работниц. Сотрудники не знали причин такого решения, а вопрос о ее увольнении вообще не поднимался на собрании сотрудников компании. Уволенная сотрудница достигала лучших результатов среди коллег отдела, однако не поддерживала хороших отношений с наиболее "влиятельным" человеком в компании. Это и послужило, по мнению других, причиной увольнения. *"Эта ситуация вызвала страх и неуверенность среди многих других сотрудников"* (6).

Среди респондентов были также те, кто заявлял, что не чувствует страха, связанного с возможной потерей работы. Некоторые оправдывают полное отсутствие боязни о потери работы у текущего работодателя тем фактом, что как работник, так и работодатель знают о большом значении конкретного сотрудника для организации и понимают, что расставание с таким специалистом может вызывать большие проблемы, в связи с чем, работник может чувствовать себя безопасно. *"Фактом является то, что*

отказ работодателя от моих услуг приведет к снижению продаж. Я единственный человек в компании, который занимается продажей товаров нашей фирмы за границей. Человек, который начал бы работу на моем месте, должен был бы сначала установить позитивные отношения с подрядчиками, которые я уже имею" (106), - с гордостью подчеркивает один из опрошенных.

Для других, крайне важно то, что "сотрудники не угрожают друг другу", - их рабочие места не зависят друг от друга. Например, если кто-то из сотрудников получит повышение, то это заранее предусмотрено законом, а не зависит от субъективной оценки руководителя. Благодаря этому, пословица: "Человек человеку волк" на моей работе не работает" (125) - говорит респондент, трудоустроенный в государственной организации.

Аналогичный уровень безопасности из-за отсутствия конкуренции среди сотрудников был также виден в случае проектных групп, объединяющих специалистов из разных областей, а также, в маленьких предприятиях, где уход одного сотрудника из небольшой команды может вызвать большой хаос в организации работы остальной части коллектива.

Кроме того, бывает, что отсутствие какого-либо страха потери трудоустройства диктуется личностью работника, его индивидуальным подходом к жизни и ценностям, которые для него важны. Таким образом, одна из респонденток исследования подчеркивает, что "никогда не чувствовала страх на рабочем месте. Я считаю, что если не эта работа, то будет другая, верю в свои навыки и способности, так что, если бы я чувствовала страх на работе, конечно я бы ее сменила" (89).

Другая респондентка, в свою очередь, описала ситуацию, с которой столкнулась ее коллега по работе: "Менеджер имел зуб на одну из моих коллег, которая была в своей работе превосходна и незаменима, но она его не боится (единственная, все остальные были запуганы). Она никогда не позволяла себе чувствовать страх и всегда говорила, что никакой работы не боится и может уйти даже на "кассу" в супермаркете" (12).

Однако, абсолютное отсутствие страха в связи с возможной утратой рабочего места, может ослабить мотивацию персонала, привести к отсутствию старания работников при выполнении своих обязанностей, и даже привести к пренебрежению работой. Необратимым последствием данного обстоятельства может быть дерекрутинг всех работников из-за банкротства компании. Это и произошло в одной из компаний, о которых рассказывали респонденты: "Я вижу, отсутствие какой-либо озабоченности о возможности увольнения за нарушения, так как начальник всегда относится к сотрудникам как к друзьям, а не как к подчиненным... бывают такие случаи, когда работники пренебрегают указаниями начальника и часто можно услышать слова: "я не буду ничего делать, потому что все знают, каким покорным является наш начальник, он все равно ничего мне не сделает" (26).

4.5.

ПОСЛЕДСТВИЯ СТРАХА, СВЯЗАННОГО С ДЕРЕКРУТИНГОМ

Страх может вызвать различные эффекты. Опасения по поводу дерекрутинга, как правило, вызывают негативные последствия, но могут также принести положительные эффекты.

Иногда бывает так, что вероятность увольнения по инициативе работодателя является одним из элементов управления эффективностью сотрудников. В этом случае система предполагает многоступенчатое принятие решений по отношению к сотруднику, который не выполняет свои обязанности. После первого проступка,

сотрудник лишается премии либо ее части, а затем руководство компании помогает ему исправить ситуацию и не совершать подобных ошибок в будущем. Однако, если подобная ситуация повторится, сотрудник должен считаться с сокращением своих обязанностей, что часто приводит к изменению занимаемой должности, зачастую, на менее, ответственную (внутренний дерекрутинг). Как правило сотрудник, который прошел через процесс внутреннего дерекрутинга, бывает охвачен большей заботой и контролем со стороны начальства. Следующим шагом, в соответствии с рассказами респондентов, является восстановление работника на прежней должности (если сотрудник повысил эффективность и не совершал больше ошибок, а занимаемая им прежде должность все еще вакантна) или его увольнение по инициативе работодателя (в ситуации, если сотрудник дальше не справляется). "*Сотрудник был проинформирован о том, что он должен написать заявление о переводе в другой отдел, потому что в отделе Х он, к сожалению, не справился с порученной ему работой. До конца трудового договора оставалось три месяца*" (81) - описывает ситуацию из жизни друга один из респондентов. Следствием такого решения руководства стала ситуация, в которой работник "*сильно изменился. Неуверенность в связи с занимаемой должностью мешала ему работать, мысль о том, что возможно еще одно изменение рабочего места вводила его в огромный стресс. Он не знал, что будет дальше - может быть, через три месяца ему снова придется искать работу*" (81).

Иногда, отсутствие объяснения причин и перспектив внутреннего перераспределение кадров, переход с одной должности на другую (даже если положение новой должности выше в организационной иерархии) часто воспринимаются сотрудниками как наказание – проявление внутреннего дерекрутинга. "*Часто в компании, где я работаю, имеет место необоснованное перераспределение персонала между организационными подразделениями, о которых не разговаривают с сотрудниками. Отсутствие информации и объяснений сотрудникам причин таких действий вызывают недоверие и увеличивают дистанцию между работодателем и сотрудниками. Переход на другую должность коснулся и меня. Никто не объяснил мне, чему должна была следовать смена должностей, потому с самого начала я рассматривал это как наказание*" (9) - подтверждает один из респондентов.

Обращает на себя внимание тот факт, что некоторые респонденты подчеркивали, подобная система управления не вызывает у них чувства страха связанного с возможностью потери работы. Она мотивирует их быть более усердными по отношению к работе и добросовестнее выполнять свои обязанности. Зачастую, даже рабочий, у которого, согласно принятой системе, уже забрали премию "*был осведомлен о серьезности ситуации; он знал, что после лишения премии идет увольнение, поэтому в следующем месяце солидно подошел к выполнению своих обязанностей и в результате получил звание работника месяца*" (95). Так происходит только тогда, когда сотрудники на всех уровнях организационной иерархии хорошо осведомлены о подобные методах управления и поэтому решение о деградации не является для них сюрпризом, только стимулом.

К негативным последствиям появления среди сотрудников чувства страха, связанного с дерекрутингом, несомненно, является презентеизм. В компаниях, где сотрудники имели возможность наблюдать за увольнением сотрудника сразу после его возвращения с больничного, немногие во время болезни выбирают возможность спокойного выздоровления в домашней обстановке. "*Люди, которые идут на больничные, уже на работу не возвращаются ... Их увольняют, потому что работодатель считает, что они и так хотят уйти. Несколько раз даже случалось так, что у сотрудников, прибывающих на больничном, забирали необходимые*

инструменты для работы ... было ясно, что им некуда и незачем возвращаться. Поэтому сотрудники, которые хотят работать, и действительно больны, не идут на больничный лист. Они предпочитают приходить на работу больными, чтобы не потерять место" (6) - говорит один из опрошенных. Респонденты подчеркивают, что все чаще сталкиваются с ситуацией, в которой "*на самом деле больной человек из страха потерять свое рабочее место, решает болеть и работать одновременно*" (7).

Кроме упомянутых выше негативных последствий (чувство страха вызванного возможной потерей работы), необходимо упомянуть об ухудшении состояния здоровья работников, в результате постоянного эмоционального напряжения; об отсутствии реального отдыха, потому что напуганный сотрудник, постоянно думает о том, как сохранить свою работу, даже в выходные дни; о нездоровой конкуренции среди сотрудников. Лучше всего, наиболее негативные последствия такого страха может проиллюстрировать цитата одной из респонденток: "*Продолжающееся беспокойство по поводу сохранения должности оказывает на меня разрушающе влияние, я неспокойно сплю, в свое свободное время все время думаю о работе. Страх влияет на меня отрицательно. Даже во время отпуска я то и дело отвечаю на служебные звонки, чтобы быть в постоянном контакте с коллегами, заботясь о качестве выполнения поставленных задач. Это не позволяет мне полностью отдохнуть и восстановить силы. Бывает, что я возвращаюсь из отпуска на работу усталой и нервной*" (3).

Некоторые респонденты утверждают, что страх перед утратой работы необходим, потому, что "*среднестатистический рабочий не добросовестно выполняет свои обязанности, так как знает, что работодателю, не легко будет найти другого кандидата на его место*" (55). Другие, подчеркивают, что страх потерять работу побуждает их с должным трудолюбием относиться к своим служебным обязанностям и мотивирует к достижению больших результатов. "*Я чувствую, что я должным образом отношусь к работе. Все мои обязанности, я стараюсь выполнять очень хорошо. Вероятно, из-за того, что я не хочу потерять эту работу*" (107) - подчеркивает один из респондентов.

Есть также люди, которые замечают другой положительный аспект в боязни потери работы - можно определить, что конкретный вид работы нас не удовлетворяет и будет лучше переучиться или изменить отрасль, в которой ищем работу. "*Благодаря работе в описанной мной компании, я понял, что работа в этой отрасли не является тем, в чем я могу себя найти*" (116) - подводит итог своего опыта один из респондентов.

Страх перед потерей работы, однако, иногда может оказать положительное влияние на отношения между сотрудниками. В некоторых компаниях, страх потери работы из-за невозможности достижения конкретных результатов поставленных перед сотрудниками, сказался на более тесной интеграции сотрудников, что привело к представлению взаимной помощи в достижении поставленных целей. Одна из респонденток указывает на то, что в компании, там, где она работает "*почти каждый месяц встречалась с ситуацией, в которой некоторым сотрудником не хватало нескольких очков, чтобы выполнить свой нормативный план и не бояться увольнения. В этой ситуации, те сотрудники, которые уже выполнили поставленную перед ними цель, без каких-либо проблем отдают свои заказы другим, только для того, чтобы улучшить рейтинг своих коллег*" (102). Благодаря подобному поведению в компании не только удерживается хорошая атмосфера, но и стираются негативные последствия конкуренции, возможной при составлении рейтинга сотрудников, а также увеличивается интеграция сотрудников, что в свою очередь, может привести к более эффективному сотрудничеству в будущем.

4.5.

ВЫВОДЫ

Анализ биографических повестей доказывает, что респонденты чувствуют страх на работе связанный с дерекрутингом. Они боятся потерять свои рабочие места в компании, деградации, а также ситуации, в которой они сами, вынуждены будут принять решение об увольнении. Наше исследование также показывает, что:

- В небольших компаниях, по сравнению со средними и крупными предприятиями, сотрудники менее склонны к принятию решения об увольнении по собственной инициативе. На самом деле, они чувствуют большую привязанность к работодателю и понимают, как важно их собственное влияние на функционирование компании. Именно поэтому больше, чем в более крупных организациях, готовы терпеть неуместное, по их мнению, поведение коллег или начальников, а также недостаточно хорошие условия труда, которые могли бы мотивировать их в пользу принятия решения об увольнении.
- В крупных компаниях сотрудники чаще испытывают страх, связанный с возможной потерей работы в результате совершения ошибки при выполнении повседневных обязанностей.
- В крупных компаниях, отношения между работниками часто основаны на конкуренции (в частности, между сотрудниками отделов продаж, а также между работниками различных ведомств) и, следовательно, они чаще подвержены, чувствовать страх в связи с возможностью потери работы, нежели работники малых предприятий.
- Неадекватные кадровые решения (подбор менеджеров), особенно в случае малых и средних предприятий, оказывают непосредственное влияние на потенциальное решение сотрудников об увольнении.
- В некоторых организациях, в конечном итоге, влияние на принятие решения об увольнении оказало снижение приверженности к своим служебным обязанностям, что было вызвано страхом перед начальником.
- В случае большой дистанции по линии отношений рабочий-начальник, сотрудники чаще испытывают страх потерять работу из-за совершенной ими ошибки или неудачи в достижении результатов.
- Работники с меньшим стажем работы (до 3 лет), редко готовы принять решение покинуть компанию, потому что больше боятся проблем при поиске нового трудоустройства в связи с небольшим профессиональным опытом.
- Только в случае 3-х респондентов появилось утверждение "я не променяю этой работы ни на какую другую" или подобное.
- Часто негативные факторы, которые подталкивают работников отказаться от работы в той или иной компании, вызывают отсутствие желания искать работу в организациях, работающих в той же или аналогичной отрасли, в которой действовал их предыдущий работодатель.
- В компаниях, в которых сотрудники не понимают или не принимают способ управление используемый начальником, возникновение страха перед потерей трудоустройства было более частым явлением.
- В случае совершения ошибки или неправильного выполнения поставленной задачи, работники чаще чувствуют страх связанный с возможными негативными последствиями, которые будут понесены компании (например, потеря важного клиента, непригодность товаров либо разорение фирмы), чем страх перед

потерей работы. Страх перед возможным дерекрутингом (увольнением или необходимостью покинуть занимаемую должность), чаще всего появляется в результате плохих отношений с непосредственным руководителем (как правило, из-за отсутствия акцептации его личности либо стиля управления) и в результате отсутствия интеграции с коллегами.

- Иногда бывает так, что работник недовольный условиями труда или преобладающей атмосферой внутри компании, не увольняется, он ждет, пока не истечет срок трудового договора. Однако при поиске дальнейшего трудоустройства уже никогда не рассматривает предложения предыдущего работодателя. Подобные ситуации работодатели, к сожалению, не рассматривают как собственные неудачи в управлении человеческими ресурсами. В большинстве случаев, они даже не знают, каковы могут быть последствия - отсутствие возможностей трудоустройства ценных сотрудников в будущем.

- Иногда бывает так, что работник начинает бояться так называемого позитивного дерекрутинга. В ситуациях, когда долгосрочный сотрудник выходит на пенсию, он начинает чувствовать страх перед полным исключением его из сообщества, частью которого еще недавно был.

Подводя итоги статьи, авторы обращают внимание менеджеров на необходимость задуматься и принять необходимые действия, которые будут направлены на устранение страха в связи с процессом дерекрутинга в организации. В большинстве случаев, имеет он разрушительное воздействие на работников и тех, кто покидает фирму, и тех, кто остается.

Проблематика статьи трудна, но интересна и актуальна. Поэтому стоит посвятить ей последующие исследования, сосредоточенные не только на сборе данных качественного характера, но и тех, которые будут направлены на получение "количественных" данных.

_____

III

TECHNOLOGICAL DIMENSION OF KNOWLEDGE MANAGEMENT

_____

IRENA FIGURSKA

3.1.

INTRODUCTION

Today, in the knowledge-based economy, knowledge plays an essential role for the development of individuals, organizations and societies, therefore effective management of knowledge has become one of the basic determinants of their competitiveness in the market. Efficiency of knowledge management (KM) is determined by many factors of organizational and non-organizational nature, and one of them is the ability to choose and use appropriate information and communication technologies (ICT) facilitating the realization of knowledge management processes, in particular knowledge sharing and use.

3.2.

THE ESSENCE OF KNOWLEDGE MANAGEMENT

Knowledge management is defined as a systematic, organized, thoughtful and flexible actions aimed at knowledge resources (individual, collective and organizational; explicit and tacit) of the organization, taken and performed with the intention of achieving the objectives of the organization efficiently and effectively. These actions enable the organization to realize knowledge management processes (localization, acquiring, developing, sharing, preservation, use) as well as shape the environment (human, technical, cultural) conducive to KM, using for this purpose appropriate methods and tools (Figurska, 2012).

The major knowledge management goal is to enable the organization to act intelligently [Wiig, 1999] by ensuring the environment that creates optimal conditions for knowledge creation, transfer and use (Fazlagić, 2014). Detailed knowledge management objectives can be formulated in relation to people (knowledge workers), KM processes, procedures, methods, tools, products, services, organizational culture, etc. (Figurska, 2012).

Effective KM brings benefits to both organizations and employees (Dalkir, 2005). Knowledge management helps employees do their jobs and save time through better decision making and problem solving. Knowledge managment builds a sense of community bonds in organizations, helps people to keep up to date, provides challenges and opportunities to contribute, facilitates networking and collaboration. Furthermore, realization of this management concept enable people to develop professional skills, professional code of ethics and common language. For the organization, KM helps to: drive strategy, solve problems quickly, diffuse best practices, improve knowledge embedded in products and services, create ideas, increase opportunities for innovation, achieve better competitive position, build organizational memory. Awareness of the mentioned above benefits resulting from effective management of knowledge in organizations is essential to win employees' engagement in KM activities.

Knowledge management is performed by realization of closely interconnected processes (Probst, Raub & Romhardt, 2002), such as knowledge:

- localization - concentrated on discovering and presenting knowledge sources,
- acquisition - aimed at obtaining knowledge from external sources,
- development - focused on specialized knowledge creation,
- sharing and distributing - aimed at making knowledge accessible to people who need it,
- use - focused on the productive use of an organization's knowledge sources,

– preservation - aimed at preventing the organization from losing valuable knowledge.

Effective realization of these processes enable employees to solve problems easier, better and more quickly, or can simply avoid them thanks to knowledge.

Generally, two basic approaches to knowledge management are observed in practice (see: Sveiby, 2001; Hlupic, Pouloudi & Rzevski, 2002; Rutheford & Tait, 2004; Figurska, 2012):

– technology-oriented approach - treats knowledge as objects which can be easily identified, codified and stored in information systems, and is focused on development of information and communication technologies,

– people-oriented approach – treats knowledge as constantly changing processes, and is focused on evaluation and improvement of people, knowledge sharing and building appropriate organizational culture.

Considering the above approaches, one can distinguish three main dimensions of knowledge management (Figure 3.1.):

– personal - it refers to both: management of employees in such a way as to increase their involvement in the realization of KM processes, and personal knowledge management (PKM) (Figurska, 2015),

– cultural - it refers to the development of the organizational culture conducive to knowledge management, based on trust, cooperation and continuous learning,

– technological - concerns the use of knowledge management tools, in particular those related to information and communication technologies   .
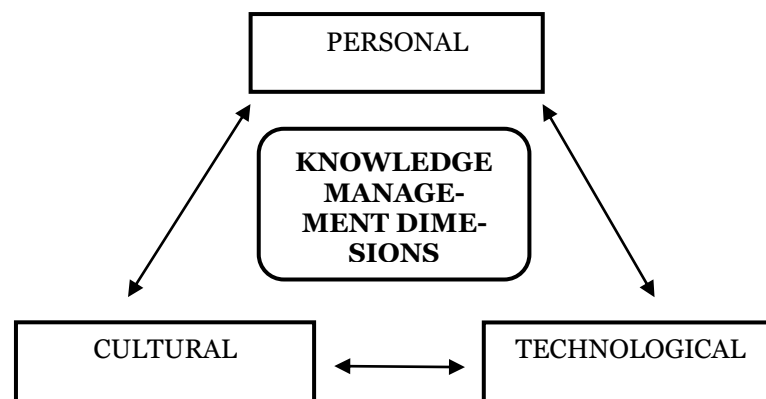
Figure 3.1. Knowledge management dimensions
Source: own study.

Presented in the Figure 3.1 knowledge management dimensions complement and affect each other strengthening or weakening their influence on the KM realization and effectiveness.

3.3.

IT TOOLS OF KNOWLEDGE MANAGEMENT

Nowadays the use of appropriate under the circumstances ICT solutions is one of the most important conditions facilitating knowledge management in organizations. However, the choice of appropriate tools is not easy because they must be designed to reflect the users' needs both with regard to their purpose and way of use and at the same time their cost and the cost of their operation must be acceptable. Recognising the importance of new ICT technolo-

gies one must remember that they cannot replace qualified, creative employees, appropriate organizational culture as well as well-formulated KM strategy of the organization.

The role of technology in knowledge management is evidenced by the fact that the technology is a part of the KM system (Figure 3.2.), which is understood as „*a complex of principles, methods, sources, sets of information, people and networks of their mutual connections, which allows to adopt and realize strategies of knowledge management to achieve the goals of the organization*" (Perechuda, 2005).
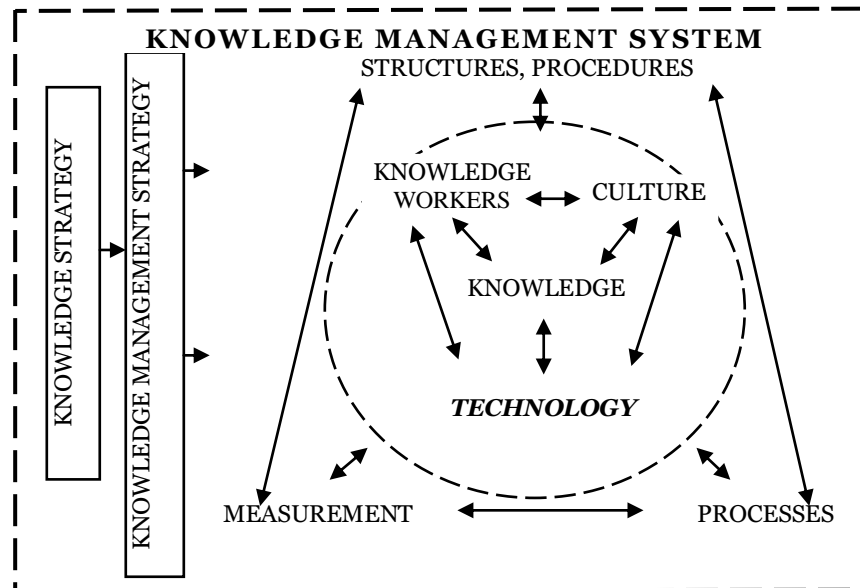
Figure 3.2. Technology as a part of knowledge management system
Source: own study.

ICT tools using in the field of knowledge management facilitate contextualization of information, allow intelligent transfer of information, allow social interaction and the creation of networks, have a friendly human-computer interface, be easy to use and useful (Miller, 2005).

ICT tools that can be used to improve the effectiveness of knowledge management in the organization, include among others: Internet, Intranet, Extranet, databases, corporate portals, FAQ, e-learning, integrated management systems, customer relationship management (CRM), content management systems (CMS), decision support system, document management systems, group work supporting systems (groupware), artificial intelligence (AI) systems, knowledge experts finding systems, organizational KM computer systems, teleconferences and videoconferences.

Internet facilitates knowledge management and is one of the fastest developing technologies. It allows: access to www resources, real-time video conferences, long-distance meetings, transmission of materials, e-mails, selecting information to reflect the query and many other activities realization.

Intranet is a computer network within an organization from which employees get information selected to suit their needs by means of web browsers, and navigating to similar in terms of content websites is possible thanks to hyperlinks.

Extranet is a "*controlled private network allowing customers, partners, vendors, suppliers and other businesses to gain information, typically about a specific company or educa-*

tional institution, and do so without granting access to the organization's entire network (...) It is restricted to select users through user IDs, passwords and other authentication mechanisms on a login page" (*Extranet*, 2016])

Database is a structurally organized data. Database dedicated to knowledge management is called knowledge database. To transform database into knowledge database it is necessary to provide it with context. Creation of a knowledge database is one of the main elements of knowledge management programs and enable realization of KM strategy.

Databases can relate to different issues. For example, *experts databases* (Yellow Pages) enable people to find an expert with specialist knowledge on a certain topic within the organization and to learn what he knows. Experts databases also provide "*first-hand information on responsibilities (such as power of attorney, decision making, and member of works council)*" (*Development of an Expert Database*, 2016). From the perspective of the KM effectiveness *best practices databases*, which contain examples of successful, proven in practice KM solutions, are also very useful.

Corporate portal is "*a main website that allows access to all the information and software applications held by an organization and provides links to information from outside it*" [Corporate portal, http://www.businessdictionary.com]. Such portals are a starting point for employees seeking specific information in Intranet. In organization in which success depends on effective use of possessed information corporate portals are responsible for the creation of KM platform.

Frequently Asked Questions (FAQ) are lists of typical questions that people (users of the website) might ask regarding a particular subject, and answers intended to help them raise awareness on this subject, without involving any person. FAQ is a useful form of explicit knowledge sharing.

E-learning is one of the most often used systems in knowledge sharing and development. It uses, *inter alia*, the Internet, Intranet, Extranet, multimedia materials, interactive television as well as multimedia carriers such as CD and DVD. The tool that facilitates distance teaching is e-learning platform *(E-learning*, 2016).

Integrated management systems such as *ERP* (Enterprise Resource Planning) and *MRP* (Manufacturing Resource Planning) are information systems used for supporting management of the organization or a group of cooperating organizations. Individual elements of the application are responsible for both data collecting and its processing. Functions of these systems ensure optimization of all organization's resources and processes occurring in the company (Zalewski, 2011).

Customer Relationships Management (CRM) facilitates service and consulting activities. This concept of management is focused on building long-term relationships with customers and gaining their loyalty. CRM systems support a sales process, make establishing a relationship with potential customers easier, maintain relations with previously acquired customers, increase customer satisfaction etc. Generally speaking, CRM systems

Content Management Systems (CMS) are applications that provide capabilities for multiple users with different permission levels to manage content, data or information of a website project, or Internet/Intranet application. Managing content refers to creating, editing, archiving, publishing, collaborating on, reporting, distributing website content, data and information (*What is a Content Management System (CMS)?*, 2016). These systems are typically used for enterprise content management and web content management.

Decision support system facilitate data interpretation, predicting decisions consequences, diagnostics, recommendation of remedial actions, designing solutions, controlling system behaviour, monitoring, storing and using knowledge.

Many organizations use *document management systems* that facilitate gathering, classifying and searching for documents, the also facilitate registration of activities performed using them thanks to which appropriate circulation of information in organization is assured.

Group work supporting systems (groupware) support systems are aimed at supporting employees in disseminating their knowledge. They facilitate proper work planning, team building, task assignment, discussions and reporting.

Artificial Intelligence (AI) systems are intended to simulate human intelligence processes by computer systems. *"These processes include learning (the acquisition of information and rules for using the information), reasoning (using the rules to reach approximate or definite conclusions), and self-correction"* (*AI. Artificial Intelligence*, 2016).

Knowledge experts finding systems enable users to discover individual experts or knowledge artefacts created by them, as well as communities of expertise, in order to hire or acquire their knowledge. Such systems enable acceleration of research and development, rapid formation of teams, assessment of enterprise skill sets, identification of skill atrophy, the discovery of new and emerging skill areas, as well as the prediction of the effects of a knowledge loss or gain (Maybury, 2006).

Organizational KM computer systems are a complex responses to challenges faced by organizations operating in the knowledge-based economy. Nowadays many IT companies provides complex solutions for knowledge management. They offer, *inter alia*, database design services, implementation and administration of Internet systems, integration of internal systems or project management systems. Such systems are the most effective as they are adapted to specificity of organizations determined by many factors of different origins.

*Teleconference*s and *videoconferences* facilitate communication as well as the exchange of information and knowledge in situations where personal face-to-face contact between individuals or teams is not possible. They are usually of a scientific or a business nature and usually a person to lead the meeting is required.

Listed above technologies are only examples, which are relatively often used in organizations, however, they do not exhaust the rich list of possible to use IC tools.

3.4.

USING IT TOOLS IN THE LIGHT OF THE RESEARCH

The questions arise, whether employees know the information and communication technologies? Whether they know what technologies are used in organizations in which they work? What ICT they use in practice? To answer these and other questions concerning different issues related to knowledge management in organizations, the study was conducted which was addressed to working people who held at least secondary education. Overall, 600 questionnaires were distributed and 484 of them were returned correctly filled, giving a return of 80,7%. The spatial scope of the survey covered subregion of Słupsk, located in the central part of Middle Pomerania, northern Poland.

Equating knowledge management only with the use of modern information and communication technologies is a mistake, nevertheless in many organizations the use of such technologies supporting KM becomes a necessity and largely influences the success of knowledge management initiatives. Therefore respondents were asked about their familiarity and practical use of various technologies listed in the question (Table 3.1.).

Table 3.1. Knowledge and use of technologies supporting KM

No.	Types of technologies	The technologies known to respondents (in %)								
		Position						Altogether		
		managerial			non-managerial					
		Used	Not used	In total	Used	Not used	In total	Used	Not used	In total
1	Internet	97,1	0	97,1	91,1	6,1	97,2	92,8	4,3	97,1
2	Intranet	31,2	34,1	65,3	29,2	41,1	70,3	29,8	39,0	68,8
3	Extranet	10,9	44,9	55,8	9,5	50,0	59,5	9,9	48,6	58,5
4	Databases	76,1	16,7	92,8	74,3	15,0	89,3	74,8	15,5	90,3
5	corporate portals	39,1	42,0	81,1	33,8	39,9	73,7	35,3	40,5	75,8
6	FAQ	16,7	37,0	53,7	19,7	45,1	64,8	18,8	42,8	61,6
7	e-learning	35,5	35,5	71,0	28,6	44,2	72,8	30,6	41,7	72,3
8	MRP/ERP systems	23,9	34,1	58,0	7,2	52,9	60,1	12,0	47,5	59,5
9	CRM systems	26,8	35,5	62,3	21,4	45,1	66,5	22,9	42,4	65,3
10	CMS	19,6	31,2	50,8	12,4	45,7	58,1	14,5	41,5	56,0
11	Yellow Pages	21,0	29,7	50,7	11,8	47,7	59,5	14,5	42,6	57,1
12	best practices databases	16,7	35,5	52,2	13,0	45,7	58,7	14,0	42,8	56,8
13	decision support systems	22,5	32,6	55,1	16,2	44,2	60,4	18,0	40,9	58,9
14	document management systems	52,2	16,7	68,9	48,8	26,3	75,1	49,8	23,6	73,4
15	group work supporting systems (groupware)	31,2	29,7	60,9	19,1	45,7	64,8	22,5	41,1	63,6
16	AI systems	10,9	34,1	45,0	4,0	54,3	58,3	6,0	48,6	54,6
17	knowledge experts localization systems	10,9	39,1	50,0	9,0	50,6	59,6	9,5	47,3	56,8
18	organizational KM computer systems	37,0	22,5	59,5	26,3	39,9	66,2	29,3	34,9	64,2
19	teleconferences	34,1	42,0	76,1	22,5	50,0	72,5	25,8	47,7	73,5
20	videoconferences	23,9	47,8	71,7	19,7	52,3	72,0	20,9	51,0	71,9

Source: own study.

Respondents most frequently pointed to the knowledge of technologies supporting knowledge management, such as: the Internet (97,1% of the researched group) and databases (90,3% of the respondents). A little more than ¾ of all respondents know corporate portals and a little less of them declares knowledge of technologies such as: teleconferencing (73,6%), document management systems (73,3%), e-learning (72,3%) and video conferencing (71,9%).

On the other hand the least of all respondents (less than 60%) declared knowledge of technologies such as: artificial intelligence systems, knowledge experts localization systems, decision support systems, best practices databases, content management systems, experts databases, Extranet and integrated management systems.

Knowledge of the particular technology does not always mean that it is used by them in practice. As far as the Internet is concerned, a gap between number of people who know this technology and the number of people that use it is small and equals 4,3 percentage points. However, with other technologies this gap is as high as several dozen percentage points. For example, videoconferencing is known by 71,9% of the researched group, but it is practically used only by 20,9% (a gap is 51 percentage points), artificial intelligence systems are familiar to 54,6% of respondents, but only 6,0% uses them (a gap is 48,6 percentage points). Generally, the most commonly used technologies include: Internet (92,8%), databases (74,8%) and

document management systems (49,8%), while the least common are: artificial intelligence systems (6,0%), knowledge experts localization systems (9,5%) and extranet (9,9%).

Mentioned above knowledge management technologies (except for query distribution systems) are used more often by managers than by non-managers and a gap between the percentage of people using those technologies in both groups ranges from a few to over a dozen percentage points to the advantage of managers (Table 3.1). This situation is obviously justified because of the complexity of tasks performed by managers and their duties, which often require them to understand and apply innovative solutions in the field of ICT.

The analysed question was also supposed to help with identifying technologies used in organizations which the respondents work in. The fact of using a specific technology (e.g. the Internet), which was stated earlier, doesn't have to mean that it is used in the respondent's organization.

And so, slightly more than ¾ of the survey participants declared using the Internet in organizations, databases are also commonly used (71,5% of respondents) and nearly half of them indicated the use of document management systems in firms they work in (table 2). Other technologies have been used to a much lesser extent and the least common are: artificial intelligence systems (3,7%) and extranet (8,1%).

The lack of knowledge of using communication and information technologies in their organizations was declared by a significant number of respondents. More than half of them were not aware whether their organizations make use of: artificial intelligence systems (53,5%), extranet (52,9%), best practices databases (52,5%), knowledge experts localizing systems (51,0%), experts databases (50,6%). Only in the case of the Internet and databases percentage of people declaring lack of knowledge of using these technologies in organizations was less than 10%.

People occupying non-managerial positions more often than managers weren't aware whether specific technology is used in their organizations (Table 3.2.). The gap between percentage of people occupying managerial and non-managerial positions, who declared lack of knowledge about the use of particular technologies, reached almost 25 percentage points in some cases (e.g. videoconferences, teleconferences, artificial intelligence systems etc.).

Survey results indicate that the frequency of the use of technologies increases with the size of the organization. For organizations employing up to 10 people, the average number of technologies used was 3,73, in the case of organizations employing 11-50 people – 4,91, organizations employing 50-250 people used on average 5,44 types of technology, and employing more than 250 people – 6,36.

Table 3.2. Applying technologies in the organizations and lack of knowledge about the use of technologies

No.	Technology	Applying the technology in the company	Lack of knowledge about the use of technology (in %)		
			Position		In total
			managerial	non-managerial	
1	Internet	75,6	5,8	2,3	3,3
2	Intranet	27,3	34,1	44,2	41,3
3	Extranet	8,1	40,6	57,8	52,9
4	databases	71,5	11,6	6,1	7,6
5	corporate portals	26,0	21,0	42,8	36,6
6	FAQ	20,0	32,6	48,6	44,0
7	e-learning	22,9	30,0	45,7	41,1
8	MRP/ERP systems	14,9	32,6	54,9	48,6

9	CRM systems	24,8	26,8	48,8	42,6
10	content management systems (CMS)	12,4	34,1	54,9	49,0
11	experts databases (yellow pages)	12,4	32,6	57,8	50,6
12	best practices databases	11,6	39,1	57,8	52,5
13	decision support systems	15,7	32,6	50,0	45,0
14	document management systems	48,1	18,1	25,1	23,1
15	group work supporting (groupware)	19,6	25,4	49,4	42,6
16	artificial intelligence systems (AI)	3,7	35,5	60,7	53,5
17	knowledge experts localization systems	11,2	35,5	57,2	51,0
18	organizational KM computer systems	28,1	23,9	43,6	38,0
19	teleconferences	24,4	23,9	48,6	41,5
20	videoconferences	20,9	26,8	50,0	43,4

Source: own study.

A number of technologies supporting knowledge management listed in the survey's questionnaire are hardly ever used. This fact however, doesn't have to imply inappropriate knowledge management. The specificity of the organization determined by the industry in which it operates, by its size, by production type and volume and many other factors can decide that the use of specific information and communication technology is not essentially justifiable. In some cases, widely understood costs of implementation and use of specific technologies can be higher than expected benefits.

3.5.

CONCLUSIONS

Nowadays knowledge management has come to the theory and practice of management for good. However, it must be emphasized that effective knowledge management would not be possible without using appropriate information and communication technologies. The results of the study indicate, however, that employees' knowledge about IC technologies and their application in organizations in which they work, is insufficient.

While deciding which type of ICT tools to use in the process of managing knowledge it is important to take into consideration the needs of the organization, resulting from its strategy, and employees needs resulting from the tasks they perform. It is necessary to state what area of knowledge management is the problem and what IT tool should be used to solve it, as well as – in what area of knowledge management implementation and use of IT tools will be the most beneficent in the context of building competitive advantage of the organization.

_____

IV

THE APPLICATION OF STOCHASTIC EQUATIONS TO PREDICT PURELY RANDOM PHENOMENA

_____

ANNA JANIGA-ĆMIEL

4.1.

INTRODUCTION

Random processes, similarly to non-random ones, can be analysed by examining dependencies between random variables, their delays and value gains. Stochastic differential equations can be used for this purpose. When constructing econometric models, explanatory variables, their delays and gains introduced into a model have to be independent. This condition does not have to be satisfied in the case of stochastic models, which is their advantage over econometric models and also justifies the application of stochastic equations. Thus, stochastic equations taking into account random dependencies can be applied in order to describe the correlation between pure random variables. The application of such equations leads to the construction of an appropriate model which, in the course of further analysis, provides a basis for forecasting future developments of the observed phenomenon.

In this analysis, $Y(t)$ denotes the number of road traffic fatalities in selected countries. For this variable, gains that are necessary to create a finite-difference model are established. Next, a differential model is generated based on the finite-difference model. The development trend of the observed variable $X(t)$ is presented with the use of random coefficients; the initial conditions are also random variables. In this paper, accidents are understood as a result of statistical observations of the phenomenon. The paper presents a stochastic approach to one of the socio-economic problems - road deaths.

Its aim is to analyse the number of road traffic fatalities in different countries, selected by means of a taxonomic method with the application of stochastic differential equations, and also, predict future behaviour of the phenomenon. In order to achieve this goal by means of ordinary econometric models, not stochastic ones, a systematic and random component would have to be extracted. The variable referring to the number of road traffic fatalities does not have a systematic component. As a result, a stochastic model is applied, which does not set down such a requirement. In this analysis, a model of the number of road traffic deaths is indispensable to estimate the future forecasts of the phenomenon.

4.2.

THE PROBLEM OF ROAD TRAFFIC ACCIDENTS IN SELECTED COUNTRIES - AN OVERVIEW

Continuous development of civilisation brings about significant modifications to the natural environment, which can adversely affect human existence. A man is not always able to keep up with and adapt to the ongoing technological development - lack of such adaptation becomes a cause of possible disasters. On the one hand, a man eliminates dangers that came into being in the preceding years, but on the other hand, he simultaneously generates an array of new threats. However, we always want to be, and to feel, safe. We want to be able to apply technical systems in a safe and infallible way.

Safety issues involve analysing damages and errors which can lead to a situation that would require undertaking additional suitable actions in order to avoid the consequences of those damages and errors. We look for methods and assessment criteria to be able to ana-

lyse safety levels. Road traffic safety is an element of public order and a state's internal security; it is also an essential element of human mobility. The road traffic safety issue covers a few areas, including technology, psychology, medicine and many others. As a result, road traffic accidents have become one of the most serious problems of health and social policies facing the contemporary world.

The problem has been growing more acute due to increasing motorization. Out of all modes of transport, road transport is the most dangerous. In Poland, the number of road traffic casualties is higher than the European average, some of the causes being: poor technical condition of Polish roads, a growing number of road users and drink-driving.

Road safety is a major component of numerous programmes and activities undertaken to improve traffic conditions in a lot of countries (www 3). Road safety action programmes aim to halve the number of accidents; they adopt various measures, including wide-scale international cooperation, scientific studies, information campaigns and legal regulations, to achieve the goal. In June 2010, the European Commission adopted the communication „Towards a European road safety area: policy orientations on road safety 2011-2020", which states that one of the aims of the common road safety policy is halving the overall number of road deaths in the European Union by 2020.

Another programme worth mentioning is "Vision Zero" launched in Sweden, whose implementation is to bring the number of road deaths down to zero in the future. The programme also specifies that by the year 2020 the number of traffic fatalities is to be no more than 220. Vision Zero is based on the concept that it is the state that bears responsibility for road safety. Unfortunately, Poland still belongs to the countries whose citizens incur the highest risk of severe injuries or death in road accidents (www 2).

To illustrate the issue, a cartogram was drawn up - it shows the number of road accidents per 100,000 population by the voivodships (provinces) of Poland in 2010 and in 2014 for comparison (based on the data published on the websites of the Polish Statistical Office (GUS) and Eurostat) (www 1). Moreover, for each voivodship, the data were broken down into the following categories: road traffic accidents per 100,000 population, road traffic fatalities per 100,000 motor vehicles, road traffic fatalities per 100,000 population, road traffic injuries per 100,000 motor vehicles. Figure 4.1. comprises data for Poland in 2010.

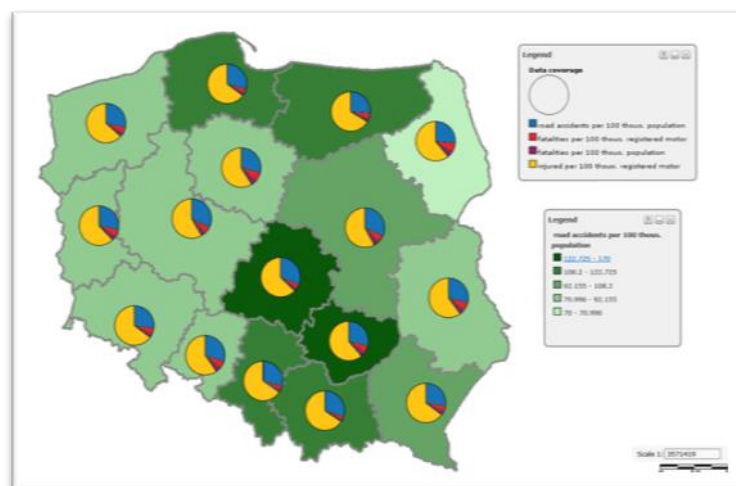**Figure 4.1. Road traffic accidents and casualties per 100,000 population, 2010**
Source: http://www.stat.gov.pl

The cartogram shows that in 2010 Łódzkie and Świętokrzyskie voivodships recorded the biggest number of road accidents. The situation was slightly better in Pomorskie

and Warmińsko-mazurskie. There were even fewer accidents in Śląskie, Małopolskie and Mazowieckie voivodships. The fewest road accidents occurred in Podkarpackie. Also, we can see that the voivodships with the smallest total number of road accidents had the highest number of traffic fatalities. The variables under study have a negative correlation, and the strength of the relationship is expressed by a correlation coefficient of -0.30.
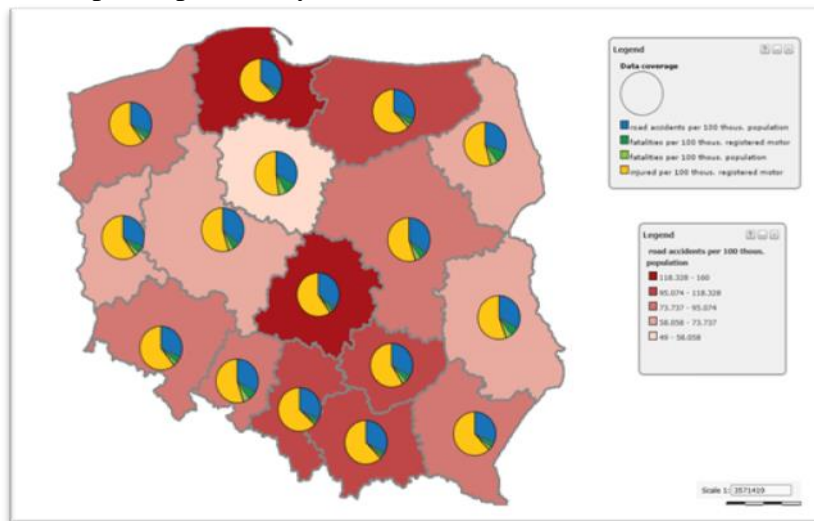

Figure 4.2. Road traffic accidents and casualties per 100,000 population, 2014
Source: http://www.stat.gov.pl

Figure 4.2. shows that in 2014 the biggest number of traffic accidents took place in Pomorskie, Warmińsko-mazurskie and Łódzkie, while the smallest number occurred in Kujawsko-pomorskie. The data indicate that the number of road traffic fatalities in 2014 was again, as in 2010, the highest in those voivodships which recorded the smallest number of accidents, e.g. Kujawsko-pomorskie, Podlaskie, Lubelskie, Wielkopolskie, Dolnośląskie, and Opolskie. The number of accidents and the number of fatalities grouped by voivodship are negatively correlated. The correlation strength stands at a moderate level and the respective correlation coefficient is -0.40. In 2014, the strength of the relationship between the number of collisions and the number of deaths increased when compared to the one in 2010, from the absolute value of 0.3 to 0.4, while the minus sign remained.

The analysis of road traffic accidents in EU countries indicates that the number of fatalities decreased in recent years. For instance, in 2010 the maximum number of fatalities in selected European countries was 4,116 persons, while in 2014 the maximum number stood at 3,385. This means that year by year there was a decline in the number of traffic deaths. The maps presenting the distribution of fatal accidents show that the position of countries on the lists arranged according to the number of such accidents did not change very much in successive years. Hence, in the countries with the lowest number of accidents in 2010, the number of accidents in 2014 also decreased.
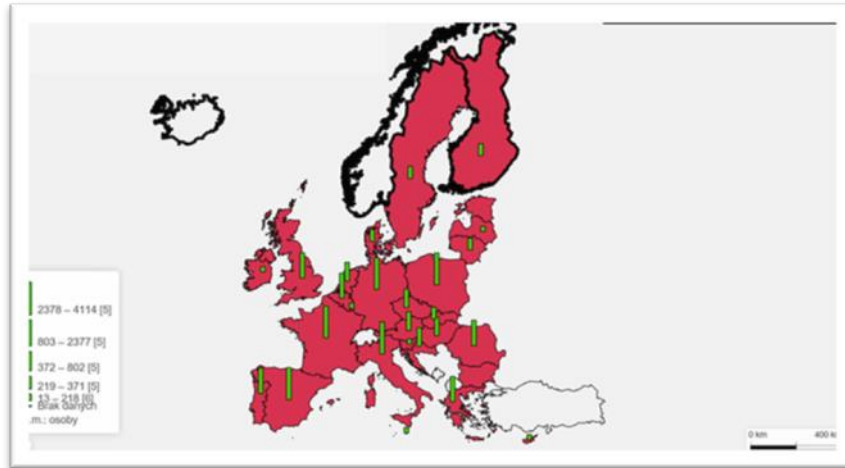
Figure 4.3. The number of road traffic fatalities per 100,000 motor vehicles, 2010
Source: http://www.stat.gov.pl
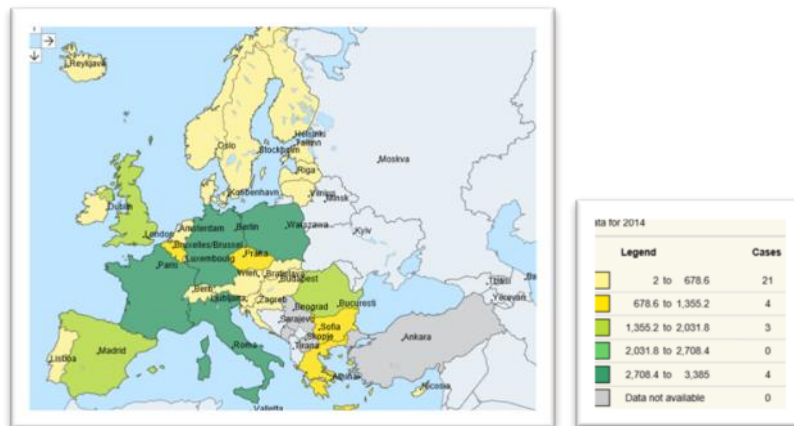
Figure 4.4. The number of road traffic fatalities per 100,000 motor vehicles, 2014
Source: http://www.stat.gov.pl

The study examined the problem in selected European countries and the USA as well. The data cover the years 1993-2013 and refer to the number of road traffic deaths (the number includes drivers and passengers of motor vehicles as well as pedestrians who died within 30 days from the day of the accident).

Figure 4.1 The number of road traffic fatalities in selected countries in the years 1993-2013
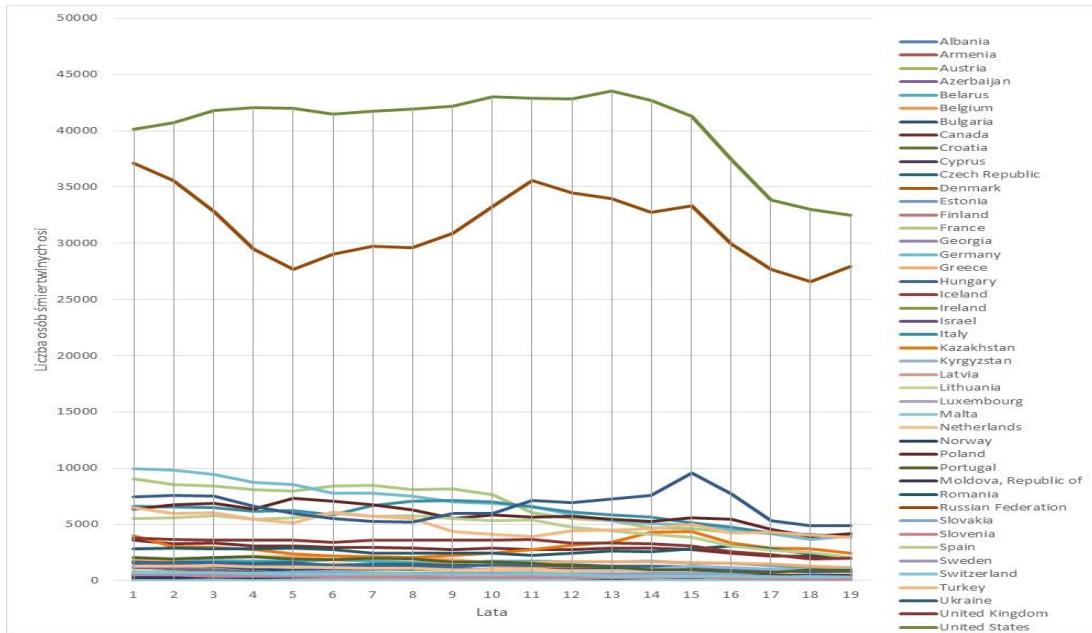
Source: http://www.stat.gov.pl

The chart shows that there was a downward trend in the number of road deaths in both the USA and selected European countries.

4.3.

THE CONSTRUCTION OF A SELECTED STOCHASTIC PROCESS

In order to generate a stochastic model, it is necessary to choose its functional form specifying primary dependencies occurring within a phenomenon. It can be a simple econometric model. Also, initial conditions have to be defined so as to subsequently provide a solution. Initial conditions can be systematic or random. Random conditions are broader in range: systematic initial conditions can be considered as a selected subset of random conditions, determined through, e.g regular draw (Pieniążek et.all, 2007).

This paper adopts a wider approach, where initial conditions are random. Thus, the initial conditions are random variables denoted as follows:

$$
\begin{cases}
Y(0) = Y_0 \\
Y'(0) = Y_1 \\
\quad \vdots \\
Y^{(n-1)}(0) = Y_{n-1}
\end{cases}, \tag{1}
$$

The initial form of the dependence is presented by means of an ARIMA model:

$$
y_t = \sum_{t=1}^{k} \alpha_k \left(y_t - y_{t-1} \right) + \sum_{k=1}^{s} \beta_k t^k + \xi_t, \\
k = 0,..,n\text{-}1 \\
s = 0,\ldots,n\text{-}1, \tag{2}
$$

wherein the number of k and s delays will be determined by the introduction of delays for which the estimation of coefficients α_k and β_k will be statistically significant. The estimation of such an equation requires n-initial values, random values, which results from the fact that in the case of road accidents the variables are random.

When phenomenon Y of solely random mutations is analysed, model (2) is used to initially determine the observed dependencies. As we deal with random variables, in the course of further analysis a stochastic equation will be constructed to obtain a set of data as a basis for forecasting. The ARIMA model, on the other hand, will allow for the construction of a linear difference equation of n-order, wherein order n of this equation will be determined by the number of observed gains of the dependent variable Y_t. The difference equation will be replaced by an approximate linear differential equation of n-order and the linear stochastic equation will take the following form:

$$a_1 Y^{(n)}(t) + a_2 Y^{(n-1)}(t) + \cdots + a_n Y'(t) + a_0 Y(t) = X(t), \tag{3}$$

In the above equation, the stochastic process X(t) on the right is a function relating to some accident causes, which in the stochastic processes theory are referred to as extortion.

The integration of the stochastic differential equation (3) requires specifying n random variables $Y_0, \ldots, Y_{n-1}$ as a definition of the initial conditions – this will allow for the construction of a particular solution. The stochastic process X(t) will be denoted as a polynomial of m degree. We will introduce $m+1$ random variables $A_0, \ldots, A_m$, - in the model they will constitute random coefficients with real-value functions $\varphi_i(t)$ called coordinate functions. The $m+1$ coordinates will be denoted as:

$$\varphi_0(t), \ldots, \varphi_m(t). \tag{4}$$

The process X(t) will be considered in a canonical representation:

$$X(t) = m_x(t) + \sum_{i=0}^{m} A_i \varphi_i(t), \tag{5}$$

for t from the observation interval. Note that m and n are independent of each other. The parameter n refers to the number of delays of the variable Y, i.e. the number of variables related to accidents in the preceding years that have to be included in order to establish the current and, subsequently, the future number of accidents (the number of fatalities). m is a polynomial degree of the time variable t, selected in such a way as to obtain trend forecasts of future accident levels. $m_x(t)$ refers to the expected value of trend function of the extortion variable X in a t-interval. Analogously, $m_y(t)$ represents the expected value of accidents Y in a t-interval. The coordinate functions of random variables A_i have the form:

$$\varphi_j(t) = t^i, \quad \text{dla } i = 0, \ldots, m \tag{6}$$

The fixed A_i can be determined by means of, e.g. a prediction method. Y(t) will refer to the original function of the equation and we will define it as a linear combination of the original functions $\psi_i(t)$.

$$Y(t) = m_Y(t) + \sum_{i=0}^{m} V_i \psi_i(t) \tag{7}$$

In order to obtain a canonical representation of the random variable Y, we will respectively use the relations:

$$L(m_Y(t)) = m_X(t) \tag{8}$$
$$L(\psi_i(t)) = \varphi_i(t),$$

where L denotes a linear differential operator in equation (3), i.e. the whole left side of the equation. This can be shown including successively:

$$L(m_Y(t)) + L\left(\sum_{i=0}^{m} V_i \, \psi_i(t)\right) = m_X(t) + \sum_{i=0}^{m} A_i \, \varphi_i(t), \tag{9}$$

With respect to the first relation in (8), we get:

$$L\left(\sum_{i=0}^{m} V_i \, \psi_i(t)\right) = \sum_{i=0}^{m} A_i \, \varphi_i(t), \tag{10}$$

Next, we apply the additivity and multiplicity of a linear operator to obtain:

$$V_i \sum_{i=0}^{m} L\left(\psi_i(t)\right) = A_i \sum_{i=0}^{m} \varphi_i(t), \tag{11}$$

The solution of the differential equation Y(t) will be broken down into two components. The component Y_1 will refer to general trends resulting from the structure of the model. Then:

$$Y_1^{(r)}(t) = Y_r \quad \text{and} \quad L\left(Y_1^{(r)}(t)\right) = 0. \tag{12}$$

The solution $Y_1(t)$ will be a linear combination:

$$Y_1(t) = \sum_{i=0}^{n-1} V_i f_i(t) \text{ for } i=0,\ldots,n\text{-}1, \tag{13}$$

where Y_i will to the last remain random values, while $f_i(t)$ will be non-random functions. Yo will represent the initial extortions:

$$Y_0(t), Y_0'(t), \ldots, Y_0^{(n-1)}(t), \tag{14}$$

which for $t = 0$ will have a value zero:

$$Y_0(0) = Y_0'(0) = \cdots = Y_0^{(n-1)}(0) = 0. \tag{15}$$

Our assumption is that in the case of fatal accidents, the number of accidents at the launch of the study is zero, hence all zeros.

4.4.

AN EMPIRICAL EXAMPLE

In order to analyse road traffic accidents in Poland and in selected countries, empirical data were gathered based on the data published by the Polish Statistical Office (GUS) and on Eurostat website. The set of diagnostic features that was considered in the first stage of the study included four variables. A taxonomic method, which is widely used in research into socio-economic issues and socio-economic development of countries worldwide (Chomątowski & Sokołowski, 1978), was applied. The data underwent substantive and statistical verification and formed the basis for classifying the 38 countries in terms of road traffic accidents. The observed data refer to the situation in 2014.

At the analysis stage, the groups of countries were further divided into subgroups according to accident type by means of Ward's agglomeration method, where the squared Euclidean distance was employed (Pociecha, 1988). The features used to classify the countries were normalised in order to ensure comparability (Mika,1995). As a result, three groups of countries were distinguished:

Table 4. 1. Groups of countries

Group 1	Group 2	Group 3
Australia	France	Russia
Austria	Japan	United States
Belgium	South Korea	
Bulgaria	Mexico	
Croatia	Germany	
Czech Republic	P o l a n d	
Denmark	Turkey	
Estonia	Ukraine	
Finland	Italy	
Greece		
Spain		
Netherlands		
Ireland		
Iceland		
Canada		
Lithuania		
Luxembourg		
Latvia		
New Zealand		
Portugal		
Romania		
Slovakia		
Slovenia		
Switzerland		
Sweden		
Hungary		
United Kingdom		

Source: own work.

At the next stage of the analysis, for each group one country was chosen and had its accident rate studied. The selection of the three countries was based on the distance matrix, taking into account the minimum of particular distances. For each selected country, a time series analysis was performed, which arranged the number of road deaths per 100,000 population in a given country in the years 2005-2014. The countries under study included Poland, Sweden and the USA. Afterwards, the time series properties were examined (Wywiał, 2004). First, the randomness of variables was tested by means of the median test, which showed that the observed variables were random ones (Ostasiewicz, 1999). Then, it was proved that they were normally distributed. In order to establish a proper differential equation for the random variable, it was necessary to construct a finite-difference equation by examining the significance of the added gains of the variable (Gewert & Skoczylas, 2000). For all the three countries, Poland, Sweden and the USA, it was shown that maximum second-

order gains had to be taken into consideration as further ones were introduced to the model as insignificant. Random variables regarding the time series of Poland, Sweden and the USA were used to construct differential equations (Janiga-Ćmiel, 2014).

In order to construct a model for Poland, the following stochastic differential equation was established

$$0,45y''(t) - 1,29y'(t) + y(t) = 7700,02 - 491,39t + 22,06t^2 - 0,41t^3 \qquad (16)$$

The general solution Y_1 of the equation is a process defined as follows:

$$Y_1(t) = 226\,e^{-1,84}\sin0,87t + 686e^{-1,84}\cos0,87t \qquad (17)$$

The resulting general solution (17) provides information about fluctuations in the number of accidents. Their range and amplitude denote the level of coefficients of the functions which form a linear combination of the general solution. The exponential function with a negative exponent is a decreasing function, which indicates a declining road accident trend. The coefficient of the time variable t at the sine and cosine functions shows that there is approximately a yearly cyclic pattern in accidents. In order to specify future developments in the accident trend, a particular solution was established based on a prediction method. For Poland, a particular solution of the observed variable takes the form:

$$Y_0(t) = 7114,69 - 434,48t - 2,206t^2 + t^3 \qquad (18)$$

A negative value of the coefficient at t^2 indicates a descending trend in the number of accidents on Polish roads over time. A stochastic process relating to the number of road traffic fatalities in Poland is the sum of solutions Y_0 and Y_1, i.e.:

$$Y(t) = Y_0(t) + Y_1(t) = 226e^{-1,84t}\sin0,87t + 6869e^{-1,84t}\cos0,87t + $$
$$+7114,69 - 434,48t - 2,206t^2 + t^3 \qquad (19)$$

The model contains non-significant errors its relative error is 6% of the expected values. Based on the equation presented above, forecasts were made for road accident numbers in the years 2015-2018 and the absolute and relative errors of these forecasts were calculated.

Table 4.2. Forecasts and their relative and absolute errors

Year	Forcasts		Absolute errors	Relative errors
2015	Y_{17p}	2989,737	226,435	7,10%
2016	Y_{18p}	2901,454	254,345	8,20%
2017	Y_{19p}	2788,564	263,445	8,82%
2018	Y_{20p}	2754,634	267,453	9,71%
	Y_{17*}	2938,12		
	Δ_Y	51,62		
	ex post	1,70%		

Source: own work.

It can be observed that for successive intervals the absolute and relative errors increase. For 2019 and the following years, the relative error exceeded 10%; as a result, these forecasts were not taken into consideration. Overall, forecasts predict a downward trend in road accidents. The number of accidents in the years under study decreases from 2,989 to 2,754.The statistical value of the variable relating to the number of road traffic fatalities

in 2015 has already been published – it stands at 2,938. The difference between the forecast based on the stochastic model, which predicted the value of 2,989.73 and the actual value of 2,938.12 amounts to 51.62, and the error ex post stands at 1.7%. That means that the forecast for the year 2015 presented in this study is accurate. In the same way a stochastic model of road accidents in Sweden was constructed. The model takes the following final form:

$$Y_{Sweden}(t) = Y_0(t) + Y_1(t) = 2{,}103e^{-3{,}34t}\sin 0{,}95t + 5{,}43e^{-3{,}34t}\cos 0{,}95t +$$
$$+587{,}97 - 11{,}37t - 9{,}5t^2 - 3{,}14t^3 \tag{20}$$

Comparing the exponent values of the exponential function in the model and the values at the second and third power of t, it can be observed that the number of accidents in Sweden falls, and the decline is much faster than in Poland.

For the USA, the following model was created:

$$Y_{USA}(t) = Y_0(t) + Y_1(t) = e^{-0{,}93t}\sin 0{,}9t + e^{-0{,}93t}\cos 0{,}9t +$$
$$+6349958{,}84 + 198315{,}56t - 2617{,}424t^2 + 0{,}322t^3 \tag{21}$$

In the case of the USA, the overall descending trend is slower than in Sweden and Poland.

4.5.

CONCLUSIONS

Road traffic accidents pose one of the most serious threats to human health and life. Therefore, a lot of countries make determined efforts and implement various measures, including international cooperation, scientific research, information campaigns, to ensure road traffic safety. Consequently, a significant decrease in the number of road deaths can be observed there. Sweden is one of the few countries that can boast halving the number of road traffic fatalities, which results from the "Vision Zero" policy adopted in 1997.

In the paper, Ward's method was used to group 38 selected countries according to the number of road traffic accidents. Based on the distance, the countries were divided into three clusters. Poland belongs to the same group as Germany, France, Japan, Italy and South Korea. The second cluster is comprised of countries where the number of road accidents is similar to that in Sweden. The group consists of Belgium, Denmark, Great Britain, Australia, the Czech Republic, Finland, Slovakia, New Zealand and Luxembourg. The third cluster includes two countries: Russia and the USA.

One country was chosen from each group, for which second order differential equations were established. The stochastic equations of accident trends allowed for forecasting the developments in the subsequent years. Additional equations were calculated to obtain information that would enable interpreting the trends. The future declining trend is attested by the negative coefficients which are the exponential function's arguments. A higher absolute value of the coefficients indicates a faster decrease in the phenomenon's value in subsequent inter-

vals. The smallest fall in value is and will be observed in the USA. It will be slightly bigger in Poland and the largest drop will occur in Sweden. The negative coefficient values calculated for subsequent powers in the particular solutions of the models suggest that a descending trend in the number of accidents will develop. For Sweden, the coefficient value at t^3 in the equation is lower than the coefficient value for Poland and the USA. Hence, a sharper decline can be observed in Sweden. The coefficient value at the trigonometric function arguments' sine and cosine approximates to 1 in all the three models, which means that accidents exhibit a cyclic pattern lasting nearly a year. This is due to the fact that there is a relationship between road accidents and the season of the year.

_____

V

МАРКЕТИНГОВОЕ ВЗАИМОДЕЙСТВИЕ ПРИ ДИСТРИБУЦИИ ЭНЕРГИИ АЛЬТЕРНАТИВНЫХ ИСТОЧНИКОВ И РАЗВИТИИ ЗНАНИЙ ПЕРСОНАЛА ПРЕДПРИЯТИЙ

_____

SERHII Y. KASIAN

5.1.

ВВЕДЕНИЕ

Бизнес-процессы наблюдаются в процессе перехода от индустриального к постиндустриальному обществу. Работники предприятий, участвующие в маркетинговом взаимодействии, должны постоянно повышать свой образовательный потенциал, изучая темы, связанные со специальностью, научной деятельностью, достижениями в науке. Социально ориентированное управление направлено на достижение социальных стандартов и общественной сбалансированности в ходе маркетингового управления процессами взаимодействия между предприятиями и организациями. Институционно-организационное обеспечение динамических процессов взаимодействия на рынке труда необходимо осуществлять на основе разработанной маркетинговой программы, отображающей сформированную стратегию, состояние конъюнктуры рынка.

В этом исследовании применен исторический метод научного исследования экономических явлений и процессов. Для решения задач исследования использовано комплекс общенаучных и специальных методов научных исследований, а именно: системный подход, методы логического обобщения, сравнительного анализа, научной абстракции, маркетинговый статистический анализ, процедуры и инструменты маркетинговых исследований, маркетинговый подход во внутренних процессах взаимодействия в организации, теория развития человеческого капитала.

5.2.

ФИЛОСОФИЯ ОБРАЗОВАТЕЛЬНОГО МАРКЕТИНГА В ХОДЕ ВЗАИМОДЕЙСТВИЯ НА РЫНКАХ ТРУДА

Традиционными объектами маркетинга являются товары и услуги, а также идеи. Зачастую важные идеи, которые можно коммерциализировать, возникают в процессе организации эффективного маркетингового взаимодействия на рынках образовательных, научных, консалтинговых услуг. При этом необходимо усовершенствовать существующие методы и приемы диверсификационного роста экономических агентов.

Именно поэтому, на наш взгляд, важным является систематическое проведение социологических исследований, благодаря которым выявляются образовательные тенденции развития общества. Важно внедрять системные инновации на основе новейших технологических платформ в образовательную деятельность вуза. При этом целесообразно широко использовать возможности глобальной мировой сети интернет.

Густав фон Шмоллер в труде «Основы общего учения о народном хозяйстве» на основе эмпирического подхода исследовал вопрос хозяйственного развития определенных экономических единиц, в частности торговых гильдий, ремесленных цехов. Обоснование экономических законов на основе анализа эмпирических событий, акцент на координирующем значении государственной регуляции характеризуют особенность научных исследований этого ученого.

Повышение образовательного уровня людей в обществе знаний приводит к усилению внимания индивидуумов к своему здоровью. В частности, следует постоянно анализировать уровень липидов в крови, исследовать гуморальный иммунитет, подбирать средства гигиены для полости рта. В этой связи оптимальная маркетинговая политика многопрофильной медицинской клиники, учитывающая множественность

запросов пациентов позволяет формировать необходимые маркетинговые ценности, увеличивающие имидж и репутацию клиники. Маркетинговые коммуникации медицинской компании должны разъяснять клиентам преимущества инновационного взаимодействия, высокий уровень предоставляемого медицинского обслуживания.

Эффективность создания маркетинга медицинских услуг проявляется в достижении атмосферы взаимного доверия, содействующей успешному лечению. Важно исследовать взаимосвязь качества образования и уровня жизни в стране. Рейтинги вузов (например, Шанхайский, основывающийся на научной, исследовательской работе) содействуют формированию репутации образовательных учреждений. Качественное высшее образование во многом основывается на наявности известных научных школ в вузе, стране. Такие научные работники, практики привлекаются в кадровый потенциал многопрофильных медицинских клиник. Это связано с тем, что высококвалифицированный персонал обеспечивает высокое качество медицинских лабораторных анализов, сосудистой хирургии, диагностики, лечения и профилактики заболеваний, стоматологических услуг.

Формирование трудового потенциала работников предприятий во многом определяется их степенью трудовой мобильности. Культурно-лингвистические особенности в процессах трудового и рыночного взаимодействия снижают скорость перемещения трудовых ресурсов между странами и регионами. Трудовой потенциал значительно влияет на процессы взаимодействия в организациях. Величина такого потенциала определяется ресурсным обеспечением бизнес-процессов. При этом важно анализировать формирование трудового потенциала на трех уровнях: индивидуальном, коллективном, общественном.

Функционирование рынка труда напрямую зависит от социальной и экономической эффективности подготовки кадров в учебных заведениях, которая во многом обеспечивается усовершенствованием образовательных программ, структуры учебного плана. Такое усовершенствование, на наш взгляд, следует проводить путем развития междисциплинарных программ обучения, индивидуальной траектории развития студента. В этом аспекте важными являются знания, компетенции, интуиция и доброжелательность педагогов и научного персонала. Современное международное образовательное пространство носит междисциплинарный характер, ему свойственны высокая корпоративность выпускников, преемственность уровней образования и поликультурный характер. Отметим, что в границах метапарадигмальной интерпретации философия образования должна учитывать междисциплинарные и фоновые параметры.

На наш взгляд, образовательный маркетинг должен включать фундаментальные основы функционирования и развития образования с учетом всех междисциплинарных, рыночных экономических и социальных теорий и законов.

А. А. Шиманська отмечает о целесообразности развития взаимодействия экономического и философского подходов при маркетинговом управлении промышленными предприятиями. Она предлагает основные принципы управления маркетингом на предприятии, выделяя такие, как: адаптивность и гибкость, стратегическая направленность, комплексное взаимное влияние на потребителя через повышение квалификации, осведомление, защиту прав покупателей. Ученая очерчивает необходимость учитывать направленность силы факторов маркетинговой среды во время позиционирования предложения товаров и услуг предприятия.

Действительно, важность достижения сущностного маркетингового знания, применения системоцентризма и метасистемности, способствует достижению правильного представления среди руководства предприятий об особенностях рыночного взаимодействия предприятий. Отмечается о распространении

фрагментарного характера рынков и размытости их товарных границ, что требует совершенствовать маркетинговые технологии взаимодействия с потребителями (Шиманська, 2015). На наш взгляд, развитие методологических положений маркетинговой логистической концепции будет способствовать повышению эффективности моделирования эффективности маркетинговой деятельности промышленных предприятий.

Институциональное влияние оказывается на формирование безработицы на рынке труда. Так, институциональная безработица как относительная ее форма связана с деятельностью субъектов рыночной инфраструктуры, которые экономическими и правовыми нормами влияют на занятость на рынке труда. Необходимо своевременно реагировать на колебания спроса и распределения рабочей силы. Важную роль в регулировании институционно-организационного обеспечения динамических процессов взаимодействия на рынке труда играет закон Оукена, показывающий взаимосвязь изменения безработицы и ВВП страны. Поэтому позитивные темпы прироста ВВП обеспечивают неизменность нормы безработицы.

Отметим, что уровень зарегистрированной безработицы в Украине в феврале 2011 г. составлял 2,2%, что на 0,1% выше, чем в январе 2011 г. (Unemployment rate in Ukraine, 2016). Институциональное обеспечение рынков образовательных услуг и труда с учетом концепции человеческого развития влияет на наполнение социально-экономической категории «уровень жизни».

Вот почему в ориентированном на человеческое развитие обществе достигается постоянный прогресс уровня жизни. В этом контексте определенным индикатором, что отображает уровень жизни выступает размер среднего дохода на душу населения. Данный показатель выявляет роль достижений НТП, науки и образования и место интегрированных маркетинговых коммуникаций в повышении благополучия общества (Колот, 2009). Вычисление показателя, который определяет конкурентоспособность высших учебных заведений, предопределено целесообразностью внедрения концепции маркетинга в деятельность образовательных заведений.

5.3.

МАРКЕТИНГОВАЯ КОММУНИКАЦИОННАЯ ПОДДЕРЖКА МОТИВАЦИИ ПОТРЕБИТЕЛЕЙ НА ВЫСОКОТЕХНОЛОГИЧЕСКИХ И ЭНЕРГЕТИЧЕСКИХ РЫНКАХ

В ходе построения партнерских отношений на рынках товаров и услуг необходимо широко внедрять принципы и методы маркетингового взаимодействия во внутренней среде организации. Быстрое и адекватное реагирование на изменение вкусов, предпочтений, аспектов поведения потребителей становится возможным на основе комплексного и интегрального сочетания маркетинговых коммуникаций и системы рыночного распределения товаров и услуг. Управление сложными процессами взаимодействия во внутренней среде организации должно быть обеспечено на основе учета социального и интеллектуального аспектов капитала, повышения морально-этических норм организационной, внутрикорпоративной культуры.

Организация процессов маркетингового взаимодействия во внутренней среде организации позволяет распределить ответственность по иерархическим уровням управлениям и стратегическим бизнес-единицам хозяйствования. Повышение образовательного потенциала персонала, внедрение прогрессивных методов разрешения конфликтов, коммуникационное обеспечение сложных процессов маркетингового взаимодействия позволяют в сумме получить синергический эффект.

Такой эффект зачастую возникает на основе системной интеграции методов, механизмов, схем и приёмов современного маркетингового взаимодействия участников трудовых, производственных и рыночных процессов. В этой связи следует всячески поддерживать и развивать украинский язык во взаимоотношениях экономических агентов, физических лиц во внутренней и внешней среде предприятий и образовательных организаций в Украине.

Коммуникационная поддержка мотивации потребителей позволяет улучшить конкурентные преимущества предприятия, поставляющие товары на целевые рынки. В ходе мотивации обязательно необходимо учитывать набор взаимодействующих и взаимопроникающих рыночных факторов, оказывающих влияние на принятие потребителями решения о покупке товаров. В процессе бизнес-взаимодействия также целесообразно придерживаться стандартов экологической безопасности регионов. Важно поддерживать позитивный социальный климат, который будет базироваться на использовании отраслевых традиций, потребностей и настроения работников в процессе взаимодействия во внутренней среде организации.

Особую роль среди субъектов маркетинга и менеджмента в сфере бизнес-взаимодействия, маркетинговых коммуникаций играет личность потребителя, посредника, менеджера, маркетолога. Именно эта личность, персонифицированный носитель, сознательный обладатель, пользователь или конечный потребитель товаров или услуг осуществляет свой потребительский выбор, оценку взаимодействия во время покупки (Зозулёв, 2011). Отметим, что в процессе бизнес-взаимодействия важно определять коммуникационные характеристики контактного персонала, участвующего в сервисном обслуживании. При этом сотрудники сервисной фирмы должны обладать такими характеристиками, как: компетентность, общительность, доброжелательность, профессионализм, умение владеть собой, вызывать доверие и ответную реакцию партнеров.

При маркетинговом взаимодействии во внутренней и внешней среде организаций необходимо изыскивать возможные пути привлечения институтов социального партнерства и институтов гражданского общества к широкой программе реформ, связанные с возможностями, которые предоставляет Договор об ассоциации между Украиной и ЕС. В этом аспекте важным является определение ожиданий от поддержки европейскими институтами процесса внедрения договоренностей в рамках Договора об ассоциации и Договора о глубокой и всеобъемлющей зоне свободной торговли между ЕС и Украиной. В этой связи улучшается рациональность взаимодействия субъектов формирования конкурентоспособности и образовательного потенциала, обеспечивается адекватное реагирование образовательного потенциала и его взаимодействие с маркетинговой деятельностью предприятий с учетом динамичной конъюнктуры рынков.

Стремительное развитие сектора услуг в экономике развитых стран вносит вклад в изменение механизмов маркетингового взаимодействия. Необходимо учитывать, что услуга состоит из двух частей: основная и дополнительная услуга. Поэтому обе эти составляющие требуют адаптивных маркетинговых мероприятий (Gronroos, 1990).

Проведение маркетингового анализа в условиях экономики знаний, позволяет повысить квалификации и компетенции работников в соответствии с запросами рынка труда и рынка образовательных услуг. Достижение стойких рыночных позиций вуза в условиях развития информационной экономики, является возможным на основе увеличения части профессоров, которые достигают значительных научно-образовательных результатов в определенной отрасли наук (Оболенська, 2001).

Следует отметить многофункциональность рекламных коммуникаций, что содействует успешному конкурентному позиционированию товаров и услуг.

Популярность торговых марок и брендов энергетической продукции содействует результативному продвижению энергетических потоков на высокотехнологических рынках. Активное сознание потребителя проявляется в понимании и четком стремлении к экономии энергии, широкому использованию альтернативных ее источников. Важно идентифицировать роль PR в системе комплекса коммуникационных потоков энергетического предприятия. В этой связи важно накапливать информацию и осуществлять аналитическую оценку состояния и конъюнктуры внутренних и зарубежных рынков энергетических ресурсов.

Л. В. Балабанова, Д. В. Федосеев понимают креативный менеджмент как элемент сферы инновационного менеджмента, отвечающий за предложение и развитие со стороны субъектов управления новых идей, воплощающихся в виде потоков научной технологической информации. Они уместно считают о важности использования системно-креативного анализа как аналитического инструмента творческого управления предприятиями. В свою очередь ученые акцентируют на сущности креативного маркетинга как концентрированное воплощение направленного на рынок креативного подхода к управлению продажами товаров и услуг (Балабанова, 2016).

Исследователи подчеркивают наявность креативной компоненты, являющейся ценностной составляющей продукта для современного потребителя. Присутствие такой компоненты во взаимоотношениях производителей, оптовой и розничной торговли с потребителями обеспечивает достижение устойчивой лояльности к торговой марке. Нестандартные решения возникают на основе креативного подхода и содействуют формированию конкурентных преимуществ на рынке. Действительно, коммуникационное восприятие в глазах потребителей, способствующее принятию решения о покупке, будет иметь нетрадиционный набор маркетинг-микс предприятия (Балабанова, 2016).

На наш взгляд, во время интенсивного взаимодействия и взаимопроникновения маркетинговых коммуникаций и интегрированной логистики именно системный креативный подход может позволить значительные дополнительные клиентские потоки и повысить объем маркетинговой ценности, генерированной в турбулентном и когнитивном пространстве.

П. М. Сокол отмечает применение социально-коммуникативных технологий относительно большой группы людей, выявлении их стереотипов. Она предлагает разграничивать такие инфологические принципы интегрированных маркетинговых коммуникаций, как: интеграция выбора, сочетание позиционирования и согласования плана относительно графика (Сокол, 2015). Считаем, что взаимодействие с целевыми аудиториями агропродуктовых предприятий на основе отмеченных принципов будет способствовать улучшению маркетинговой эффективности бизнес-коммуникаций.

Маркетологи и персонал энергораспределительных предприятий должны постоянно консультировать клиентов по вопросам использования и обоснования заключения коммерческих соглашений на поставку газа и энергетических ресурсов. Компании паблик рилейшинз касаются общей коммуникационной плоскости функционирования энергетического предприятия, поэтому следует направлять всеобъемлющие информационные потоки в социальное пространство бизнеса. Такие потоки должны нести составляющую энергосбережения, экологического рециклинга, заботы об окружающей природной среде в процессе энергораспределения и энергопотребления.

5.4.

МАРКЕТИНГОВАЯ ДИСТРИБУЦИЯ ПОТОКОВ ЭНЕРГИИ АЛЬТЕРНАТИВНЫХ ИСТОЧНИКОВ ПРИ ВЗАИМОДЕЙСТВИИ ЭНЕРГЕТИЧЕСКИХ ПРЕДПРИЯТИЙ

Отметим, что в современных глобальных условиях маркетингового взаимодействия важные решения менеджеры, маркетологи предприятий, особенно в сфере энергетического распределения, должны принимать мгновенно и правильно. При этом не должно быть затронуто качество и своевременность снабжения экономических агентов в промышленности потоками газа, топливно-энергетических ресурсов. Для поддержания рационального энергетического баланса поступлений и затрат позитивную роль в условиях энергетической зависимости промышленного сектора Украины будет играть широкое использование потоков энергии альтернативных источников. В настоящий момент весь мир переживает революцию возобновляемых источников энергии, которая поднимает плоскость энергетического взаимодействия на высший инновационный уровень.

М. И. Маниліч анализирует экономические особенности внедрения возобновляемых источников энергии, направленное на улучшение показателей энергоэффективности жилищно-коммунального хозяйства, констатируя взаимосвязь этого научно-практического направления с климатическими изменениями и безопасностью природопользования. Исследователь акцентирует на целесообразности изучения экономического содержания и правовых принципов европейской стратегии «Европа-2020», направленной на экономное использование первичных энергетических ресурсов, экономное функционирование бытовой техники, стимулирование установления счетчиков энергопотребления и высокоинтеллектуальных средств координации ресурсных энергетических потоков (Маниліч, 2015).

Ученый правильно выделяет главные правовые акты ЕС, направленные на улучшение уровня энергетического менеджмента ЖКХ и зданий, такие директивы как: энергопотребление зданий (Energy Performance of Buildings Directive), экологические требования к продукции, при изготовлении которой используется значительная энергия (Ecodesign Requirements for Energy-related Products Directive), маркировка товаров на основе их энергетической результативности (Energy Labelling Directive), увеличение степени применения альтернативных источников энергии (Directive for Promotion of the Use of Energy from Renewable Sources).

Коммуникационное разъяснение целесообразности внедрения энергосберегающих технологий (в т.ч. использование альтернативных источников энергии) в ЕС проводится на основе оптимально сформированной энергетической коммуникационной политики ЕС. В рамках такой политики сформированы и распространяются информационные потоки, которые перемещаются в пределах программ энергетически умной Европы (Intelligent Energy Europe), Skills и сайта Buildup (http://www.buildup.eu) (Маниліч, 2015).

Бесспорно, весомым моментом является согласование стандартов энергопотребления между странами. Соблюдение особенных стандартов по энергосбережению нуждается в весомых инвестициях. Так, сегодня ежегодно в возобновляемую энергетику Германии инвестируется около 1 млрд. евро финансовых ресурсов. Федеральный закон Германии «О возобновляемых источниках энергии» предусматривает включение энергии, которая генерируется с возобновляемых источников до единственной энергосистемы и побуждение к расширению инноваций в

энергетике за счет постоянного уменьшения тарифных ставок (дегрессии) для инновационного оборудования генерирования энергии.

В процессе технологического и маркетингового взаимодействия в энергетических сетях возможны потери энергетических потоков на пути от котельной к потребителю. В ходе взаимодействия в котельных с несущими сырьевыми материалами наблюдается электроэррозия. При энергетическом взаимодействии целесообразно применять крышные котельные, имеющие набор преимуществ; их стенки технически реализуются из стеклоблоков. Также следует осуществлять компаративный анализ пиролизного горения в процессе функционирования теплогенераторов. Тесное взаимодействие тепловых и энергетических потоков характерно при работе теплового генератора для воздушного отопления на базе установленного теплообменника.

В современных условиях интенсификации коммуникационного взаимодействия экономических агентов необходимо снижать потери в энергораспределительных сетях. На наш взгляд, содействует энергосбережению распространение логистических систем, о чем справедливо подчеркивают ученые-маркетологи, экономисты многих научных школ. В частности, представители научной школы маркетинга и логистики Национального университета «Львівська політехніка» (Ukraine) Е. В. Крикавський, Н. В. Чорнописька правильно отмечают, что в логистических системах реализуется синергетический эффект.

Такой эффект проявляется в ускорении материальных и энергетических потоков, а также снижении логистических затрат и повышении уровня удовлетворенности клиентов (Крикавський, 2009). Действительно, внедрение логистических систем в энергопроводящие сети, особенно в интеграции с энергетическими технологиями Smart Grid содействует повышению аккумуляции энергии и снижению ее цены.

Ю. Е. Губени описывает экономическую деятельность сельскохозяйственного кооператива «Тргови Штєпанов» (ZD Trhovy Љtmpanov), Чехия, отмечая значительную производительность ведения хозяйства за счет внедрения новейших технологий. Высокотехнологическое производство способствовало трансформации этого кооператива в корпорацию, а затем – в холдинг. Действительно, как отмечает ученый, отходы производства на этом предприятии уместно превращают в биогаз, который способствует энерго сбережению.

Исследователь подчеркивает важность функционирования ветеринарной, агрохимической и продовольственной лабораторий в пределах этого холдинга, применения самых современных методов бизнес-коммуникаций, целесообразность обучения и повышения квалификации сотрудников аграрно-продовольственных предприятий. Действительно, развитие аграрных холдингов способствует ускорению распространения инноваций в аграрно-продовольственной сфере. Именно поэтому исследование часовой производительности распределительных операций на агропродовольственных рынках следует проводить в сопоставлении с производственной деятельностью агропродуктовых кооперативов, корпораций, холдингов (Губени, 2012).

Контент-маркетинг позволяет интенсифицировать и стабилизировать во времени взаимоотношения производственных экономических агентов агропродовольственных рынков с потребителями, повышая степень лояльности и потребительской благосклонности к торговым маркам пищевых продуктов. На наш взгляд, следует в полной мере применять возможности, которые предоставляет Соглашение об ассоциации между Украиной и ЕС в сфере международного маркетинга и организации бизнеса в сфере пищевых продуктов. При этом бесспорно интеграционные процессы с

внутренним рынком ЕС будут стимулировать прохождение реформ аграрного рынка в Украине.

Для поддержания рационального энергетического баланса поступлений и затрат позитивную роль в условиях энергетической зависимости промышленного сектора Украины будет играть широкое использование потоков энергии альтернативных источников. В процессе энергораспределения целесообразно использовать стратегию дифференциации обслуживания клиентов на основе коммуникационного взаимодействия с региональными центрами дистрибуции.

Коммуникационное разъяснение целесообразности внедрения энергосберегающих технологий (в т.ч. использование альтернативных источников энергии) в ЕС проводится на основе оптимально сформированной энергетической коммуникационной политики ЕС. В современных условиях интенсификации коммуникационного взаимодействия экономических агентов необходимо снижать потери в энергораспределительных сетях. Внедрение логистических детерминант в структуру механизма управления единой энергетической системой способствует сбережению энергоресурсов.

5.5.

ЗАКЛЮЧЕНИЕ

Организация учебно-научного процесса в рамках взаимодействия с рынком труда, позволяет улучшить уровень знаний и компетенций выпускников, адаптировавши такой комплекс умений к потребностям рынка. Процедуры обеспечения качества высшего образования находятся в прямой зависимости с уровнем организации научно-исследовательских работ в вузе. Такой уровень гарантируется путем создания научных институтов и лабораторий качества образования при ведущих образовательных центрах регионов Польши и Украины.

Данное исследование проведено в рамках реализации государственной бюджетной научной темы №3-308-15 «Маркетинговое коммуникационное обеспечение внедрения в Украине систем энергообеспечения на основе использования альтернативных источников энергии» Министерства образования и науки Украины.

Важно использовать честные методы конкурентной борьбы и создания коммуникационных сообщений при планировании и организации прямого и интернет-маркетинга в глобальном коммуникационном пространстве. Необходимо придерживаться делового стиля общения во время организации важных переговоров, коммуникационного взаимодействия.

_____

VI

LOGISTICS SYSTEM OF A LAW FIRM
IN THE DATABASE SYSTEM

_____

EWA KULIŃSKA

6.1.

INTRODUCTION

The basis for the fulfillment of the conditions for well-functioning logistics system of a company is to create a specific configuration of simultaneously used physical, financial and database resources, as well as those related to staff with high competence and the ability to create long-term customer relations. A company that uses its resources properly can become extremely competitive in the environment of the industry it pertains to (Mikuła, 2006).

The publication focused on the functioning of the logistics system in the database system. The object constituting the core of the research is a service company, namely law firm "Kancelaria Adwokatów i Radców Prawnych Jarosiński, Kuliński i Partnerzy".

The aim of the article is to present the possibilities of improving the work organization of that law firm using the database.

The proposed solution should allow for easy collection, processing and analysis of acquired data, as well as impact the streamlining of the company by reducing the time necessary to search for data in paper case files, and thus allow for better and faster flow of information within the Firm, and between the Firm and entities external to it. Another benefit should concern the increased productivity of employees who would dedicate the time saved on searching through case files on drafting pleadings and handling more clients.

6.2.
THE STRUCTURE AND SIGNIFICANCE OF THE LOGISTICS SYSTEM IN SERVICE COMPANIES

The logistics system in service companies can be defined as a deliberately designed and structured workflow of logistics streams. The structure of each of the logistics systems can determine the hierarchy of individual components, by specifying subsystems as the elements of a broader significance and smaller segments that constitute them.

Service companies belongs to a specific group of businesses, which lack – as far as logistics is concerned - a full three-stage cycle, i.e. subsystems of supply, production and distribution. In this case, only two stages are defined, namely supply and production, or supply and production joined with distribution. This is a key difference between service companies and enterprises operating within the market of material goods (Filipiak, Panasiuk, 2008).

Figure 6.1. presents a comparison of the structure of the logistics system in service companies and industrial companies
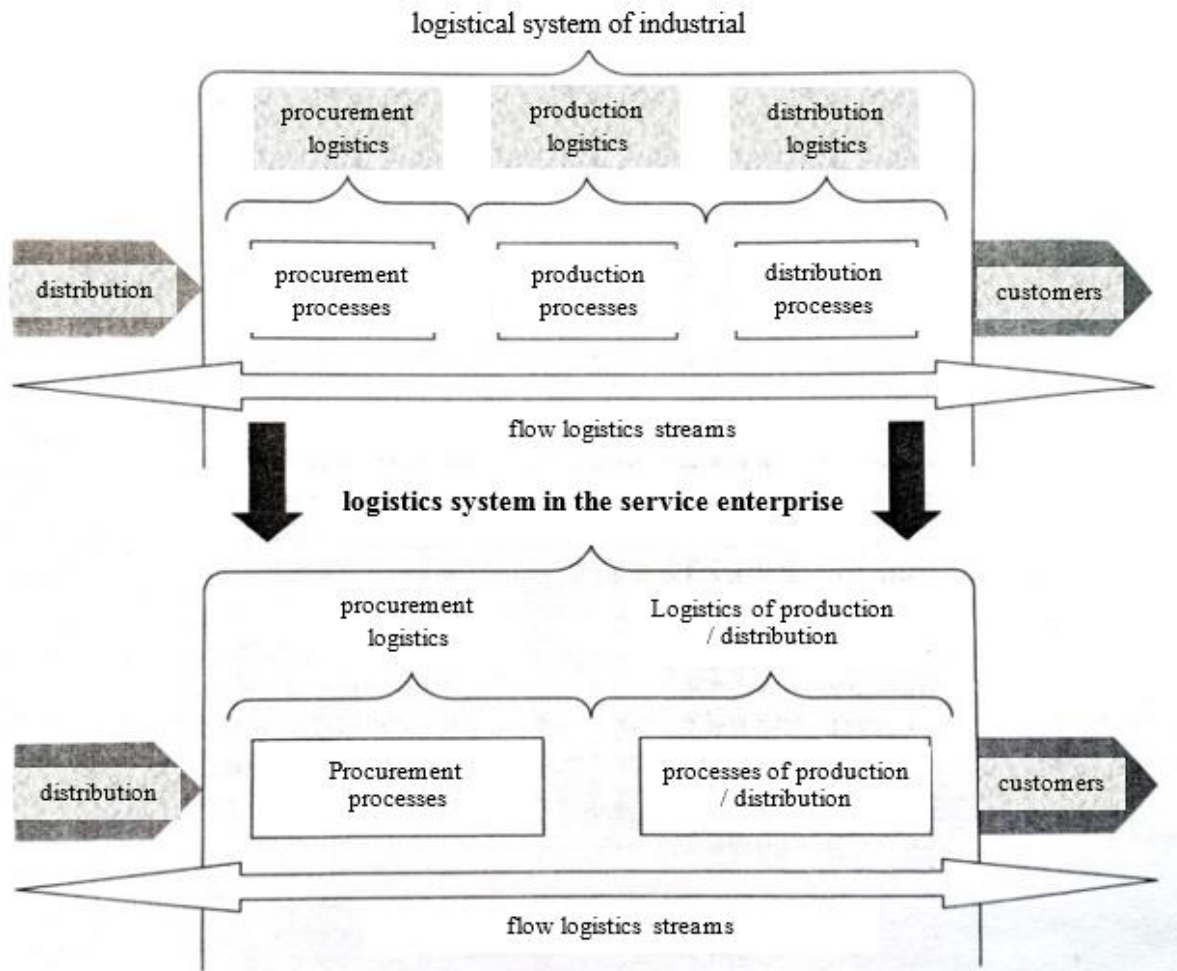
Figure 6.1. Comparison of the logistics system in service and industrial companies
Source: (Filipiak, Panasiuk, 2008).

In service companies, subsystems of the logistics system are characterized by relations and feedback determining the integration of the system in its entirety, i.e. the fact it constitutes a coherent whole. These links become specified thanks to simultaneous processes of flow stream and conversion of the material stream. It can be concluded that the set of behavior of all elements determines behavior of the entire logistics system.

The entire structure of the service company is made up of a number of functional subsystems, and its logistics system is only one of them, at the same time interacting with other subsystems. Therefore, logistics is often perceived as a cross-section function of the system.

Structuring and formation of the logistics system of a service company is done by exploring the structure of the system and the links between its elements. There are two basic structural spheres of the logistics system of a service company that can distinguished:

- physical flows, i.e. transportation and warehouse processes forming four utilities to increase the stream value (usefulness of form, time, place and possession),
- regulation spheres, i.e. spheres of management and control over logistics processes.

The functioning of a service company can be represented as clearly through the pattern of the logistics system according to the operational level (Figure 6.2.).
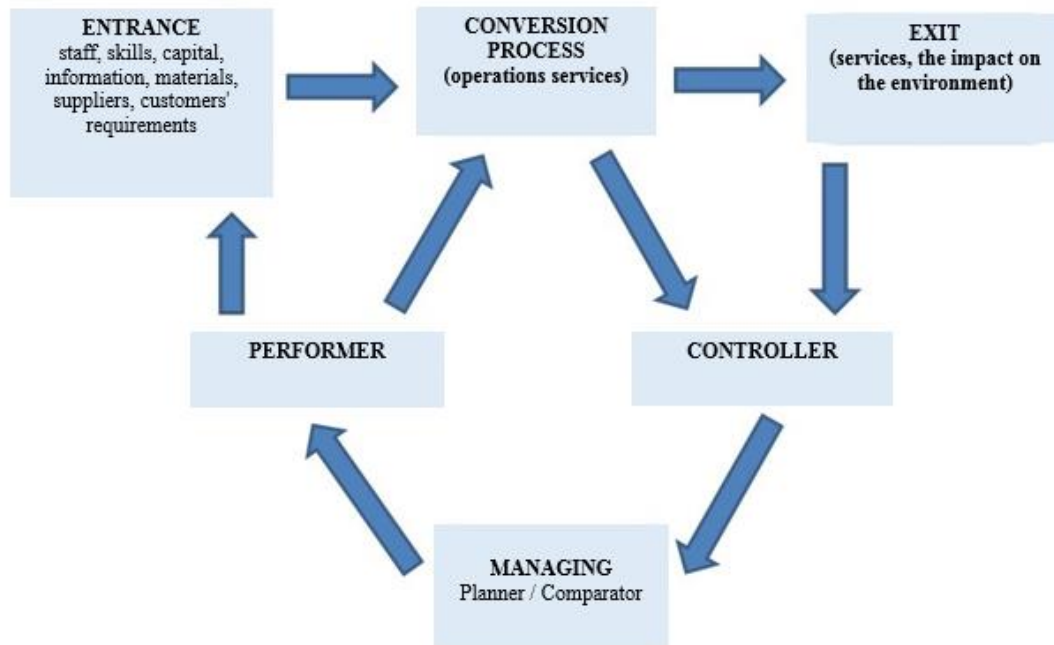
Figure 6.2. The logistics system of service companies as seen from the operation level
Source: own study based on: (Bennett, et. all, 1988).

The figure above shows all the relations between the elements and their properties, aimed at creating a service, which is the output module, by implementing all input elements through connecting links, including (Bennett, et. all, 1998):

- planner seeking to customize the system according to the needs; contractor whose mission is to eliminate any deviations in order to obtain the final result of the process in accordance with customer expectations,
- comparator constantly recording any changes in the process of service preparation,
- controller checking whether the final result is in line with the expectations.

The logistics system in a service company plays an equally important role as in any other business. It is a tool constructed so that, by implementing specific logistical tasks, it leads to the achievement of the objectives set by the company (Kuklińska, 2013).

System approach to services enables accurate preparation of a service company to come up with the right way of proceedings. One can specify subsequent phases of preparing a system dedicated to a specific company, aimed directly at the nature of its activity, i.e. (Korzeń, 1998):

- phase of analysis of the situation and the specific tasks and determinants of the system;
- phase of shaping the structure of the system,
- phase of coupling the logistics system and subsystems with other subsystems specified in the framework of the company,
- phase of system implementation.

The logistics system is designed to regulate all activities in the company from the moment of accepting the performance of a service up to its final fulfillment, control associated information flows, data collection and control of the entire process.

The two most significant characteristics of the logistics system are:

- significant degree of cohesion - it means that links between various subsystems and their dependency on each other are strong enough that introducing changes in one subsystem automatically triggers changes in other systems,

− flexibility - manifests itself through the ability to respond to changes occurring in the economic or competitive environment, and hence vulnerability to price changes or change in the level of taxes.

A well-designed and well-functioning logistics system is the key to achieving what is especially important for service companies, and that is: gain a competitive advantage, providing customers maximum satisfaction with the service provided and sustainable development - all while incurring the lowest possible costs and generate the biggest profits. It is extremely important to properly manage logistics processes using the developed logistics system. For that system to function smoothly in full, permanent acquisition and processing of information is required.

6.3.

THE SCOPE OF USAGE OF DATABASES IN THE LOGISTICS OF SERVICES

Databases are widely used in logistics, both among production commercial and service-oriented companies. Enterprises have extensive information resources that require storage and analysis.

To ensure more effective and efficient functioning of the company, modern logistics systems require the application of more and more modern solutions. These systems guarantee a smooth and precisely controlled growth of the company.

Service companies accumulate large amounts of data necessary for the proper functioning, envisaging their capabilities and improving their market position. Special care of the data collected in the base, controlling its proper flow and synchronization are crucial for logistics systems of service companies. The flow of information, which – in these systems – occurs between the customer and the service provider, is a guarantee of delivery to the customer a service that will fully correspond with his or her expectations.

Figure 6.3. presents a scheme of good practice in the implementation of service oriented at data collection, in order to better understand the customer and meet their needs accordingly.
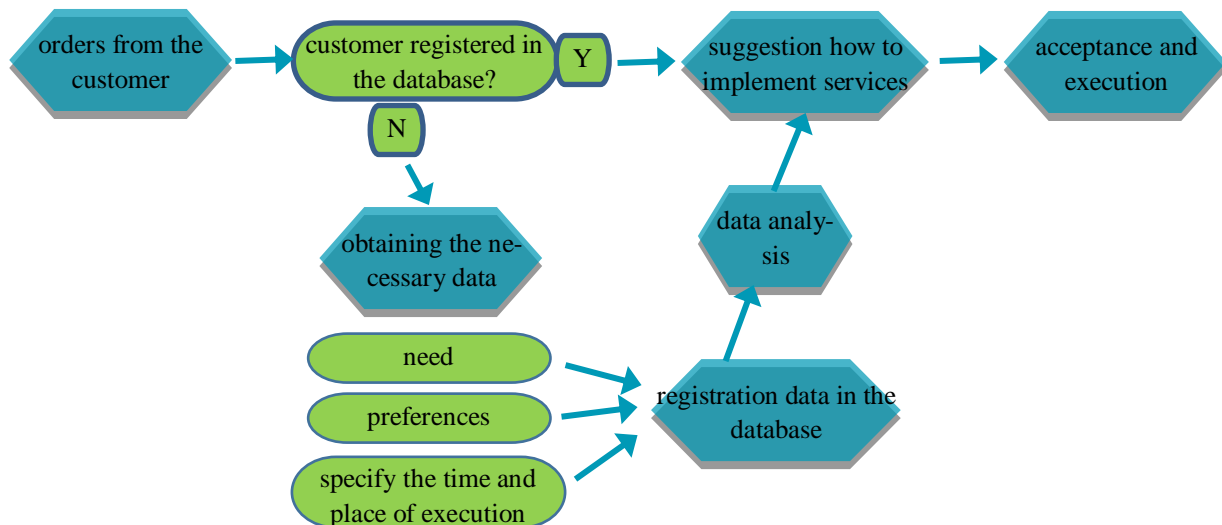

Figure 6.3. Scheme of the proper conduct in accepting orders and preparing services
Source: own study.

The smooth flow of information offers the ability to take appropriate decisions when face with a given situation at a given time, and perform specific activities in order to fulfill the service. Departments of service companies responsible for controlling service contracts and their final fulfillment must have the necessary information about (Gołembska, Brauer &Tyc-Szmil, 2009):

- specific customer expectations,
- services fulfilled for a client so far,
- stage of fulfilled service,
- company capabilities to fulfill a specific service,
- fulfillment status of other services if they require physical involvement of the service provider for a specified time, in order to adapt the date of service fulfillment to the company's time capabilities time and the deadline desired by the client,
- state of existing tools if service fulfillment requires them,
- contact details of service recipients, especially if the service is fulfilled at the client's, and to maintain constant post-completion contact.

The data stored in the databases of each service company should be kept up-to-date or expanded to meet the ever-newer demands and needs. When creating a database, one must be aware of the possibility of its future expansion and a broader perspective of information recognition. The database should be developed and improved, not only alongside the development of the company, but with the ever-changing needs of clients whose expectations are constantly getting higher, and the service company must be ready to introduce changes in order to meet these expectations.

6.4.

THE CHARACTERISTICS OF THE AUDITED ENTITY

The company subjected to research is a law firm named „Kancelaria Adwokatów i Radców Prawnych Jarosiński, Kuliński i Partnerzy". It is a service company, providing services listed in the section "M", item "69", of the 2008 Polish Classification of Goods and Services, as legal services (*Clasyfication PKWIU 2008*, 2016). The firm has been operating as partnership as of 22 November 2001 and is entered in the Register of Entrepreneurs of the National Court Register.

Due to the continued and years-long activity on the market of legal services, the Firm is characterized by both high achievements of knowledge, experience and a wide range of customers, which in turn contributed to its strong position on the market of legal services.

The Firm provides legal assistance to joint stock companies (including companies listed on the stock exchange), limited liability companies, partnerships, civil partnerships, foundations, associations and government offices, schools and individuals.

The Firm does not only direct its activities on the local market, but provides legal services throughout Poland and abroad, collaborating with lawyers working within individual provinces. The position, strength and value of the Firm is further reflected by a large number of foreign clients who increasingly apply to have their cases led by the Firm in question.

The Firm maintains regular contacts with notaries, bailiffs, tax and financial advisors to provide its clients assistance as much as possible corresponding to their needs.

Every employee in the Firm has a clearly defined set of responsibilities, so that within the cooperation there are no signs of disorientation or confusion when having to perform specific activities. Figure 6.4. presents the organizational structure of the Firm.
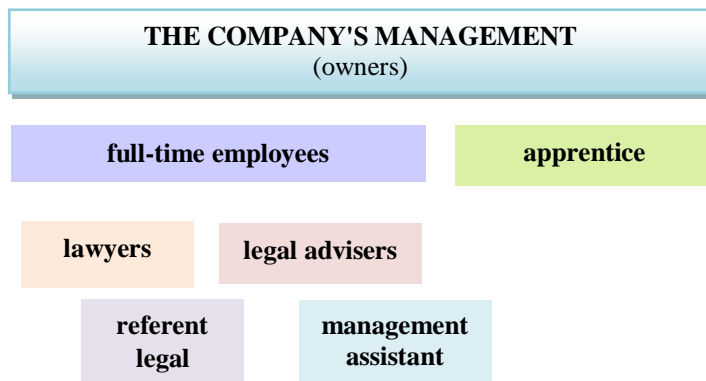
```
┌─────────────────────────────────────────────────┐
│         THE COMPANY'S MANAGEMENT                │
│                  (owners)                       │
└─────────────────────────────────────────────────┘

┌──────────────────────────┐   ┌─────────────────┐
│    full-time employees   │   │    apprentice   │
└──────────────────────────┘   └─────────────────┘

┌──────────────┐  ┌──────────────────┐
│   lawyers    │  │  legal advisers  │
└──────────────┘  └──────────────────┘
    ┌──────────────┐  ┌──────────────────┐
    │   referent   │  │   management     │
    │    legal     │  │    assistant     │
    └──────────────┘  └──────────────────┘
```

Figure 6.4. Organizational structure of the Firm
Source: own study.

The overriding decision-making role in the company is played by members of the board, who are also the founders of the firm. They distribute responsibilities between individual employees, and assign legal advisers and officer trainees legal cases they ultimately are to lead, while exercising continuous control over all activities occurring therein.

Full control over the course of employees' activities guarantees high-quality services and eliminates any confusion regarding taking actions or drafting pleadings. This gives clients a feeling of complete security, and also reinforces the trust placed in the Firm and creates bonds resulting in long-term cooperation, and thus strengthens the position of the Firm on the market of legal services, which put together may be described as a success.

Additionally, the owners of the Firm make an effort to permanently keep in touch with their clients, keep them up to date in terms of any changes, and in particular hold regular meetings with key clients due to the size of their undertakings.

Legal advisors, trainees and legal referents have very similar tasks. They offer legal advice, conduct meetings with new clients, deal with the conduct of ongoing cases and draft pleadings. What can be clearly specified is the fact that legal advisers and trainees actively participate in court hearings, while legal referents do not hold such powers.

Responsibilities of the assistant to the board involve keeping in touch with existing clients in order to inform them about the activities undertaken in matters concerning them and of received pleadings or at scheduled new dates of hearings. In addition, the assistant is responsible for the timeliness of the activities undertaken and the proper circulation of documents, and - most importantly - for the archiving of data about clients and their cases. Furthermore, the Firm trains apprentices who gain the necessary knowledge, skills and experience, while supporting the work of the team.

The specificity of the tasks of the Firm requires collecting, analyzing and processing massive amounts of data. Efficient management process is therefore necessary and it should cover labor resources, time, as well as information.

With the gradual growth and expansion of the activities on the legal services market, the Firm has developed a very good form of the management of its activities that contributes to its current condition. Its operative area is gradually expanded, making it a very competitive enterprise as compared to other such companies.

Particular attention should be therefore paid to the method of collection of acquired data so that obtaining information and performing analyses could be conducted in a smooth manner and without excessive involvement of employees, thereby improving their efficiency in the performance of other key duties such as preparation of letters, ongoing contacts with

clients, acquisition of new clients, representing clients before the court, developing strategies in individual cases, etc.

This very aspect is the key research problem, the solution of which should result in the development of convenient solutions, giving the possibility of using a system that efficiently processes, analyzes and uses data.

To adequately control the current changes in particular cases and manage them, it is necessary to specify basic information. This includes:

1. Information about the client, including:
    - client's name,
    - exact address,
    - phone number,
    - PESEL (Polish Resident Identification Number),
    - NIP, optionally REGON and KRS (for companies)
    - e-mail address,
    - bank account number
2. Information about specific cases, including:
    - client's name,
    - firm's signature for case files,
    - case status,
    - contact details of the Court before which proceedings are currently pending or data of the bailiff conducting the enforcement proceedings,
    - court signatures for case files or bailiff signatures,
    - name of the other party to the proceedings,
    - contact details of the person representing the other party to the proceedings,
    - information about individual events that have occurred in the case,
    - in the event of termination of the case, annotation of archiving files
3. Information about incoming and outgoing correspondence,
4. Information about issued invoices for individual clients,
5. Information about the dates of hearings.

So far, the law firm has operated a simple tabular summary of the cases, containing the names of the parties, legal signatures for case files and firm's signatures assigned to particular cases. The data regarding incoming and outgoing mail is entered only to the correspondence register, summary invoices are entered into a separate register, and information on the dates of hearings are entered into the paper calendar and – conveniently - electronic calendar that can be edited from any location provided one has access to the Internet and a device such as computer, tablet or smartphone.

6.5.

THE DEDICATED DATABASE FOR THE AUDITED COMPANY

Based on the analyzed needs of the Firm and verifying the previously used methods of data processing, developed was a solution that aims to improve the way of managing data, flow of information - both internally and between the firm and the client - and increase team productivity by streamlining the process of acquiring case-related data necessary to perform certain activities.

The proposed solution is to implement a database designed in Microsoft Access. With the introduction of this solution, the need to search for the most urgently needed data will be reduced to a simple action, and that is to check the information in the database, without having to remove the case file or flip through correspondence registers and calendars.

In the proposed database, after opening a login window will appear with a bar to select user and enter password (Figure 6.5.). Thanks to this, access to full editing of information in the database will be had only by the employees, and the trainees using he database will be able to gain insight only into a preview of the data.
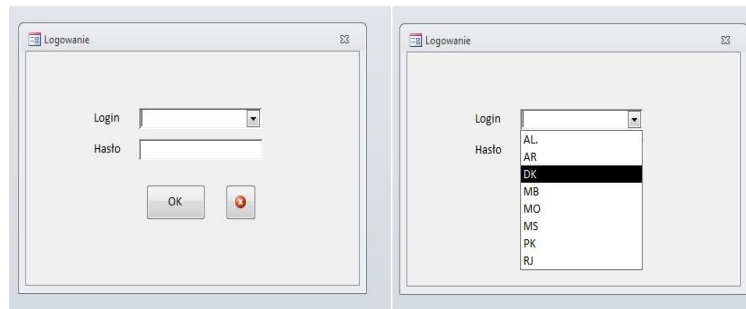

Figure 6.5. Login panel the database
Source: own study.

After logging in, a menu window will appear with the presentation of the logo and the name of the Firm, equipped with the following modules:

- clients - a list of clients will appear with the option to search for and add new ones,
- invoices – a window will appear with the option to display the selected invoices or add new ones,
- case index - a list of cases with the option to search a specific case,
- mail sent register – makes it possible to add new items to the register
- create a new case - opens a window allowing to create a new case,
- calendar - under this heading, it is possible to introduce tasks to do with determination of a specific date and indication of the person responsible for that task,
- time Sheet – makes it possible to enter costs relating to settlement of the case with the possibility of determining the duration of the meeting with the client and the salary accepted,
- courts database - displays a list of Courts with the possibility of adding more positions (Figure 6.6.).

Figure 6.6. Main menu
Source: own study.

To achieve this effect, it was necessary to design the layout and the operation of the whole database application. Presentation of different planning states will be discussed from scratch, i.e. selected will those values that are considered necessary for the database to be functional and meet the needs of the Firm.

21 tables were introduced to the database. This amount was necessary to be able to use all the planned functions.

In the original plan, the base was to be much simpler, but after a thorough analysis of the chosen solution, it was found that the expansion of the base with additional modules could prove very useful. Using all the features offered by the designed database is not required. The modules the bases ended up being expanded by were:

– time sheet,
– invoices,
– mail sent register,
– calendar.

The created project is experimental, set to introduce any modifications adequate to the needs of the user. In the event of any of the modules being redundant, it can be removed from the database, the same as when it is necessary to add another one can expand the database.

The elements without which the database could not meet the growing needs of the Firm, are:

– clients,
– case index,
– create a new case,
– courts database

The first created table from the list of those necessary was the table "tblKlienci" (Clients) where one can enter the most relevant information about clients, as well as about the established ways of settling bills, determining hourly rates, declared range of services, connecting attachments that can be useful in pursuing the case, e.g. power of attorney. One can also save there information about the manner in which the client was acquired, allowing for later comparative analysis of how many customers applied to the Firm upon recommendation, how many after reading reviews, how many were acquired by the employees, etc. (Figure 6.7.)

Figure 6.7. Table used to store customer data
Source: own study.

Another introduced table is "tblRepertoriumSpraw" (Case index), set up to record information about the cases. The relevant firm's signature is declared, then the status of the case is determined - to be selected from the drop-down list; one can also specify the location where the files are stored if they have been archived, and it is possible to tick the appropriate field and enter the position under which they can be found in the archive. Also added was the field declaring the founding date of the act, person entering the data, as well as fields that determine the declared costs along with the option to mark whether they have been paid for (Figure 6.8.).

Figure 6.8. Table containing information on individual cases
Source: own study.

The tables formed according to the remaining criteria, containing - as required - more or fewer columns with the specified additional attributes follow the same pattern as the tables shown in the above figures.

Using the resulting database resources, the next step involved the creation of a multi-criteria decision-making model, thus assuming a procedure for creating various kinds of solutions, and then analyze the resulting effect, adopt the appropriate development scheme, or find another one that would better meet the requirements of the audited entity and better match its preferences.

After many attempts to determine the right solution, the final effect was reached in the form of a simple, intuitive and transparent, but at the same time multi-functional, module.

The database relying solely on data entered into the table, without breaking it into smaller thematic tables and adding relations, queries and forms to the base, it would be very illegible and inconvenient to use.

In preparing the project of the database, one should first lay out the links, i.e. relations between data stored in tables. These relations aim to:
- define standard links of consistency between the tables checked by the system,
- automatically generate the linkage condition in the query that uses the related tables,
- synchronize displaying data interconnected with relations

For the relations to work properly, one should remember meeting three basic conditions:
- fields in the table, to which the reference is to be directed, must have a specific unique index or need to make the primary table,
- the table, from which the appeal is derived, is the secondary table, while the table to which the reference leads, is the primary table,
- one should remember to tie together the fields of the same data type.

Every relation formed between the tables has two sides. The primary page (also known as "parent page"), to which the reference leads, is denoted by the number "1" and the secondary page (also known as "subpage"), referred to as "many" page, located near the secondary table, that is the one from which the reference derives. This page marked with the symbol of infinity "∞" (Figure 6.9.).
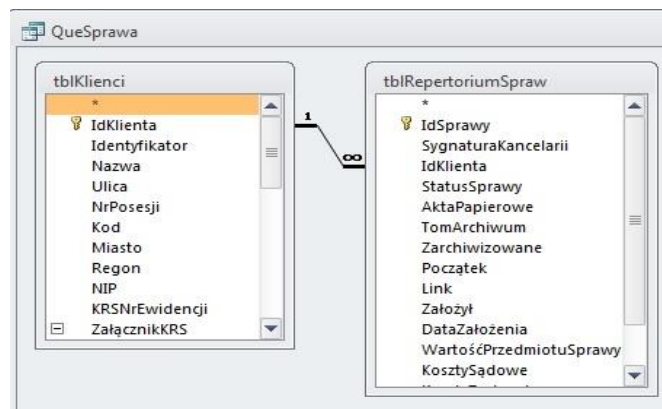
Figure 6.9. Designation of pages in the relation
Source: own study.

Each of the established relations can be defined in a simple way, determining the relationship between specific objects. In the case of the relation presented above, one can use the following wording: each case is linked to only one client, but each client can be linked to many cases.

The table below presents the map of relations created in such a way as to meet the needs and requirements of the law firm "Kancelaria Adwokatów i Radców Prawnych Jarosiński, Kuliński i Partnerzy" (Fig. 10). For this specific database, 8 relations between selected elements of the tables were introduced:

- „tblKlienci",
- „tblOsobaKontaktowa",
- „tblReprezentacja",
- „tblRepetytoriumSpraw",
- „tblTerminy",
- „tblUżytkownicy",
- „tblFaktury",
- „SygnaturaFaktura".

The elements which are the links between the relations are the following fields:

- IdKlienta,
- IdSprawy,
- IdUżytkownika,
- IdFaktury.
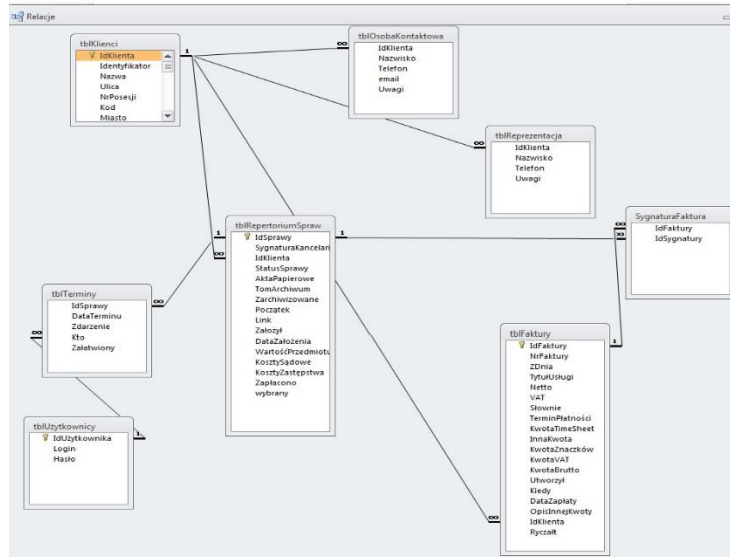
Figure 6.10. Map of the established relations
Source: own study.

Based on the thus obtained links, it was possible to create queries and forms. 39 queries established and 48 forms were established, the list of which is given below using two figures (Figure 6.11. and Figure 6.12.).
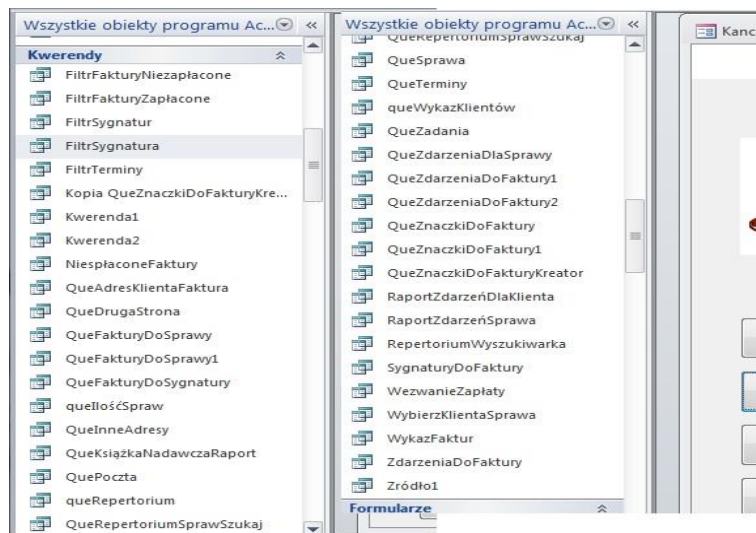
Figure 6.11. List of queries used in the database
Source: own study.
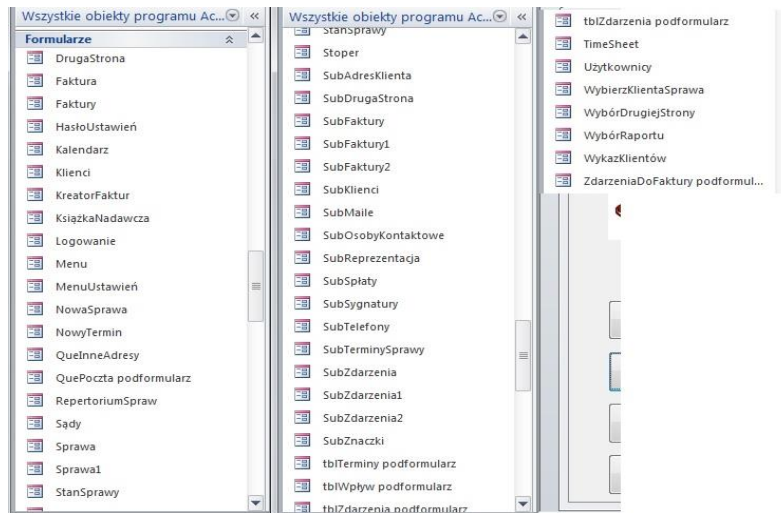
Figure 6.12. List of established forms
Source: own study.

Ultimately, achieved was a panel that is easy to use and that does not require from the user retrieving locations where they should introduced the newly collected data. One simply needs to open the right tap in the menu and the window will show up, adapted - as necessary - to edit, search or add the requested information.

The final effect of selected functions of the finished panel is presented in the figures below (Figure 6.13., Figure 6.14.).
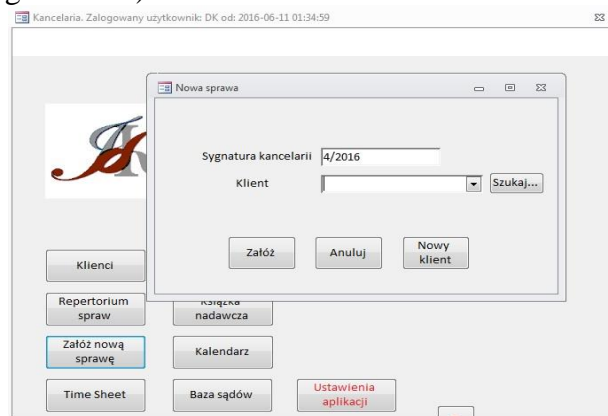
Figure 6.13. Registration window for new cases with the drop-down list of current clients
Source: own study.
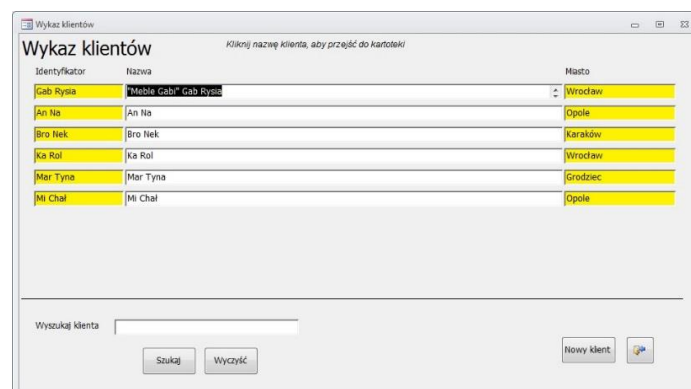
Figure 6.14. Module intended to search clients, with the option to register new people
Source: own study.

To obtain more information about the client, after locating them on the list, one should single-click on the field with the name of the client. A new field will then show up, containing all the information about the client data that have been previously entered into the database (Figure 6.15.).

Figure 6.15.Client data window
Source: own study.

Figure 6.16. Window intended primarily to search individual cases, with the option to create a new case
Source: own study.

When you open the case index window and finding the case relevant to the user, they can view the details of the case by single-clicking on the white field with the firm's signature. A new window will then show up, displaying all the information relating to the case, divided into the following thematic tabs:
- the other party - information about the representative to the opposing party,
- signatures - a list of court signatures conferred to the case,
- events - list of the important actions taken in the case,
- dates - list of dates of court hearings and appointments,
- inflow - information about supplied documents and evidence in the case,
- mail - a list of sent letters,
- invoices for the case - a list of invoices issued to the client (Figure 6.17.).
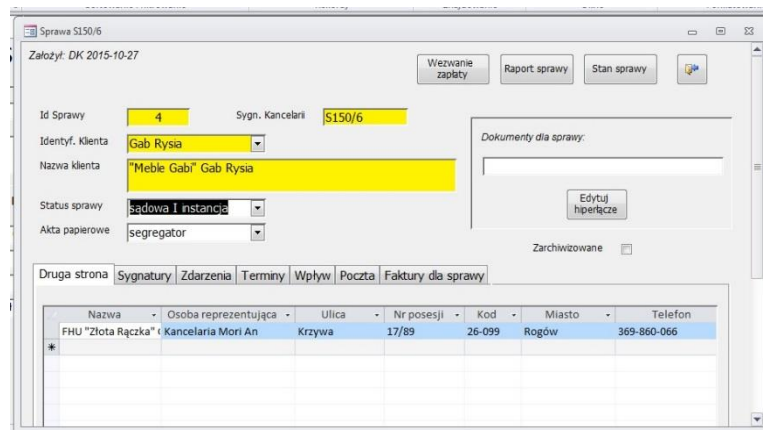
Figure 6.17. Window displaying case details
Source: own study.

The panels presented have a minimalistic and transparent design so as not to distract the user with an overly enriched or complex form. The basic premise when designing the look of individual modules was to create objects with a simple design and a limited number of colors. The modules should also be designed in such a way as to not to prove problematic in use to any user.

<div align="center">

6.6.

THE ANTICIPATED BENEFITS FOR THE COMPANY DUE TO IMPLEMENTATION A DEDICATED DATABASE

</div>

The main goal of the developed database was to achieve measurable benefits observable in the functioning of the entire firm. First of all, when using the designed solution in the collection and processing of data, one should expect the possibility of more efficient work of the whole team resulting from the considerable advantage in searching for the necessary information. The developed database allows logging events not available in the currently used case summary. Starting with the possibility of recording documents in circulation for a particular case, both outgoing and incoming, through the ability to add attachments with the files assigned to a specific case, ending with control over financial flows. These also include both the possibility of introducing the case subject, associated costs, service payment deadlines and marking those payments that have been settled.

Another benefit is the time savings and the ability to eliminate, at least partially, the need to retrieve paper case files in order to determine whether specific activities have been made, documents expected from the court, client or other party's representative have been included in the files, and, finally, finding customer contact details since, within the audited entity, electronic compilation of contact details had not been previously performed.

The time saved on searching files could be productively used to perform more important tasks, if all necessary information were collected in one electronic database. Finding them would then require incomparably less time. One could also avoid a situation of delaying taking actions regarding the case due to the inability to retrieve files on time. Because paper files, due to the number of proceedings, occupy a very large amount of space, it was necessary to store them in the largest room of the firm that acted as a conference room. In the case when meetings last all day, or are held at high intensity, access to the files is difficult. Recording information about any activity in the cases would allow for taking the desired actions at any time, without having to await physical access to the needed documents.

This, in turn, would translate to the benefit of people holding meetings at that time since they would not need to work with the customer under pressure and their attention could be focused on the client.

6.7.

CONCLUSION

Any company, regardless of the nature of the business activity it runs, should have an adequately developed, implemented logistics system matching its needs and expectations. This is necessary in order to maximize the efficiency of operation of such company, while simultaneously improving the efficiency of the flow of products, services and information within it.

The logistics system can be very complex, complicated and expensive to implement, requiring the involvement of several departments of the company to achieve its full performance and effectiveness. However, it can also be developed using much simpler tools that do not require incurring high costs and large human resources necessary for that purpose.

The aim of the article was to present the possibilities of improving the work organization of a law firm using the database. The research showed that even a service company, providing specialized legal services, can develop such a system, although for most people it is not strictly associated with logistics systems.

The developed database enables work optimization of the firm, as well as storage of all necessary data in one place.

By developing a simple tool, one can significantly increase the performance rate of the flow of information, both internally and externally. This also translates to the possibility of saving a lot of time in conducting certain activities and contributes to the productivity of employees who can focus their attention on more important issues.

The final effect is the contribution of all the factors to the increase of client service quality, and thus their satisfaction reflected in the sustained development of the firm and its even more significant growth on the market of legal services.

_____

VII

THE CONSUMER ON THE EUROPEAN MARKET – SELECTED ISSUES

_____

JUSTYNA MAJCHRZAK-LEPCZYK

7.1.

INTRODUCTION

The constant dynamism of European markets generates the need to improve the policies and communication procedures of businesses in order to adjust to the demands of customers and business partners. Stronger competitive struggle, the dynamism of demand, and above all, changes in consumer behavior are the factors which contribute to an ever higher risk associated with the possibility of taking misguided business decisions. What plays a significant role in this case is the knowledge of local conditions, which characterize individual countries or regions. They differ in consumption style, form and content of the marketing message or business relations. Thus, the economic entities operating in the European markets are forced to adapt to meet current consumer trends, characteristic of individual communities.

7.2.

CHARACTERISTICS OF EUROPEAN CUSTOMERS

In this article, the customer is defined as an individual buyer, purchasing products or services to meet their own needs or the needs of their loved ones. In an attempt to identify the characteristics of clients, one must start by defining their behavior. In the literature, there is a significant definitional variation of this concept. The article adopts an assumption- following J.P. Peter and J.C. Olson (2002) - that they constitute a process which is characterized by high dynamics of changes as well as controlled interaction and exchange within its framework. Undoubtedly, customer behavior is characterized by a growing dynamism exerting influence on the tastes and needs. Thus, the development of knowledge and technological progress of information technology significantly shape the nature of the market, companies and consumers themselves. Competitiveness of businesses triggers a battle for customers, it is done through improving their own businesses and taking measures adapted to the expectations of European markets. Therefore, knowledge and understanding of the needs is not only an element of euromarketing activities, but it is the duty of every entrepreneur, a necessary starting point for the development of each market offer (Kieżel 2012, Harissa 2009).

The literature research has shown a gap in the lack of comprehensive studies on the behavior of consumers in the European Union. There are numerous works in this area, but they refer to issues of consumer behavior in a fragmented manner, not in detail. The available publications discuss mainly the popular socio-demographic indicators. Cultural differences are analyzed at random. It must therefore be concluded that the expansion of the borders of the European Union does not translate in research in this area, which undoubtedly represents an important investment in the future research. Analyzing the behavior of consumers in the Euromarket one can therefore try to answer the question: Does the Euroconsumer ever exist?

European Union market has nearly 500 million consumers, thus constituting one of the largest retail markets in the world. Free trade in the EU[3] guarantees the "Union" customer a wide range of products, good quality and reasonable prices. What one should pay attention to in EU policy is to support economic growth and social change, while putting pressure on the broader consumer assistance (European Commission, 2016).

When planning to market their products companies operating in the European market should take into account the fact that the European Union is not a single market. Countries are defined by style of consumption, the perception of marketing or business relations.

---

[3] Freedom of movement also applies to Norway, Iceland and Liechtenstein.

Consumer behavior is determined by many factors of a different nature, such as geographical location, language, culture, religion and customs, etc. Therefore, for the marketing efforts to produce the desired effect, one needs to identify the similarities in different European countries. In Europe, there are distinguished groups of countries with relatively homogeneous cultures consumer (Lisowska-Magdziarz 2001):

1. United Kingdom and Ireland,
2. Germany and Austria,
3. The Netherlands, Luxembourg, Sweden, Finland, Denmark, Latvia and Estonia,
4. Greece, Portugal, Spain, Italy, France, Belgium, Cyprus, Malta and Slovenia,
5. Poland, Lithuania, Czech Republic, Slovakia and Hungary.

The knowledge of existing similarities can certainly define the differences in styles of consumption and communication.

Despite many similar features, European consumers also seek to emphasize their individuality, manifesting preferences in products coming from their own country. This is confirmed by the results of CET-scale, on the scale measuring consumer ethnocentrism, cited by M. Lisowska-Magdziarz (2007). They show that the biggest ethnocentric consumers in Europe are Germany, Britain and France. Ethnocentrical consumers think that products from their country are among the best, and they do not notice the advantages of products from other countries. What is more - they are convinced that by purchasing foreign products they do not support the domestic economy, but harm it. The observations show that the strength of ethnocentric attitudes decreases with the increasing income and level of education or opportunities for foreign travel, etc. (Liczmańska 2010).

The effect of the country of origin is a somewhat different phenomenon on purchasing decisions taken on the basis of ideas, or opinions about the country of origin of the brand / product. Often the product entering new markets is seen through the image of the country of its origin. Thus, consumers minimize the risk associated with buying new products, as they are guided by the knowledge of the country. The countries which are preferred are the ones characterized by technical and technological progress, as the brands derived from them are perceived as higher quality. One can even distinguish the states associated with particular characteristics. For example, Germany is characterized by precision and conscientiousness, Switzerland is associated with high-quality watches or cheeses, Scotland with whiskey, France qualitatively highly rated wines and perfumes, Italy is the land of pizza, while Sweden is nature and health. As can be seen, associations do not always apply to specific products, because they are often associated with feelings, or perceptions of the country concerned. In turn, on the other side there are the countries where quality is not highly esteemed, for example, Greece and Spain. The impact of the country of origin on consumer behavior can have dual direction: positive as the subjective assessment of the country of origin, strengthening the perception of the product and negative, which is also a subjective assessment of the country – however, leading to reluctance to purchase.

Therefore, manufacturers often use a marketing mechanism to label the package, "Made in EU", manipulating the information. The origin is then exposed in such a way as to be positively associated. A similar phenomenon which may occur in a society convinced of the superiority of their economies over the other is the so-called NIH syndrome (Not Invented Here), indicating a negative attitude towards products and solutions coming from other countries (Victor, Oczkowska & Żabikowska 2008; Nowak-Far, 2000).

7.3.

ADAPTIVE BEHAVIORS OF MARKET PLAYERS

In relation to the aforementioned trends in purchase decisions one can make a reference made to the Polish market. Frequently, the image of Polish products on foreign markets is not positive, prompting local producers to avoid informing about the place of production. What helps among other ideas, is the use of foreign-language brand name, suggesting foreign origin, as is the case for example in the clothing industry (Tatuum, Reserved, Solar or Gino Rossi, etc.). On the package one must, however, find some necessary data, such as:

- brand name,
- contact details of the manufacturer,
- barcode,
- national symbols of quality,
- ingredients,
- product description language, etc.

Polish producers are often forced to struggle with the stereotypes assigned to products in terms of low prices and poor quality. What is helpful in this regard is not highlighting the place of origin, or the universality of the brand name/product.

European consumers are increasingly interested in local products coming from their own country or region. It often has symbolic meaning, sometimes it is a matter of prestige, inspiring positive associations, or better perception compared to mass products available in many retail outlets. Besides the interest in regional products there is also curiosity and a desire to get to know different cultures, which mainly comes from traveling. This is reflected in the significant increase in the number of products from ecological regional crops.

The knowledge of these phenomena probably helps economic entities which function in the international market to standardize marketing activities. The strategy of brand standardization even in culturally diverse areas can be characterized by a clear message. The reason for this is, for example, a brand name, which is perceived similarly different languages. For instance Velvet, in English meaning "velvet", in Polish is associated with delicacy. The use of a famous person's name can also have a positive impact on the opinions and recognition of brands (Lipton, Heinz, Boeing, Porsche, Pierre Cardin, Calvin Clein, Eris, Batycki, Kler) (Nizielska 2010). At the same time it should be stressed that the strategy of standardization does not mean that the product will be at the global market in its original version. In order to meet customer preferences McDonald's global brand takes into account local preferences. For example, in the Netherlands and Belgium there is McKroket, McLaks (grilled salmon), in Norway, Croque McDo (the name comes from the popular sandwich with ham and cheese) in France, and WieśMac in the Polish menu, etc. Strong McDonald's brand awareness concerning consumer preferences enables to diversify its offering as well as change the interior design and the areas around.

It is necessary to adapt a global brand to local markets. The need for such a strategy can be seen based on the example of the Barbie doll, which became a success in Japan only when its appearance was adapted to the customer expectations. Dolls' eyes changed color to brown, hair became darker and busts got smaller. The adaptation processes are affected by many factors of different nature and the financial resources included there are very high. The most common causes of the need to adapt the product to the conditions of the target foreign market include: (Figiel 2004):

- the level of technical skills,
- the cost of labor,
- the level of illiteracy,

- the amount of purchasing power,
- the availability of consumer loans,
- distance of the target market,
- climatic and physical conditions of using the product,
- the size of the product,
- availability of other products,
- requirements related to safety, environmental protection, etc.,
- local tastes and habits of consumption, etc.,
- local competitive situation,
- market conditions.

It is clearly visible that the economic agents operating in the Euromarket without the knowledge and information about people's preferences and differences in purchasing will not be able to cope in a strong competitive struggle.

Table 7.1. presents cultural differences which occur in business relationships in Poland and Germany. The examples show considerable differences in some areas, despite the closeness of territories. Thus, increasing globalization, development of the Internet, the speed and complexity of access to information, or the migration of the population will not remove the cultural differences which could hinder the success of a business. The research by G. Hofstede conducted among 116,000 employees of IBM in 40 countries (Simpson 2012) shows the strong influence of national culture on attitudes.

Table 7.1. Cultural diversity between organizations in Poland and Germany

Specification	Corporate culture in most German organizations	Corporate culture in most Polish organizations
Attitudes to the news	Orientation on proven solutions, also possible conflicts about new concepts	Openness, innovation, pragmatic acceptance of new concepts
Networking and communication	Substantive orientation, focusing on substantive issues, personal relationship with a partner separated from the merits of the case	Orientation on personal relations as far as diplomacy, the emotional attitude expected by the Polish partner, besides the merits
Arrangements for contracts	Important agreements are written down	Oral agreement are acceptable
Attitude to planning and deadlines	some deadlines are expected	Expected space for flexibility and spontaneity
Attitude to success	The next task is already waiting	Success will be celebrated

Source: own work on the basis of: (Jaśniok & Komor 2008).

It is the culture which differentiates behavior rather than gender, age, profession, or an employee's position. Free time is important for many, when private matters are dealt with (individualistic culture). This cultural group are mainly English-speaking countries, but also Scandinavia, the Netherlands and Italy (Sipińska-Gołembska, Majchrzak-Lepczyk & Bentyn 2015). When conducting business internationally one should therefore bear in mind that the market is characterized by diversity manifested in different values, different customs and preferences. Despite many efforts to harmonize standards, it is noticeable that Europe is heterogeneous in terms of culture and consumer behavior.

7.4.

CULTURAL DIVERSITY AS AN ESSENTIAL FEATURE SHAPING CONSUMER BEHAVIOR

G. Hofstede defines culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another (Hofstede 2000). The importance of cultural differences has strong contextual conditions, and it varies in terms of country, industry or specific companies (Gorynia, 2005; Giannetti & Yafeh, 2012).

G. Hofstede made a distinction between masculine and feminine cultures, indicating significant differences. In masculine societies one can observe characteristics such as assertiveness, ambition, rivalry, the implementation of a career, or a relatively small concern for others and their fate. Among the most masculine societies are Austria, China, Ireland, Japan, Mexico, Germany, Slovakia, Switzerland, Venezuela, Hungary, Great Britain and Italy. Poland also belongs to this category of countries.

In cultures where there is no strict division between the roles of men and women one can notice humility, concern for others and the environment, as well as striving for an agreement. Women in these cultures often occupy managerial positions (the Netherlands, Costa Rica, the Scandinavian countries, Lithuania, Latvia and Slovenia).

Therefore, acting on the European market, it is reasonable to determine the factors determining the cultural environment of the company. These include (Nizielska 2010):

- values and attitudes,
- standards of behavior and lifestyle,
- the culture of the country / region,
- religion, ethics, morality,
- the role of women,
- language,
- the way people communicate and conduct negotiations,
- working time, ways of spending free time,
- level of education,
- the division into classes and social groups,
- distance to the new things,
- national awareness,
- family structure,
- the importance of non-verbal speech,
- symbols, myths, cultural, taboos, etc.

The impact of cultural variables on the image of the product is also described by M. Bartosik-Purgat (2004). In her opinion, the most important elements of culture, differentiating characteristics of products on foreign markets, are religion and language. In doing business on foreign markets one should also take into account the phenomenon of psychological and cultural distance. According to N. Papadopoulos and D. Jansen (Niezielska 2010) psychic distance is a sense of uncertainty with regard to foreign markets, and difficulties in search for the necessary information. In turn, cultural distance means all the differences between the culture of one's own country and the culture of the target country.

Another look at cultural diversity is exhibited in GLOBE concept (The Global Leadership and Organisational Behaviour Effectiveness Research Program)[4], where it was recognized in nine dimensions (House, Hanges, Javidan, Dorfman & Gupta 2004) (Figure 7.1.).
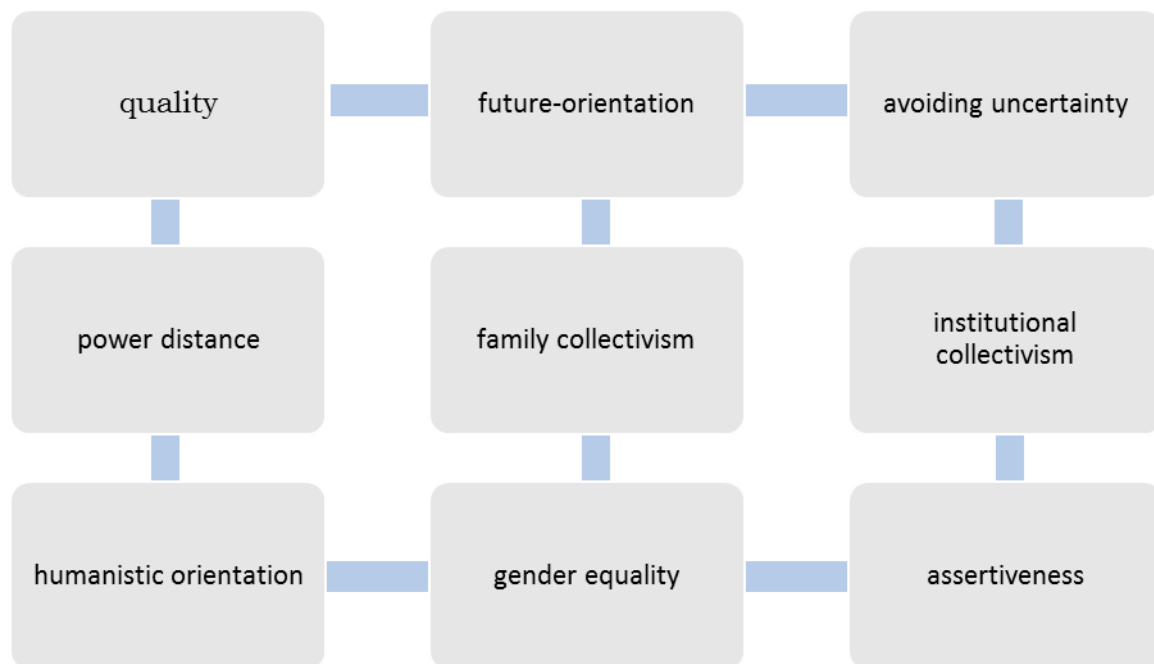
Figure 7.1. Cultural diversity in GLOBE concept
Source: own work on the basis of: (House, Hanges, Javidan, Dorfman & Gupta 2004).

A different division was made by R. Gesteland'a, which grouped the cultures: deal-focused and relationship-focused cultures, hierarchical (formal) and egalitarian (informal) cultures, monochromic and polychromic cultures, and expressive and reserved cultures (Table 7.2.) (Nizielska 2010). R. Gesteland's research was related to styles of business behavior in different countries. The researcher described the cultural differences and set types. It is therefore important to know what characterizes a given culture, what kind of behavior we are faced with, what to look for during the business talk, how to properly read the intention of the interlocutor and how to prepare for business talks, what kind of advertising messages to use. Questions in this regard can be numerous (Gołembska, Majchrzak-Lepczyk & Bentyn 2015).

Table 7.2 Typology of cultures by Richard Gesteland

Dimensions of cultures	
Type	**Selected features**
Deal-focused culture	- People are open to cooperate with strangers - They move quickly from general topics to business - A lot of things can be discussed on the phone, by fax, e-mail
Relationship-focused culture	- People are not willing to cooperate with strangers - It takes a lot of time to create mutual trust - Effective communication and problem-solving requires frequent personal contacts

---

[4] The project involved 17,300 middle managers management of 51 organizations from 62 different cultures. The main objective of this research project was m. In. determine whether and to what extent the culture affects organizational practices.

Egalitarian (informal) culture	– Informal behavior is not regarded as a sign of disrespect – People are uncomfortable with large differences in social and professional status
Hierarchical (formal) culture	– Formality is an important way of showing respect – The differences in social and professional status are appreciated – There are many elaborate protocol rituals
Monochromic culture	– Punctuality and schedules are very important
Polychromic culture	– People and maintaining good relations are more important than punctuality and schedules
Expressive culture	– People talk loudly, interrupting each other, they feel uncomfortable when there is silence – A small spatial distance between people – Expressive facial expressions, lively gestures
Reserved culture	– People speak in low voice, don't interrupt each other, they are not embarrassed by silence – A large spatial distance between people – Limited facial expressions and gestures

Business World Cultures	
Type	**Examples**
Relationship-focused, hierarchical, polychromic, restrained cultures	India, Indonesia, Malaysia, Vietnam, Thailand, the Philippines
Relationship-focused, hierarchical, monochromic, restrained cultures	Japan, China, South Korea, Singapore
Relationship-focused, hierarchical, polychromic, expressive cultures	Egypt, Greece, Brazil, Mexico
Moderately relationship-focused, hierarchical, polychromic cultures of unstable expressiveness	Russia, Poland, Romania
Moderately deal-focused, hierarchical, expressive, with a varied approach to time	France, Belgium, Italy, Spain, Hungary
Moderately deal-focused, hierarchical rather monochromic, restrained cultures	Estonia, Latvia, Lithuania
Moderately deal-focused, hierarchical, monochromic, restrained cultures	United Kingdom, Denmark, Finland, Germany, Netherlands, Czech Republic
Deal-focused, egalitarian, monochromic cultures with varied expressiveness	Australia, Canada, United States

Source: (Kostro 2009).

Polychromic cultures are characterized by unstable expressiveness and lack of predictability. The countries in this type of business culture include: Russia, Romania and Poland.

Mainly in the Mediterranean countries businesses will be faced with the problems associated with high expression and spontaneity and the need to create free time for siesta. The main reason for such behavior is to be found in the climate there. On the other hand, we deal with restraints and a large distance in Germany, the Czech Republic and in Great Britain.

On the basis of the presented cultural differences which shape the characteristics of European consumers and business relations it can be inferred that the global convergence of cultures exposes a universal set of values and attitudes conducive to economic growth. Despite this universality these will still be cultural differences that will decide about the advantages or weaknesses of individual countries. This is undoubtedly an incentive to continuously enrich the knowledge of the cultural characteristics and their impact on business relationships.

7.5.
CONCLUSIONS

Creating favorable conditions for socio-cultural cohesion of the European Union and communication related to Euromarketing is one of the most important strategic challenges.

Lack of understanding of cultural differences in terms of perceptions, values, and ways of meeting needs can lead to restricted use of the market potential existing in different cultures. Another consequence can also be ineffective marketing. It is culture, therefore, that is one of the most important factors which influence the perception of brands/products.

Consumers are characterized by diversity of behaviors, the diversity of needs and preferences, which undoubtedly shape the diverse set of conditions of purchase.

The present study was made to indicate the most important differences on the Euromarket, where it is necessary for all economic entities to know that such differences exist. What is more, all operations and marketing campaigns should be relevant to the local consumer preferences. Therefore, the notion Euroconsumer exists only within individual eurozone cultures, but not all over the integrated Europe.

_____

VIII

HUMAN RESOURCE MANAGEMENT
IN THE FRAMEWORK OF TQM CONCEPT
_____

MARCIN OLKIEWICZ

8.1.

INTRODUCTION

HRM can be defined as a strategic, coherent and comprehensive insight into the problems related with the development of resources in the organization's structures, with every aspect of this process as an important element of their management as a whole.

In fact, HRM means a particular ideology based on the belief that business exist in order to provide certain values to the prosumers – goods desired by them. Forward-looking approach to manage people permits to treat them as a resource-specific asset. The employment of best individuals and providing them with the development of their existing competences allows the management board to tread them as an important source of business success.

In this paper, a holistic approach of the issue has been based on a HRM system for people management. It is characterized by internal consistency, which is an element of motivation and stimulation. A philosophy, aims and the meaning of HRM were also presented. It has been shown that a comprehensive quality management as well as the quality of human resources is a method to improve the efficiency of management, flexibility and competitiveness of enterprises as a whole. It was also presented that the assessment of management effectiveness, measured by the quality of human resources, is subject of verification by the customer, and that a task of every function and every employee is to contribute to the improvement of provided products.

8.2.

MANAGEMENT THROUGH QUALITY

Among the theorists of organization and management exists a broad range of opinions on the concept of management and terms associated with it. Terminological disputes result from creating inconsistent conceptual apparatus and from using different definitions related to management by individual authors. In addition, the matter is complicated by synonymous terms, such as i.e. controlling and directing (in broader and narrower sense), which are often used interchangeably, but their meanings are very different. For this reason, a synonymous concept of management had to be defined. Selected terms related to management will be arranged in a logical sequence, in which every subsequent concept is a special case of the previous one (i.e. controlling, directing in a broader sense, directing in a narrower sense – managing) (Michalski, 2013; Bieniok, 2011; Błaszczyk 2005; Durlik. I., 2004).

For the purpose of ordering and transparency in creating coherent conceptual apparatus, it might be helpful to refer to the theory of systems and cybernetics, in particular, to concept of system control as the one most general (Bielski, 2002). "To control means an activity of one system (control system) aimed at a second system (controlled system)" [Hamrol, Mantura, 2002].

The system can be controlled by a man or a machine. In a situation, in which the controlling system is a man, and the controlled system is any other system, controlling is presented in a broader sense (Grudzewski, Hejduk, 2004).

In a broader sense, control is defined as the impact of the control system (subject of control) on other controlled system (object of control), aimed to ensure that the controlled system behaved (worked or functioned) towards achieving the objective (Lock, 2012).

The term directing raises many objections and discussions. By referring to publications i.e. Drucker (2012), Pocztowski (2009), Armstrong (2005), it can be assumed that directing exists both in organizations as well as beyond them, wherever the subject and object of directing are people. Directing in the narrower sense relates exclusively to people.

When the control system and the controlled system is a person or a group of people, then we deal with directing in the strict sense, meaning directing people. Such an interpretation of directing is provided by i.e. Penc (2007), Boesso i in (2013) according to whom: directing in a narrower sense, specifically people directing (…) is an activity aimed at causing activities of other people consistent with the objectives by which they are led (Hamrol, Mantura, 2005).

Managing, according to A. Hamrol and W. Mantury, is a term, which should refer to an organization. Due to the fact, that organizations, based on Bielski, are socio-technical systems: *their management involves managing people and to have possessions at one's disposal, constituting resources of the organization*. Managing also includes the choice of organizational aims, defining its strategy and directions of development, and therefore, refers to not only the behaviour of people as individuals but also the behaviour of the organization as a whole. Organizations are therefore systems capable of taking actions in a phrase logical sense, as they are characterised for the possibility of a deliberate conscious action, through the means of people who are in these organizations. Managing an organization is a "complex activity of the managing system (controlling) directed at a managed system (controlled) and taking into account the interests of the entire organization (Adamik, 2013; Hamrol, 2008; Dahlgaard, Kristensen & Khanji, 2002).

It can be concluded that the management is a special case of controlling, including directing (both in broader and narrower sense). Therefore, managing is a concept narrower than the concept of directing. The distinction between the concepts of directing and managing stems from the fact that:

– directing refers to people or things and can occur both in the organization or outside it,
– managing refers to the organization and to all aspects of its operation, which includes both managing people and dispose of things, which constitute resources of the organization, so it is a special case of directing,
– managing is directly aimed at achieving desired objectives of the organization in an effective way.

Managing, as a system of managing, includes the activities of the managing system aimed at the managed system in which enforced measures are carried out. The scope of managing, therefore, covers all the components of the management system, and management actions result from the relation to the enforcement activities (Skrzypek, 2002). Such a decomposition of the management system allows a certain level of transparency and arrangement in this regard.

In the view of presented definitions and theoretical considerations, it can be indicated that managing is a complex, multi-level sequential process that requires a multifaceted analysis and decomposition. Managing is carried out in a complex process. In the framework of this process, a variety of interrelated activities are carried out by the managing apparatus aimed at achieving desired objectives. They operate in an internally integrated system of interpenetrating functions. The management system, on the other hand, constitutes a conceptual and material space, in which the process of management is carried out with all constituent functions.

In modern times, it can be observed that in business activities a significant place is occupied by categories of management as well as quality. Interest in issues of quality has been dictated by the needs of practice, occurring mainly in the areas of production, trade and

maintenance of products. A number of trends has affected the intensification of interest in the issue of quality. The most important include:

– awareness of the increasing importance of quality in the fight against competition,
– the possibility of improving economic efficiency by improving the quality of work, technologies and products,
– the need to protect the environment and limited natural resources,
– increasing pressure of many organizations (certification, consumer, environmental, etc.) on the continuous improvement of the quality of products and services and the quality of an organization.

The qualitative effects are formed first in the management processes, and then in real-life processes of providing services and products. Hence the particularly important role of the management staff. Through their decisions, by performing management functions in a fundamental and general way, they have an influence on the real course and outcome of most actions in enterprises (Olkiewicz, 2008).

8.3.

THE IDEA OF HUMAN RESOURCE MANAGEMENT IN ENTERPRISES

The literature on the subject has shown that the principles set out are specific to HRM and that these principles can be used in different ways depending on the economic or political situation of the country or company. In addition, the approach to HRM largely depends on the individual culture, traditions, mentality and flexibility of personnel management, technology and market, and, as was correctly stated by M. Armstrong, are also a part of international corporations.(Armstrong, 2000)

It is the responsibility of the Management Board to implement the principles of HRM, while the major part of the responsibility is transferred to the line managers, who share their responsibilities with the managers responsible for the service of the staff. According to J. Penc, they are also responsible for the use of the creative potential of their subordinates. Furthermore, the process of HRM strongly emphasizes the need to create and shape a sustainable culture and set of values linking employee teams.

The basis for HRM is the belief that employees are an important asset, the value of which is raised through the processes of training and other forms of professional development. Organizations can also develop the abilities of the available staff, or their core competencies – they can also do both, but as how Keep pointed out: One of the basic objectives of HRM is to create conditions in which the dormant unprecedented abilities of the employees are to be awakened and used, and which might significantly increase their devotion to the organization. These conditions are not only the ability to acquire new skills and knowledge, but also a huge and yet not used wealth of ideas for the functioning of an organization.

No matter what trends dominate in the organization, there are always attempts to maintain internal cohesion, based on a model developed by Tichy`ego, Frombruna and Devannga.
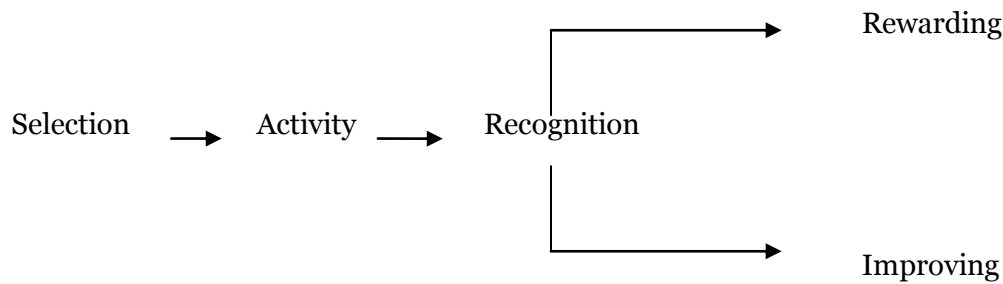
Selection → Activity → Recognition → Rewarding

Recognition → Improving

Figure 8.1. HRM management model
Source: own work.

The processes occurring in this model are found in all types of businesses, and have a significant impact on their operating results. They are a key variable to a value, which can affect other processes of HRM.

In summary, the management of these resources, according to the author, gives HR Directors the opportunity of simultaneous participation in decision-making processes relating to the whole team, because while developing economic strategies they can also prepare the essential principles of personnel policy related to the developed strategies. The model of HRM determines the process, which allows to avoid: *Piecemeal approach activities without providing strategic integration and chances of success.* The confirmation of this approach is the opinion of M. Armstrong, who stated that: personnel directors who remain on the side and do not use their knowledge of psychology, methods for dealing with personnel, etc., and are watching passively as others are running the enterprise, will not be able to contribute to the full development of the company and its competitiveness. It is not enough that the personnel director understands the company and its strategy; his task is to engage in the creation of prosperity of the company (Armstrong, 2005).

HRM is a strategic approach to motivation and development of people, stimulating their commitment and dedication, so that by realising their individual ambitions and desires, they contribute to the success of the organization. It takes place within the framework of an organization, therefore, must take into account its structure, the use of human potential and the impact, which motivation and work performance have on occurring processes.

Therefore, motivation in the course of work is one of the main management functions. It consists of combining the objectives of individual employees with the objectives of the organization. This requires an individualised approach to employees, meeting their needs and expectations. Self-efficacy is a belief in the ability to cope with difficult situations. It gives faith necessary to a positive impact on the results of work. Belief in self-efficacy is needed in order to not lose the motivation to work in the face of inevitable failures and disappointments. Good working relationships, kindness in the work environment are also important for the formation of a high level of culture of the organization and contribute to achieving good working results. Form of recognition and praise are essential to increase self-esteem. The employee feels as valuable as he feels worthy of praise.

Implementation of the work processes in modern organizations requires cooperation of people. Available personnel should be competent and qualified. To ensure the effectiveness of their cooperation is vital to manage them. In managing, it is particularly important to motivate, which is the motive force of human behaviour and actions, necessary as well as the most important factors for the growth of work efficiency. Motivational means should have a significant impact on the processes of human behaviour in organizations, so as to avoid weakening

the motivation one should act fair, so the employees be given a filling that there was a correlation between the amount of benefits received to effort expenditures and results achieved in the work.

Therefore, the development of the work potential, indicating generally qualitative and quantitative changes in the system of social organization, should lead to the enhance of the market value of human resources and productivity. It should be considered at the level of:

– the entire organization,
– work teams,
– individual employees.

Each of these levels has its own specific problems related to the improvement of labour potential, inherent in the people. Improving the potential of work is the qualitative side in the development of employees in the organization, referring to the general meaning of the term potential, identifying a range of possibilities, abilities, skills, inherent in the people.

The concept of "qualification" is used as often as the concept of "potential". Most frequently, qualifications include: education, work experience, practical skills. Qualifications, therefore, are the ability to perform a particular job, profession or office. Potential is a concept of the broadest field of meaning used to describe all characteristics and properties of individuals creating HR, which are decisive for their current as well as future ability and willingness to carry out the tasks of the organization. In this respect, the potential includes: theoretical knowledge, practical skills, abilities, health and motivation to work (qualitative dimension of the potential work) (Olkiewicz, 2015). The time of allocating these quality elements of the work potential at the disposal of the organization, creates its quantitative aspect.

Potential of work, understood in this way, takes account of the current state as well as the state achievable in the future. The currently existing work potential of a specific organization includes: the used potential and potential possible for immediate use. Future potential includes these features and characteristics of HR, which they currently do not have, but which may be equipped in the future as a result of specific training projects.

In the model of HR, it is assumed that the "human capital" is genetically equipped with a working potential, whose individual parts may, but need not to be developed and therefore there is a need to invest in their development. Treatment of HR as an object of investment includes them in the area of economic analysis, which recognises them, not only as a cost, but also as a value.

That is the reason why the processes of training should include general targeted actions occurring in an organization aimed at deepening and widening of certain elements of the work potential, equipping it with new, vital elements necessary from the point of view of its current and future needs. The development of the working potential of the available staff may occur as a result of supplementing it with relevant, desirable elements of professional knowledge, practical skills and attitudes, where:

– the transfer of professional knowledge may include i.e. general knowledge about the organization and its environment, as well as specialised knowledge relating to methods of performing specific functions (procedures, methods, techniques) or on certain technological processes,
– improvement of skills can be related to the organization of work, communication, conceptual thinking, teamwork, technical activities, etc.,
– shaping of attitudes and behaviours may involve the teaching of tolerance towards people with different views, ethical standards, respect for customers, co-workers etc.

These activities should be a system of continuous training, creating a cycle of activities. The starting point is the implemented personnel strategy in the part relating to the potential work development.

8.4.

HUMAN RESOURCES MANAGEMENT AND QUALITY PROBLEMS

Different concepts of management in the local markets are present due to the conditions of permanent competition, where quality plays an important role. Works of Deming, Crosby or Taguchi in the field of quality have led to a creation of a philosophy of quality defined as TQM-Total Quality Management: *Management, focused on quality, based on the participation of all members of the organization and aimed at achieving long-term success through customer satisfaction and benefits to all members and for society.* (Ćwiklicki & Obora, 2009).

TQM consists of three essential elements: focus of business activities on customer needs, a comprehensive style of thinking and cooperation of all employees in the organization. It is, therefore, a kind of development of its policy: from focusing on profits and quantity to supporting the needs and satisfaction of customers, while taking into account general social affairs. Such orientation determines the success and benefits to all its employees.

That is why the concept of TQM should be based on the following assumptions, stating that quality is: (Olkiewicz & Bober, 2015)
 – the main purpose of the organization,
 – a task for every employee of a given organization,
 – a multi-dimensional purpose (people, computer systems, technology),
 – prevention of defects.

In view of the above, it is extremely clear and straightforward. It is concerned with maximisation of customer satisfaction through continuous product development, improvement of the post-production quality protection process as well as a comprehensive customers service, until the liquidation of used product.

According to the author, this is a natural consequence of the fact that the quality of the product, and therefore the object of management, is in reality a relation between a set of its technical and performance properties and the consumer's needs as well as his preferences in meeting said needs. In the processes based on the principles of TQM, the customer as well as the product are treated in a marketing way, emphasising:
 – an internal customer,
 – an external customer.

The process of maximizing the satisfaction relates in varying ways to both groups of customers. Therefore, it is also worth knowing that: *Everyone has his own client. And if someone does not know who his client is and what are his expectations, one does not understand his job.* According to the author, this means the empowerment of individual links of the technological chain.

This requires solidarity work - teamwork, while providing a basis for evaluating own work. TQM is based on the principles of Kaizen, in which each employee is a client of his predecessors in the comprehensive technological chain. This allows the perception of provided services and products in terms of an enlarged product. The inclusion of employees from the marketing department allows for the formation of the sensory profile of the customer. The organizational and functional structure of an organization –by placing a quality manager to its technical and economic conditions, helps to shape the loop of external feedback (market), which enables the analysis of important information concerning the quality of services and products.

The quality of HR is therefore important, which can be defined as the degree of preparation of the available staff for the implementation of pro-quality objectives of the organiza-

tion. Relationships are based on partnership, which determines the work of multidisciplinary teams (synergistic partnership), in which the end result is greater than the sum of its parts.

This allows to improve the quality of the market. That is why the pro-quality objectives (quality policy) should include:

– fulfilment of customer's expectations - to achieve a higher level of his satisfaction,
– comprehensive commitment - every employee is a customer of another employee,
– we perform well, right away, the first time,
– comprehensive quality is a permanent element of the organization.

Therefore, the role of the Management Board is to determine ways to implement quality processes and provide adequate financial resources. Implementation of the quality policy should be oriented at the customer, who plays the key role, determining the main lines of undertaken activities .

Quality is the key to customer satisfaction, to obtain competitive advantage and to shape behaviours of the whole staff of the organization. In addition, it determines the relationships between the customer/supplier inside and outside the organization. This requires from the Management Board a comprehensive, independent reviews of quality systems in order to determine their suitability and effectiveness in the implementation of quality policies and verification of the scope of authority and responsibility. Those rights should be consistent with the measures and methods necessary to achieve the desired quality of services and products.

As was already mentioned, the most important resource in an organization are its HR, because the behaviour of the staff and their work directly affects the quality of services and products. Implemented motivational process should include, among other things:

– selection based on the desired key competences,
– work environment conditioning effective work and the impact on quality of services and products,
– periodic assessment of motivational factors - for effective work,
– system for career planning and development of personnel.

In addition, the growing importance of the concept of humanisation of work requires taking measures to reduce the negative effects of the impoverishment of work through the introduction of new, more perfect forms of individual and teamwork organization. Work structuring is combined with the concept of work humanisation. It can be considered as the basic activities taken within the humanisation of work.

One of the elements of work structuring is to expand the field of work, changing place of work of a small, narrower, often repetitive content by assigning to it additional tasks, similar but also diverse.

According to S. Rudolph (1986) expanding the field of work occurs by:

– longer working cycle - the consolidation of several, previously divided activities, forming a greater part of the produced or mounted total,
– adding to the performed basic type activities other auxiliary activities (maintenance of equipment, preparation of the field work),
– devolution of responsibilities to the employees for the performed work.

Qualitative enlargement of a single work field is defined as enriching the content of work. This method is much more extensive than the previous one, because to a diverse and wide range of work other activities are added, which are connected with planning, managing and taking full responsibility for the work performed.

Enrichment of work corresponds with the system of motivation formulated by F. Herzberg, who is considered to be the precursor of the theory of the enrichment of the work content. Putting emphasis in this method on the employee development, allocating a wider field of work, ensuring the participation in the decision-making process on planning and managing their work, taking responsibility for the course and the results of their work, are valuable ex-

amples of the integration of the employee with the organization. Also they provide them with a sense of satisfaction from their work. The effect of these changes is an increase in the employee's independence of action, taking over functions, which previously belonged to their supervisors, which also changes the arrangement of the organizational hierarchy.

Activities for work structuring (quantitative and qualitative) also apply to multipersonal jobs by:

– the creation of granted labour is a typical example of the quantitative work structuring. Competence and responsibility does not change much, however, the width of the scope of activities of individual workplaces increases significantly. In the traditional organization of work, tasks of production of individual jobs are defined and separated. Each employee has a clearly defined scope of competences and responsibilities. In contrast, when granted labours are created, the separation between jobs in functional and organizational sense are disregarded. In this way, one of the co-workers can also perform some of the work, which basically should be done by another member of the team. Abandonment of the previous precise distinction between tasks attributed to individual job in a multi personal team only partially transforms the structure of work. Only in these given scopes, employees receive limited competences for individual shaping of the work,

– work rotation or work change. This venture gives quantitative and qualitative effects. In spite of the rotation, the traditional structure and organization does not change. Work rotation is a systematic transition from one activity to another i.e. every few hours, days, weeks. The purpose of the rotation is the transition from a homogenous, tedious work, in which no skills are used, to a variety of activities that allow the use of acquired knowledge or to develop by learning new skills. Rotation is mainly supported by physiological nature considerations. Due to work rotation, physical conditions and activities chance, employees depart from those activities, which homogenously put a strain on the body or requires increased physical activity. Work rotation gives a chance for better use and extend professional qualifications. It also facilitates the ability to switch to another type of production (innovation),

– moving workers "behind the product", according to the phases of the production cycle. The best example of the rotation appears to be a spontaneous rotation introduced in the framework of the working team, accepted by the team and adapted to the requirements of the situation of the group.

The desire for quality is expressed in the activities and attitudes of the staff. Quality should be the "nucleus of philosophy", while at the same time striving for a state, where, as was stated by E. McKenna or M. Been, the percentage of undesired by-products equals zero.

The basis of the presented considerations is the acceptance that the quality of available HR is determined by: education, experience of the staff and conditions of employment.

Additionally, it has to be mentioned that these factors do not always have to be maximised, because, as was correctly observed by A. Sajkiewicz (2000): *Such a person will not be able to pursue his aims, which will increase dissatisfaction and decrease the quality of work.*

When developing an appropriate personnel policy, in which the decisive factor are the conditions of the workplace, managers should create a project that contains the basic elements, such as: the participation of the employees in managing and decision-making processes, efficiency (not maximising) of the working time, internal system of transfer of goods, services of supplier/client type, open system planning, self-control, motivational system.

The proposed forms and methods of work allow to make a use of the professional and personal potential of the employee in the form of his skills, abilities, creativity, independence

and responsibility. Work structuring can properly influence the content of work on individual work positions, extending them in terms of quantity or quality.

It addresses the growing professional qualifications of the employees (the more unique the activities, giving the possibility to use skills and creativity and to give the work personal stigma, the more excessive the content of the work). In addition to these forms and methods of work, available interpersonal communication systems should include:

- termination payments supplied by the Managing Board of the organization,
- documented exchange of information,
- required devices from the scope of informational technology.

To sum up, the formation of the quality of available HR enabling the use of existing professional and personal resources in order to provide the required quality of services and products as well as the powers and responsibilities of people responsible for the implementation of quality systems (the requirements of the ISO 9000 series (PKN, 2006)) need to be clearly defined. This requires the transformation of the organizational and functional structures in order to appoint a proxy for the quality matters. The purpose of which is the overall supervision of work and the organization of activities aimed at implementation of the quality systems, followed by a supervision of their functioning and improvement.

TQM allows to erase mistakes through cooperation aimed at improving working conditions. It must be introduced at all organizational and functional levels, so that people from different departments, with different capabilities and skills, to be able to communicate and support each other in quality efforts.

8.5.

CONCLUSIONS

Modern organizations, in order to succeed and survive on the market must deal with the increased pro-quality requirements posed by clients. Errors are bound to duplicate. An error, which occurs in one part of the process creates problems in another, which leads to successive errors and more problems. Time is being wasted by, among other things: correction of errors, verification, also disinformation of clients etc.

Quality, next to the performance and costs, is increasingly becoming the decisive element for the duration and development of the organization. Currently, not only the performance parameters and price decide whether the service or product will find its buyer.

Modern prosumer requires a new quality: a quality, which consists of a set of characteristics such as: appearance, packaging, easy user's instruction and installation, safe operation and be environmental friendly. The end quality is also affected by the appropriate level of qualification of all participants of the technological and logistical chains.

TQM is a philosophy of quality intended for each man. This is the approach of the Management Board of a given organization aimed at permanent improvement of the quality by involving the whole staff .Its objective is to achieve long-term success through the prosumer's satisfaction, benefiting the employees, the local community and the organization itself.

It is a way of operation of organizations involved in the prosumer's satisfaction through a continuous improvement. It is related to the change of attitudes, values, beliefs, and above all, the practices used in the organization.

Throughout this paper the author made an effort to emphasize that the responsibility for the implementation of HRM systems rests with the Management Board of the organization, from which the primary impetus should originate, and line managers are responsible for

the implementation of the principles of the said systems. HR experts continue to play a vital role as advisers, consultants and assistants.

Coherent and unified approach to HR issues will be viable provided that the HR department will actively work on the implementation and realization of changes. Appropriate management of available HR is a complex and time-consuming activity. To properly use the available goods, and at the same time ensure high quality of provided services and products, it is essential to conduct a detailed analysis of the operation of the chosen system. Only by taking into account various aspects of the functioning of an organization, concerning the implementation of policies at the level of the entire organization, allows their proper allocation. Despite the need for complex analysis, one should be aware that sustained efforts can contribute to a fair distribution of resources, and ultimately to improve the quality of processes, services or products.

_____

IX

SOCIO-PUBLIC COOPERATION IN POLISH CONDITIONS

_____

KATARZYNA PETER-BOMBIK

9.1.

INTRODUCTION

Creating and pursuing public policies at different organizational levels is at present linked with the use of a vast array of instruments. Among them a more and more significant role is played by partnerships. Historically, certain forms of cooperation of public authorities with entities representing remaining sectors of socio-economic activity appeared already in ancient times. In modern times as examples of intersector cooperation are recognized, among other things, licensing contracts, used from the end of the 18th century, which were related, first of all, with the realization of expensive infrastructural enterprises. However, these solutions were rather of an incidental character. It can be said that actual development of the idea of intersector partnership supported by appropriate legal regulations and institutional solutions did not start until the second half of the 20th century. It is worth noticing that in the beginning this was cooperation of the public sector with the private sector. With time and along with institutionalisation of the 3rd sector, other forms of cooperation also appeared. Nowadays, from the point of view of public authorities, the cooperation with the remaining sectors can take both a form of two-sector cooperation (private and public partnership) and three-sector cooperation linking entities representing all the sectors. The existence of different forms of cooperation constitutes an answer to complicated challenges and problems of our times, the solution of which often exceeds possibilities of one sector and requires involvement of competences and resources appropriate to other sectors.

9.2.

THE ESSENCE OF SOCIO-PUBLIC COOPERATION

Functioning of the public sector, the significant element of which is constituted by units of the local self-government, has undergone numerous changes over a span of ages. These changes most often constituted the reaction to changeability of outer environment, including varying expectations of stakeholders, as well as demands concerning the increase in effectiveness and competitiveness. The above mentioned evolution led from a bureaucratic model (created by Weber) to models which take into consideration solutions used in other sectors. Among other things, managerial as well as participative management appeared. Simplifying, the latter consists in the fact that the public authorities enter the interaction with society using different instrument of a participative and consultative character. Source literature supplies numerous characteristics of participative management, among which the following ones are mentioned: openness and transparency of activity, equality, ethic, responsibility, striving for equable development as well as involvement of all the stakeholders (Hausner, 2008). In this model, both individual citizens, a determined society (a group of citizens) and also any forms of social organizations can be classified into the group of stakeholders. Thus, some penetration of the sectors occurs which can result in definite forms of cooperation.

Referring to international definitions of local self-governments, two records are worth noticing. This self-government – according to the World Declaration of the Local Self-government (1985) – is understood as the right and duty of the local authorities to regulate and manage local public affairs for the good of local society. In such a depiction the local society becomes the subject and addressee of activities undertaken by the local authorities. The European Charter of Local Self-Government comments in a similar way (1985). It treats the self-government as managing the essential part of public affairs in the inhabitants' interest. The above mentioned document recognises the self-government as the right and real ability of

the society to act and regulate their own affairs. Thus, it constitutes a postulate that local societies should be included in the processes of both deciding and realising definite tasks at different organizational levels. In Polish conditions, the records on co-deciding by citizens about public affairs were included, at the national level, among others, in the Preamble to the Constitution of the Republic of Poland.

Creating and carrying out public policies, including those at the self-government level, are related, first of all, with meeting the needs of the citizens and solving their problems. This is reflected in providing defined services by the public authorities. In the modern depiction, providing the citizens with services should be based on the use of the synergy effect resulted from the emergence of diverse interorganizational ties (exceeding the frames of the public sector), and the stimulation of the grass roots activity and the creation of social capital (Frąckiewicz-Wronka, 2012). A significant role in this area can be played and is often played by the social sector.

The source literature shows that the relations between the public sector and the social sector are, as a rule, contained in one of the three conceptions, according to which (Bogacz-Wojtanowska, 2006):
- the social sector is "a healthy opposition" in relation to the public sector. Its activity consists in providing services different from the services provided by the public sector, which are financed to a very slight degree by public means,
- the social sector is dependent to a large extent on the public sector and it is under its control. This results from the fact that the services are provided in the name of the public sector and financed from public means,
- the social public functions as a partner of the public sector - both within the range of realising defined tasks and shaping public policies.

The last of the recalled conceptions constitutes the field for cooperation between the public and social sectors. Its characteristic feature is that it resigns from administering based on bureaucracy in favour of common activity and involvement of different partners, as well as in favour of actual co-governance. The significant element of this cooperation is concentration on such values as effectiveness, favourable and efficient activities (Stadniczeńko, 2002). Cooperation understood in this way transforms relations between sectors based on the proportion of the forces (with the advantage of the public sector) into relations based on mutual completion. It poses a significant challenge particularly to the public side which has to resign from its monopoly and accept competences and a unique character of cooperating entities. A necessity of accepting the difference of the partners also appears, enabling identity and autonomy at each stage of cooperation (Wygnański, 2012).

The division of socio-public relations presented earlier, can also be illustrated by means of a few models that take into account the level and character of communication between the sectors. These models, identified, among other things, in the processes of creating public policies in the social area, are the following ones: unidirectional communication, asymmetric bidirectional communication, representational cooperation and full cooperation. The first of the recalled models (unidirectional communication) shows the situation in which social organizations are "performers" of the tasks rather than partners. It results from "unidirectional" transformation of information by the public sector without expecting for the reaction of the social partners, which excludes their full participation. However, the next model permits bilateral communication, but there is no equality of the sides in it (which is one of the determinants of partnership), and the dominant side is the public side. In the conditions of the public and social sectors cooperation which has longer traditions the so-called model of representational cooperation often appears in which a significant role is played by entities representing the social sector. However, this cooperation generally concerns a selected group of social organizations, and at the same time the remining groups are excluded. The most ad-

vanced form of cooperation is full cooperation, which consists in cooperation of the public sector with the broadly understood social sector on equal terms (Matczak & Koziarek, 2011).

One of the starting points of the socio-public cooperation is the principle according to which "there is as much state as it is necessary, there is as much society as it is possible". In practice, it is developed according to the principle of subsidiarity (a supporting function) which postulates that realization of the tasks should be transformed to the lowest organizational level capable of performing them. In consequence the activity of public entities in cooperation with the social sector increases along with "descending" to lower levels. The main partnership activities in the case of Poland were and are undertaken at the level of communes and districts. Cooperation at he level of the province (self-government administration) has appeared much more rarely so far, so has it at the state level (state administration). The changes introduced in 2015 can slightly alter this situation - due to the obligatory requirement of cooperation at the level of the state administration. However, the units of the public administration of the lowest level will always be an unquestionable leader of cooperation with the social sector.

Cooperation should be understood as the activity implying all the forms of co-working based on the division of involvement, responsibility, as well as on gaining definite benefits by partners. Partnership is recognized as the key principle of cooperation, which constitutes both a principle and a formal relation between the parties that determined mutually their expectations, common aims and involvement. Such aspects, among others, as equality of the partners in the decision-making processes, mutual respect and mutual responsibility, as well as transparency of undertaken activities are considered to be essential elements of partnership (Brinkerhoff, 2002).

In order to start a discussion on any forms of socio-public cooperation, determined conditions conducive to cooperation have to emerge. First of all a need and a desire for cooperation have to appear. Such an approach calls into question the sense of introducing stiff legislative regulations that sanction functioning partnerships. However, on the other hand the regulations seem to be necessary, as they can play a role of a peculiar "catalyst" of cooperation. Thus, the studies show that among essential obstacles of cooperation there are, among others, unwillingness, particularly that of the public partner towards other entities which can affect shaping public policies, unfriendly attitude of the office workers, as well as inactivity of the representatives of both sectors. Obviously, this is often linked with other problem areas such as overdeveloped and bureaucratized public administration, a low level of flexibility of action, complicated formal and legislative requirements and also not adjusted rules of law. However, the key issue, as well as a necessary condition of cooperation seem to be a human being, definite groups of people, or also societies and their attitudes and willingness to be involved. The occurrence of different forms of cooperation is one of the elements of democracy and the existence of civic society based on conscious and involved citizens and also voluntary associations of these citizens. It is worth emphasising that the appropriate use of the potential located in participative democracy brings benefits in accordance with particular feedback. On the one hand people i.e. local communities, as well as non-governmental organizations, taking part in public life, express their needs and communicate problems. In this way they influence public authorities' decisions, which in consequence leads to the solution of these problems and to a proper adjustment of offered services. On the other hand however the authorities, realising a policy adequate to the needs of the inhabitants, gain support (also in elections) and the inhabitants' involvement.

9.3.

ORGANIZATIONAL AND LEGAL CONDITIONS OF SOCIO-PUBLIC COOPERATION IN POLAND

In Polish conditions cooperation between the public sector and the social sector is formed on the basis of a broadly understood dialogue. dialog. which is understood as the communication between the members of a given community (or the whole society), which makes it possible to work out common solutions and undertake more effective activities. For the last several years this dialogue has facilitated development of different forms of cooperation, and also fixed by law institutions in Poland. Legal regulations of socio-public cooperation guarantee on the one hand the existence of "institutional order". However, on the other hand they mean stiff principles which in many cases exclude voluntariness and freedom of action. These regulations are contained in many legislative acts, among which a key role is played by the act on the public benefit activity and voluntary service (the act of 2003) and also the system acts which regulate functioning the units of local self-government of all the levels.

The duty of cooperation with non-governmental organizations imposes binding rules of law on public administration. This cooperation is carried out on principles of subsidiarity, sovereignty of partners, partnership, effectiveness, honest competition and openness (the act of 2013). From the point of view of the units of local self-government, cooperation with non-governmental organizations is a task of their own. It is based on the obligatory annual programme of cooperation with non-governmental organizations, passed by the organ that constitute units of local self-government. This programme determines, in the annual horizon, policy of public authorities towards non-governmental organizations, including the aim, the range, the principles and forms of cooperation,as well as financial means allocated for the realization of public tasks.

There is also a possibility of accepting multiannual programmes of cooperation with non-governmental organizations. Creation of such programmes is dependent on the needs of local communities and is not of an obligatory character. However, the mere possibility constitutes a significant element of shaping long-term cooperation of public and social organizations in a given area.

The range of cooperation encompasses the area of public tasks, and more precisely, to commission them to be realised. Apart from that, cooperation can also take other forms to which, among others, the following activities can be classified: mutual informing, consulting, creating common teams, a local initiative and partnership contracts (the act of 2003). It should be noticed that the catalogue of the forms of cooperation of the units of local self-government with non-governmental organizations is not closed. The solutions indicated by the legislative body is of an example character and do not exclude the use of other forms of cooperation.

The mutual exchange of information by the public and social entities, acting in a given area, realizing the rule of openness aims first of all at harmonizing activities undertaken by these entities. The information concerns, among others, organised competitions, meetings or undertaken initiatives and is conveyed by means of different communication channels. Consulting - as a form of cooperation of local self-governments with non-governmental organizations - concerns, first of all, projects of legislative acts referring to the area of non-governmental organizations activities. In the situation, when in the area of a given unit of self government the so-called council of public benefit activity functions, the projects of legislative acts that refer to the area of public tasks come under consultations with the council. The units of local self-government and non-governmental organizations can also form common teams of an initiative, advisory and consultative character. Whereas the local initiative con-

sists in a proposal (from the inhabitants) of pursuing an enterprise along with a decleration of cooperation (of a financial or non-financial character) in its realization. Non-governmental organizations (as a rule, ordinary societies) function within the frames of this solution as representatives of inhabitants.

The main area of cooperation between the units of local self-government and non-governmental organizations is, however, commissioning the tasks to be realised. Since commissioning the tasks is tied with conveying public means for their realization, relations between the public and social sectors in Polish conditions oscillate between dependence and partnership. This results from the role which, in the case of some organizations, is played by public means. The possibility of pursuing public tasks constitutes for many organizations a significant element of their activity, sometimes even deciding on their "to be or not to be".

Essentially, the units of local self-government can perform their tasks in one of the three ways, i.e.: using their own services and resources, cooperating with other public entities (within the frames of public organizations, societies or contracts concluded by law), as well as conveying them to entities not belonging to the public sector. Access to the realization of public tasks is for entities not belonging to the public sector on the international scale differentiated. In this place it is worth indicating some model solutions which, historically depicting, were developed in this field on the European ground. Despite the fact that they do not function in a "pure" form it is worth recalling them as they show slightly different approach to social organizations and their role of "performers of public tasks", including empowerment towards remaining sectors. The aforementioned models are: an English model and a German model. In the case of the "pure" German model practical realization of the subsidiarity principle was understood as the principle of precedence of social entities providing services financed from public means. Whereas in the English model preferences were limited and the position of social organizations, interested in pursuing public tasks, was made equal to other entities. A significant role in the process of transferring realization of public tasks to other entities was played by the market mechanisms (Rymsza, 2006). Considering the solutions functioning in Poland it can be noted that there are distinct preferences for non-governmental organizations within the range of taking over public tasks to be pursued. A particular group of social organizations constitute the so-called public benefit organizations which, on account of their legal empowerment, have a larger facility for gaining public tasks (thus, financial means).

The following items can be classified into key areas of the public tasks realised by Polish social organizations: physical culture, sport and tourism, education, social security, promotion and health protection, counteracting unemployment as well as culture and protection of environment. Talking about commissioning public tasks to non-governmental organizations, two mechanisms related with it, should be distinguished, namely supporting and entrusting the realization of the tasks to these organizations. In the first case (supporting the realization of the tasks) social organizations receive only financial support. Thus they have to be ready to make "a contribution of their own" to secure financing the remaining part of the task. The full financing is in the case of entrusting the realization of the tasks, thus the organization's "own contribution" is not required. In practice a preferred solution is supporting public tasks. From the point of view of the essence of cooperation (consisting, among other things, in a division of involvement among the partners) a better solution seems to be the one based on supporting the task. As a matter of fact it results in the necessity of the organization's own contribution (it does not have to be financial contribution), but thanks to that the position of the organization is of a larger degree based on partnership.

Entrusting the tasks to *non-governmental organizations* undoubtedly constitutes a form of intersector cooperation. However it is worth noting that there are also other possibilities of cooperation based on developed outsourcing. But such solutions (applied, among oth-

ers, on Scandinavian ground) need a modification of the way of management at the level of local self-governmental units and an increase in freedom of their activity (Gołębiowska, 2015).

To the basic principles of socio-public cooperation in Polish conditions belong among others: the principle of effectiveness and the principle of honest competition. According to these principles local self-governmental units, entrusting public tasks for realization, make a choice of the most effective way of the use of public means. Whereas the organization is expected to reliably realise the tasks as well as to perform the duties concerning the financial statement and reporting (Bagrowski, 2011).

Entrusting the realization of public tasks to non-governmental organization is carried out through an open competition of offers on the basis of definite principles (openness, equality of the sides, honest competition). Offers submitted by individual organizations are assessed by the competition committee consisted of both representatives of a public administration organ and representatives of non-governmental organizations. The choice of an offer iis made taking into account both techno-organizational elements (actual possibility of realization of the task by a non-governmental organization, guaranteed quality of the performance of the task) and economic elements (cost calculation of the realization of the task).

The application of the competition procedure, in some cases (particularly in the case of short-term tasks and also tasks not engaging considerable financial means) can be treated as an element decreasing efficiency of action. Therefore, in order to increase flexibility of entrusting public tasks to other entities, a possibility of using a simplified method was introduced (2015). At the same time, not to discriminate smaller organizations, there is a possibility to commission the tasks to several organizations which act together. These organizations select a coordinator from their members, but they take joint responsibility for obligations (the act of 2013). The solution which constitutes a particular enlargement of entrusting tasks is the so-called regranting. It consists in transferring grants received by non-governmental organizations (with the consent of the public entity) to other organizations for the realization of public tasks. In this construction of the forms of cooperation there are at least two nongovernmental organizations. The public entity commissions the realization of the task to one of these organizations (to the operator of the project). Whereas the operator of the project entrusts the realization of the task to another or other organizations (executors of the projects). These organizations are selected through an open competition of offers.

Due to the different time of the public tasks realization entrusted to non-governmental organizations, a possibility of making contracts between ordering entities and nongovernmental organizations for the duration of the task (not longer than five years) was introduced. The aim of this solution is first of all to increase the rational use and management of public means. The tasks realised in this way (for example from welfare benefits) are of a permanent character, and each time they are started results in additional expenditures.

9.4.

CONCLUSIONS

Nowadays intersector cooperation, including the one of socio-public character, becomes an integral element of functioning organizations, particularly public ones. Entrusting the realization of public tasks to non-governmental organizations is certainly the effect of a decentralization process, larger local activity and development of civic society. It is justifiable to say that there are definite benefits that each side gains. From the point of view of local self-government units, which remain responsible to the local society, no matter who realises the tasks, the appropriate realization of these tasks plays a significant role. This can be guaranteed

just by non-governmental organizations, often strongly placed in local societies and enjoying larger social confidence (than public services) As a result they can better identify needs and problems (thanks to the actual contact with a given environment) and the can propose more effective solutions. A better diagnosis and proposals of more effective activities have also their financial consequences. Public tasks realised by public partners are simply, as a rule, less expensive (than those performed by public entities). From the point of view of non-governmental organizations the economic factor also plays a key role.

The aforementioned preferences for non-governmental organizations (or lack of them) in relation to the realization of public tasks constitute, to a large degree, a reflection of the situation and condition of the public sector. If there is a considerable share of public tasks in the activity of social organizations, it can be a peculiar paradox. Non-governmental organizations– ideologically different from the public sector - in many cases they make their existence dependent just on the support from public means. Organizations which try to keep their autonomy, can lose it in the name of gaining grants and subsidies from the public sector. It is a danger that can be counteracted through institutional reinforcement of the non-governmental sector and making it dependent on public means. As an example, it refers to the creation of financial stability of social entities, among other things, through the creation of endowment capital and fundrasing.

_____

X

E-LEARNING MEANING IN EDUCATION MANAGEMENT ASPECT

_____

JOANNA ROSAK-SZYROCKA

10.1.

INTRODUCTION

Universities are forced to respond to the emerging developments in information and communication technology (ICT) (Dutta, Mosley & Akhtar, 2011). As information technology (IT) becomes more robust and easier to use, it increasingly permeates academic activities in higher education (Arabasz, Pirani & Fawcett, 2003). Learning and development professionals within public and private organizations are increasingly being asked to prove the effectiveness of their learning and development initiatives. The use of internet for teaching and learning is becoming a normal extension. Students also have high expectations about the use of ICT in their education. The shift in learner expectations, changing demographics of learners, and the rapid development of subject knowledge forms challenges to universities.

E-Learning became an important instrument in the new Higher Educational Environment in the digital age which creates student-centered learning and educational practice, offering new more flexible learning methods. The modernization of education suggests that the students not only have to acquire skills and habits to work with the growing volume and more sophisticated information streams but have to possess ability to get new knowledge, independently to build the overall cognitive process in the surrounding IT environment (Shopova, 2015).

Over the past decade the structure of higher educational institutions has changed, partly due to the introduction of technological initiatives. T. Scott (2004) supports this opinion and contends that as eLearning is now facilitating a more flexible learning approach, contemporary institutional structures are less robust than in previous years. In addition states that technology in general has not only improved knowledge storing methods and learning techniques but has also acted as a catalyst to combat the barrier of inflexible organisational structures.

The article discusses e-learning advantages and disadvantages on the example of surveys conducted at the Wroclaw University of Technology and the Czestochowa University of Technology. At the Czestochowa University of Technology e-learning classes apply to both exercises and projects, as well as the lectures. While at the Wroclaw University of Technology the educational portal of Faculty of Chemistry is mainly used to support teaching and conducting stationary classes, as well as to the mass students' examination. For this reason the survey conducted among the students of the Wroclaw University of Technology who take some classes at the Faculty of Chemistry focused mainly on the e-tests system and the students' feelings connected to the electronic competence control.

10.2.

E-LEARNING MEANING IN EDUCATION – LITERATURE REVIEW

The origins of the term e-learning is not a certain, although it is suggested that the term most likely originated during the 1980's, within the similar time frame of another delivery mode online learning. M. Nichols (2003) define e-learning as strictly being accessible using technological tools that are either web-based, web-distributed, or web-capable. The belief that e-learning not only covers content and instructional methods delivered via CD-ROM, the Internet and Intranet (Benson, et all, 2002; Clark, 2002) but also includes audio – and videotape, satellite broadcast and interactive TV is the one held by Ellis. Although technological characteristics are included in the definition of the term, Tavangarian, Leypold, Nölting,

Röser, and Voigt (2004) as well as Triacca, Bolchini, Botturi and Inversini (2004) felt that the technology being used was insufficient as a descriptor.

In general, e-learning is the expression broadly used to describe "instructional content or learning experience delivered or enabled by electronic technologies" (Ong,, Lai & Wang, 2004). Some definitions of e-learning are more restrictive than this one, for example limiting e-learning to content delivery via the Internet (Jones, 2003). The broader definition, which will be used for the purposes of this article, can include the use of the Internet, intranets/extranets, audio- and videotape, satellite broadcast, interactive TV, and CD-ROM, not only for content delivery, but also for interaction among participants. More recently, this definition can be further expanded to include mobile and wireless learning applications (Kinshuk, Suhonen, Sutinen & Goh, 2003; Lehner, Nösekabel,, & Lehmann, 2003).

E-learning, until recently known as the future of education, becomes the present before our eyes. It brings a number of new opportunities. Mason et al. (2015) have describe an e-learning approach for designing a course by learning objects, where the object is a u nit of study, representing a holistic learning experience. An object describes a topic. Learners is offered arrange of readings, followed by individual and group activities, supported with discussion and feedback from a teacher. This approach to learning objects has been very successful in terms of reusability, with several new courses and staff development applications, using the same objects with minor changes to adjust the activities for new audience.

Research shows that in 2009 more than 45% of Polish public universities had already used the e-learning (Kraska 2009). As institutions adopt e-learning, some important new issues arise (Arabasz, Pirani & Fawcett, 2003):
- institutions must provide an adequate and reliable technical infrastructure to support e-learning activities,
- instructors and students must possess the technical skills to use e-learning tools,
- instructors must redesign their courses to incorporate e-learning effectively into their pedagogy.

Technological advancement has been the major inspiration for change, beginning with the integration of radio broadcasting in the 1920's (Huynh, Umesh & Valachich, 2003). More recently, the advent of the Internet has enabled tremendous innovation in the delivery of post-secondary education (Gunasekaran, Ncneil & Shaul, 2002). As time goes by, more and more people gain access to the Internet, the cost of computer ownership decreases, and overall computer literacy increases (Huynh, Umesh & Valachich, 2003). These trends provide educational institutions an ideal channel for the delivery of educational content. Studies have shown that there is much value for e-learning. E-Learning tends to make the classes more of a shared experience. During e-learning, things like lectures, homework, quizzes and exams are delivered almost all by online means. Most of the time, there is no real person to person interaction. It also requires that a student takes more responsibility for their actions as they have to be in charge of their own schedules for things like getting their homework done, logging in for classroom discussions, etc. It also saves money as people don't have to travel or use gas or leave their homes. As for traditional classes, they can learn from this by putting into place more discussions, and better communication between teachers and students. With E-Learning the students and teachers have to make time to get their things done and they can just login to ask questions, to get feedback, to increase knowledge, etc. (Ramani, 2012).

T. Volery (2000) expresses that online methods facilitate more effective education and offer significant advantages over traditional teaching methods. There is a notion that an e-learning environment offers students an improved learning experience when compared to a more traditional learning environment. D. Holley (2002) found that student participants on e-learning university courses using techniques such as virtual lectures and bulletin boards achieved better grades than students who studied in traditional learning settings. E-learning

environments loosen the time and space restrictions associated with traditional university practices. However, although e-learning environments overcome the traditional time and space constraints, universities must be cautious when deciding if distance learning environments should replace the traditional methods, as students recognize the benefits of the e-learning environments but only when combined with traditional formats (Serwatka, 2002). D. Holley (2002) explains that the opportunities given by e-learning, such as the removal of time and location constraints, offer all people in society the potential to be life-long learners whatever their location, age or occupation. J. Leiberman (2000) explains that in higher education student participation is a primary feature of enhanced performance and in distance learning courses students are more likely to participate in class discussions and group work than in traditional lectures, as they are given more time to prepare questions and responses. Writers such as C. Hemsley (2002) express the view that full time and part time students can now partake in their chosen degree courses from any location, giving people who travel or who are relocated, a transferable and easily accessible learning resource and experience. Through the use of advanced technology, students who have previously not had access to higher education now have the opportunity to study at the location that best suits their needs (Sadler-Smith, 2000). The Internet has allowed universities to expand beyond their local campuses and create global learning institutions for today's information age (Wilson, 2001).

An e-learning system, which is independent of time and place (Lee & Lee, 2008), a self-regulated learning process (Narciss, Proske & Körndle, 2007), and an inter-disciplinary approach to teaching and learning, constitute key factors in education for sustainable development (ESD) (Lozano, Lozano, Mulder, Huisingh, Waas, 2013a). Online education provides students with an educational alternative to face-to-face courses, permitting students to proceed, at their own pace, and to identify their own personal course timeline (Shanley, Thompson, Leuchner, Zhao, 2004), while having at the same time full-time jobs (working students). Flexibility, interaction, teaching presence, collaborative learning and a great sense of community are very important categories in online students' discourses [(Hansen, 2008, Moura, Cunha, Azeiteiro, Aires, & de Almeida, 2010). J.B. Arbaugh (2000) and Moura et. all (2010) stated this sense of online community as a significant predictor of online learning outcomes.

There are following advantages of e-learning in the higher education (Azeiteiro, Bacelar-Nicolau, Caetano, 2015, Bouhnik & Marcus, 2006):
- availability of more reliable and cheaper means,
- ensure the understanding or learning process,
- exploitinresources fully,
- incorporate with traditional way of teaching and make a conducive environment,
- cover effective use of materials and develop a participatory program approaches,
- incorporation of academics, research institutes, student representatives,
- flexibility in the e-learning programs like availability of special classes, assisting and faculty, print materials and so on,
- precise control of the learning process and its effects,
- the accessibility to the course's online materials at any time from anyplace,
- making learning process more attractive through the use of multimedia,
- minimizing students' fear and timidity,
- in the case of e-tests: objectivity of the evaluation.

Beyond the benefits there are also disadvantages of e-learning such as (Azeiteiro, Bacelar-Nicolau & Caetano, 2015, Bouhnik & Marcus, 2006):
- lack of the personal contact with the teacher,
- lack of the direct contact with other learners – the feeling of isolation,
- a high level of self-discipline or self-direct is required,

- the difficulty in an appropriate and individualized learners' motivating,
- the diversity of results depending on learners' computer competence,
- the need to have hardware with suitable parameters,
- greater amount of time from the tutor's side (preparation of the materials, correspondence with students),
- problems with the remote verification of the identity of the students taking e-tests.

E-learning advantages are much more precise for the user, more "tangible" than disadvantages which may seem being less important. Since it is easier to appreciate attractive ways of content presentation and the freedom which e-learning gives, rather than speculate about negative consequences of human relations marginalization (Islam, 2014). It must be added that that varied multimedia learning content is a crucial for improving e-learning efficacy, performance, and motivation among students (Ćukušić, Alfirević, Granić & Garača, 2010).

E-learning is not only connected with studying itself, but also with the competence control (Liaw, 2008). Tools to control knowledge can be available on-line and can be used for self-evaluation of the student's knowledge from the particular material range (e.g. they allow the student to decide to sign up to the language group at the basic level, intermediate, or advanced) or they can be used to examine the students.

10.3.

RESEARCH AND THEIR ANALYSIS

At the Czestochowa University of Technology in 2013 studied 11,5 thousand of students, including 5,5 women. Currently on the full-time and part-time programs within 28 fields there study approximately 11 thousand of students who have the choice from more than 100 specialties. Wroclaw University of Technology educates as a whole 34 428 students in twelve faculties, and in the 2014/2015 academic year it is planned to matriculate 10 261 students. Examine such a large number of students was a major logistic challenge. In this way it was possible to replace traditional paper colloquia with e-tests. Every student after logging in to the system received an e-test generated for her/him. At the time of e-tests introduction, students gained an opportunity to obtain objective evaluation almost immediately after the test. It was important for students retaking their exams, as thus they gained more time to learn before the final exam. Using Moodle enables one to introduce the number of interactive elements and activities like chat, lessons, exercises, quizzes, and "flash activities". The platform has become not only the source of information exchange between the lecturer and the students, but also it gave the possibility of self-evaluation of the knowledge and gained functionality of electronic tutor.

Researchers weretested by the questionnaire. The main aim of the questionnaire was to test students' satisfaction from e-learning Moodle platform.

In order to not to suggest the answers the survey included open-ended questions and the students could enter any number of answers. Surveys at the Czestochowa University of Technology as well as at the Wroclaw University of Technology were began in 2013in the quarterly period. Survey was conducted among 209 university students from Czestochowa University of Technology as well as among 489 university students at the Wroclaw University of Technology. Its aim was to determine the degree of students' satisfaction with the education form which is proposed by Moodle platform, as well as to improve e-learning activities, and to identify which form of activity causes the most problems for the students. It should be underlined that the survey differed from the one conducted among students of the Faculty of Management at the Czestochowa University of Technology, because at this University e-

learning classes are related to the exercises, projects, and lectures. On the other hand, at the Wroclaw University of Technology educational portal of the Faculty of Chemistry is mainly used to support didactics and for mass examination of the students. For this reason the survey conducted among the Wroclaw University of Technology students, who take some classes at the Faculty of Chemistry, focused mainly on the system of e-tests and the students' feelings connected to the electronic competence control. Respondents' characteristic was presented in the Table 10.1..

Table 10.1. Respondents' characteristic

Age	Up to 25 years	25-35 years
	90%	10%
Gender	Woman	Man
	73%	27%
Kind of studies	Stationary	External studies
	90%	9%

Source: own work.

The gender has been included in the survey because female students are more satisfied with tutors' contribution to the education of students than male students (Ardid, 2015). According to the results:

- 41% of questioned students indicated that there should be more e-learning classes, and
- 32% that the number is Just enough,
- 72% of the students said that they were satisfied with the activities conducted in an e-learning mode. But the main reasons given by those who were not satisfied with such classes were related to technical problems. Also students indicated that during 'face-to-face' classes all ambiguities can be resolved directly with the teacher, while generally in the case of e-learning classes solutions to similar problems are not immediate and students in online courses feel more disconnected from professors (Lu & Chiou, 2010, Paechter, Maier & 2010, Liaw, 2008),
- students indicated that mostly they were satisfied with the lectures conducted in the form of e-learning classes (41%),
- according to students' argumentation, on-line lectures allowed the students to study at a convenient time and pace (Liaw, 2008). Also in the case of e-learning classes there wasn't any problem with taking notes during the lecture or with repeating its parts. While in the case of a project students expected some hints and direct consultation with the teacher, which explains the negligible percentage of people interested in project classes conducted in e-learning mode,
- quiz was the most common module used during the classes, also it was the most difficult form of completing lesson units (for 51% of the respondents). The main reason for this difficulty was the fact that the time to answer was strictly defined and that the students had only one chance to solve the quiz,
- a significant e-learning model disadvantage, which occurs in students comments, was the tasks using open-ended questions. Problems emerged from the difficulties in formulating responses in a manner required and programmed by the teacher. For example the tutor defining the task in the course expected the response Customer Relationship Management, but the student answered customer relationship management. Such a response is treated as the wrong one, because at the beginning of words there are lower-case letters,
- among the most important advantages of distance learning students choose flexibility of work. E-learning platforms allow to acquire the knowledge and to realize the tasks

in hours adapted to the rhythm of the student's day. The student has to comply only with the starting dates of particular modules and the deadlines of solving following tasks or projects. Without the compulsion to attend traditional classes with the teacher, students possess more opportunities to work or participate in other courses (Otter et. all, 2013, Sun, et. all, 2008, Brown, 2005).

10.4.

CONCLUSIONS

E-learning in higher education can be of great relevance in effective life-long learning education for sustainable development in a population of students who are simultaneously full time employees (Shabha, 2000).

E-learning is one of the knowledge transferring methods and it is being increasingly used in Poland in an economic education at the university level. Although the advantages and disadvantages of e-learning have been discussed in various previous studies; it is a significant issue of better understanding the reasons why some students are dissatisfied with their e-learning practice. Table 10.2. presents conclusion of e-learning advantage and disadvantages as a result of studies.

Table 10.2. E-learning advantages and disadvantages as a result of studies

Advantage	Disadvantage
Face-to-face' classes permit resolved problems directly with the teacher	E-learning Moodle platform technical problems
On-line lectures allowed the students to study at a convenient time and pace	In the case of e-learning classes solutions to similar problems are not immediate and students in online courses feel more disconnected from professors
In the case of e-learning classes there wasn't any problem with taking notes during the lecture or with repeating its parts	Student need consultation face to face in case of an e-learning project lessons
Flexibility of work	Difficulties in formulating responses in a manner required and programmed by the teacher
Opportunity to broaden knowledge thanks to links or added materials	E-learning is taking into account only the final result, ignoring the line of student's reasoning
The ability to connect new information as a whole and computer skills	

Source: own work.

A large number of the respondents recognized as the main disadvantage of e-colloquia, containing computational tasks, taking into account only the final result, ignoring the line of student's reasoning. Mainly the problem with evaluating the line of student's reasoning occurs in the case of incorrect answer given by the student or raised objections related to the particular task. As a result of using the described tools and online resources it has been observed a regular increase in informative and media competence among students. Students gained the ability to connect new information as a whole and to use the obtained knowledge to realize various tasks. The analysis of performed work showed that in the two-year period there occurred the minimalisation of such negative effects, known as "immersions in the network," like: "googlism," "wikipediaism," the belief that everything in the Internet is valuable, that it is possible to copy other people's works with impunity, the inability to distinguish the valuable resources from "junk," getting lost in an information noise, inattentive reading, or rather reviewing on-line texts, the tendency to operate with the data in the shallow manner, as well as relativizing the values and the importance of scientific knowledge, and submitting to

the effect of social proof of rightness. Also one evaluated positively the e-colloquia system allowing to obtain an objective assessment in a relatively short time.

BIBLIOGRAPHY

Adamik, A. (red.) (edit (2013). *Nauka o organizacji. Ujęcie dynamiczne* (Organizational studies. Dynamic approach), Wolters Kluwer Business (Publishing House of Wolters Kluwer Business), Warsaw.

Anczewska, M., Świtaj, P., Roszczyńska, J. (2005). *Wypalenie zawodowe, Postępy Psychiatrii i Neurologii* (Burnout. Progress of Psychiatry and Neurology) , No. 14.

and How to Improve it, *Employment Relation Today,* Willey Periodicals, Autum 2002.

Arabasz, P. Pirani, J. A., Fawcett, D. (2003). *Supporting E-Learning in Higher Education.* Research Study from the EDUCAUSE Center for Applied Research Volume 3. Educause Center for applied research.

Arabasz, P., Pirani, J. A., Fawcett, D. (2003). *Supporting E-Learning in HigherEducation*, Volume 3, Educause Center for applied research.

Arbaugh, J.B., (2000a). Virtual classroom characteristics and student satisfaction with internet-based MBA courses. *J. Manag. Educ.* 24.

Ardid, M., Gómez-Tejedor, J. A., Meseguer-Dueñas, J. M., Riera, J., &Vidaurre A. (2015). Online exams for blended assessment. Study of different application methodologies. *Computers & Education, 81.*

Armstrong, M. (2000). *Zarządzanie zasobami ludzkimi* (Human Resources Management), Wyd. Profesjonalnej Szkoły Biznesu (Publishing Professional School of Business), Cracow.

Armstrong, M. (2005). *Zarządzanie zasobami ludzkimi* (Human Resources Management), Oficyna Ekonomiczna, Cracow.

Azeiteiro, U. M., Bacelar-Nicolau, P., Caetano, F.J.P. (2015). Education for sustainable development through e-learning in higher education: experiences from Portugal, *Journal of Cleaner Production 106*.

Bagrowski, M. (2011). *Formy i metody współpracy organizacji ekonomii społecznej z samorządem (*The forms and methods of cooperation of The organization of social economy*),* The School of Administration, Bielsko-Biała.

Bakker, A.B., Demerouti, E. (2007). The Job Demands-Resources model, *Journal of Managerial Psychology*, No. 22.

Baldev, S., Anupama, R. (2010). Determinants of Employee Engagement in a Private Sector Organization: An Explorer Study, *Advances in Management*, vol. 3.

Barański, J. (2005). Ryzyko niepowodzeń w praktyce lekarskiej, *Lekarz Rodzinny,* (The risk of failure in physician's practice. *Family doctor),* No. 10.

Bartosik-Purgat, M. (2004). *Uwarunkowania kulturowe w marketingu międzynarodowym* (Cultural aspects of international marketing), Wydawnictwo Academy of Economics in Poznan, Poznan.

Bednarz-Łuczewska, P., Łuczewski, M. (2012). *Podejście biograficzne* (Biographical approach) [in:] Jemielniak, D. (ed.) *Badania jakościowe. Metody i narzędzia, tom 2*, (Qualitative research. Methods and tools, Part 2), PWN, Warszawa.

Benson, N., Elliot, D., Grant M., Holschuh D., Kim B., Kim H. Et al (2002). *Usability and instructional design heuristic for e-learning evaluation.* In P. & S. (Eds.) Proceedings of World Conference of Educational Multimedia, Hypermedia and Telecommunications. Presented at the World Conference on Educational Multimedia.

Berent, J., Lemley, A. (2010). *Work makes me nervous. Overcome anxiety and build the confidence to succeed*, John Wiley & Sons. Inc. Hoboken, New Jersey.

Bielski, M. (2002). *Podstawy teorii organizacji i zarządzania* (Fundamentals of organization and management theory), University of Łódź, Łódź.

Bieniok, H. (2011). *Metody sprawnego zarządzania. Planowanie, motywowanie, organizowanie, kontrola* (Methods for efficient management. Planning, motivating, organizing, controlling), Agency Placet, Warsaw.

Błaszczyk, W. (red.) (ed.) (2005). *Metody organizacji i zarządzania* (Methods of organization and management), PWN, Warsaw.

Bober, B., Matuska, E. (2014). *Knowledge Management as Determinant of Information Asymmetry Reduction in a Health Care System*, UMCS, Lublin.

Boesso, G., Kumar, K., Michelon, G., (2013). Descriptive, instrumental and strategic approaches to corporate social responsibility. Do they drive the financial performance of companies differently?, *Accounting, Auditing &Accountability Journal*, No 26(3).

Bogacz-Wojtanowska, E. (2006). *Zarządzanie organizacjami pozarządowymi na przykładzie stowarzyszeń krakowskich (*The management of non-governmental organizations*)*, Jagiellonian University, Cracow.

Bouhnik, D., & Marcus T. (2006). Interaction in distance-learning courses, *Journal of the American Society Information Science and Technology*, 57(3).

Bralczyk, J. (2008). (ed.) *Słownik 100 tysięcy potrzebnych słów* (Dictionary of 100 thousands of needed words), PWN, Warsaw.

Brinkerhoff, J. (2002). *Government-Nonprofit partnership: a defining framework* [in:] Public Administration and Development, Vol. 22, Issue 1.

Brown, K. G. (2005). A field study of employee e-learning activity and outcomes, *Human Resource Development Quarterly, vol. 16, no. 4.*

Bruce, S.M., Conaglen, H.M., Conaglen, J.V. (2005). Burnout in physicians: a case for peer-support, *Internal Medicine Journal.*, No. 35.

Brun, J.P., Lamarche, Ch. (2006). Assessing the Costs of Work Stress, January.

Bugdol, M. (2007). *Wartości organizacyjne. Szkice z teorii organizacji i zarządzania*, Jagiellonian University, Cracow.

Caplan, R. D. (1987). Person-environment fit theory and organizations: Commensurate dimensions, time perspectives, and mechanisms, *Journal of Vocational Behaviour,* 31/1987.

Chandola, T. (2010). *Stress at Work*, London.

Cherniss, C. (1990). *The Role o f Professional Self-efficacy in the Aetiology of Burnout,* paper presented at the First International Conference on Professional Burnout, Cracow.

Chomątowski, S., Sokołowski, A. (1978). *Taksonomia struktur* (Taxonomy Structures), „Przegląd Statystyczny" (Statistical Review), R. XXV, 2.

Clark, R. (2002). *Six* principles of effective e-learning. What works and why? *The e-learning developer's Journal.*

Coyle-Shapiro, J., Conway, N. (2009). Exchange Relationships; Examining Psychological Contacts and Perceived Organizational Support., *Journal of Applied Psychology, No. 90.*

Cyfert, Sz. (2006). *Strategiczne doskonalenie architektury procesów w zarządzaniu przedsiębiorstwem* (Strategic improvement of process architecture in business management), Economic Academy, Poznan.

Ćukušić M., Alfirević N., GranićA. &Garača Ž. (2010). E-Learning process management and the e-learning performance: Results of a European empirical study, *Computers & Education, 55(2).*

Ćwiklicki M., Obora H. (2009). *Metody TQM w zarządzaniu firmą. Praktyczne przykłady zastosowań* (TQM methods in company management. Practical application examples), Poltext, Warsaw.

Dahlgaard, J.J., Kristensen, K., Khanji, G.K. (2002). Fundamentals of Total Quality Management: Process Analysis And Improvement, Tyaylor & Francis Group, Abingdon.

Dalkir, K. (2005). *Knowledge management in theory and practice*, Elsevier Butterworth Heinemann.

De Hoogh, A., Den Hartog, D. (2009). Neuroticism and locus of control as moderators of the relationships of charismatic and autocratic leadership with burnout, *Journal of Applied Psychology*, No. 94 (4)

Drucker, P. F. (2012). *Praktyka zarządzania* (Practice management)*,* MT Biznes, Warsaw.

Durlik, I. (2004). *Inżynieria zarządzania* (Engineering management), Placet, Warsaw.

Dutta, A. K., Mosley, A., Akhtar, M. (2011). E-*learning in Higher Education: Design and Implementation*. IJCSI International Journal of Computer Science Issues, Vol. 8, Issue 4, No 2, July 2011 ISSN (Online): 1694-0814.

Edwards, J. R. (1991). Person-job fit: A conceptual integration, literature review, and methodological critique, [in] Cooper, C. L. & Robertson, I. T. (eds.), *International review of industrial and organizational psychology*, Wiley, New York Vol. 6/1991.

European Agency for Safety and Health at Work (2016). Second European Survey of Enterprises on New and Emerging Risks (ESENER-2), Overview Report: Managing Safety and Health at Work, Luxembourg: Publications Office of the European Union.

Falcone, P. (2006). Preserving restless top performers: keep your top performers engaged so they don't jump ship once job opportunities arise, *HR Magazine*, March.

Farber, B.A. (1983). *Introduction: A critical perspective on burnout* [in:] Farber, B.A. (ed.), Stress and burnout in the human service professions, Pergamon Press, New York.

Farh, Jing-Lih, Hackett R.D., Liang. J. (2007). Individual- Level Cultural Values as Moderators of Perceived Organizational Support–Employee Outcome Relationship in China: Comparing the Effects of Power Distance and Traditionality, *Academy of Management Journal, 50 (3)*.

Fazlagić, J. (2014). *Innowacyjne zarządzanie wiedzą* (Innovative knowledge management), Publishing House of Difin, Warszawa.

Fengler, J. (2001). *Pomaganie męczy. Wypalenie w pracy zawodowej* (Helping tiring Burnout at work), GWP, Gdansk.

Figiel A., (2004). *Etnocentryzm konsumencki. Produkty krajowe czy zagraniczne*, (Consumer ethnocentrism. Products of national or foreign), PWE, Warsaw.

Figurska, I. (2012). *Zarządzanie wiedzą w organizacji* (Knowledge management in the organization), WHSZ, Słupsk.

Figurska, I. (2015). *Personal aspects of knowledge management*, [in:] Sokół, A. (ed.), *Managing diversity in the organization. Creativity-knowledge-competence-innovation-trust*, Sciemcee Publishing, London.

Filipowicz, G. (2008). *Rozwój organizacji poprzez rozwój efektywności pracowników* (The development of the organization through the development of effectiveness of employees), Wolters Kluwer, Cracow.

Frączkiewicz-Wronka, A. (2012). *Usługi społeczne realizowane w partnerstwie (*The social services realised in partnership*),* Pedagogical University of Warsaw, Warszawa-Łazy.

Freudenberg, H. (1974). Staff burn-out, *Journal of Social Issues*, No. 30.

Gewert, M., Skoczylas, Z. (2000). *Równania różniczkowe zwyczajne. Teoria, przykłady, zadania* (Ordinary Differential Equations. Theory, examples, tasks), GiS, Wrocław.

Giannetti M., Yafeh Y. (2012). Do Cultural Differences Between Contracting Parties Matter? Evidence from Syndicated Bank Loans, *Management science*, Vol. 58, No. 2

Głowacka, M.D., Nowakowska, I. (2010), *Wypalenie zawodowe jako czynnik zmieniający efektywność pracownika (*Burnout as a factor in changing the efficiency of the employee), Wolters Kluwer, Cracow.

Gołembska, E., Majchrzak-Lepczyk, J., Bentyn, Z., (2015). *Eurologistyka* (*Euro*logistics), PWN, Warsaw.

Gołębiowska, A. (ed.) (2015). *Współpraca organizacji pozarządowych z samorządem terytorialnym* (Cooperation of non-governmental organizations with the local self-governance, PWP, Warsaw.

González-Gómez, F., Guardiola, J., Martín Rodríguez, Ó. (2012). Gender differences in e-learning satisfaction. *Computers & Education, 58(1)*.

Gorynia, M. (ed.), (2005). *Strategie firm polskich wobec ekspansji inwestorów zagranicznych* (Strategies of Polish companies to expand foreign investors), PWE, Warsaw.

Grajewski, P. (2003). *Koncepcja struktury organizacji procesowej* (The concept of the structure of the process organization), Publ. Home of the Organizer, Torun.

Gronroos, C. (1990). *Service Management and Marketing: Managing the Moment of Truth in the Service Sector.* Mass: Marketing Science Institute, Cambridge.

Grudzewski, W.M., Hejduk, I.K. (2004). *Metody projektowania systemów zarządzania* (Methods of designing management systems), Difin, Warsaw.

Guerrero, S., Herrbach, O. (2009). Manager organizational commitment: A question of support or image?, *International Journal of Human Resource Management, 20(7)*.

Hamrol, A. (2008). *Zarządzanie jakością z przykładami. Wydanie II* (Quality management with examples. Edition II), PWN, Warsaw.

Hamrol, A., Mantura, W. (2002). *Zarządzanie jakością. Teoria i praktyka* (Quality management. Theory and practice), PWN, Warsaw.

Hamrol, A., Mantura, W. (2005). *Zarządzanie jakością. Teoria i praktyka* (Quality management. Theory and practice), PWN, Warsaw.

Hansen, D.E., (2008). *Knowledge transfer in on-line learning environments*. J. Mark. Educ. 30 (2).

Harris, E.K., (2009). *Customer Service: A Practical Approach*, 5th Edition, Prentice Hall, New Jersey.

Harter, J. K., Schmidt, F.L., Hayes, T. L. (2002). Business- unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis, *Journal of Applied Psychology, 87(2)*.

Hausner, J. (2008). *Zarządzanie publiczne* (Public *Management),* Scholar, Warsaw.

Hemsley, C. (2002). Jones International University's focus on quality elearning opens doors for students worldwide. *Business Media*, 39(9).

Hlupic, V., Pouloudi, A., Rzevski, G. (2002). Towards an integrated approach to knowledge management: "Hard", "Soft" and "Abstract" Issues, *Knowledge and Process Management*, vol. 9/2002, no. 2.

Hofstede, G., (2000). *Kultury i organizacje, Zaprogramowanie umysłu* (Culture and organizations, Programming the mind), PWE, Warsaw.

Holley, D. (2002). Which room is the virtual seminar in please*?, Education and Training*, 44(3).

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P., Gupta, P.W., (eds.) (2004), *Culture, leadership, and organizations*. The GLOBE study of 62 societes. Thousands Oaks: Sage

Huynh, M.Q., Umesh, U.N., Valachich, J. (2003). *E-Learning as an Emerging Entrepreneurial Enterprise in Universities and Firms*. Communications of the AIS, 12. Gunasekaran, A., Mcneil, R.D., &Shaul, D. (2002). *E-learning: research and applications*. Industrial and Commercial Training, 34 (2).

Islam, A.K.M.N. (2014). Sources of satisfaction and dissatisfaction with a learning management system in post-adoption stage: A critical incident technique approach. *Computers in Human Behavior, 30*.

Janiga-Ćmiel, A. (2014). *Dynamiczna analiza procesów rozwoju gospodarczego* (Dynamic Analysis of The Processes of Economic Development), University of Economics, Katowice.

Johnson, R.E., Groff, K.W., Taing, M.U. (2009). Nature of the Interactions among Organizational Commitments: Complementary, Competitive or Synergistic?, *British Journal of Management vol. 20*.

Jones, A.J. (2003). *ICT and Future Teachers: Are we preparing for e-Learning*? Paper presented at the IFIP Working Groups 3.1 and 3.3 Conference: ICT and the Teacher of the Future, January 27-31, 2003, Melbourne, Australia.

Juchnowicz, M. (2010). Zarządzanie kapitałem ludzkim a poziom zaangażowania pracowników (Management of human capital and the level of involvement of employees), *Zarządzanie Zasobami ludzkimi (Human Resorce management)* no. 3-4.

Kahn, W.A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work, *Academy of Management Journal*, 33(4).

Kępiński A. (2002). *Lęk* (The fear), Literary Publishing, Cracow.

Kinshuk, Suhonen, J., Sutinen, E., Goh, T. (2003). Mobile Technologies in Support of Distance Learning. *Asian Journal of Distance Education, 1 (1)*.

Kochan, T.A., Dyer L. (1993). Managing Transformational Change: The Role of Human Resource Professional, *International Journal of Human Resource Management, No. 4(3)*.

Kostro, K.(2009). Zagadnienia kulturowe w ekonomii (Cultural issues in economics), *Gospodarka Narodowa* (National economy), 3.

Kozak, S. (2009). *Patologie w środowisku pracy. Zapobieganie i leczenie* (Pathologies in the work environment. Prevention and treatment), Difin., Warsaw.

Kristensen, T.S., Borritz, M., Villadsen, E., Christensen, K.B. (2005). The Copenhagen Burnout Inventory: A New Tool for the Assessment of Burnout. *Work & Stress*, No. 19(3).

Krzyżaniak, S. (2010). *Demokracja bezpośrednia w świetle teorii demokracji Roberta Dahla* (Direct democracy in the light of Robert Dahl's theory) [in:] Marczewska-Rytko, M. (ed.), *Stan i perspektywy demokracji bezpośredniej w Polsce* (The state and prospects of direct democracy in Poland), Maria Curie-Sklodowska University Press, Lublin.

Kuźnik, F. (2005). *Stare i nowe koncepcje zarządzania publicznego w strukturach samorządu terytorialnego* (Old and new conceptions of public management in the structures of local self-governance) [in:] Kożuch, B., Markowski, T. (ed.), *Z teorii i praktyki zarządzania publicznego* (From the theory of practice and public management), The Foundation of Contemporary Management, Białystok.

Lee, J., Lee, W. (2008). The relationship of e-learner's self-regulatory efficacy and perception of e-learning environmental quality. *Comput. Hum. Behav*. 24 (1).

Lehner, F., Nösekabel, H., & Lehmann, H. (2003). *Wireless elearning and Communication Environment*. E-Services Journal, 2.

Leiberman, J. (2000). Online Teaching. *Training & Development*, 37(3).

Lewicka, D. (2014). *Rola funkcji personalnej w zapobieganiu dysfunkcjom i patologiom* (The role of the HR function in the prevention of dysfunctions and pathologies), PWN, Warsaw.

Liaw, S. S. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. *Computers & Education, 51*.

Liaw, S.S. (2008). Investigating students' perceived satisfaction, behavioral intention and effectiveness of e-learning. A case study of the Blackboard system. *Computers & Education 51*.

Lipka, A., Król, M., Winnicka-Wejs, A., Waszczak, S. (2010). *Kształtowanie motywacji wewnętrznej. Koszty jakości i ryzyko* (Formation of internal motivation. Quality costs and risk), Difin, Warsaw.

Lisowska-Magdziarz M., (2007). Czy istnieje konsument europejski? (Is there a European consumer?), „Innowacyjny Start" ("Innovative Start"), 2(5)

Lock, D. (2012). *Podręcznik zarządzania jakością* (Handbook quality management), PWN, Warsaw.

Lozano, R., Lozano, F., Mulder, K., Huisingh, D., Waas, T. (2013a). *Advancing higher education for sustainable development: international insights and critical re-flections.* J. Clean. Prod.

Lu, H. P. & Chiou, M. J. (2010). The impact of individual differences on e-learning system satisfaction: A contingency approach, *British Journal of Educational Technology*, 41 (2).

Macey, W.H., Schneider, B. (2008). The Meaning of Employee Engagement, *Industrial and Organizational Psychology, Vol. 1.*

Management systems, occupational health and safety PN-N-18001. Requirements PKN (2004) Warsaw.

Marine, A., Ruotsalainen, J.H., Serra, C. & Verbeek, J.H. (2009). Preventing occupational stress in healthcare workers (Review), *Cochrane Database of Systematic Reviews,* Vol 1.

Maslach, Ch., Leiter, M.P. (2011). *Prawda o wypaleniu zawodowym* (The truth about burnout professional), PWN, Warsaw.

Maslach, Ch., Schaufeli, W.B., Leiter, M.P. (2001). Job Burnout, *Annual Review of Psychology*, 52.

Mason, R., Pegler, C., & Weller, M. (2005). A learning object success story. *JALN, 9(1).*

Mastrangelo, P.M. (2009). Will Employee Engagement Be Hijacked or Reengineered? *OD Practitioner*, Vol. 41, No. 2.

Matczak, P., Koziarek, M. (2011). *Współpraca międzysektorowa przy tworzeniu polityk publicznych dotyczących spraw społecznych i ochrony środowiska* (Intersector cooperation at the creation of public policies concerning social affairs and environmental protection), Institute of Public Affairs, Warsaw.

Matuska, E. (2011). *Bezpieczeństwo psychologiczne w zarządzaniu zasobami ludzkimi – potrzeba prewencji wypalenia zawodowego* (Psychological safety in human resource management - the need for prevention of burnout), [in]: Chrabkowski, M., Tatarczuk, C., Tomaszewski, J. (eds), *Bezpieczeństwo w administracji i biznesie we współczesnym świecie* (Security in government and business in the modern world), Part I, WSAiB, Gdynia.

Maybury, M. T. (2006). *Expert Finding Systems* , MITRE TECHNICAL REPORT, Center for Integrated Intelligence Systems, Bedford, Massachusetts.

Michalski, E. (2013). *Zarządzanie przedsiębiorstwem. Podręcznik Akademicki* (Business management. Academic Handbook), PWN, Warsaw.

Mika, J. (1995). *Analiza statystyczna pozycji Polski na tle krajów Unii Europejskiej* (Statistical Analysis of The Polish Position on The Background of The European Union), Śląsk, Katowice.

Miles, R. H. (2001). Beyond the age of Dilbert: Accelerating corporate transformations by rapidly engaging all employees. *Organizational Dynamics 29(4).*

Miller, R. (2005). The evolution of knowledge management, E Content 28(11).

Morrow, J. (2010). Studies stress economic cost of depression in the workplace, [eds.:] *Canadian Occupational Safety Magazine.* Quebec, Annex Publ.& Printing Inc.

Moura, A.P.M., Cunha, L.M., Azeiteiro, U.M., Aires, L., de Almeida, M.D.V. (2010). Food consumer science post-graduate courses: comparison of face-to-face versus on-line delivery systems. *Br. Food J.* 112 (5).

Moura, A.P.M., Cunha, L.M., Azeiteiro, U.M., Aires, L., de Almeida, M.D.V. (2010). Food consumer science post-graduate courses: comparison of face-to-face versus on-line delivery systems. Br. Food J. 112 (5).

Narciss, S., Proske, A., Körndle, H. (2007). Promoting self-regulated learning in web-based learning environments. *Comput. Hum. Behav*. 23.

Nichols, M. (2003). A theory of e-learning. *Educational Technology&Society*, 6 (2).

Nowak-Far A. (2000). *Globalna konkurencja. Strategiczne zarządzanie innowacjami w przedsiębiorstwach wielonarodowych* (Global competition. Strategic management innovation in multinational companies), PWN, Warsaw.

Ogińska-Bulik, N. (2006). *Stres zawodowy w zawodach usług społecznych* (Occupational stress in professions of social services), Difin, Warsaw.

Olkiewicz, M. (2008). *Podstawy Zarządzania Jakością. Wybrane aspekty* (Fundamentals of Quality Management. Selected aspects), Koszalin University of Technology, Koszalin

Olkiewicz, M. (2015). Kompetencje menadżera jako determinanta rozwoju organizacji (Competence of a Manager as a Determinant of Organization Development), *Ekonomika i Organizacja Przedsiębiorstwa* (*Economics and Organization of Enterprises*), No 7 (786).

Olkiewicz, M., Bober, B. (2015). *Identyfikacja Projakościowej transformacji przedsiębiorstw. Studium Przypadku* (Identification of pro-quality transformation of enterprises. Case study), Koszalin University of Technology, Koszalin.

Ong, C.-S., Lai, J.-Y., & Wang, Y.-S. (2004). Factors affecting engineers' acceptance of asynchronous e-learning systems in high-tech companies. *Information & Management, 41 (6),*

Ostasiewicz, W. (1999). *Statystyczne metody analizy danych* (Statistical Methods of Data Analysis), University of Economics in Wroclaw, Wroclaw.

Otter, R. R., Seipel, S., Graeff, T., Boraiko, B. A., Gray, C., Petersen, J., Sadler, K. (2013). Comparing student and faculty perceptions of online and traditional courses. *Internet and Higher Education, 19.*

Paechter, M., Maier M. & B. (2010). Online or face-to-face? Students' experiences and preferences in e-learning. *Internet and Higher Education. 13(4).*

Penc, J. (2007). *Nowoczesne kierowanie ludźmi. Wywieranie wpływu i współdziałanie w organizacji* (Modern management of people. Influencing and cooperation in the organization), Difin, Warsaw.

Perechuda, K. (ed.). (2005). *Zarządzanie wiedzą w przedsiębiorstwie* (Knowledge management in the enterprise), PWN, Warsaw.

Peter, J.P., Olson, J.C., (2002). *Consumer Behavior and Marketing Strategy*, Irwin-McGraw-Hill, Boston

Piecuch, I., Piecuch, T. (2011). Nauczanie o środowisku – nigdy nie jest za wcześnie i nigdy nie jest za późno (Teaching about the environment - it is never too early and never too late), *Annual Set the Environment Protection, No 13.*

Pieniążek, A., Weiss, J., Winiarz, A. (2007). *Procesy stochastyczne w problemach i zadaniach* (Stochastic Processes In Problems and Tasks), Cracow University of Technology, Cracow.

Pines, A.M. (2011). *Wypalenie w perspektywie egzystencjalnej* (Burnout in the existential perspective), PWN, Warsaw.

PN-EN ISO 9000:2006 Systemy zarządzania jakością. Podstawy i terminologia (*PN-EN ISO 9000:2006* Quality management systems. Fundamentals and vocabulary), (2006), Publishing Polish Committee for Standardization, Warsaw.

Pociecha, J., Podolec, B., Sokołowski, A., Zając, K. (1988). *Metody taksonomiczne w badaniach społeczno-ekonomicznych* (Taxonomic Methods in The Study of Socio-economic), PWN, Warsaw.

Pocztowski, A. (2009). *Zarządzanie zasobami ludzkimi* (Human Resources Management), PWE, Warsaw.

Probst, G., Raub, S., Romhardt, K. (2002). *Zarządzanie wiedzą w organizacji* (Knowledge management in the organization), Oficyna Ekonomiczna, Cracow.

Ramani Y. K. (2012). *Improving* quality in higher education. Through e-learning management system (ELMS), *Quest International Multidisciplinary Research Journal.* Vol. I, Issue I, 2012, ISSN 2278-44.

Roberts, D.R., Davenport, T.O. (2002). Job Engagement: Why It's Important

Rongińska, T., Gaida, W.A. (2003). *Strategie radzenia sobie z obciążeniem w pracy zawodowej* (Strategies for coping with the load at work), Zielona Góra.

Rudawska, A. (2011). Motywowanie do zaangażowania w organizację oraz życie społeczne i rodzinne (Motivation for involvement in the organization and social and family life), *Master of Business Administration 1/2011.*

Rudolf, S. (1986). *Demokracja przemysłowa w rozwiniętych krajach kapitalistycznych* (Industrial democracy in the developed capitalist countries), PWN, Warsaw.

Rymsza, M. (2006). *Standaryzacja współpracy administracji publicznej z organizacjami pozarządowymi jako element polityki państwa wobec trzeciego sektora* (Standardisation of cooperation of public management with non-governmental organizations as an element of state policy towards the third sektor) [in:] *Standardy współpracy administracji publicznej z sektorem pozarządowym.*(Standards of cooperation of public management with non-governmental sector), The expertise ordered by Ministry of Labour and Social Policy, Institute of Public Affairs, Warszawa.

Sadler-Smith, E. (2000). "Modern" learning methods: rhetoric and reality. *Personnel Review*, 29(4).

Sajkiewicz, A. (red.) (2000). *Zasoby ludzkie w firmie. Organizacja, kierowanie, ekonomika*, (Human resources in the company. Organization, management, economics), Poltext, Warsaw.

Salanova, M., Lorens, S., Cifre, E., Martinez, I., Schaufeli, W. B., (2003). Perceived Collective Efficacy, Subjective Well-Being and Task Performance among Electronic Work Groups: an Experimental Study, Small Groups Research, No. 34.

Sandrin, L. (2006). *Jak się nie wypalić pomagając innym* (How not to burn helping others), Jedność, Kielce.

Schaufeli, W. B., Bakker, A. B. (2004). Job Demands, Job Resources, and their Relationship with Burnout and Engagement: a Multisample Study, *Journal of Organizational Behavior, No. 25*

Schaufeli, W.B., Bakker, A.B. (2004).

Schultz, D.P., Schultz, S.E. (2002). *Psychologia a wyzwania dzisiejszej pracy* (Psychology and the challenges of today's work), PWN, Warsaw.

Scott, T. (2000). The Wired Campus, *Business Weekly.*

Serwatka, J. (2002). Improving student performance in distance learning courses. The Journal of Technological Horizons In Education, 29(9).

Sęk, H. (2004a). *Uwarunkowania i mechanizmy wypalenia zawodowego w modelu społecznej psychologii poznawczej* (Conditions and mechanisms of burnout in the model of social cognitive psychology), PWN, Warsaw.

Shabha, G. (2000). Virtual universities in the third millennium: an assessment of the implications of teleworking on university buildings and space planning. *Facilities, 18(5).*

Shanley, E.L., Thompson, C.A., Leuchner, L.A., Zhao, Y.(2004). Distance education is as effective as traditional education when teaching food safety. *Food Serv. Technol. 4.*

Shopova, T. (2014). *Digital* Literacy of Students and Its Improvement at the University, *Journal on Efficiency and Responsibility in Education and Science,* Vol. 7, No. 2, printed ISSN 1803-1617, doi: 10.7160/eriesj.2014.070201.

Shore, L.M., Wayne, S.J. (1993). Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support, *Journal of Applied Psychology, 78, 7.*

Simpson, M.R. (2009). Engagement at Work: A Review of the Literature, *International Journal of Nursing Studies, Vol. 46.*

Skrzypek, E. (2002). *Jakość i efektywność* (Quality and efficiency), UMCS, Lublin.

Smythe, J. (2009). *CEO – dyrektor do spraw zaangażowania*, Wolters Kluwer Business, Cracow.

Stadniczeńko, S. L. (2002). *Współdziałanie oraz wzajemne wspieranie się samorządu terytorialnego i organizacji pozarządowych* (Cooperation and mutual support of local self-governance and non-governmental organizations) [in:] Dolata, S. (ed.), *Problemy prawne w działalności samorządu terytorialnego* (Legal problems in the activity of local self-governance), University of Opole Publishing House, Opole.

Strykowska, M. (2002). *Współczesne organizacje - wyzwania i zagrożenia. Perspektywa psychologiczna* (Modern organizations - challenges and threats. Psychological perspective), Humaniora, Poznan.

Sun, P.C., Tsai, R. J., Finger G., Chen, Y. Y. &Yeh D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education, 50.*

Syroka, J. (2003). *Wypalenie zawodowe – koszty indywidualne i społeczne*, tom VI (Burnout - the cost of individual and social, Volume VI), Wrocław.

Szabowska-Walaszczyk, A. (2010). Zaangażowanie w pracy i organizacji – przegląd problematyki i narzędzi pomiaru (Involvement in work and organization - an overview of the and measurement to ols) [w:] (in:) *Psychologia zarządzania w organizacji (Psychology of management in the organization,* Zawadzka, A. (red.) (ed.), PWN, Warsaw.

Sztompka, P. (2007). Socjologia. Analiza społeczeństwa (Sociology. Analysis of society), Znak, Cracow.

Tavangarian, D., Leypold, M., E., Nölting, K., Röser M.& Voigt D. (2004). Is e-learning the solution for individual e-learning? *Electronic Journal of e-learning, 2 (2).*

The act of 24 April 2003 on Public benefit organization and volunteering, Journal of Laws of the Republic of Poland 2016, Nr 0, poz. 239 with amendments.

The European Union Explained, (2016). *Consumers*, European Commission

Triacca, L., Bolchini, D., Botturi, L., Inversini, A. (2004). Mile Systematic usability evaluation for e-learning web applications, *AACE Journal, 12 (4).*

UWES, Utrecht Work Engagement Scale Preliminary Manual (ver.1.1), Utrecht University.

Volery, T. (2000). Critical success factors in online education. *The International Journal of Educational Management,* 14(5).

Whitener, E.M. (2001). Do "high commitment" human resource practices affect employee commitment? A cross level analysis using hierarchical linear modeling, *Journal of Management, 27.*

Wiig, K.M. (1999). *The intelligent enterprise and knowledge management*, Knowledge Research Institute, Inc.

Wiktor, J. W., Oczkowska, R., Żbikowska, A., (2008). *Marketing międzynarodowy. Zarys*

problematyki (International Marketing. Outline of the issues), PWE, Warsaw.

Wilson, J. (2001). Lessons of a Virtual Timetable: Education. *The Economist*, (17 February), p. 1 (CD-ROM).

Wilsz, J. (2008). Wypalenie zawodowe, (Burnout), *Pedagogika Pracy (Pedagogy of Labour),* No. 52.

Wygnański, J. (2012). *Skuteczne animowanie kultury współpracy – czynniki sukcesu w procesie budowy partnerstw* (Effective animation of cooperation culture - factors of the success in the process of building partnerships) [in:] Handzlik, A., Głowacki, J. (ed.), *Partnerstwo – współpraca międzysektorowa w realizacji celów społecznych* (Partnership - intersector cooperation in the realization of public aims), School of Public Administration Cracow University of Economics, Cracow.

Wywiał, J. (2004). *Wprowadzenie do wnioskowania statystycznego* (Introduction to Statistical Inference), University of Economics in Katowice, Katowice.

Xanthopoulou, D., Bakker, A.B., Demerouti, E., Schaufeli, W.B. (2009). Reciprocal Relationships between Job, Resources, Personal Resources and Work Engagement, Journal of Vocational Behavior, 74.

Zalewski, W. (2011). Analiza systemów informatycznych wspomagających zarządzanie produkcją w wybranych przedsiębiorstwach (Analysis of Computer Systems Supporting Production Management in Selected Companies), *Economy and Management*, 4/2011.

Балабанова, Л. В. Balabanova, L. V. (2016). Креативный маркетинг-менеджмент с позиции системного подхода (Creative marketing management from a system approach). *Economics, management, law: realities and perspectives: Collection of scientific articles.* – Les Editions L'Originale, Paris, France.

Економіка праці та соціально-трудові відносини (Economy of work and social and labor relations) (2009). ред. А. М. Колот (ed. A. M. Kolot). КНЕУ (Kyiv National Economic University), Київ (Kyiv).

Зозулёв, А. В. Zozulov, O.V. (2011). Маркетинг (Marketing): учеб. пособ. / А. В. Зозулёв, Н. С. Кубышина; под ред. С. А. Солнцева (ed. S. O. Solntscev). Знання (Znannia), Kyiv.

Крикавський, Є. В., Чорнописька, Н. В. Krykavsky, E. V., Chornopyska, N. V. (2009). *Логістичні системи (Logistic systems).* Видавництво Національного університету «Львівська політехніка» (Publishing of National University Lviv Politechnic), Львів (Lviv).

Маниліч, М. І. Manylich, M. I. (2015). Інноваційна діяльність з впровадження поновлюваних джерел енергії як спосіб досягнення енергоефективності ЖКГ та економіки в цілому (Innovative activities for implementation of renewable energy resources as method of achievement of an energy efficiency of housing and public utilities and economy in general), *Економічний простір* (*Economic Space*). №100.

Оболенська, Т. Є. Obolenska, T. E. (2001). *Маркетинг освітніх послуг: вітчизняний і зарубіжний досвід, (Marketing of educational services: domestic and foreign expirience).* – КНЕУ (Kyiv National Economic University), Київ (Kyiv.

Сокол, П. М. Sokol, P. M. (2015). Побудова комплексу інтегрованих маркетингових комунікацій (Creation of a complex of the integrated marketing communications) Теорія та практика реформування економічних систем: матеріали ІІ Міжнародного науково-практичного форуму "New Economics" (Theory and practice of reforming of economic systems: materials II of the International scientific and practical forum "New Economics"). Ред. колегія: проф. Кендюхов О. В. (ed. Prof. Kenduhov O. V.) «Центр навчальної літератури» (Center of educational literature), Київ (Kyiv).

NETOGRAPHY

Ellis, R. (2004). *Down with boring e-learning*! Interview with e-learning guru dr. Michael W. Allen. Learning Circuits. Available online at:
http://www.astd.org/LC/2004/0704_allen.htm.

Noesgaard, S. S., Ørngreen, R. (2015). The Effectiveness of E-Learning: An Explorative and Integrative Review of the Definitions, Methodologies and Factors that Promote e-Learning Effectiveness. *The Electronic Journal of elearning Volume 13 Issue 4. A*vailable online at: http://www.ejel.org.

Dicke, C., Holwerda J., Kontakos, A.M., (2007). Employee Engagement: What Do We Really Know? What Do We Need to Know to Take Action? Available online at:
https://www.uq.edu.au/vietnampdss/docs/July2011/EmployeeEngagementFinal.pdf

Borritz, M., Burnout in Human Service Work - Causes and Consequences. PhD Thesis: Available online at: https://www.ami.dk./upload/MB-phd.pdf; date of access: 2015-11-15.

Department of Health UK (2009). NHS Health and Wellbeing - final report (The Boorman report) London DD 299039 Department of Health. Available online at:
https://www.nhshealthandwellbeing.org/FinalReport.html; date of access: 2016-08-02.

Gallup Report (2016). available online at: https://eu.gallup.com/warsaw/118450/about.aspx; date of access: 2016-07-21.

AI (Artificial Intelligence). Available online at: http://searchcio.techtarget.com/ definition/AI, date of access: 2016-09-19.

Corporate portal. Available online at: http://www.businessdictionary.com/definition/ corporate-portal.html, date of access: 2016-09-22.

Development of an Expert Database. Available online at: https://www.pumacy.de/en/ yellow-pages/, date of access: 2016-09-19.

E-learning. Available online at: http://www.ideo.pl/technologie-internetowe/platformy-e-learningowe/, date of access: 2016-09-20.

Extranet. Available online at: https://www.techopedia.com/definition/2401/extranet, date of access: 2016-09-19.

Rutheford, A., Tait J.A. (2004). Knowledge management implementation trends, kBOS. *A*vailable online at:
http://www.kbos.net/uploadfiles/Knowledge%20Management%20implementation%20trends.pdf, date of access: 2010-11-25.

Sveiby, K.E. (2001), *What is knowledge management*? *A*vailable online at:
http://www.sveiby.com/articles/KnowledgeManagement.html, date of access: 2010-11-23.

What is a Content Management System (CMS)? *A*vailable online at:
http://www.comentum.com/what-is-cms-content-management-system.html, date of access: 2016-09-19.

http://innovativeconnectionsinc.com/emotions-in-the-workplace-fear-and-organizational-behavior/ fear-summary.pdf, date of access: 2016-02-21.

http://www.stat.gov.pl.

http://www.policja.pl.

http://www.krbrd.gov.pl/files/file/NP-BRD-2020_przyjety_przez_KRBRD.pdf.

Williams, D.K., Scott, M. M. (2016). Jak pokonać wrogów innowacji – ciszę i strach (How to overcome the enemies of innovation - the silence and the fear), *Harvard Business Review Polska* (Harvard Business Review Poland). *A*vailable online at:
http://www.hbrp.pl/news.php?id=919, date of access: 2016-02-21.

*Workplace Frights. Survey Reveals Workers Are Most Afraid of Making a Mistake A*vailable online at: http://accountemps.rhi.mediaroom.com/workplace-fears

Губені, Юрій Gubeni, Yuri (2012). Агрохолдинг із «людським обличчям» (Agroholding with «human face") Газета День. Рубрика Економіка. (Newspaper Day. Heading Economy.) №197. – 2012. *A*vailable online at:
http://www.day.kiev.ua/uk/article/ekonomika/agroholding-iz-lyudskim-oblichchyam.

Рівень безробіття в Україні. Офіційний сайт державного комітету статистики України (Unemployment rate in Ukraine. Official site of the State Committee of Statistics of Ukraine). *A*vailable online at: http://www.ukrstat.gov.ua.

Шиманська, А. А. Shymanska, A. A. (2015). Управління маркетинговою діяльністю промислового підприємства: економічний та філософський підходи (Marketing operations management of industrial enterprise: economic and philosophical approaches), Економіка: реалії часу. Науковий журнал (Economy: time realities. Scientific paper). № 3 (19). *A*vailable online at:
http://economics.opu.ua/files/archive/2015/n3.html.

Jaśniok, M., Komor, M., (2008). *Problemy komunikowania w euromarketingu (*Problems of communication in euromarketing), *A*vailable online at:
http://bazhum.muzhp.pl/media//files/International_Journal_of_Management_and_Economics/International_Journal_of_Management_and_Economics-r2008-t23/International_Journal_of_Management_and_Economics-r2008-t23-s148-172/International_Journal_of_Management_and_Economics-r2008-t23-s148-172.pdf, date of access: 2016-08-14.

Liczmańska, K., (2010). *Efekt kraju pochodzenia produktu a decyzje nabywcze konsumentów sektora alkoholi wysokoprocentowych (*The effect of the country of origin of the product and the purchasing decisions of consumers spirits sector), Roczniki Ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy (Annals of Economic Kujawsko-Pomeranian University in Bydgoszcz), 3, *A*vailable online at:
http://kpsw.edu.pl/pobierz/wydawnictwo/re3/14Liczmanska.pdf, date of access: 2016-08-31.

Nizielska, A., (2010). *Kulturowe uwarunkowania strategii produktu na rynku międzynarodowym* (Cultural conditions of product strategy in the international market), Katowice. *A*vailable online at:
http://innowacyjny-dizajn.pl/media/transfer/doc/nizielska_a_kulturowe_uwarunkowania_strategii_produktu_ na_rynku_miedzynarodowym.pdf, date of access: 2016-08-31.

Simpson, D., (2012) *Modele analizowania różnorodności kulturowej w biznesie międzynarodowy*m (Models to analyze cultural diversity in international business), Wyzwania gospodarki globalnej. Prace i Materiały Instytutu Handlu Zagranicznego Uniwersytetu Gdańskiego (The challenges of the global economy. Works and Materials Institute for Foreign Trade of the University of Gdansk) 31. *A*vailable online at:
https://ekonom.ug.edu.pl/web/download.php?OpenFile=979 date of access: 2016-09-02.

Cure, L.K. (2016). *Emotions in the workplace: fear and organizational behavior, A*vailable online at:
http://innovativeconnectionsinc.com/emotions-in-the-workplace-fear-and-organizationalbehavior/, date of access: 2016-03-06.

Kraska, M. (2009). Elektroniczna gospodarka w Polsce (Electronic economy in Poland), Raport, InstytutLogistyki (The report, Institute of Logistics) iMagazynowania. *A*vailable online at: http://www.logistyka.net.pl/images/articles/7154/Raport_2009.pdf.