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CHALLENGES FOR HRM IN A CRISIS OF COVID-19 – CASE STUDY OF THE CATERING INDUSTRY IN POLAND

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Introduction/background: The public health crisis, which was the Covid-19 pandemic, made it necessary to introduce changes in the HRM (human resource management) process in almost all organizations and industries. One of the industries that felt the negative effects of the crisis in a very severe way was the catering industry. Both owners of catering enterprises as well as employees in the industry had to face the challenges posed by an unexpected crisis situation.

Aim of the paper: The main aim of this paper was to identify human resource management challenges and activities in the catering industry in times of Covid-19 pandemic in Poland.

Materials and methods: The work uses source material in the form of literature on the subject of the crisis, as well as available reports and studies that were created during and immediately after the crisis caused by the Covid-19 pandemic. Primary research was carried out on the basis of a survey method. The questionnaire was distributed among the owners or managers of catering enterprises, as well as to industry's employees.

Results and conclusions: The pandemic was an unexpected phenomenon, and its effects left a significant mark on the processes related to human resource management. The catering industry turned out to be one of the most sensitive to such crises, which meant that many current employees decided to change their profession, and the owners and managers understood the need to both diversify activities and services provided, as well as the need to introduce changes in areas directly related to human resources management. The pandemic also increased awareness of the role and the importance of qualified, competent, motivated and committed staff in overcoming crises and achieving the success of the company.

Keywords: human resource management, crisis, crisis situation, Covid-19 pandemic, catering industry.

1. Introduction

The possibility of emergence of a crisis situation is embedded in the risk of management of almost every enterprise. A crisis usually occurs at an unexpected moment, it is characterized by the presence of chaos and uncertainty. In dealing with the crisis, it is important to make well-

considered and appropriate decisions that will affect the enterprise and its personnel. In this regards an entrepreneur or manager during a crisis is faced with the choice of making difficult and courageous decisions that require not only the knowledge, but also an experience and skills. The unstable economic situation caused by the Covid-19 pandemic has greatly affected the operation of many businesses. Industries that rely on face-to-face interactions were most affected, thus the service sector including the catering industry. The operation of food service facilities depended on indicators of new infections, guidelines and restrictions. The sudden crisis, inexperience, inadequate management of the business and human resources resulted in the closure of many companies, while others struggled with the crisis.

The main purpose of this paper is to identify the human resource management activities in the catering industry in the era of the pandemic. The paper adopts the following research problems: 1. How does the crisis situation affect human resource management? 2. What changes in the process of business management in the food service industry, especially in the area of human resource management, occurred as a result of the COVID-19 pandemic? 3. In what way was the catering industry affected by the pandemic? 4. What recommendations have resulted from the crisis situation in the catering industry for the future?

The thesis of the work assumes that the COVID-19 pandemic has contributed to the introduction of changes in the process of human resource management in the organization of the catering industry. The objects of the study were selected enterprises in the catering industry, while the subject of the research were employees, owners and managers of food service enterprises. The considerations in the theoretical part are related to human resource management and the determinants of the crisis and the conditions of management in crisis.

The literature on human resource management and crises was used in the creation of the paper. The sources of the work also include industry reports and statistical data available on industry's websites. In the empirical part the work is based on surveys that were conducted in companies in the food service industry. For the purposes of this work, the surveys targeted two groups: owners and managers as well as employees.

2. Theoretical foundations of human resource management

There are many approaches to defining human resources and human resource management. The term human resources is used to describe people together with their skills, knowledge, experience and qualifications, which together with natural and capital resources appear as part of the economic resources. Among the terms that can be used in a company to describe people, names such as employees, human resources, human capital, social potential of an organisation and human resources should be classified (Harasim, 2013, p. 9). Poczowski writes that human resources consist of a set of characteristics that enable people to perform different roles in

an organisation. Among the key components of human resources he mentions: knowledge, skills, attitudes, abilities, health, values and also the level of motivation to act. The author also emphasises that the managers of the human resource are the selected employees, who decide on the extent of its use during work (Pocztowski, 2008, p. 33). According to Król (2006), the term human resources is a value concept - it emphasises the important role of employees in the process of the organisation's functioning; because human resources affect the use of other resources of the organisation (material, financial), which is why the term has replaced other previously used terms, such as labour force or personnel" (Król, 2006, p. 54). Human resource management has become a new view of the HR function and implies a comprehensive view of HR issues in the company. Such differences are the result of accepting the following assumptions in human resource management (Wyrzykowska, Karbowski, 2009, p. 92):

- People are the most valuable resource of the organisation and the key to its success.
- The objectives, together with the HRM policy, should be in line with the mission and vision of the organisation's strategy.
- The management of human resources is based on the organisation's culture, which should be developed accordingly.
- Developing the participation of employees, their commitment to the organisation and their positive attitude to change.
- Decentralising the HR function by increasing the involvement of line managers.
- The individualisation of labour relations is desirable.

Zajac (2007, p. 13) understands human resource management as a strategic, coherent and comprehensive approach to managing people, who are the most valuable resource of an organisation. It aims to integrate the main goals of the organisation with the goals of each employee based on his or her needs. According to Król (2006, p. 55), human resource management is about designing and deploying the organisation's human resources in such a way that the organisation's objectives can be fully achieved, taking into account the interests of the employer and employees. Another definition is that human resource management is a function that is performed with other management functions under certain internal and external conditions. Internal factors include the company's economic situation, relevant technologies, management style, organisational structure and long-term goals. The latter include, for example, the situation on the labour market, legal conditions and socio-cultural conditions (Wyrzykowska, Karbowski, 2009, p. 95). Human resource management is the strategy and practice of attracting, using, improving and retaining people - their skills and abilities in an organisation or company (Adamiec, Kozusznik, 2000, p. 18). It postulates the strategic integration of HR and business issues, the active role of line management in resolving HR issues, and the need to shape organisational culture, integrate HR processes and build employee involvement as tools for achieving goals (Pocztowski, 2008, p. 34).

3. Global public health crisis - Covid-19 pandemic

Crises are an integral part of both human life and the functioning of organisations. They are the subject of study by many scientific disciplines. They need to be analysed in relation to several levels and areas. As Kral and Zablocka-Kluczka (2004) claims, one can speak of political, social, cultural, economic crises, parliamentary and agrarian crises, crises in medicine, in the family and crises of identity, morality, etc. Under the term crisis there can be different situations. The common feature of these situations is a threat to the current acceptable state of affairs in a particular area of individual or societal functioning. Situations refer to a threat to the fundamental values, interests or goals of institutions and social groups. A crisis is associated with an imbalance and, at the same time, with a disruption of activities and the realisation of goals (Wojciechowska-Filipek, 2014, pp. 16-17).

Crises are a widespread phenomenon, which affects the economy, companies and the staff employed by companies. Consideration of the crisis occurring in a company should begin by defining the concept of crisis, which can encompass its various spheres. The first definitions and approaches to crisis in the enterprises were concerned with the legal and economic aspects of collapse, the threat to existence and were close to the concept of bankruptcy. With the passage of time, crisis was noticed also in other spheres of enterprise activity, among others: in relations occurring between groups and individuals in the enterprise or between the enterprise and various entities in its environment (Romanowska, 2016, p. 16).

As Zakrzewska-Bielawska emphasises, the concept of crisis in an organisation is difficult to define due to its multidimensionality and various subject references (Zakrzewska-Bielawska, 2008, p. 65). Crisis can be analysed in relation to (Walas-Trębacz, Ziarko, 2011, p. 18):

- the process - attention is paid to its course,
- the phases of the process - distinguished by the intensity of the crisis,
- place of formation,
- problems in development concepts.

A crisis in relation to a company refers to a condition that threatens the survival of the company, the realisation of its objectives, reduces the time available for remedial action and surprises decision-makers with its emergence, resulting in conditions of strong pressure (Piaseczny, 2011, p. 259). In another view, a crisis in a company is an unpredictable event that, in perspective, threatens stakeholders with important and serious consequences, among other things: it may affect organisational performance and induce negative results (Wojciechowska-Filipek, 2014, p. 25). Barton (1993) understands crisis as an unpredictable phenomenon that has negative effects that significantly reduce an organisation's activities in the areas of services, employment, financial health and reputation. Wawrzyniak (1984) considers a crisis in an enterprise to be a situation of great danger to the organisation as a whole, in which, due to the piling up of various difficulties and the intensification of conflict phenomena, the realisation

of its basic functions is threatened. Another definition says that a crisis is a breakthrough, a decisive moment, a turning point. This definition implies a need of choice, a decision making moment, a struggle and a fight, in which acting under time pressure is crucial (Barczak, Bartusik, 2010, p. 13).

According to Urabanowska-Sojkin (1999), a crisis is a pathology in the development of an organisation, often caused by a disproportion between goals and the resources to achieve them. In view of this, a crisis is a pathological situation that threatens the economic existence of an enterprise. Rozwadowska (2002, p. 65) formulates the definition of a crisis as follows: "A crisis is a sudden, unexpected and undesirable event that disrupts the balance in a company and poses a threat to any sphere of activity". According to Zelek (2003, p. 32), a crisis is understood as a consequence of disturbances in the existence or realisation of one or more factors determining the existence and development of an enterprise, both those of external influence and those internal to it, dependent on the efficiency of management. As the authoress claims, the basic features of a crisis are manifested by (Zelek, 2003, p. 40):

- permanently disrupted economic activity,
- a real or apparent loss of control over one's activities,
- disruption of the internal balance of the organisation,
- threat to the existence of the organisation or parts of it,
- a decline in the financial condition of an organisation, limiting its development possibilities,
- a threat to the fulfilment of the company's strategic objectives,
- ambivalence about opportunities for growth and recovery,
- a shaking of the basis of public trust and internal faith in the organisation, which may contribute to a deterioration of its image.

As it can be seen from the literature review, a crisis is an uncontrolled and unpredictable phenomenon that can contribute to a threat to a company's existence. Considerations of crises provide a basis for defining a crisis situation. A crisis-related situation refers to a state resulting from the formation of certain unfavourable phenomena over time, which does not pose a direct threat to the existence of an organisation, but means an unsatisfactory assessment of its activities from the point of view of changes occurring in the environment and/or in relation to benchmark states (assessments) (Zakrzewska-Bielawska, 2008, p. 67).

A crisis situation can be perceived as a series of activities that precede a crisis and influence its course. A crisis situation is characterised by uncertainty, increasing destabilisation and social tension (Walas-Trębacz, Ziarko, 2011, p. 24). Another definition states that a crisis situation can be treated as a state in which no threat to the organisation's existence appears, but the results show that the organisation is not keeping up with the demands of the environment. In the context of a company, a crisis situation can be defined as a steady deterioration in economic and financial performance, an increasing decline in market share and a company's

declining strategic potential. The developing crisis situation leads to a crisis, which means that the overall balance of the organisation is upset (Barczak, Bartusik, 2010, p. 14).

On 5 March 2020, the first case of COVID-19 was reported in Poland. Just six days later, the World Health Organisation declared a global pandemic. The pandemic has become a serious public health threat. The increasing number of infections, the high number of deaths, and the inefficiency of health care systems created fears of infection, death, complications, and contact with people who might be infected. The pandemic caused many changes in social life. Society has had to face isolation, as well as reduced contact (Dymecka, 2021). The dynamics of the coronavirus outbreak shook the global economy, disrupting many industries, cutting supply chains or changing the demand for certain goods.

One solution to curb the development of the pandemic was the introduction of the so-called lockdown - the freezing of socio-economic life. The lockdown aimed at the so-called maximum flattening of the disease curve. The impact of the pandemic affected the economy, businesses as well as workers. As a result of the restrictions put in place, many factories closed down resulting in a decrease in the number of jobs. The pandemic caused an economic downturn, an increase in the number of unemployed and governments developed rescue packages to help and save the economy (Czucharski et. al., 2020).

In Poland, a number of restrictions were put in place to limit the transmission of the virus. Restrictions included a ban on foreigners entering Poland, and a 14-day quarantine was imposed upon arrival. The first lockdown implemented included the closure of most economic sectors. The activities of shopping malls were restricted to pharmacies and grocery shops. Air and rail services were suspended. Limits and bans on gatherings of more than 50 people were introduced (Ligaj, Pavlos, 2021, p. 63).

As a result of the restrictions, restaurants and entertainment venues were closed overnight. Learning in schools and universities was carried out remotely, as was work, which was moved from offices to homes (Skrabacz, 2021). An obligatory quarantine in case of illness was introduced, along with the designation of its location. In addition, people who were ill or suspected of being ill were forbidden to leave their quarantine places. A number of orders and prohibitions were introduced relating to staying in specific places, facilities or areas. In addition, mouth and nose coverings were introduced. Many businesses in various industries were affected by the coronavirus. One of the most affected industries was the tourism, hotel and catering industry.

4. Specifics of human resource management in the catering industry during a pandemic

The Covid-19 pandemic has caused many changes regarding the operation of the catering industry. Places such as restaurants, cafes and pubs closed down overnight. The restrictions imposed by the growing number of infections meant that takeaway orders with delivery or personal collection became the main business and source of revenue for enterprises. Unfortunately, due to the difficult situation and insufficient revenue, many entrepreneurs decided to close their businesses (Zagórska, 2020, pp. 10-12).

A study conducted by PMR (Zagórska, 2021) shows that 23% of HoReCa (Hotels, Restaurants, Catering) companies were forced to reduce employment (the study was conducted on a sample of 507 catering venues. Unfortunately, the inability to serve customers in the restaurant and the decline in turnover meant that the businesses could not pay fixed costs - including the rental of premises or costs related to employee remuneration (Szymkowiak, Gutowski, 2021).

A difficult situation existed in the area of employment policy. Individual restaurant owners had to fulfil the condition of maintaining employment in order to benefit from state financial aid. Due to the uncertainty regarding the time of reopening, it was also important for entrepreneurs to have employed staff when reopening the catering industry in stationary form (Tarnawa, Peterlik, 2021). Unfortunately, due to the numerous restrictions that the catering industry was affected by, some restaurateurs also made decisions to lay off, suspend employees or deprive employees of their bonuses. Companies directed employees to unpaid leave, reduced their working hours or wages. The reasons for such decisions were not only due to financial problems, but also problems resulting from the need for staff.

One of the key buzzwords and trends in the catering industry has become flexibility and efficient management, both in large and family businesses. This is linked to proper planning of operations, personnel management and diversification, which is often mentioned in the literature on tackling the crisis (Tomaszewska-Bolałek, 2021). Companies focused on proper work organisation, cost reduction and exclusion of unprofitable areas in their business and social media became a sales tool. The pandemic crisis contributed to more effective financial management, work organisation, better communication with employees, and increased activity in social media and e-commerce channels (Badowski, Marczak, 2021).

In the absence of employment guarantees, many workers decided on their own initiative to make redundancies from their existing jobs and to work in industries more resistant to public health crises, such as Covid-19.

5. Methodology of research

The main research objective of this paper was to identify human resource management challenges and activities in the catering industry in times of Covid-19 pandemic in Poland.

For the purposes of the research, the following research problems were formulated:

1. How does the crisis situation affect human resource management?
2. What changes in the process of business management in the food service industry, especially in the area of human resource management, occurred as a result of the COVID-19 pandemic?
3. In what way was the catering industry affected by the pandemic?
4. What recommendations have resulted from the crisis situation in the catering industry for the future?

The thesis of this paper is as follows: the Covid-19 pandemic contributed to the introduction of changes in the human resource management process in the catering industry.

The main tool that was used in the research carried out for this paper was a survey questionnaire, used to collect respondents' answers. The survey questionnaire was aimed at two research groups: employees and owners of catering businesses.

The nature of the present research was based on purposive sampling. Both employees of the companies as well as managers and owners were surveyed. A total of 39 respondents took part in the survey targeting catering industry personnel. The surveys included 20 factual questions and 6 metric questions. The survey targeting owners/managers of catering businesses involved 31 respondents. The survey included 19 factual questions and 7 metric questions.

The research was carried out from March to May 2022, using an anonymous survey questionnaire. The subject of the research were selected small and medium-sized enterprises (SMEs) in the catering industry located both in rural and urban areas in Southern Poland.

The research was conducted in such catering objects as restaurants, hotels, cafés, clubs, pubs, cocktail bars, party houses, and companies delivering food to homes.

6. Human resource management activities during a pandemic from the perspective of employees and managers-description of the research findings

The analysis of survey questionnaires showed that as a result of the Covid-19 pandemic, there were changes in the area of human resource management in the catering sector. The changes that employers and employees had to face were mainly negative in nature. They manifested themselves in the lack of information and motivational measures taken,

downsizing, temporary suspension of employees from their duties, reduction of wages depriving employees of bonuses. In many enterprises in the catering industry, there was no training or other activities aimed at retraining or acquiring new skills for employees. As a result, many enterprises in the industry have suspended or completely closed their operations.

Below are presented the results of research related to chosen areas of human resource management in the era of pandemic in the catering industry.

When asked about the motivational measures taken in the companies and allowing workers to keep their jobs, the vast majority of respondents stated that no motivational measures were taken at their workplace to keep their jobs in the pandemic. Only 18% indicated that such measures had been taken. Respondents indicated these measures as: new ideas, pay increase, no layoffs, expansion of the company's offerings - introduction of take-away dishes and delivery of meals.

The respondents were also asked about salary levels during the pandemic. More than half assessed said that the salary level decreased during the pandemic, while 44% of respondents said that the salary level remained the same. 10% of respondents indicated that for the duration of the pandemic the bonus system was stopped. 31% of respondents indicated that working hours were reduced as a result of the pandemic. 21% of surveyed employees indicated that they were sent on unpaid leave.

When asked about the opportunity to participate in training to acquire new skills, the vast majority of respondents said that no training was conducted at their location to acquire new skills. In contrast, 28% of respondents admitted that such training had been conducted. Managers and owners spoke in a similar vein, 81% of whom said that no training was conducted at their company to acquire new skills.

When asked about the type of workplace support for the pandemic, 97% of respondents said "I did not receive any support," while 3% said they received psychological support.

The respondents were also asked about the possibility of working elsewhere for the duration of the pandemic, and returning to their current job after the pandemic is over. More than half of the surveyed (51%) believe that employees were able to move to other companies for the duration of the pandemic and then return. A similar question was also asked of a group of managers. 61% of the respondents in this group indicated that employees were able to move to other companies and return.

A question was asked about a possible change of profession due to working in an industry that is highly vulnerable to similar crises. The survey found that only 26% admitted that they have changed their profession due to the pandemic. Among the professions indicated were responses such as salesman, cashier, real estate agent, registrar, educational project specialist, IT specialist, construction worker and automotive worker. At the same time, according to the survey, 56% of respondents encountered problems with changing jobs/industries, while the remaining respondents declared that finding a new job did not bring difficulties.

A question was also asked about the overall impact of the pandemic on food service employment, the most difficult experiences during this period, and fears of another crisis. As for the most difficult experiences, among the most common responses were: lack of work, lack of contact with people, lack of livelihood, closure of food service locations, helplessness, lockdown, restrictions due to strictures, reduced wages, lack of demand for food service jobs, lack of job satisfaction, stress of closure, alcoholism, change in working conditions, lack of government support. When asked about their fears of another crisis hitting the food service industry, 56% of respondents said they felt worried. 23% had no opinion, and 21% of respondents believe they are not worried about the next crisis.

Managers were additionally asked about the operation of catering enterprises during the pandemic. 42% of respondents said that, the venues stopped operations during the pandemic, while 29% said that the locals conducted business in the form of drop-offs and pick-ups of their own orders. The remaining 26% of respondents indicated that the companies were open and 3% said that they changed its business profile.

There was also a question about the overall impact of the pandemic on running a business. 74% of those who took part in the survey said that the pandemic had negatively affected the running of the business, 13% of respondents indicated a response of " Difficult to say". 10% of respondents hold the opposite view and believe that the pandemic has positively affected the conduct of business, while 3% believe that the pandemic has not affected the conduct of business in any way.

When asked what actions were taken against employees, respondents answered that working hours were reduced (55%), downsizing was carried out (42%), base salary was reduced (39%), wage allowances were eliminated (39%), wage allowances were reduced (39%).

7. Discussion

The COVID-19 pandemic has had a profound impact on the global economy, resulting in a number of job losses, reduced wages, and widespread business closures. Many small and medium-sized enterprises (SMEs) have been particularly hard hit, with many facing financial difficulties, declining sales, and increased competition. In order to respond to these challenges, many SMEs have undertaken employment restructuring as a means of reducing costs, improving competitiveness, and ensuring their long-term viability.

The analysis of the survey questionnaires showed that as a result of the Covid-19 pandemic, there were changes in the area of human resource management in catering facilities. The changes experienced by employers and employees were mainly negative. This is an unsatisfactory result, indicating that the crisis has had a serious impact on the business and human resource management approaches adopted to date.

The pandemic has had a negative impact on work. According to respondents, various measures have been taken against employees, such as reducing working hours, cutting salaries and sending employees on unpaid leave. In addition, respondents reported that bonus schemes in catering companies were suspended for the duration of the pandemic. The pandemic contributed to staff reductions and also to job changes. Such actions were linked to the reduced demand for staff and the financial problems faced by companies. They contributed to the perception of the catering industry as unstable. Working for an unstable company creates fear and anxiety about losing one's job, which has a negative impact on performance and commitment. It is important to emphasise that the owners of catering businesses who decided to take the above measures were forced to do so by the serious situation that prevailed during the Covid-19 pandemic.

The surveys show that only a few catering companies have taken motivational measures to maintain work during the pandemic. It should also be noted that the vast majority of respondents reported that no training was provided to acquire new skills. This is an unsatisfactory result as companies should be trying to retain skilled workers during this difficult time. Motivational measures are important during any crisis and were important during the Covid-19 pandemic. The harsh conditions in which workers found themselves and the associated fear and uncertainty led to many redundancies.

The issue of support at work in relation to the situation caused by the pandemic was also rated negatively. Employees who responded to the survey were asked about the support they received at work in relation to Covid-19. Sadly, employees responded that they could not count on support from their employers during the pandemic. They did not receive any psychological or financial support. The majority of respondents also said that no information session had been held to prepare them for the changes introduced by the pandemic.

8. Conclusions

One of the key challenges faced by SMEs in a crisis situation is the need to reduce costs. This can be achieved through a range of measures, including downsizing, layoffs, and reductions in working hours or pay. While these measures may be necessary in order to address financial difficulties, they also carry significant risks and can have negative impacts on morale, productivity, and the wider community.

In order to mitigate these risks and ensure the effectiveness of employment restructuring, SMEs need to be strategic in their approach. This may involve developing a detailed plan that takes into account the specific needs and circumstances of the business, as well as considering the impact on employees and other stakeholders.

Another important factor in the success of human resource management in time of crisis is the development of a robust and flexible workforce. This can involve investing in employee training and development, and creating a culture that is supportive of employee growth and development. This can help to ensure that the business is better positioned to respond to changing market conditions, and can also improve employee engagement and morale.

Employment restructuring is a critical process for SMEs in a crisis situation, as it can help to address financial difficulties, improve competitiveness, and ensure the long-term viability of the business. However, in order to be effective, employment restructuring must be approached in a strategic and inclusive manner, with a focus on involving employees, improving the workforce, and building trust and transparency throughout the process.

In the course of further research in this area, it would be worthwhile to analyze whether companies have learned lessons from the crisis, whether they are optimizing their operations for the occurrence of various unforeseen crisis situations, whether they are preparing/making their personnel aware of the possibility of similar phenomena, whether they are diversifying their operations so that they can survive as a result of the emergence of crisis situations.

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SELECTED ASPECTS OF HUMAN RESOURCE MANAGEMENT IN A SPORTSWEAR COMPANY

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Introduction/background: The essence of human resource management is the effective and strategic management of the organisation's people. The key elements of this process are recruiting and selecting appropriate candidates, developing and motivating employees, ensuring harmonious team relations, evaluating staff and managing their departures. Appropriate human resource management contributes to increased productivity, employee engagement and the achievement of organisational goals.

Aim of the paper: The aim of this study is to present the functioning of selected human resource management processes among retail shop employees in a retail company in the sports and functional apparel industry, and to develop conclusions and recommendations contributing to the improvement of HRM processes in the studied company and other organisations.

Materials and methods: For the aim of the study such research techniques like observation, interview and questionnaire survey were used.

Results and conclusions: As a result of the research conducted, conclusions have been developed regarding individual human resource management processes. Recommendations were also made that can be used to improve HRM both in the organisation studied and in other companies. Among the most important areas for improvement were the process of managing departures and the incentive systems used in the organisation.

Keywords: human resource management, motivation systems, employee evaluation, departures management, learning organization.

1. Introduction

Human resource management covers a number of personnel processes carried out in organizations, such as: employment planning, recruitment, evaluation and remuneration, motivation to work, training and development, determining labor productivity and costs, managing diversity and inclusion, managing departures and many others (Borys, 2008, p. 20). Currently, human resource management plays a strategic role in company management and

strives to discover and care for future human capital in its activities. Along with the development of the area of human resources management, the sources of competitiveness on the market were noticed in human resources. Human resource management plays a key role in attracting, developing and retaining the best talents, which is fundamental to the success and competitiveness of an organization. Nowadays, HR is no longer just an administrative department in the company, but it has a strategic function that is involved in the development of human capital and affects the entire organization to remain competitive and effective in a changing business environment. The vast majority of studies is related to a selected process of human resources management embedded in some unusual circumstances - the introduction of innovations, mergers of enterprises, restructuring. A significant number of studies also concern units of a public organization.

The aim of the work is to present the functioning of selected human resource management processes of retail stores in a commercial enterprise from the sports and functional clothing industry. The main thesis was the statement that in the examined company there are selected processes of human resources management, the principles of which are consistent with the general strategy of the organization, and its employees know and understand the systems of motivating, assessing and developing human resources functioning in the structure of the organization. In order to confirm or refute the thesis, several research questions were asked, which concerned the processes of human resource planning, employee selection methods, organization of training, motivational systems, employee evaluation, knowledge management in the organization and activities related to the management of employee's resignations. Within the empirical research surveys, interviews and observations were conducted.

The subject scope of this work includes employees at various levels and managers or the owners of chain's sportswear shops.

2. The essence of human resource management and its elements

Companies and organisations perform various functions, among which, in the context of human resource management, the personnel function should be mentioned. Its subject is the effective acquisition and use of human resources and their adjustment to existing organisational structures (Pocztowski, 1996, p. 9). The main idea of human resource management is the effective use of human potential to achieve organisational goals. Human resource management as an independent function is considered to have emerged at the turn of the 20th century. But even before that, R. Owen - an English manufacturer and reformer - pointed to human resources as equally important components of production as financial and material resources (Pawlak, 2011, p. 13). However, before human resource management as we know it today was created, the personnel function had to go through many phases of development. As Pocztowski

(1996) aptly notes, the evolution of the personnel function is characterised by both continuity and change. The same issues of working conditions, remuneration, motivation, etc. are still being developed, while the approaches of researchers, prevailing trends, the legal and socio-economic situation vary. The following is a brief description of selected areas of human resource management, which have been the subject of research for this paper.

2.1. Employment planning

Employment planning is an integral part of business planning and human resources management, being the starting point for other activities undertaken as part of the company's personnel function (Pocztowski, 2006, p. 101). The concept of employment planning can be defined as balancing the future demand for human resources in the organization with their future supply (Pawlak, 2011, p. 171). However, this definition does not fully reflect the meaning of employment planning. Expanding the concept with important components, it is worth quoting the definition proposed by C. Zając (2007, p. 44), according to which employment planning is determining the needs and requirements in the sphere of human resources in terms of quantity and quality, and creating plans to meet these needs. Human resource planning can also be considered in a narrow and broad sense. In the narrow sense, it is the determination of personnel needs only in terms of the number and qualification and professional structure of employees, while in the broad sense, these are all manifestations of planning - both the size of employment and its structure, as well as issues related to recruitment, layoffs, salaries, training, promotions and evaluating employees (Pawlak, 2011, p. 171).

In human resource planning, one can distinguish the so-called "hard" and "soft" elements (Zając, 2007, p. 45). The 'hard' elements include a quantitative analysis of staffing needs, i.e. identifying the right number of the right people needed at a certain time. The 'soft' elements relate to the creation and shaping of the company's organisational culture with regard to personnel matters. This involves integrating the company's goals with the values, beliefs and behaviours of employees. In spite of the constant volatility of the organisational environment, the lack of confidence of managers and the lack of sufficient evidence of the effectiveness of workforce planning methods in achieving corporate tasks and objectives, and the resulting difficulties, human resource planning should be implemented and its methods improved. This is due to the growing importance of human capital and its role as a factor in business competitiveness (Armstrong, 2007, p. 278; Dessler, 2019, p. 22).

2.2. Recruitment and selection processes

Satisfying the demand for employees resulting from the created employment plan takes place through the selection of employees (Zając, 2007, p. 47). It is a set of procedures related to staffing positions and activities undertaken to fill them with the right people (Król, Ludwiczynski, 2006, p. 197). Selection of employees can be considered in a narrow approach, including recruitment, selection and introduction of an employee to work, and in a broad

approach, which is divided into three phases: preparation of selection, proper selection and control of the selection process (Listwan, 2004, p. 109). This means that in a broader perspective, the selection of employees begins with employment planning and the definition of requirements profiles for a specific position. There are two stages in the process: recruitment and selection. Recruitment consists in preparing advertisements for a vacancy, disseminating it and collecting a list of candidates. In the course of employee selection, internal and external recruitment can be carried out. Internal recruitment is directing specific job offers to already employed employees (Pocztowski, 2006, p. 136). It is possible when the company has a staff reserve, i.e. a surplus of employees in relation to the needs, or when it is possible to move the employee to another job and retrain him or her. The undoubted advantage of internal recruitment is its lower cost compared to external recruitment. In addition, the company already has a complete set of information about a given employee, which reduces the risk of making a mistake when recruiting. The current employee also needs less time for adaptation and his/her integration with the company is strengthened (Pawlak, 2011, pp. 200-201). External recruitment, on the other hand, consists in looking for an employee on the external labor market. In practice, it is done by concluding a new employment contract or leasing employees from another company or temporary work agency (Pocztowski, 2006, p. 136). Among the advantages of external recruitment, it is worth mentioning the possibility of "refreshing" employee resources by introducing a person with new qualifications, skills, experience or ideas to the company. An external employee also has an objective point of view on the workplace and its functioning. Conducting external recruitment also has a positive impact on the organization's susceptibility to changes (Pawlak, 2011, p. 210).

The issue of choosing the type of recruitment in an enterprise depends primarily on the type of job for which the recruitment takes place, but also on the stage of development of the organization, promotion rules and applied management methods (Jamka, 2001, p. 19). Selection that is the process of assessing the suitability of candidates for work, the purpose of which is to select one of them, begins when at least two people have responded to the job advertisement. Selection is usually carried out in two stages: pre-selection, which results in a shortlist of candidates, and selection, in which the right candidate is selected. The most frequently used selection tools are the analysis of documents (e.g. CV, cover letter), survey, interview (including job interview) and tests (e.g. psychological, personality tests) (Pawlak, 2011, pp. 211-224).

2.3. Development of human resources

In response to the complexity and changeability of the environment and the complication of internal procedures and structures in organizations, a new field of the personnel function was created - human resources development (Pocztowski, 2006, pp. 298-299). This took place - similarly to the development of human resource management itself - in the 1980s and consisted in a departure from ordinary employee training to entire learning processes (both individual and

organizational). The development of human resources comes from the conviction that people are the organization's unique and most difficult to copy resource, and human capital is one of the most important components of its intellectual capital (Karaszewska, 2010, p. 124).

New requirements for human resources management, continuous improvement of competitiveness and support for achieving long-term goals of the organization had to be covered by other forms of action than before. The development of human resources allows for the creation of such conditions for shaping and improving human capital that positively affect the implementation of the company's strategy and respond to the needs and aspirations of employees. A. Poczowski (2006, p. 300) emphasizes that the area of research and practice in the field of human resource development in an organization depends on the adopted definition, and therefore it can apply to both training and learning processes, to strategy design. It also formulates a definition according to which the development of human resources includes properly configured undertakings: expanding knowledge, developing the abilities and skills of employees, shaping their attitudes and behavior in the work process, as well as building awareness in the field of economic, social and ecological conditions for effective work and sustainable development of the organization and strengthening the employability of people providing work. It shows that human resource development is an integral part of human resource management and is aimed at developing the entire organization through tools such as career development or talent management (Werner, DeSimone, 2011).

The evolution of human resources development has contributed to the popularization of such concepts as organizational learning and learning organizations (Senge, 2006; Płoszaj, Rok, 2012, p. 62).

2.4. Motivating employees – incentive system

Motivation is called a classic function of organization management and one of the most important roles of human resources management (Zajac, 2007, p. 133). An effective manager should have the ability to motivate, know what is a reward for his/her employee and have the conditions to offer this reward. In order to fully use the potential of human capital in an enterprise, an effective incentive policy should be pursued, which increases the competitiveness of the organization. This is because motivation determines employee behavior and, as a result, real work results, determining the final degree of achievement of individual and organizational goals (Karaś, 2003, p. 12). Motivating is influencing others in such a way that they move in the direction we want (Armstrong, 2007, p. 210). In relation to the company, it is a process of conscious and intentional impact of the organization on the motives (i.e. reasons) of the employee's behavior by creating means and opportunities to implement his/her personal value systems and expectations to achieve the organization's goals (Karaś, 2003, p. 12). Motivation is the mental state of an employee, expressed in readiness to make a specific effort aimed at achieving the goals of the organization. The level of this effort is

conditioned by the ability to meet the individual needs of the employee (Robbins, et.al., 1996, p.212).

In the above definitions, one can notice a scrolling division into individual, personal and organizational goals. This is related to the so-called internal and external motivation. Internal motivation comes from ourselves and is expressed in the pursuit of goals set by us. The source of internal motivation are automatic stimuli that determine human behavior, e.g. responsibility, the possibility of promotion, challenges posed by work. External motivation is a system of rewards and punishments created by an organization. Using it brings quick but temporary results, because it refers to the acquired, not innate, characteristics of employees (Armstrong, 2007, p. 212). Over the years, researchers have developed many theories of motivation that they believe would find wide application in various organizations. These theories can be divided into two groups: content theories and process theories. The first of them explain the internal causes that trigger a given behavior. They consist in the identification and classification of needs that have been recognized as the motives for this procedure. They provide practical information on the diverse needs of employees. Process theories, on the other hand, are focused on understanding the triggers of human action and the ways of starting, maintaining and extinguishing this behavior. They provide information on how employees make decisions about specific behavior, as well as on the degree of influence of factors on them such as: aspirations, preferences, rewards or punishments (Pocztowski, 2006, p. 204).

The shape of the incentive system in a given organization depends, among others, on its size, form of ownership, organizational culture, operating industry, scale of operation or development phase.

2.5. Evaluating employees

According to the academic literature, an evaluating employees (known also as employee appraisal) is an oral or written view valuing an employee's personal characteristics, behaviour and performance. More simply, it is any activity or set of activities aimed at collecting, checking, comparing, communicating, updating and using information about an employee. This means that we will consider not only formalised periodic procedures, but also day-to-day judgements as evaluations of a job holder. Day-to-day evaluations, which we would not pay attention to without a deeper look, are intended to instruct the employee in correcting his or her behaviour. Periodic evaluation, on the other hand, provides comprehensive and strategic information, e.g.: on a person's potential. This makes up the input-action-output evaluation. According to this premise, each employee is evaluated at the entrance to the organisation, i.e. at the time of the employment decision, when his or her qualities and suitability for the job are assessed. Performance appraisal takes place while the work is being done, while exit appraisal is about the effects of the person's work. It is also worth noting that the person assessing an employee is not only his/her superiors, but also colleagues or external actors. However, it should be mentioned that the object of employee evaluation is not the person,

but his or her qualities, work activities and the effects of this work (Pocztowki, 2006, p. 224). Employee appraisal can take place at different levels. In a basic sense, a distinction is made between individual and group (team) appraisal, but a specific organisational unit and the whole enterprise can also be evaluated. The use of a particular level of appraisal is influenced by the size of the enterprise and its strategy (Listwan, 2004, p. 204). Employee appraisal fulfils a fundamental function in human resource management. Every personnel decision in the organisation should be preceded by it, and the appropriateness of the decision made depends on the quality of the information provided by the appraisal (Pyrek, 2004, p. 110). Among the classifications of employee appraisal functions proposed by researchers, one can distinguish those focusing on the particular objects and purpose of appraisal, e.g. the division of appraisal functions according to McGregor into administrative, informational and motivational purposes. Another form is that developed by Cummings and Schwab, who divided the purposes of appraisal into those related to the evaluative function - set in the perspective of the past; and the developmental function - looking to the future (Pocztowski, 2006, p. 43).

2.6. Departures management

Managing departures in an organisation is a key element in the effective functioning of a business (Adamska-Chudzińska, 2020, pp. 214-227). As the labour market and employee expectations evolve, effective management of this process is crucial to maintain stability, business continuity and keep the organisation competitive. Among the challenges of managing departures, the loss of knowledge and experience is identified (Piskorz et al., 2022, pp. 11-30). When employees leave an organisation, they usually take their knowledge, skills and experience with them. This can negatively affect productivity and efficiency and require the expenditure of additional resources to train new employees. In addition, recruitment costs and time must also be considered (Rubenstein et al., 2017). The process of recruiting new employees is time-consuming and costly. It requires advertising vacancies, screening candidates, conducting interviews and initial training. Project abandonment can also be a problem: The departure of a key employee can interrupt or delay important projects, negatively affecting the organisation's performance. Furthermore, employee departures can affect the organisational culture, especially if many key employees decide to leave the company. This can result in lower morale and commitment among the remaining employees. Knowledge transfer is also a challenge. Transferring knowledge from departing employees to new team members is time-consuming and not always easy, especially when knowledge is unstructured or undocumented. Managing departures in an organisation is an integral part of HR strategies and human resource management. An effective approach to this issue allows organisations to minimise the negative impact of departures, maintain business continuity and attract and retain talented employees. With the right strategies in place, organisations can build a stable and productive workforce capable of meeting changing market challenges (Hom et al., 2017, pp. 530-545).

3. Description of the research methods

To carry out this study research techniques such as observation, interview and questionnaire survey were used. The subject of the study was the environment of retail shop employees and managers/owners in a retail company in the sports and functional apparel industry. The main research objective was to present the functioning of selected human resource management processes in these units. In the practical dimension, the work aimed to develop conclusions that would serve to formulate recommendations aimed at improving the functioning of the enterprise in the area of human resource management processes in the surveyed company. The results may also constitute a benchmark for other companies willing to improve HRM processes in their businesses. The results of the research were to provide answers to the following questions:

- 1) Are human resources planning processes applied and are there routine methods of employee selection defined?
- 2) Is training provided for all employees or just for selected ones?
- 3) What motivations systems are in place in the company?
- 4) Are employee appraisals carried out in the company and how are the results of the appraisal used?
- 5) Does the organisation exhibit the characteristics of a learning organisation?
- 6) Are measures taken in the organisation to manage departures?

In view of the above, the following research thesis was also formulated: the company under study introduced selected human resource management processes, the assumptions of which are in line with the overall strategy of the organisation, and its employees know and understand the motivation, evaluation and human resource development systems operating in the organisation's structure. The research problem formulated for this study is to identify the key factors influencing the various dimensions of human resource management in the enterprise.

In order to carry out the research, it was decided to compare the expected state (assumptions of the organisation) with the actual state (impressions of employees). First, secondary research was carried out by analysing the literature on the subject. This was followed by a structured interview with the manager (and simultaneously an owner) of the retail store. The questions were developed in advance and had a fixed order of asking. This form was dictated by the desire to obtain information on precise areas, procedures and regulations regarding human resource management. In addition, this form of interview mostly allows for objective answers, which was a key component of the research. In the next step, a questionnaire survey took place among the employees of the retail showrooms. Questions included in the questionnaire addressed a number of issues related to the following human resource management processes: employment planning and recruitment, employee motivation, employee appraisals, human resource development, knowledge management and departures management. A total of 32 respondents took part in the survey. The structure of the survey is presented in Table 1.

Table 1.
Structure of respondents

Age			Length of work		
Respondents	L. odp.	%	Respondents	Quantity	%
Less than 20 years	1	3,10%	Less than 1 year	7	21,90%
20-29 years	22	68,80%	1-3 years	10	31,30%
30-39 years	7	21,90%	3-6 years	10	31,30%
40-49 years	2	6,30%	6-10 years	4	12,50%
More than 50 years	0	0%	More than 10 years	1	3,40%
Position in the company					
Position		Quantity		%	
Manager		3		9,38%	
Deputy Manager		3		9,38%	
Decorator		6		18,75%	
Client Assistant		13		40,63%	
Senior Client Assistant		7		21,88%	

Source: Authors' own study.

The entire research process was rounded off by participatory observation, characterised by the researcher entering a specific group of people and observing "from the inside", through the eye of a member of such a community. The insights gained in this way made it possible to supplement the information gained in the survey research.

The research sample was selected in a non-random network way - from among the employees of the organisation's retail shops, those working in shops located in the Silesian voivodship were selected for the study. The questionnaire of the survey could be completed by all persons working in the shops, regardless of their seniority and position. The questionnaire was uploaded to the Google Sheets platform and sent to individual respondents electronically using internal e-mail. This type of research was conducted in April and May 2022. The structured interview with the retail shop manager was also based on the Google Sheets platform, where questions were posted with space to leave answers in the form of notes. The interview was conducted in May 2022. The interviewee was the manager of an in-house salon located in one of the cities in the Silesian Voivodeship. As he works with the company through a franchise, he reports directly to the company and is also the owner of this retail outlet. A participatory observation was also conducted in the same retail shop.

4. Human resource management processes - analysis of research results

The organisation, whose showrooms were surveyed, was established in 1995 in southern Poland. The company offers clothing and accessories for amateur and professional sports. Sales activities are conducted in Poland in more than 200 retail outlets and 161 partner and seasonal stands. The company has shops abroad, including in Romania, Latvia, Slovakia, Lithuania and the Czech Republic. The organisation currently has the status of a joint-stock company. The retail shops are divided into those directly subordinate to the company and its

own shops, which are leased to agents in the form of franchises. In this case, the employees of such a shop do not conclude a contract with the company, but with the owner of the shop.

The description of the research will be presented in correlation to the research questions posed for this article.

4.1. Are there human resource planning processes in place in the company and whether routine employee selection methods are identified

The research shows that the organisation uses an employment planning process, which is carried out by the showroom's managers. The planning process in the surveyed company mainly manifests itself in the determination of the number of working hours in the workplace, the preferred form of employment and the division of jobs into specialised positions. The organisation has not formulated detailed planning procedures - management operates on the basis of an allocated budget and a defined number of FTEs. Employees perceive a link between human resource planning and the organisation's strategy, although it is likely that in some commercial units, managers do not follow the direction set by the organisation or do not communicate the strategic objectives of the company to their employees. The results of the question if the respondents notice the correlation between human resource planning and the organisation's strategy is presented in Table 2.

Table 2.

Perception of human resource planning processes in relation to corporate strategy

Respondent's	% of respondents
Definitely yes	12,50
Yes	37,50
I don't know/I have no opinion	34,40
No	3,10
Definitely no	12,50

Source: Authors' own study.

The organisation has prepared a framework set of qualities and skills required by functional employees, i.e. salon managers, deputies and decorators. The definition of personality profiles applies to a lesser extent to salespeople (client assistants and senior client assistants) - managers are given more leeway in this area during the recruitment process. The recruitment process itself for new employees is relatively easy. It consists of sending or delivering a CV in response to a job offer. Selected candidates are invited to an interview. For some jobs, such as decorator, the candidate's skills and knowledge are also tested.

There is also internal recruitment within the company and it is possible to develop a career path within internal recruitment. Employees in retail outlets receive emails with job offers from the head office and the specialised unit responsible for arranging new shops. The decision to move an employee to a new position must be supported by the opinion of the regional manager. When analysing the human resources planning process in the analyzed unit, it is worth noting the poor cooperation between the head office and the shop managers. The organisation does not

support them in the planning of employment in the sales units, nor does it give them the tools and procedures to organise employment in such a way as to ensure stability of employment and the highest possible quality of work. On the one hand, this may be due to the nature of the workplace - the largest age group in the units surveyed were young people (e.g. students) just entering the labour market. However, the core of the workforce should be made up of permanent employees, distinguished by their high level of knowledge and experience, which allows them not only to do their job better, but also to pass on good practices to new employees. Also noteworthy is the lack of support from the organisation's HR department in recruiting staff. The entire process rests with the salon managers, who formulate and publish job offers and analyse the responses received and conduct interviews. Acting together with an experienced recruiter could have an impact on the quality of the employees recruited.

4.2. Is there training provided in the surveyed company and does it apply to all employees?

The research confirmed that staff training takes place in the organisation. This takes a variety of forms. On-the-job training is provided by managers on behalf of the head office and when new employees are introduced or when systems and software in use are changed. Most training is based on a dedicated e-learning platform for the company's employees. This solution allows them to expand their knowledge anytime, anywhere. However, some specialised training courses require participation in videoconferences. Employee training is available to all employees, regardless of their position. However, some training programmes are designed for managers or their deputies only. Most of the training in an organisation is about the products offered and their features. This is crucial for sales staff, who can use this knowledge when advising customers on their purchases. Another type of training is sales training, which develops salespeople's customer service skills. Every employee must also receive training in data protection and visual merchandising (VM) principles. The variety of trainings provided for the company's employees and the training methods is presented in Table 3.

Table 3.

Human resource development activities that are undertaken in the organisation

Development activity/Training	Number of responses
Induction programmes for new employees	14
General development workshops	6
Sales skills development trainings	10
Products trainings	16
Training's ways and methods	
Traditional training materials	9
Mobile training applications	7
E-learning platforms	14

Source: Authors' own study.

The company's employees were positive about the training they had received. They felt that it had a positive impact on the quality of their work, improved their work with customers and made their work easier. This means that the organisation has approached the issue of staff development well. The training materials it has produced are valuable and easy to understand. The use of an online platform, which is a convenient training tool for both learners and trainers, is also commendable. Digital materials can take a variety of interesting and engaging forms that better influence learning and the acquisition of new knowledge. However, it was noted that apart from the mandatory training that every employee has to undergo during the probationary period, there are no incentives for self-learning by employees. New courses are rarely added to the platform, which leads to fatigue among those who are constantly training.

Perhaps a better option would be to introduce gamification to the platform to motivate employees to take training, and to provide employees with shorter but more frequent training sessions to consolidate knowledge or remind them of certain important topics. Such a solution would reach both those who want to train - they would have the added activity of gamification and achievements - and those who do not want to train - the motivation of earning a badge, achieving a high level of skill would encourage them to develop.

4.3. What motivating systems are in place in the company?

According to both employees and management, the incentive system is equated with salary, cash and material rewards, and these are only given to salon managers and their sales staff. The organisation did not provide similar incentives for the rest of the workforce, although before the outbreak of the Covid-19 pandemic it organised sales competitions for teams to earn bonuses. Managers have the opportunity to organise challenges for their staff, with the amount and quantity of rewards subject to approval by the regional manager. During the reporting period, the organisation organised a sales competition - the first since August 2021. Currently (as of May 2022), employees only receive discounts on purchases from the organisation - monthly, quarterly and Christmas discounts. The monthly and Christmas discounts are fixed and apply to all employees regardless of performance. Quarterly discounts, on the other hand, are given if a store meets its KPI targets in the months of the quarter. When asked about the factors that motivate them in addition to financial rewards, employees cited the ability to work flexible hours (15 responses), opportunities for promotion and career development (14 responses) as well as participation in trainings (14 responses). However, doubts remained as to whether employees felt motivated by the desire to develop and the opportunities offered by the organisation, or by the lack of other alternatives. The majority of the workforce is young and flexible working hours allow them to combine work and study, and they may express a desire to develop their careers within the organisation. However, in the case of functional staff, such as decorators or senior sales staff (client assistants), who have already been promoted within the organisation and are unable or unwilling to take up job offers at head office, such forms of motivation will no longer be attractive and may lead to frustration and ultimately

job turnover. Employees also pointed out other shortcomings in the motivation system. One of these was the lack of an individual approach to each store. Winning sales competitions is more likely for larger and more popular stores, as the criteria for competitions are most often based on KPIs for the whole region rather than individual stores. If a retail unit's target is lower than the regional target, it may be impossible to achieve, for example due to a lack of product range, lower footfall in a given period, or a plethora of other tasks taking staff away from customers.

As a result, the organisation's desire to motivate employees to perform at a higher level may have the opposite effect, as these employees, knowing that they cannot meet the requirements of the competition, will not take the initiative. These observations clearly point to the need to review the organisation's incentive system. The company's strategy, focused on increasing sales, should direct the work of salespeople in such a way that they do not have to achieve the set KPIs, but want to do so. Therefore, the incentive system should be based on clear and fair rules and be universal for all employees in the sales unit. This, combined with the gamification discussed above, could produce good results not only for the company in terms of performance and quality of the workforce, but also for the employees themselves - job satisfaction, motivation to work and self-development, as well as financial benefits.

4.4. Are employee appraisals carried out in the surveyed company and how are the results of the appraisal used?

Based on the results of the research, it was found that the organisation mainly carries out team appraisals (one trading unit – 50% of responses) and group appraisals (several trading units – 37% of responses). Formalised individual appraisals do not take place unless there is a need to do so, e.g. when an employee reaches the end of their probationary period (19% responses). Team appraisals are conducted by the Regional Manager during a store visit. The assessment criteria relate to the sales assistants, their product knowledge and interaction with customers; the decorators, the preparation of the shop window, mannequins and walls; the management, leading the team's work, solving problems; and the store managers, the physical layout of the store and stock control. After each visit, a report is written by the regional manager, including the assessment itself, but also areas for improvement. A group evaluation is also carried out by the regional manager. It consists of a ranking of the execution of monthly plans and KPIs.

Group evaluation has daily, weekly, fortnightly, monthly, quarterly and annual dimensions. The result of the quarterly evaluation is that employees receive additional discounts on purchases. The direction taken by the organisation is to emphasise collective accountability for performance, encourage collaboration and build relationships with the team. The results of both group and team appraisals are public and available to all employees. In this way, each team member knows how the salon is doing and which parameters need to be improved. The same applies to individual appraisals, which are sometimes decided by management, and ongoing

performance appraisals by colleagues. Valuable comments and tips help people to work better, faster or more efficiently. Of course, and this must be emphasised, this is advice and guidance given with good intentions and in compliance with all the rules of culture and social coexistence, and not biting, malicious remarks. This is particularly important in relations with experienced employees who are involved in the adaptation process of new employees. The analysis of the research results has raised the question of whether it makes sense for organisations to abandon individual employee appraisals. On the one hand, it seems to be in line with the corporate doctrine of 'we make a team'. However, every team is made up of individuals who influence the team as a whole. It would therefore be worthwhile to isolate those individuals who are undermining the team - not necessarily intentionally - and change their behaviour in a way that strengthens the focus on the organisation's common goal.

Of course, this can be done on its own, without formalised assessment procedures, but the execution may produce inconsistent results and fail to deliver the expected results. This brings us back to the problem of the lack of cooperation between the company's HR department and the store managers. If individual assessment criteria were prepared for the managers, they could, together with the employees, shape the team's behaviour in such a way that the work is performed more effectively and the defined goals are achieved. This would certainly work well with the gamification mentioned above and a properly designed incentive system, as a team approach does not exclude individualism.

4.5. Does the organisation exhibit the characteristics of a learning organisation?

A learning organisation is one that engages and empowers people to develop and learn. There is also a link between employees' personal goals and the organisation's goals. The research found that the company in question did not have the characteristics of a learning organisation. Although it has resources and tools to support people development, such as an e-learning platform for showroom staff, it does not encourage people to learn on their own. The company requires some mandatory training, while others are designed for those who are willing and interested.

A solution to this problem could be the gamification mentioned above, which would motivate employees to visit the training platform more often and learn new things as a result. However, the assumptions of organisational learning and knowledge management were found to work. The organisation has knowledge resources (e.g. product, ICT, process) and databases (e.g. sales) that are accessible to all employees via an internal network. This is knowledge management in a codified approach. The personal approach, which involves capturing and interpreting the knowledge of other employees, is rather absent. This reflects the lack of recognition of valuable, experienced employees, which will be discussed below. Organisational learning, i.e. the implementation of changes in the organisation that are not linked to the acquisition of knowledge, but to day-to-day operations and problem solving, is manifested in

the company under study in the existence of process studies that are updated according to the needs that arise.

4.6. Does the organisation have a departure management policy in place?

The research did not reveal the existence of an exit management process in the organisation. The company does not take steps to retain valuable employees and does not provide managers with the tools to do so. They can only ask employees who express a desire to change jobs about the reasons and factors influencing the decision, and try to mitigate the situation if they have the opportunity. In other cases, the employee is allowed to leave because all matters relating to the employee's remuneration and bonuses are determined and approved by the head office. Therefore, when employees were asked what motivated them to join and stay with the company, the atmosphere and close-knit working team were the most common factors. Other factors included flexible working hours, which allowed them to combine work with study or family commitments. Favourable financial conditions were the determining factor for those who were promoted to a higher position, e.g. manager, while working. This means that, apart from the conditions created by the employees themselves and their managers - we are talking about a friendly atmosphere - and flexible working hours, employees have little reason to stay in the organisation. This can lead to lower morale, poorer job performance and, as a result, underperformance. From the company's point of view, this is a problematic situation because it has a negative impact on the achievement of the organisation's strategic goals. If employees felt connected to the organisation itself, supported and understood by it, and wanted to work for it not just because it was convenient, but because it brought personal satisfaction or fulfilment, this would be reflected in their motivation to work and to achieve the organisation's goals.

In view of the above, it can be concluded that the non-existent or not fully functioning human resources management processes in the company under study create a chain system that weakens the motivation of the work teams in the commercial units and does not encourage them to work for the company. Despite the activities carried out to develop human resources, the company does not value experienced employees with a lot of knowledge and skills and does not try to keep them in its ranks. The result can be a weakening of human capital and a decline in the quality of work delivered. A disengaged workforce, convinced that their work is meaningless and undervalued for their proven contribution to the organisation, will affect sales performance and, in turn, the health of the business as a whole. This is a downward mechanism that should be changed as soon and as well as possible, as it can lead to irreparable financial, image and competitive losses.

5. Discussion

Today's organisations face increasing challenges in managing human resources. The role of HR in today's business world is crucial as a complex and dynamic labour market requires appropriate recruitment, development and retention strategies.

Many organisations now recognise that employee engagement has a direct impact on business productivity and efficiency. HR management is therefore becoming a strategic tool for building an engaged and competent team that brings long-term benefits to the organisation.

On the basis of a questionnaire survey carried out among the employees of the enterprise, the analysis of an interview given by the manager of the commercial unit and an observation carried out in the commercial unit, it was possible to partially confirm the hypothesis adopted in the study, which states that in the studied enterprise there are selected processes of human resources management, the assumptions of which are in line with the overall strategy of the organisation, and its employees know and understand the systems of motivation, assessment and development functioning in the structure of the organisation. First of all, the functioning of four out of five studied processes of human resources management was identified in the studied enterprise. These were the functions of human resources planning, motivation, assessment and development. One process that was not present in the company was departures management. However, the fact that the processes in question were functioning in the organisation did not mean that they were complete and effective.

At the start of the analysis, it also seemed that the assumptions of the company's strategy were rooted in the motivation system, the evaluation and development of human resources. The doctrine of the organisation is to focus on teamwork and achieving ever higher sales results. This is reflected in the appraisal system, which generally does not use individual appraisals, and in the incentive system, which offers certain rewards in return for achieving certain KPIs. However, the evaluation criteria, which also affect the incentive system, are unfair, discriminating against smaller stores and excluding some employees from participating. On the other hand, there is no consistent and systematic approach to staff development, which is designed to enhance the human capital of the organisation. This, combined with a lack of departures management, can lead to valuable employees leaving the organisation. The responses of the company's employees also suggest that the majority of them understand how the organisation's human resource management processes work. Only the equation of motivation with financial and material incentives and the appraisal system with formalised procedures were questioned.

6. Conclusions and recommendations

As a result of the research carried out, recommendations have been formulated with a view to shaping individual human resource management processes in such a way that both employees and the organisation are satisfied. The recommendations can be used by other companies with a professional approach to human resource management.

The first recommendation is to introduce gamification at the level of people development. The organisation is familiar with and uses the principles of knowledge management and organisational learning, but does not seem to be moving in the modern direction of a learning organisation. Gamification would encourage employees to participate in training on a dedicated e-learning platform and thus acquire useful knowledge and skills for their work. This would increase the value of the organisation's human capital. The second recommendation is to change the group and team evaluation criteria of the sales units to ensure that smaller stores are more accessible to the incentive system and, finally, to extend the incentive system to all employees in the sales units. The final recommendation is to take action on departures management. Refreshing the development system would be meaningless if well-trained people continue to leave the organisation. The strategic goals of the organisation can only be achieved by strengthening the teams with strong individuals.

One area for further research is to examine similar issues in commercial units in other regions. Other areas of human resource management are also worthy of further research, such as diversity management, ethical aspects of human resource management, or analysing approaches to employees as internal customers of the organisation.

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EUROPEAN UNION PROPOSAL FOR THE REGULATION OF CIVIL LIABILITY FOR ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF CORPORATE GOVERNANCE

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Introduction/background: Artificial intelligence (AI) is becoming increasingly important in today's business environment, but operation of AI devices may pose a risk to purchasers of products incorporating the AI or recipients of services using the AI. This risk must be taken into account by the entrepreneur in his or her business activity. For this to happen, the entrepreneur must know the legal regime under which he or she will be held liable in the event of damage caused by the AI he or she uses.

Aim of the paper: The article is devoted to a critical analysis of the draft Regulation of the European Parliament and of the Council on liability for the operation of artificial intelligence systems contained in the resolution of the European Parliament of 20 October 2020 with recommendations to the Commission on the liability regime for artificial intelligence (2020/2014 (INL)).

Materials and methods: The considerations in this article are based on the literature on the subject and on the European Parliament proposed a Regulation of the European Parliament and of the Council on liability for the operation of artificial intelligence systems. These materials have been subjected to critical analysis.

Results and conclusions: The conducted analysis leads the author to the conclusion that the proposed regulation introducing different liability regimes corresponds to the specificity of AI, and compulsory insurance for high-risk AI system operators is an important step towards securing the interests of the aggrieved party, however, limiting the operator's liability at the proposed level does not sufficiently guarantee protection of the interests of the victims. The author is also critical of the fact that the regulation links the compensation for personal injury to the economic consequences of the infringement of personal rights, does not regulate the issue of the causal link between the operation of AI systems and the damage and the difficulties of proof faced by victims of the operation of AI systems. Consequently, the author questions the advisability of regulating civil liability for the actions of artificial intelligence systems at EU level in the form of a regulation, when it would be sufficient to allow individual Member States to regulate this matter while harmonizing national regulations by means of a directive.

Keywords: civil liability, artificial intelligence, operator, enterprise management.

1. Introductory remarks

Artificial intelligence (AI) is becoming increasingly important in today's business environment. The term is used to describe a system that is capable of performing tasks that require a process of learning and taking new circumstances into account when solving a given problem and that can, to varying degrees - depending on its configuration - operate autonomously and interact with its environment (Lai, Świerczewski, 2020). This system, in the form of computer software, is incorporated into various types of products. However, its use raises a number of ethical, social and legal issues (Stylec-Szromek, 2018). Among the legal problems, the issues of the legal subjectivity of AI, exclusive rights to AI-created creations and civil liability for damage caused by AI emerge to the forefront (Auleytner, Stępień 2019).

This is because the operation of AI devices may pose a risk to purchasers of products incorporating the AI or recipients of services using the AI. The related risk for an entrepreneur using AI as part of its business activities, whether in the form of services provided or products offered, qualifies as an internal risk caused by organisational factors, in this case the technological solutions used by the entrepreneur (Iwaszczuk, 2021). The incorporation of this risk into business activities must be long-term and consistent with the overall business management strategy. For this to happen, the entrepreneur must know the legal regime under which he or she will be held liable in the event of damage caused by the AI he or she uses. Awareness of the risks and knowledge of the rules under which a trader will be held liable for the performance of the AI system he uses in his business will influence the decision to use a particular AI system.

For this reason, the basis of liability for damage caused by the operation of AI is being sought worldwide (see for instance Beckers, Teubner 2021), including in Poland (Bosek, 2019; Godlewska, Morawska, Banasik 2020; Lai, Świerczewski, 2020; Bączyk-Rozwadowska, 2021; Koczan, 2022). The inadequacy of existing civil law regulations on liability for damage caused by AI leads to a search for new legal solutions that correspond to the risks it poses (Bertolini, Episcopo, 2021). The European Parliament's response to this search is a resolution of 20 October 2020 with recommendations to the Commission on a civil liability regime for artificial intelligence (2020/2014(INL)) (OJ EU.C 2021, No. 404, p. 107). As part of this resolution, the European Parliament proposed a Regulation of the European Parliament and of the Council on liability for the operation of artificial intelligence systems (hereinafter RAIS).

The draft regulation, both in Poland (Michalak, 2021; Staszczyk, 2022) and in other countries (Sousa Antunes, 2020; Wenderhorst, 2020; Wagner, 2021), is assessed overwhelmingly critically. In the first instance, some authors point out that there is no need at all for a specific regulation of civil liability for the actions of artificial intelligence systems, which does not create new liability rules (Michalak, 2021; Wagner, 2021; Staszczyk, 2022). With regard to the specific solutions contained in the proposed regulation, the literature is

critical of the limitation of civil liability (Sousa Antunes, 2020; Michalak, 2021; Wagner, 2021), the linking of compensation for personal injury to the occurrence of economic consequences of the violation of personal rights (Sousa Antunes, 2020), the lack of comprehensive regulation of all problems related to civil liability for artificial intelligence systems e.g. concerning causation (Michalak, 2021) or facilitation of evidence (Staszczyk, 2022), or the overly restrictive liability of the front-end operator (Wenderhorst, 2020; Wagner, 2021).

The purpose of this article is, on the one hand, to critically assess the proposed regulation and, on the other hand, to familiarise practitioners and managers with the solutions adopted in the RAIS. The evaluation of the proposed regulation is based on a critical analysis of the text of the RAIS and the opinions expressed in the literature to date. The remainder of the article discusses the subject matter and scope of the RAIS, the proposed concept of an AI system, the entity responsible for the operation of an AI system, the principles and scope of liability for the operation of an AI system, the scope of compensation and its amount, and the issues of limitation of claims and insurance of liability for the operation of an AI system. The considerations in the article are crowned by the final conclusions.

2. Subject matter and scope

The proposed regulation sets out the rules for bringing, by both natural and legal persons, liability claims against AI system operators (Article 1 RAIS).

In the view of the EU legislator, the provisions of the Regulation are intended to apply throughout the European Union, where the physical or virtual operation of an AI system, the functioning of a device running on such a system, or a physical or virtual process based on such a system deprives persons of their lives, injures or maims them, causes damage to property of natural or legal persons, or causes serious intangible damage resulting in verifiable economic loss (Article 2(1) RAIS). The criterion for the application of the RAIS is therefore not the seat of the entity responsible for the damage, nor the place of operation of the AI system, but the place of the effect resulting from the operation of such system.

The Regulation provides for the primacy of its regulations over contractual obligations, which has the effect of sanctioning the nullity, in terms of the rights and obligations provided for in the RAIS, of any agreement between the operator of an AI system and a natural or legal person injured by the operation of that system which circumvents or restricts the rights and obligations provided for in the RAIS, regardless of whether such an agreement was concluded before the injury occurred or afterwards (Article 2(2) RAIS).

At the same time, the liability provided for in the RAIS does not exclude the right to assert additional liability claims arising from contractual relations (*ex contractu liability*) and regulations on product liability, consumer protection, non-discrimination, labour protection and

environmental protection between the operator and a natural or legal person harmed by the operation of an AI system, which may be brought against the operator under EU or national law (Article 2(3) RAIS).

3. The concept of an artificial intelligence system

First of all, it should be noted that it is in vain to find a definition of an AI in the RAIS, as the EU legislator decided only to formulate a legal definition of an AI system. For the purposes of the proposed regulation, it is understood to mean a system that relies on software or is embedded in devices, exhibits behaviour simulating intelligence based, *inter alia*, on collecting and processing data, analysing and drawing conclusions about the environment, and takes actions with a degree of autonomy to achieve a specific goal (Article 3a of the RAIS). The AI system therefore refers to both computer programmes and non-computer embedded programmes (Michalak, 2021, incorrectly). By “autonomous artificial intelligence system”, the RAIS understands an artificial intelligence system that operates on the basis of the interpretation of specific input data and uses a set of predefined instructions, but is not limited to these instructions, although the system's behaviour is constrained by the goal set for it, directed towards its achievement and conditioned by other relevant choices of the system developer (Article 3b RAIS).

4. Entity responsible for the operation of the artificial intelligence system

The regulation recognises both the front-end operator and the back-end operator as the subject of liability for damage caused by the operation of the AI. The operator may be either a natural or a legal person. It should be assumed that in Poland, the group of operators will also include legal entities. Thus, the solution adopted by the EU legislator as regards the entity responsible for AI operation seems to postpone for the time being the discussion on the issue of granting legal personality to the AI.

The first of the designated operators means a person who, to some extent, controls the risks associated with the operation of an AI system by deriving benefits from its operation (Article 3e RAIS). Control in this case means any action by the operator that affects the operation of the AI system and thus the extent to which the operator exposes third parties to potential risks associated with the operation of the AI system. Such actions can affect the operation at any stage by determining inputs, outputs or outcomes, or alter specific functions or processes in the AI system. The degree to which these aspects of the AI system's operation are determined

depends on the level of the operator's influence on the risks associated with the operation of the AI system (Article 3g RAIS). By back-end operator, on the other hand, the Regulation understands the person who continuously determines the features of the technology, provides data and basic support services, and therefore also exercises some control over the risks associated with the operation of the AI system (Article 3f RAIS). However, the Regulation exempts the back-end operator from the liability set out in the RAIS if its liability is already covered by regulations implemented in the legal orders of the Member States on the basis of Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (Official Journal of the EU L No. 210, p. 29; hereinafter Directive 85/374/EEC) (Article 3d *in fine* RAIS).

This identification of the entity responsible for the damage caused by the AI allows, on the one hand, the easy identification of this entity by the victim and, on the other hand, a clear indication to the trader that he or she is responsible for the damage caused by the AI system used by him or her, which should be an impulse for the trader to take measures to minimise the risks involved.

5. Principles and responsibilities for artificial intelligence activities

Due to the insufficient protection offered to the injured party by the application of the existing rules of tort (*ex delicto*) and contract (*ex contractu*) liability towards the AI system operator, the EU legislator decided to introduce, with regard to AI system operators, a specific regulation providing for liability based on two different - already known to civil law - regimes of liability, i.e. strict liability and fault liability, thus complying with the demands made in the literature (Bączyk-Rozwadowska, 2021). The essence of the difference between the two regimes boils down to the fact that the entity incurring strict liability cannot discharge itself from liability by proving the lack of fault, i.e. exculpating itself, and will only be released from liability in strictly defined (so-called exonerative) circumstances.

The criterion determining the liability regime to which an operator is subject depends on whether or not the AI system in question is high risk. By high risk, we mean the significant potential for an autonomously operating AI system to cause random harm to one or more persons in such a way that it goes beyond what could reasonably be expected. The significance of this potential depends on the interplay between the severity of the potential harm, the degree of autonomy in decision-making, the likelihood that the risk will actually occur, and the manner and context of use of the AI system (Article 3c RAIS).

The liability of the operator of a high-risk AI system is based on the risk principle (Article 4(1) RAIS). Such systems - in the Annex to the Regulation in question - include three systems from the transport sector, i.e. unmanned aerial vehicles (UAVs) within the meaning of Article 3(30) of Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union agency for civil aviation safety and amending Regulation (EC) No 2111/2005, (EC) No 1008/2005, (EC) No 1008/2005, (EC) No 1008/2005 and (EC) No 1008/2005. Aviation Safety and amending Regulations of the European Parliament and of the Council (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives of the European Parliament and of the Council 2014/30/EU and 2014/53/EU and repealing Regulations of the European Parliament and of the Council (EC) No 552/2004 and (EC) No 216/2008 and Council Regulation (EEC) No 3922/91 (Official Journal of the European Union L No. 212, p. 1), vehicles of automation level 4 and 5 according to SAE J3016 classification and autonomous traffic control systems, and two from the field of assistance provision, i.e. autonomous robots and autonomous washing machines for public places.

The liability of a high-risk AI system operator covers damage caused by a physical or virtual operation, a physical or virtual operation of a device, or a physical or virtual process using the AI system (Article 4(1) RAIS). As indicated in the Regulation, these operators cannot exempt themselves from liability by claiming that they acted with due diligence or that the damage was caused by an autonomous action, device or process controlled by an AI system belonging to them (Article 4(3), first sentence, RAIS). Force majeure (*vis maior*), on the other hand, is provided for as an exonerating circumstance for the operator (Article 4(3), 2nd sentence, RAIS).

At the same time, the EU legislator has introduced the primacy of RAIS over national liability regimes in the event of conflicting classifications of AI systems as covered by strict liability (Article 4(5) RAIS)

On the other hand, the liability of an AI system operator, which is not a high risk and therefore not listed in the annex to the regulation in question, is shaped on the basis of fault (Article 8(1) RAIS). It is understood that this liability covers both intentional and unintentional fault. The liability of such an operator covers damage caused by the physical or virtual operation of that AI system, the operation of a device controlled by that system or by a process based on that system (Article 8(1) *in fine* RAIS). Such an operator may exculpate itself, including by claiming that the AI system was activated without its consent, while all reasonable and necessary measures were taken to avoid such activation beyond the operator's control or due diligence was exercised by performing all of the following: selected the appropriate AI system for the task and skills involved, commissioned it appropriately, supervised its operation and maintained it in good condition by regularly installing available updates. However, the operator cannot escape liability by stating that the damage was caused by the autonomous operation of the AI system, by the autonomous operation of a device controlled by such a system or by

a process based on such a system. Damage caused by force majeure is also excluded from the operator's liability (Art. 8(2) RAIS).

An exception has been made in the liability of a high-risk operator of an AI system based on the principle of fault in favour of the situation where the damage has been caused by a third party who has interfered with the operation of the AI system by modifying its functioning or effects, but whose whereabouts cannot be established or who is insolvent. In such a case, the operator is liable irrespective of whether fault can be attributed to it (Article 8(3) RAIS) and therefore in equity. In order to make it possible to determine the operator's liability, an obligation is imposed on the producer of the AI system, at the request of the operator or the injured party, to cooperate with them and provide them with information to the extent justified by the seriousness of the claim (Article 8(4) RAIS).

Regardless of whether the operator of an AI system, which is subject to a high degree of risk or not, is liable, if the damage is caused either by the physical or virtual operation of the AI system, the operation of a device controlled by such a system or by a process based on such a system and the actions of the victim or of any person for whose actions the victim is liable under the Regulation, and the victim or any third party has therefore contributed to the damage, the liability of the operator is reduced accordingly. On the other hand, the operator's liability is excluded altogether where the injured party or a person for whom he is responsible is solely responsible for the damage caused (Article 10(1) RAIS). The operator who is held liable may use data generated by the artificial intelligence system to prove that the injured party is also liable in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (Official Journal of the EU. L No. 119, p. 1) and other relevant data protection legislation. The injured party may also use such data to prove or specify a claim for damages (Article 10(2) RAIS).

The liability of several operators operating one AI system has been made joint and several by the EU legislator, which means that it is up to the injured party to choose which of the jointly liable operators to address his or her claims to. The legislator has also stipulated that, where the front-end operator is also the manufacturer of the AI system, this regulation takes precedence over Directive 85/374/EEC. On the other hand, if the back-end operator can also be considered as a producer of an AI system as defined in Article 3 of Directive 85/374/EEC, that Directive applies to it with priority over the Regulation. Finally, where the sole operator is also the manufacturer of an AI system, the Regulation in question takes precedence over Directive 85/374/EEC (Article 11 of the RAIS).

The proposed regulation also contains rules on recourse between AI system operators and between an AI system operator and a manufacturer. The condition for recourse by the operator is that the operator has paid the victim the full amount of compensation to which the victim is entitled under this regulation (Article 12(1) RAIS). Where the operator is jointly and severally liable with other operators towards the injured party and has itself paid the full amount of

compensation to the injured party, it is entitled to recover its share of compensation from the other operators. The proportions of liability depend on the degree of control each operator has over the risks associated with the operation of the AI. In the event of the insolvency of one of the operators jointly and severally liable to the injured party, its share of the jointly and severally liable compensation is borne by the other operators. The jointly and severally liable operator that pays compensation to the injured party and demands an adjustment of the advance payments from the other responsible operators shall subrogate to the rights of the injured party to claims for compensation against the other operators. This subrogation shall not prejudice the original claim (Art. 12(2) RAIS). In the event that the operator of the defective AI system fully compensates the injured party, in accordance with the provisions of the Regulation in question, he may exercise his right to claim compensation from the manufacturer of the defective AI system in accordance with the provisions of Directive 85/374/EEC and national legislation on liability for defective products (Article 12(3) RAIS). In the event that the operator's insurer compensates the injured party in accordance with the regulations of the Regulation in question, the operator's insurer shall exercise a right of recourse against another person for the same damage, in the amount of the compensation paid to the injured party by that insurer (Article 12(4) RAIS).

6. Scope and amount of compensation

The liability of the operator covers any damage caused, regardless of whether the operator is a high-risk (Article 4(1) RAIS) or non-risk (Article 8(1) RAIS) AI system operator. Reparable harm is defined as an adverse effect on the life, health and physical integrity of a natural person, on the property of a natural or legal person, or an adverse effect causing serious intangible damage resulting in verifiable economic loss (Article 3i RAIS). It follows that damage in RAIS terms is framed quite broadly to include both so-called personal injury, and therefore immaterial damage, and material damage.

In turn, an aggrieved party entitled to compensation is person who has suffered or suffered damage as a result of a physical or virtual action, device or process using an AI system and who is not also an operator (Article 3h RAIS). The circle of victims therefore includes consumers as well as other traders who are affected by the operation of an AI system.

At the same time, however, compensation is limited as to its amount, albeit only in the case of a high-risk operator of an AI system. It is limited to a maximum of €2 million in the event of death, injury or maiming of a person as a result of the operation of an AI system and a maximum of €1 million in the event of serious immaterial damage resulting in verifiable economic loss or damage to property, including the destruction of several objects belonging to the victim as a result of a single operation of a single AI system. However, if under the contract

the injured party also has a claim against the operator, no compensation is payable under this regulation if the total value of the destroyed property or serious immaterial damage does not exceed €500 (Article 5(1) RAIS). Furthermore, where the total compensation to be paid to several persons injured by the same operation of the same AI exceeds the limits indicated above, the amounts paid to each of the injured persons shall be reduced proportionally so that the total compensation does not exceed the limits indicated above (Article 5(2) RAIS).

The compensation to be paid by the operator liable for the mutilation resulting in the death of the victim is calculated - up to €2 million - on the basis of the medical expenses incurred by the victim prior to death and the property damage incurred prior to death due to the cessation or limitation of earning capacity or the increase in needs due to the damage incurred prior to death. The operator held liable should also reimburse the burial expenses of the injured party to the party who incurred these expenses. If, at the time of the incident that caused the damage and consequently led to death, the injured party was in a relationship with a third party and was legally obliged to maintain that third party, the liable operator shall bear the maintenance of that third party to the extent that the injured party would have been obliged to bear those costs, for a period corresponding to the life expectancy of a person of that age and condition. The operator shall also bear the maintenance costs of the third person if, at the time of the incident, he or she has already been conceived but not yet born (Article 6(1) RAIS). The compensation to be paid by the operator responsible for the injury or mutilation of the injured person shall include, up to an amount of €1 million, reimbursement of the costs of medical treatment related to the injury, as well as reimbursement of the costs of material damage suffered by the injured person as a result of the temporary suspension, limitation or total cessation of earning capacity or of the increase in needs resulting from the injury, certified by a medical certificate (Article 6(2) RAIS).

Limiting the compensation due to the injured party should be assessed negatively. While the limitation of the amount of liability of the operator, as established by the EU legislator, will be irrelevant in the case of minor damages to individuals, including personal injury, in the event of the death of an individual or injury to their health or maiming, may result in the operator not covering part of the damage caused by the operation of an AI system. This will be particularly evident where more than one person is affected by a particular AI action, resulting in a proportional re-education of the compensation to which they are entitled. The limitation of the operator's liability will also adversely affect situations where damage in excess of €1 million arises to the operator's assets.

At the same time, it should be noted that both the limits on the amount of damages to be paid by the operator and the extent of such liability set out in the regulation in question do not apply to a non-risky AI system operator with liability based on fault. Indeed, these issues in this case are subject to the national regulations of individual Member States (Article 9 RAIS).

7. Limitation of claims

Claims of an injured party by the high-risk operation of an AI system are subject to the limitation periods set out in the regulation in question. In the case of claims relating to death, damage to health or invalidity, the limitation period is 30 years from the date on which the damage occurred. (Article 7(1) of the RAIS) By contrast, for claims relating to damage to property or serious intangible damage resulting in verifiable economic loss, the limitation period is 10 years from the date on which the damage to property or verifiable economic loss resulting from serious intangible damage occurred, or 30 years from the date on which the high-risk AI operation that led to the destruction of the victim's property or serious intangible damage was carried out. The claim shall be barred by the expiry of whichever period ends first. (Article 7(1) of the RAIS) The issue of suspension and interruption of the limitation period is, however, subject to the national law of individual Member States (Article 7(3) of the RAIS), which in the case of Poland means the application of Articles 121 of the Civil Code and 123 and 124 of the Civil Code.

With regard to claims directed against the AI system operator, which is not a high risk, the EU legislator did not decide to introduce specific limitation periods, referring in this respect to the national law regulations of individual member states (Article 9 RAIS), which in the case of Poland is equivalent to the application of Article 442 of the Civil Code.

8. Artificial intelligence liability insurance

The proposed regulation introduces mandatory third-party liability insurance for a high-risk AI system operator to the extent and amount limit of such operator's liability indicated above, responding to the doctrine's demands on this issue (Bączyk-Rozwadowska, 2021). This applies to both the front-end operator for the operation of the AI system and the back-end operator for the services it provides. Where the compulsory insurance schemes of the front-end operator or the back-end operator already in force under other national or EU legislation or voluntary corporate insurance funds cover the operation of the AI system or the service provided, the obligation to insure the AI system or the service provided under this regulation is fulfilled if the said existing compulsory insurance or voluntary corporate insurance funds cover the aforementioned scope and limits of the amount of compensation. (Article 4(4) RAIS) However, the liability insurance obligation does not apply to the operator of an AI system, which is not a high risk. For these operators, their liability insurance is therefore voluntary.

9. Concluding remarks

The attempt by the EU legislator to regulate liability for AI should be assessed positively, although individual solutions may be considered controversial. On the one hand, the introduction of a differentiated liability regime tailored to the specific nature of the AI and the introduction of compulsory insurance for operators of high-risk AI systems are to be welcomed as an important step towards safeguarding the interests of those affected by the operation of the AI. On the other hand, however, the quantitative limitation of the liability of the operator at the level proposed by the European Parliament, which in many cases may be too low in relation to the damage caused by an AI operation and the linking of compensation for personal injury to the existence of the economic consequences of the violation of personal rights should be criticised. The regulation's failure to regulate the matter of the causal link between the operation of AI systems and the damage and the evidentiary difficulties faced by victims of AI systems also deserves criticism. This raises doubts as to the appropriateness of regulating civil liability for the actions of AI systems at EU level in the form of a regulation, when it would be sufficient to allow individual Member States to regulate the matter while harmonising national regulations by means of a directive.

The proposed regulation is not indifferent to the management of a company, especially if the entrepreneur uses AI in its activities, which are particularly high-risk. Therefore, he or she will not only have to constantly monitor whether he or she is liable as an operator and take measures to minimise the risk of damage caused by the use of AI, but also to include the costs of possible damages and compulsory insurance in the costs of business.

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ANALYSIS OF INVENTORY MANAGEMENT ON THE EXAMPLE OF A SELECTED COMPANY – RESULTS OF AN EMPIRICAL

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Introduction/background: This paper presents the possibilities offered by ABC analysis by number of releases for solving complex problems in the area under study. The use of appropriate inventory management methods makes it possible to support decisions on flows in the company's logistics system. This contributes to quick action leading to the optimisation or transformation of ongoing logistics processes and the reduction of the associated risks.

Aim of the paper: The aim of the article is to present the dysfunctions in the area of inventory management in a selected company, to identify their negative impact on the implemented processes and to propose corrective actions. In addition, the importance of inventory, problems and challenges of the company based on the storage of goods is highlighted. An evaluation and recommendation of the described company is also made

Materials and methods: A literature study was carried out to identify key dysfunctions in the area of stock management. In addition, a detailed analysis of stock levels and their management in the warehouse of the company "GUSPOL" was carried out using the ABC method.

Results and conclusions: Based on the data provided by the company, an ABC analysis was carried out. Thanks to this, each assortment item was characterised and assigned to the corresponding ABC group. A change to the conceptual design of the warehouse was proposed, involving a change in the storage locations of the technical gas cylinders and the addition of shelving, making the floor space more functional and employee-friendly.

Keywords: logistics, inventory management, warehousing, ABC analysis.

1. Introduction

Inventory management is an important element in the logistics supply chain. Despite a number of publications have been produced in recent years on topics related to inventory stocking, there is still a research and publication gap related to inventory management in the warehouse. In particular, gaps have been observed in the area of minimizing storage costs through optimal distribution of assortment in the warehouse.

The purpose of the article is to present the dysfunctions in the area of inventory management in a selected enterprise, to identify their negative impact on the implemented processes and to propose corrective measures. It is worth emphasizing that when an enterprise decides to build up inventory, it must expect continuous monitoring and improvement of warehouse processes.

Without a properly functioning warehouse, it is difficult to imagine a successful company. This is why knowing the types of stock and their functions is so important. With this knowledge, it is possible to clearly determine whether holding stock in a company is necessary. If inventory is unavoidable, the focus should be on choosing the right management method. The chosen method should be tailored to the company in question. Introducing an inventory management method that is too sophisticated may not be viable for small businesses. Resulting in high introduction and maintenance costs. Therefore, the question to be answered is whether there is a need to improve inventory management in the warehouse and what benefits it can bring. A well-organised warehouse space reduces the occurrence of errors and reduces the time spent in handling it.

2. Review of the Literature

Inventory is the amount of physical goods stored and used for consumption or resale to satisfy the normal operation of a business (Slawinska, 2004, p. 103). According to the definition of H.K. Compton and D. Jessop, inventories are "the collection of all materials, goods and services used in an enterprise whether they have been purchased externally, supplied from another branch of the enterprise or produced locally" (Compton, Jessop, 1989, p. 135). J. Sobótka, on the other hand, defined inventories "as a specific quantity of goods that is located in a specific logistics enterprise not used on an ongoing basis for later processing or sale. Inventory has a specific location, place of storage, and its size can be distinguished in quantitative and value measures" (Koliński, Konecka, p. 119). A. Niemczyk defined them as "tangible goods physically and documented accepted into a warehouse, inventoried there and stored for later release for appropriate use example production or distribution" (Niemczyk et al., 2013, p. 19). We can also call stocks the goods held in the various stages of the supply chain. An integral part of the operation of manufacturing, trading and service companies is the maintenance of inventories. When individuals and permanent premises with equipment are involved in the storage of materials, as well as financial resources allocated for their accumulation, these goods become stocks (Krawczyk, 2001, p. 81). The impact of random events on the development of demand is one of the main reasons for stockpiling. The lack of synchronisation of supply and sales is the main reason for stockpiling inventory. In this situation, inventory plays the role of a kind of shock absorber between demand and sales. Manufacturing companies are therefore forced to secure the stock necessary to satisfy

production and the stock of finished goods and merchandise (in trading companies) to satisfy the needs of the end customer. They are also expected to minimise the cost of lost sales. Other reasons for building up inventories include: delayed deliveries, reducing transport costs (Coyle et al., 2001, pp. 211-212), negotiating a lower purchase price, seasonality of supply of goods, hedging against price changes and against unforeseen events (Kempny, 1995, p. 125). Nevertheless, excessive and unnecessary inventories should not exist in the enterprise. Optimal management of them in relation to needs prevents losses in quantity and quality (Munyaka et al., 2022).

Some companies try to introduce solutions that completely eliminate the need to hold stock. However, not in every company, this is a rational solution. It requires viewing the entire supply chain holistically, where the starting point is the customer having a sense of satisfaction with the transaction (Kaczorowska-Spychalska, 2016).

2.1. Decision dilemmas in stock management

Decisions are an integral part of our lives. The results from the research on decision-making issues carried out so far are ambiguous. We often do not have enough knowledge to make the right choices. However, on the other hand, it is easier to decide between two options while having residual information and thus reducing the costs used in problem exploration. The use of decision theory methods is helpful in solving dilemmas. They are used where, for various reasons, it is difficult to make the right decision. Many fields of science deal with this issue, especially the analysis and support of the decision-making process. These fields of science include mathematics, economics, psychology, sociology, statistics, computer science, management, philosophy, medicine, cognitive science. The decision-making methods they have developed have been brought together and organised to create a single decision-making process. However, the interdisciplinarity of decision theory results in it being seen only as a reference point, due to the circumstances under which a decision is chosen (Scibiorek, 2021, pp. 85-87). There are two basic models of decision-making, the classical model and the managerial model.

The classical model is based on the belief that decision-making can be optimised. Full information is used for this purpose. Managers identify ideal benefits and reject variations. This method usually uses mathematics, statistics or economics. In this model, the decision maker should:

- gather reliable and comprehensive information,
- eliminate uncertainty,
- judge everything rationally and logically,
- make the most advantageous (loss-minimising) decision for the organisation.

In reality, however, the assumptions of this model are rarely met. Complete and reliable information is hard to come by and there are errors in the manager's behaviour. Often their actions are illogical and irrational. In contrast, the managerial model is otherwise known as

behavioural or administrative. It means that the person making decisions, does so in an illogical manner. It tends towards self-satisfaction rather than optimisation. Often managers are not aware of their limitations in terms of values and skills. They are also limited by incomplete information and knowledge. These difficulties leave the decision-maker without the opportunity to make rational decisions. As a result, they settle for minimal benefits. The decision-maker in the managerial model:

- uses unreliable and incomplete information,
- is limited in its logical thinking,
- is willing to settle for the first better decision allowed,
- makes decisions that do not always bring benefits to the organisation (Malewska, 2014, pp. 128-133).

It should be emphasised that the moment information about the problem reaches the manager, the decision-making process is triggered. Based on the information received, the decision-maker outlines the decision problem for which he or she will seek solutions. The beginning of the decision-making stage is the identification of the problem, and the starting point is decision-making and evaluation of its effects (Scibiorek, 2021, p. 88). It consists of six consecutive stages:

Stage 1 - at the initial stage, the decision-maker needs to assess; where the problem has arisen, whether it is new or fixed, whether the situation is dependent only on the decision-maker, etc. This characterisation of the problem will allow the manager to determine the next steps in the decision-making process.

Stage 2 - once the problem has been formulated, the decision-maker focuses on finding the information needed to solve it. Based on the data collected and his or her knowledge, he or she can determine the cause of the problem.

Stage 3 - the decision maker creates possible solutions to the problem and ways to fix it. This requires creative ingenuity on the part of the manager.

Stage 4 - this stage is based on the evaluation of the decision-maker's proposed solutions. This uses mathematical techniques, listing the 'for and against' relationships and identifying possible benefits.

Stage 5 - based on the knowledge and information gained, the decision-maker chooses the best form of solution to the problem, i.e. makes a decision.

Stage 6 - when a solution has been selected, implementation takes place. After its implementation, the manager evaluates his decision. If the problem has been fully solved or partially reduced, this signals that the decision-making process has been successful. In cases where the problem has not been solved, the process must be restarted.

The integration of the presented factors formulates several different decision criteria in shaping the quantitative level of inventory as well as its replenishment time (Musiałek, 2018). For each of these, an appropriate inventory management method and system should be selected. Examples of inventory management solutions, including these decision criteria presented above, can be classified as shown in table number 1.

Table 1.*Fundamental factors shaping inventory management issues*

The nature of the demand	Independent (primary)		Dependent (secondary)
Determining the demand	Deterministic	Stochastic	Subjective
Delivery time	Unknown		Known
Stock value	Group A	Group B	Group C
Stock consumption	Group X	Group Y	Group Z
Stock replenishment	Instant		Gradual
Stock shortages	Unacceptable		Acceptable
Out of stock	Not Transferred		Transferred
Price discounts	Do not occur		Appear
Inflation factors	Not included		Included
Group ordering	Applied		Not applicable
Planning periods	One		Many

Source: Balter, 2008, p. 87.

This classification attributes the methods presented to the inventory management process, divided into planning and control phases. It is noteworthy that, as development and IT capabilities increase, these methods will evolve to satisfy the basic logistical principle of 7W (right: product, quantity, condition, place, time, consumer, cost), by adding a forecasting phase and establishing more accurately the quantity and time requirements for product circulation. Beginning with standard 'just-in-time' JIT inventory control systems, to DRP (Distribution Resource Planning) or OPT (Optimized Production Technology) distribution requirements planning systems or narrow section management, facilitating accurate quantity and time determinations of inventory at the time required by the user (Balter et al., 2008, pp. 88-89).

Inventory handling costs are also an integral element of management decision-making. This is the most significant element, along with transport costs, of logistics expenditure. A good inventory management strategy is based on an accurate estimation of inventory handling costs and pricing. These calculations have a positive impact on customer service levels. A situation should be sought where customer demand is met from current stock.

3. Research methodology

To this end, the following techniques were used:

- direct observation supported by the opinion of experts involved in the preparation and implementation of the non-normative transport process (expert group),
- analysis and evaluation of documentation related to the preparation and implementation of selected stock management processes,
- literature review.

The article aims to examine the possibilities of optimizing the space in the warehouse and reducing the costs of inventory management using the ABC method in the warehouse on the example of a selected micro-enterprise.

In addition, based on the conducted research, it was proposed to change the storage places for individual goods and to equip the warehouse with appropriate racks, thanks to which the usable area will be optimized and more functional.

4. Research results

Company "GUSPOL" provides comprehensive services in the field of Occupational Health and Safety and sales of fire-fighting equipment. The company was founded on 10 April 1992 in Bolesławiec (Poland). Then, in response to the growing private business sector, the company's owner expanded his activities to include the provision of training services. After a few years, he added to his offer, also servicing of fire-fighting equipment, maintenance and regeneration of extinguishers and trade in technical gases such as carbon dioxide (CO₂), argon, mixon (mixture of argon + carbon dioxide), oxygen, acetylene, balloon helium, freshmix T30, mixon, nitrogen, HNMIX-5.

The company currently has four employees. Two employees deal with administrative and customer service matters. One employee for storage and maintenance of equipment, whose duties include taking care of storage space, receiving deliveries, delivery and installation of fire equipment at the customer's premises, together with maintenance of this equipment. One person is also employed who is responsible for the training and preparation of fire safety instructions for the plants.

The company's services are used by private individuals as well as small local companies such as car repair shops, clinics, shops or public institutions such as schools, theatres, museums and hospitals. The company cooperates with production plants such as: Toyota Boshoku Poland in Wykroty, BPW printing house, IBF building materials warehouse or TechnoNICOL-Insulation producing mineral wool.

As the company's stock management is structured and carried out according to the principle of fixed storage locations and the application of the 5S method, the focus should be on improving the stock management of the powder extinguisher and technical gas cylinder store. P.H.U. "GUSPOL" is a micro-enterprise, so the proposed improvements should be commensurate with the available financial resources the company can spend on this.

The first step to be taken to optimise stock management in the warehouse is to carry out an ABC analysis according to the number of releases in order to allocate the products in the warehouse as favourably as possible. To do this, it is necessary to compile the number of releases of all the stock items recorded on the stock records.

The ABC method in stock management helps logisticians to focus on those types of stock (Asana et al., 2020), whose deliveries represent the most important point in the total value of the stock and in the total turnover of the company. The results achieved in this way show the validity of treating each of the three classified groups of stocks differently. According to the ABC method, inventories are divided into the following groups:

1. Group A - representing the group of materials with the highest value and/or the largest share of total material costs - should be treated with special attention to:
 - Market, price and cost structure analysis;
 - Meticulous preparation of commercial orders;
 - Adequate management of stock levels;
 - Reliable determination of safety stock.
2. For group B articles - representing a range of materials of medium value and/or medium contribution to total inventory costs - an intermediate route between group a and group C procedures should be followed.
3. For group C items - representing a range of materials with low value and/or low contribution to total stock costs - simple procedures and maximum reduction of inputs are recommended. With the largest assortment and low value, the aim should be to reduce supply and trade order costs by focusing on facilitating dispatching procedures and emergency ordering from regular suppliers (Gubala et al., 2005, p. 75; Nosko et al., 2020).

The ABC method is also used to rationally distribute the assortment, consisting of differentiated goods, in storage areas. In practice, the ABC analysis is performed in conjunction with the XYZ analysis, as it provides information on the regularity of wear (Krzyżaniak, 2008). In the XYZ method, the classification criterion is the amount of consumption, the regularity of future demand, the possibility and quality of future forecasts (Krzyżaniak, Cyplik, 2007).

The data made available by the company covers the period from 1 January 2021 to 30 November 2021. On this basis, a Pareto-Lornz chart was drawn up (Fig. 1).

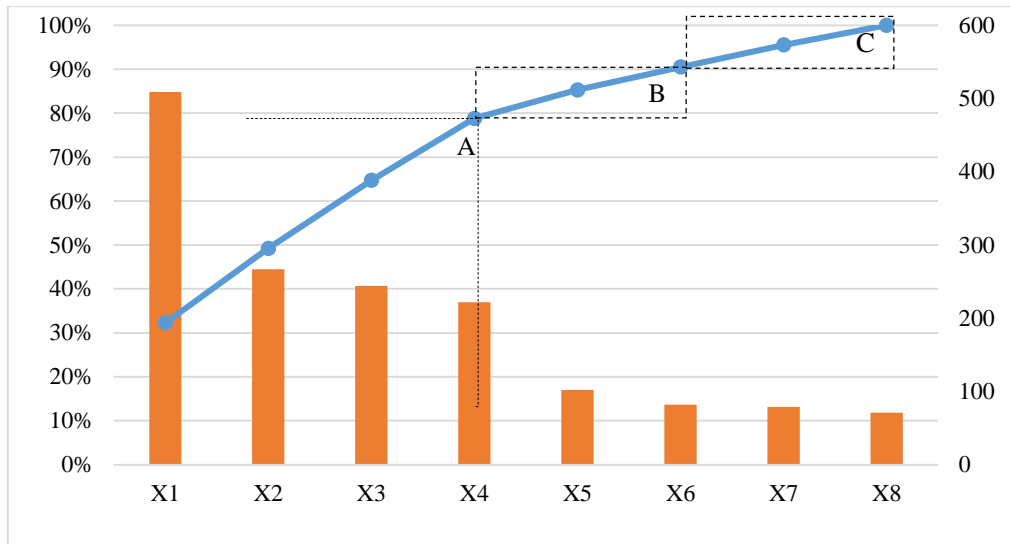


Figure 1. ABC analysis with Lorenz curve.

Source: own analysis based on data made available.

The Pareto Principle says that most results come from only 20% of efforts or causes in any system. Based on Pareto's 80/20 rule, ABC analysis identifies the 20% of goods that deliver about 80% of the value (www.netsuite.com).

The list of goods was ranked in descending order of the number of releases and the total was calculated. The percentage share of the goods in the releases was then calculated (formula 1). The sum of the shares, in the column department of releases, should equal 100%.

$$\frac{\text{Number of editions of a given assortment}}{\text{Total value of releasesm}} \times 100 \% = \text{Percentage share of goods} \quad (1)$$

The next step is to calculate the share of releases cumulatively and to calculate the cumulative value. The final step is to divide the goods into groups A, B and C. The results of the Pareto analysis carried out and the allocation of goods to each group are shown in Table 2.

Table 2.

Results of ABC analysis by volume of releases

Symbol	Name of the product	Number of releases [pcs.]	Share of releases [%]	Cumulative share of releases [%]	Grade
X ₁	Powder fire extinguisher 6 kg	509	32,30	32,30	A
X ₂	Gas cylinder CO ₂ 26 kg	267	16,94	49,24	A
X ₃	Technical gas cylinder T8 Mix 8 L	244	15,48	64,72	A
X ₄	Powder fire extinguisher 2 kg	222	14,09	78,81	A
X ₅	Gas cylinder ARGON T40 40 L	102	6,47	85,28	B
X ₆	Powder fire extinguisher 1 kg	82	5,20	90,48	B
X ₇	Powder fire extinguisher 12 kg	79	5,01	95,49	C
X ₈	Gas cylinder ARGON T50 40 L	71	4,51	100,00	C
	Total	1576	100		

Source: own analysis.

After conducting the analysis according to the ABC method, it can be concluded that goods from group A should be placed closest to the warehouse gate, then goods from group B, and finally goods from group C. However, it should be remembered that in the warehouse of the "GUSPOL" there are not only goods for sale, but also utility items of the company, for which they occupy a certain space in the warehouse. In the case of car tires, you can purchase two racks for tires, type ART-886, which will reduce the space needed for their storage. For the storage of 6 and 12 kg powder extinguishers and empty 6 kg extinguishers, the ideal solution would be to purchase a new rack with three shelves (Fig. 2).

Empty fire extinguishers 6 kg, 26 pieces		C
Full fire extinguishers 6 kg, 32 pieces		A
Full fire extinguishers 6 kg, 9 pieces	Full fire extinguishers 12 kg, 8 pieces	B

Figure 2. Graphical representation of the distribution of stocks on the rack.

Source: own analysis.

According to the calculations, one rack is able to hold the entire stock of 6 kg and 12 kg fire extinguishers together with empty 6 kg fire extinguishers (Fig. 3).



Figure 3. Storage shelf rack.

Source: own analysis.

Pallet racks (Fig. 3) are a commonly used solution for the storage and storage of various types of products. The presented storage racks perfectly manage and systematize the storage space that we have at our disposal. Extremely durable construction, based on steel elements, ensures safety and functionality of storage racks.

Thanks to the proposed solution, the free space in the warehouse would increase, and the employee would gain additional space. For such a carefully planned warehouse space, an XYZ analysis could be performed in the future.

5. Discussion

Dynamic market changes, the speed of information flow and a number of random events often make it difficult to make optimal decisions and manage rationally. As a result, modern management requires solutions to optimise the inventory management process so that it becomes possible to achieve cost advantages and increase the existing level of flexibility.

The presented inventory management according to the ABC method in the company "GUSPOL" requires low financial expenditure. It should also be borne in mind that if the implementation of changes in the warehouse is carried out after working hours or at the weekend, additional costs will be associated with it. It is also possible that difficulties may arise in the form of opposition from a warehouse employee who may not be convinced or opposed to the introduction of innovative solutions in the warehouse. To this end, the advantages and benefits of the changes should be clearly presented. However, it should be emphasised that introducing changes in the warehouse can optimise the work in the warehouse and minimise the costs associated with inventory management.

6. Conclusions

The main benefit of the proposed changes is the optimization of warehouse employees' working time. This is due to the correct setting of goods in the ABC group. Goods are most often and in larger quantities located near the entrance to the warehouse, which shortens the time needed to transport the goods. Another advantage is obtaining additional free space in the warehouse, which makes it easier to manipulate stocks.

In addition, it can be concluded that the use of the method of permanent storage places eliminates the probability of errors when completing the order for the customer. Summing up all the advantages and disadvantages of the proposed solutions, they generate a low cost of implementation for micro-enterprises, including the "GUSPOL" enterprise.

It should be emphasized that this article concerned only one warehouse in one micro-enterprise, further research should be carried out to confirm that ABC can also be applied to warehouses of other enterprises.

Choosing the right inventory management method focuses on improving the efficiency of warehouse operations while keeping input costs low. These solutions are used not only in large-scale warehouses, but also in small private warehouses. Implementing the right method to improve the spatial organization of the warehouse, by defining inventories into different categories and locating them in warehouses in such a way as to eliminate errors and reduce the time spent handling them, including the elimination of unnecessary inventory. However, the implementation of an appropriate inventory management method is extremely difficult due to the fluctuating demand, which affects the nature of cooperation with suppliers. The presented method of inventory management can be used not only in the production and warehouse spheres of the enterprise, but also in office areas, making it one of the most versatile methods of inventory management.

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DESIGN APPROACH IN E-COMMERCE – SELECTED ASPECTS OF THE BUSINESS MODEL

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Introduction/background: E-commerce has become one of the most important innovations in today's economy delivering significant economic value. It is not surprising, therefore, that businesses around the world operating in various industries are inclined to use e-commerce to optimise their performance. The use of e-commerce is fostered by the huge increase in internet accessibility. Businesses working on e-commerce models have the ability to deliver products to customers within a short period of time. These advantages have resulted in a high level of competition in the e-commerce industry today. Some online shops succeed and others fail. The paper looks at this problem from a business model perspective. Business models are generally oriented towards creating value for the customer, but the paper looks for its most valuable components in the context of e-commerce.

Aim of the paper: The purpose of the study is to identify the business model of a successful e-commerce company. All its components are analysed, in particular the correlation between the selection factors of the online shop and the consumer values of the shop under study. The paper designs a process for creating a business model for e-commerce.

Materials and methods: This paper uses materials from the master's thesis "Business models in ecommerce", defended at the Silesian University of Technology in 2022 by Justyna Koloch. A case study analysing the business model of an e-commerce company was used as the main research method.

Results and conclusions: As a result, the paper shows the process of a design approach to building and testing an e-commerce business model. An overview of this process provides a glimpse into the problem of finding effective e-commerce business models. The design approach to creating a business model and the use of different schemes increases sales opportunities, attracts different types of customers and encourages collaboration to achieve success in the highly competitive e-commerce market.

Keywords: e-commerce, business model, project management.

1. Introduction

E-commerce has become one of the most important innovations in today's economy. Businesses across the globe in various industries are inclined to use e-commerce to optimize opportunities and improve their overall performance. E-commerce has experienced significant growth in recent years, mainly due to the huge increase in internet accessibility. With the growth of internet users worldwide, e-commerce revenues are increasing significantly. This is indicated by data that show a steady increase in the number of people using the Internet. According to data, the country with the largest digital population in the world is China (Statista.com, 2023a). Overall, it was recorded that more than 64,6% of the world's population used the internet in 2023 (Statista.com, 2023b). Statistics also prove that the volume of e-commerce is growing strongly worldwide. As internet access and acceptance is growing rapidly worldwide, the number of digital shoppers is increasing every year. In 2020, more than two billion people bought goods or services online, and in the same year, e-retail sales exceeded \$4.2 trillion worldwide. One of the most visible trends in the world of e-commerce is the unprecedented use of mobile devices. In 2021, smartphones accounted for almost 70 per cent of all retail site visits worldwide (Statista.com, 2022). By 2040, it is estimated that 95 per cent of purchases will be made via e-commerce (Kitonyi, 2017). Additionally, the coronavirus pandemic has led to an increased reliance on e-commerce via online networks and electronic applications and reaping the benefits of e-commerce (Rosenthal, Strange, Urrego, 2021). As millions of people stayed at home in early 2020 to contain the spread of the virus, digital channels became the most popular alternative to crowded shops. In June 2020, global e-commerce traffic reached a record 22 billion visits per month, with exceptionally high demand for everyday items such as groceries, clothing, but also tech retail items (Statista.com, 2022). The e-commerce industry continues to grow, with more and more people using online shops, different types of e-businesses.

E-commerce has led to increased efficiency in production and operations management. With an online presence, companies have become more flexible to take orders from customers, produce and deliver the goods and services needed in an efficient manner. Companies working on e-commerce models have the ability to deliver products to customers within a short timeframe. These advantages have resulted in the current competition in the e-commerce industry. Some online shops succeed and others fail. The purpose of this study is to identify the business model of a successful e-commerce company.

2. E-commerce business model as a project venture

Business models are focused on creating value for the recipient. This is very important and should be kept in mind when constructing the business model itself, which should be created as an original project, individually for a given enterprise. Each organisation, company is different, there are different principles, ways of management, values, so the business model should be tailor-made for the enterprise in question. Adam Wisniewski (Wiśniewski, 2017) in his paper mentions that in order to create a business model, it is necessary to learn the specifics of the organisation, analyse its components and configure them accordingly. These processes make it possible to describe the logic of the company's functioning. The final stage is to establish a hierarchy of business model elements. This stage helps to compare the models of different companies and identify sources of competitive advantage. It also helps to develop further actions to make the company more competitive (Wiśniewski, 2017). This procedure is illustrated in Figure 1 below.



Figure 1. Procedure for constructing a business model.

Source: Wiśniewski, 2017.

In their book, Osterwalder and Pigneur outline several techniques for creating a business model. The first technique is the **empathy map**, which recommends taking the customer's own point of view, understanding it. In the process of creating a business model, the selection of the elements of the model is oriented towards the customer's needs, which can be discovered through the empathy map (Osterwalder, Pigneur, 2011). The process of creating it is shown below Figure 2.

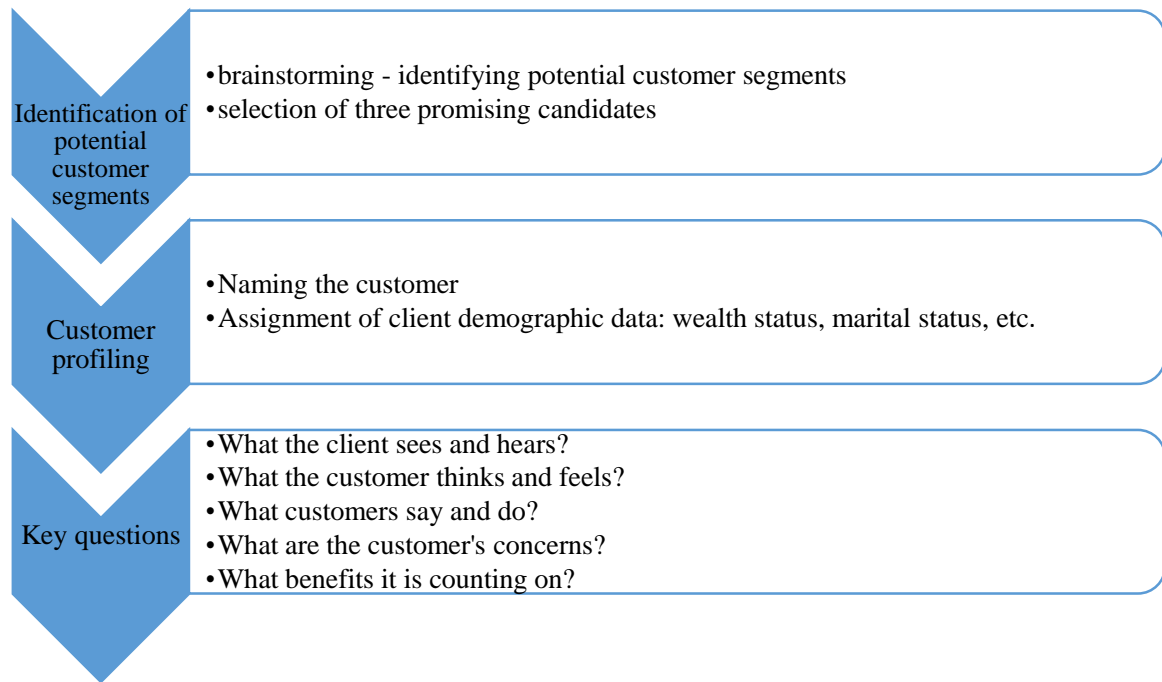


Figure 2. Diagram of the empathy map.

Source: own work based on: Osterwalder, Pigneur, 2011.

The empathy map answers six key questions about a specific person, enables the creation of a profile of the customer and their needs. This in-depth identification of needs, together with the use of e-commerce, gives companies the opportunity not only to sell their products and services online, but also to offer products to a huge number of consumers. There are three main types of e-commerce that are implemented in today's environment and these are business-to-business (B2B), business-to-customer (B2C), and consumer-to-consumer (C2C). The presence and development of e-commerce has provided many opportunities for organisations and has had a diverse impact (Gregory, Ngo, Karavdic, 2019). E-commerce has today become a very useful business model used by a huge number of organisations worldwide. The business model is designed to make its offerings available online and allow consumers to select and purchase the products they want. Project-based planning of an e-commerce business is crucial as it allows a company to consider the associated dynamics and implementation of the business model, to consider the likely adversities and challenges that may arise during the process (Tzavlopoulos et al., 2019). Planning furthermore takes into account the associated risks and constraints to which the company may be exposed, so that an effective contingency plan can be developed. The second aspect is the choice of technology along with media and approaches. In order to function in a network, it is important for a company to select the most appropriate technology to perform the desired tasks and activities (Nyagwencha, 2018). Therefore, the model should be planned according to the nature and type of customers together with the capabilities, resources and type of activities involved in the process. The use of technology may vary between companies and their specific target audiences, and critical analysis in this regard can be carried out to ensure optimal results.

The intention behind the creation of web-based e-commerce is that a company can significantly reduce its operating costs, expand its market without geographic restrictions, provide global exposure to the business, provide effective remote customer service and increase the overall value of the product (Afuah, Tucci, 2001). In this way, the web-based e-commerce model enables small and medium-sized companies to compete with a larger company on a level playing field; sometimes even providing an advantage to the smaller company, as it usually has lower cost structures and is more agile (Elliot, 2002). Table 1 below provides a brief description of business models and identifies B2C and B2B business models that are relevant in the current e-commerce environment.

Table 1.
Descriptions of e-commerce business models

Business model	Description	Type of e-commerce
E-shop	Selling products and services on e-commerce sites.	B2C
E-commerce centres	It consists of a number of e-shops, allows for customised processes transactions in one place.	B2C
E-procurement	E-tendering, the purchase of goods and services from suppliers, where there is a dedicated procurement system that is shared with suppliers and the e-commerce business.	B2B
E-auctions	Intermediary services provided to buyers and sellers who use the services to trade in the form of auctions. Invoicing is provided by the company dealing with electronic auctions, and dispute resolution processes are also made available online.	B2C
Virtual communities	Bring additional value to the e-commerce site, gather community member feedback.	B2C
Cooperation platforms	Business-to-business cooperation through the toolkit.	B2C
External market	It represents the creation of a market through customer requests and supplier responses.	B2C
Chain integrators values	Represent the function of a specific company in the value chain, such as payment and management services.	B2B
Value chain service providers	Specialise in a specific function within the value chain of a value chain service provider.	B2B
Intermediary services information and trust	Use open networks to deliver massive amounts of data from, integrated business operations.	B2B

Source: Timmers, 1998.

The problems of building e-commerce business models are of great interest to researchers. For many years there have been attempts to classify the types of e-commerce business models (Abdollahi, Leimstoll, 2011), which try to expose the differentiating components. Many articles also address the issue of improving the business model of e-commerce (Nathaniel, Purnomo, Persada, S. Rosyidah, E. 2022) giving guidance on the direction of their optimization. This is further helped by an overview of business process management in e-commerce (Sun, Grondys, Hajiyevev, Zhukov, 2021). Each model will be different, depending on whether it is directed at delivering value to another company or to an individual customer. A project-based approach will ensure that the entire process of creating a business model goes well.

3. Method

The article uses a case study method to describe the process of creating a business model in a successful e-commerce company. A case study was carried out using data collection and analysis techniques and tools - document analysis, reports, websites of the entities studied. A case study of a company that has an online shop and is successfully operating on the Internet was conducted. The study examined the financial statements, website visibility reports and information contained on the websites of the studied entities. An entity offering sportswear was selected for the study. The choice was dictated by the receipt of confidential reports and documents from the companies, which were useful and interesting for the entire research process. The hemp and sports online shop are connected to Google Analytics, so it was possible to obtain data on the visibility of the online shops under study, their revenues and the channels used. The data obtained in this way, provides a lot of valuable information that was important for the entire research process. The sports shop operates successfully online. It generates considerable profits every month, so it can be considered successful in e-commerce.

The research work on the selected company started on 01.03.2022 and was completed on 31.05.2022. The study aimed to find out the business models of the e-commerce companies. The companies' data were sourced internally. The structure of the case study is based on Alexander Osterwalder's concept that a business model describes the rationale behind the way an organisation creates value and provides and profits from this created value (Osterwalder, Pigneur, 2011).

4. Results – described cases

The study was conducted on the example of an ecommerce company operating in the clothing sales business. It is part of the Polish capital group Martes Sport - owner of more than 350 shops in Poland and abroad. They have focused on seamlessly combining online sales with stationary sales. Sales are mainly made online, while the company, through stationary shops, wants to provide the customer with contact with the product, the possibility to try it on, touch it and evaluate it. When analysing the customer segments of the sports shop, it was noted that the company strongly emphasises the exclusivity of its products: "the shop (...) is a premium shop where active people will find top-quality products that meet their needs and expectations", "You will only find branded clothing and accessories that are characterised by exclusivity and functionality", "Feel a touch of luxury by putting on high-quality clothing from the best brands in the world".

Referring to Alexander Osterwalder's (Osterwalder, Pigneur, 2011) principles for distinguishing customer segments, it can be concluded that the company does not reach the mass market because only a part of the population can afford premium brand products. The online shop under study reaches affluent people who care about having good quality branded products. This segment can still be narrowed down to people who like sports, any physical activity or simply sports accessories. According to reports from Google Analytics, a large proportion of customers within the above group are aged 25-34 and the largest are aged 34-44.

The next step of the study was to look at the shop's proposed values. When looking for the value proposition of a sports shop, the question was asked at the outset: what does the surveyed company offer and what customer problems does it solve? What does the company focus on? What benefits does it offer the customer? What needs does it satisfy? Osterwalder and Pigneur distinguished several elements that can contribute to customer value creation (Osterwalder, Pigneur, 2011). By analysing the offer of the company under study, several of these elements can be selected and assigned to the model under study. In this case, the elements contributing to customer value creation are:

- novelties (new collections, products, trends),
- brand and status (luxury brands),
- lower risk (party discloses opinions, communicates that it belongs to a large group, publishes awards received),
- convenience (user-friendly website, application, online purchase without leaving home),
- price (special prices for club members).

According to the Ubeyko study, price, discounts and loyalty programmes are most attractive to the user (Убейко, 2017). In the business model studied, all three elements were used. In addition, during the analysis of the sports shop, the table "Correlation of online shop selection factors with consumer values" (Убейко, 2017) was used and enriched with a column that takes into account the ways in which the listed consumer values and selection factors are delivered by the studied shop (Table 2).

Table 2.

Relation between online store selection factors and customer values

Factors for choosing an online shop	Consumer value	Forms of delivering value to the customer
Acceptable price	Savings	Frequent sales
Availability of discounts and promotions	Savings	Sales, discount codes, discounts for club members
Participation in the shop's loyalty programme	Savings	Application with discounts and promotions for club members

Cont. table 2.

Customer feedback and recommendations	Trust	Sharing of reviews, possibility to add opinions about the shop and products, sharing of rewards received
Individual approach	Quality of service	Contact via form, shop chat, Facebook chat and Instagram
Availability of the shop's mobile app	Time saving, trust	Club member app that shows the latest promotions and facilitates online purchasing
Large assortment	Possibility to choose	Huge range of branded products
Fast and convenient delivery	Time saving, high quality service	Shipping up to 24 hours on working days, choice of delivery type, home delivery or parcel machine delivery
In-store shopping experience	Trust	Stationary shops are designed by a professional agency with consideration of Customer Experience, neat web design, proper navigation, easy product search
Ease of ordering and payment	Convenience	Easy online purchase, several payment methods
High-quality presentation of the goods on the website, completeness of information on the product card	Comfort, trust	The products are presented by means of high- quality photographs and detailed descriptions
Easy navigation on the site	Convenience	Clear menu, sorting and filter options
Cost of shipping	Savings	Cheap shipping - same shipping price for delivery via DHL, DPD and InPost

Source: own work based on: Убейко, 2017, and webshop analysis.

By analysing the table above, it can be concluded that all the factors for choosing an online shop and value have been incorporated into the shop's business model. This means that the company is aware of its customers' needs and aims to give them value. By doing this, it is possible to stay ahead of the competition, satisfy most of the customers' needs and ensure that they keep coming back.

Another very important element of the business model that has been studied is channels. The purpose of creating channels is to reach customers and enable them to buy. In addition, they are responsible for supporting the customer after the purchase and allowing them to post their feedback on the products or services. The company mainly uses its own channels, i.e. retailers in stationary shops, the online shop and external channels - partners. This is how customers make purchases. Purchases made online are divided in the company into 9 channels: Paid Search, Organic Search, Referral, Direct, Display, Social, Email Affiliates, Other.

The surveyed online shop invests in Google Ads, which brings them meaningful profit. It also works with an SEO agency, which helps it to increase the visibility of its website in Google search, thereby increasing the number of visitors to their website. In order to determine which channels matter most to the company, reports from Google Analytics were analysed, which take into account total user acquisition from 1 January 2019 to 30 March 2022. The results obtained include:

- Sessions.
- New users.
- Average session duration.

- E-commerce conversion rate.
- Transactions.
- Revenue.

The data obtained is presented in the form of Table 3, which shows the total user acquisition by each channel for the period from 1 January 2019 to 30 March 2022.

Table 3.

Acquisition of users in total by individual channels in the sports shop

Channel	Sessions	New users	Average session duration	E-commerce conversion rate	Transactions	Revenue
Paid Search	5203384	2867666	89.90	1.47%	76268	20165935.09
Organic Search	685770	349777	176.83	1.91%	13067	3985874.89
(Other)	549988	190980	145.47	0.62%	3419	1024996.72
Referral	529024	334974	136.33	2.61%	13805	4027609.51
Direct	430661	281274	190.28	1.93%	8292	2700612.95
Display	426513	214956	95.80	0.41%	1728	460905.22
Social	144369	97528	137.85	1.63%	2351	632927.96
Email	19275	8726	207.42	1.02%	197	55330.19
Affiliates	1	1	0.00	0.00%	0	0.00
Total/average	7988985	4345882	111.14	1.49%	119127	33054192.53

Source: Google Analytics report, 4.04.2022.

Without doubt, paid search generates the most revenue. Referral and organic search channels perform similarly. The smallest revenues are generated by partner channels and emails. From this, it follows that the company allocates part of its budget to Google's paid ads, which bring high results. Entering into a partnership with an SEO agency also yields high results in terms of high revenues generated from Referral channels and organic search.

The work also explored another element of the business model, namely customer relationships. Maintaining good customer relationships is very important in order to generate revenue not only from new users, but also from regular customers. The company studied maintains customer relationships through various means: Newsletter, Chat, Club member app, Social media, Personal support in stationary shops. According to the Google Analytics report, the surveyed company uses 10 social media. Facebook is the most popular and effective, accounting for 95.55% of sessions generated. In second place is Instagram - by far the majority of sessions are created using Instagram Stories accounts. The least effective here are Pocket and LinkedIn.

Based on data from the Business Model Navigator (businessmodelnavigator.com, 2021), Table 4 was developed, which takes into account all the schemes whose presence was noted in the surveyed company.

Table 4.
Business model scheme of the surveyed company

Scheme name	Example of use
Cross-selling	The company advertises itself as a shop selling sporting goods: clothing, sports equipment, footwear. In addition to sporting goods, the range also includes elegant belts, handbags, protective masks for men, leather wallets or GUESS-branded leather bags. In this way, the online shop generates additional revenue.
Customer loyalty	Customers are retained through the Club Members app. The company increases loyalty by creating an emotional bond and rewarding Club Members with special offers and discounts.
E-commerce	The products are sold via an online shop, providing customers with greater accessibility and convenience.
Use of customer data	The company uses customer data to create newsletters that are sent to the customer's mailbox. This provides the user with information on promotions and news, which can lead to additional sales.
Long tail	The company sells not only current hits, but also many other products that might be considered niche. The product range is huge - there are more than 1,000 models of men's shoes alone. The sum of profits resulting from the sale of even single pieces of niche items is large.
Orchestrator	The company surveyed does not do all the activities itself. It focuses only on core competences, deals with sales. It outsources marketing, paid Google Ads campaigns, website positioning and other activities to external companies. In this way, it increases efficiency and ensures a high level at every stage of the process.
Self-service	The company surveyed saves on some processes - it has only opened a few stationary shops. With the help of the online shop, the customer handles him-/herself, selects products and makes payments. This allows products to be offered at competitive prices.
Supermarket	The online shop offers a very wide range of products and accessories. It provides not only clothing, but also footwear, sports equipment and accessories - everything you need for sport. In addition, it offers a multitude of respected brands - all in one place. This kind of solution attracts customers.
The ultimate luxury	The company surveyed focuses on the affluent part of society. It openly communicates that their products are luxury and branded. As a result, it is not necessary to focus only on the low price of the products, but on providing customers with the best brands. This enables the company to impose a margin.

Source: own work based on: businessmodelnavigator.com, 2021; Gassmann et al., 2015.

The company surveyed incorporates several patterns in its business model that affect the company's performance and success.

5. Discussion

The research process revealed a diagram for creating a business model for an e-commerce industry company. It is presented in Figure 3. The developed diagram can be a guideline for creating a properly designed business model for the e-commerce industry. It takes into account team building, brainstorming, the 9 elements of a business model along with the most important questions in the e-commerce industry and the subsequent analysis. It is designed to guide, step by step, any person who has a business idea but does not know how to start creating a business model. The entire process can be carried out according to the logic presented in Figure 3. However, the proper implementation of the individual components requires a thorough

understanding of the mechanism of creating and delivering value to the customer. All components of the model should focus on this and the very result of the process should be tested and, as a result, create further versions of the business model.

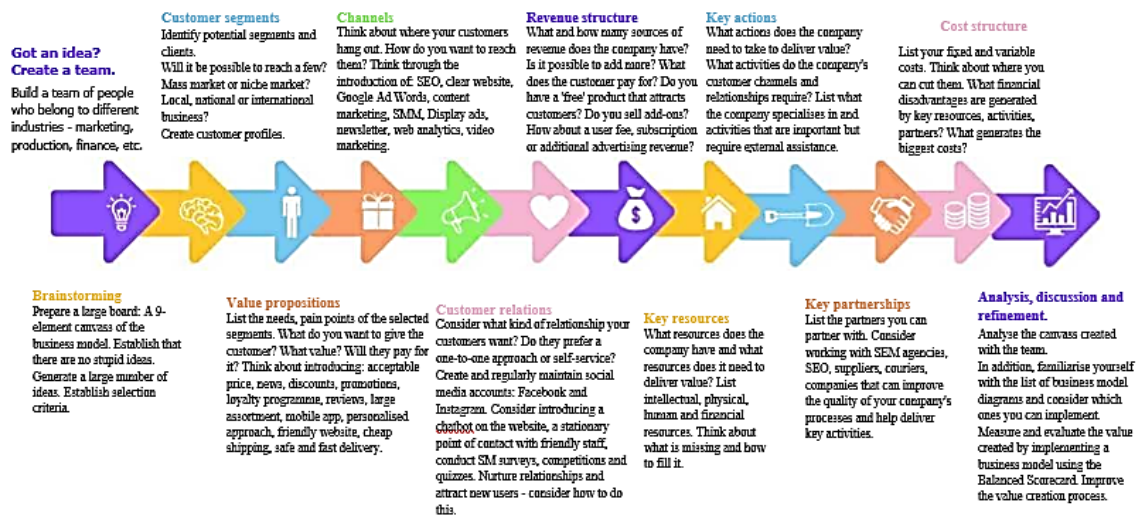


Figure 3. Creating a business model for e-commerce.

Source: Own work.

6. Conclusions

The company under investigation has an elaborate and well-thought-out business model. It reaches a well-defined target group - affluent people who want to own branded luxury sporting goods. The company succeeds in reaching the selected group. The researched company knows its customers' needs very well. It not only provides branded products, but also allows them to give and review the opinions, which has a positive impact on the user experience - they feel secure and are more likely to trust the supplier. In addition to this, with the help of the mobile app, the company retains its customers, influences their emotions and loyalty. In this way, it generates more revenue and earns regular customers.

The business model that has been developed consciously takes into account the selection factors of the online shop and the values that the customer expects: providing novelty, security, convenience and a good price.

The company includes several channels in its business model. Some of them are doing well, others need deeper analysis and improvement. Paid Google Ads campaigns generate the most visits, new users and revenue. This channel performs worse in average session duration and e-commerce conversion rate, i.e. much of the traffic generated is empty. This means that paid adverts attract a lot of people to the website, whereas once they enter the site, they quickly give

up and return to the search list. However, this does not change the fact that this channel delivers the highest volume of transactions, is efficiently run and contributes to the success of the business.

Organic search, on the other hand, generates a high average session duration and ecommerce conversion rate. This means that organic search results in Google's browser are well-targeted. Sub-pages are appropriately attributed to the key phrases that a potential customer types into the search engine. When they go to the shop page, they spend time there and are interested in the content. This channel has enormous potential. As the visibility of the site in Google increases, revenue increases, so the website positioning activities are effective. It is worth noting that the company is connected to Google Analytics reporting, which enables it to study the effectiveness of its activities and continuously improve them. This perfectly supports the principle of continuous evaluation and adaptation of the business model to changes in operating conditions.

The company supports the process of delivering value to customers with numerous physical, intellectual, human or financial resources. Some of these belong directly to the company, but a large part is provided by external partners. The company's activities largely focus on taking care of the online shop platform, providing customers with a wide range of branded products. Some of the key activities are carried out in-house, while others such as marketing, website positioning and fast shipping are outsourced to maintain a high level. This is a good strategy because they focus on the core activities they can do. While others are put in the hands of specialists, which optimises the sales process.

The analysed company willingly enters into partnerships that support it. It often emphasises that it belongs to the Polish capital group Martes Sport, thus gaining popularity, gaining trust and building the brand faster.

The company has incorporated several schemes in its business model that contribute to revenue growth. The researched company has an extensive business model with a strong emphasis on luxury products, a wide range of products, Google Ads campaigns, website positioning, security and fast delivery. The researched entity takes care to generate value for customers by: providing sales, discounts, a loyalty programme, good prices, providing reviews and the opportunity to add feedback on the shop, easy contact, social media presence, fast and safe delivery, large assortment, ease of ordering and payment, high-quality product presentation, valuable blog.

The design approach to creating a business model and the use of different schemes increases sales opportunities, attracts different types of customers and encourages collaboration to achieve success in the highly competitive e-commerce market.

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PUBLIC CONSULTATIONS IN PUBLIC GOVERNANCE – PAST AND FUTURE RESEARCH DIRECTIONS

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Introduction/background: The last few years have seen an increase in the number of publications that address research questions on public consultations in public governance. However, knowledge on this subject is dispersed, and there is a need for its systematisation.

Aim of the paper: This paper aims to identify current and emerging research on public consultations in public governance.

Materials and methods: This goal was achieved by conducting the Systematic Literature Review.

Results and conclusions: The bibliometric analysis carried out has identified four main thematic clusters around which this research is conducted. These relate to: 1. issues directly related to the conduct of public consultations; 2. issues related to deliberative democracy and accompanying matters; 3. issues related to community involvement in public consultations processes; and 4. issues related to the influence of stakeholders and interest groups on the process of public consultations implementation. In addition, this publication has mapped thematic groups that are drivers for further research on public consultations (issues related to public participation in terms of cultural risk theory and public participation in Chinese version of authoritative deliberation) and niche topics for further development (issues related to stakeholders and interest groups in participatory public policy making).

Keywords: public consultation, public governance, public value co-creation, New Public Governance, Public Service Logic, bibliometric analysis.

1. Introduction

Public consultations are one of the most important tools of direct democracy through which citizens can be involved in the co-creation of public value. Both the New Public Governance and Public Service Logic paradigms emphasise the need for public participation in the processes of creating public services and the inclusion of consumers from the very beginning of the conceptualisation of these services. From the perspective of the two aforementioned public

governance paradigms, consultations are seen as a process that influences the effectiveness of collective problem-solving (Hausner, Jessop, Mazur, 2016) through bottom-up engagement oriented towards cooperation and consensus building (Podgórnjak-Krzykacz, 2017) benefiting both parties (Ramaswamy, Ozcan, 2014).

Although in practice public sector organisations are obliged to carry out public consultation, this issue is still under-researched in the academic literature on public governance (Marchaj, 2016). Research on this topic is most often described in relation to issues:

- legal, on the impact of the development of national legislation; national judicial jurisprudence and international law on the conduct of public consultations;
- sociological and political studies, which address issues such as the aspects that condition and influence public participation in democratic procedures and the significance of such participation for the development/legitimisation of political systems;
- social communication, with a particular focus on research into the tools and instruments of communication that influence the conduct of the process.

The objective of this paper is to systematise existing knowledge on public consultations in public governance and to identify research needs in this area. The achievement of the objective was guided by the search for answers to the following research questions:

1. How are research issues shaping up for public consultations?
2. How has the research issue of public consultations developed so far?
3. What are the research needs for public consultations?

Finding answers to the above research questions was possible due to a systematic literature review based on the Scopus database, with reference to bibliographic items in law, political science, social communication, management and quality, sociology, and philosophy. The research outcome presented in this paper has implications for the theory and practice of public consultations in public governance.

2. Theoretic basis for public consultations in public governance

Public Governance is the set of methods, mechanisms and guidelines that enable the effective delivery of public services. The subject of the analyses undertaken in this research area is the behaviour of the actors involved in delivering public services, the structures, and processes they create, and the methods used to implement public policies.

The issue of public consultations is a natural consequence of the development of the scientific sub-discipline of public governance. On the Polish ground, it is not without significance that its development coincides with the transformation¹ of the Polish political system to a democratic system (Kozuch, 2005). We can observe here a shift of about 20 years compared to the interest in this research area in the world, which began to develop in the 1970s as a response to the erosion and deficit of democracy manifested in the weakening involvement of citizens in the process of shaping public services (Branden, Steen, Verschuere, 2018). The rationale for addressing these issues in post-communist countries is therefore different - it was influenced by the emergence of entirely new public areas and problems due to the restoration of political subjectivity to citizens, referring directly to the "sovereign determination of Its (the Republic - author's note) fate" (Preamble to the Constitution of the Third Republic of Poland of 2 April 1997) and reflected in the free - active and passive - electoral right². The result of this process was the emergence of various tools of direct democracy, such as public consultations³.

Public consultations, until public governance's interest in this research area, were mainly analysed in the social sciences (sociology, political science, social communication, philosophy) and legal sciences. Table 1 provides an overview of the ways in which public consultations have been defined, broken down into different approaches.

Several basic elements common to the definitions cited in Table 1 can be identified:

- legal standardisation in national legislation;
- tool of direct democracy, involving participation in the decision-making process;
- process for obtaining opinions that is not binding on the decision-making centre.

¹ Polish authors further point out that while in western countries of 'old' and established democracies the process of implementing market mechanisms into public governance was possible much earlier than in Poland after 1989, 'this backlog in Poland has never been made up' (Kulesza, Sześciło, 2013, p. 16).

² Active (ability to seek election) and passive (ability to elect).

³ Applying these relationships to the field of public governance science, we can see that in this non-hierarchical network of dependencies, it is the citizens who are the supreme authority, but to increase the effectiveness of management - they delegate their prerogatives as sovereign to elected representatives. With precisely this in mind, it should therefore be noted that any form that aims to directly involve citizens in the process of co-creating public value is in fact the realisation of the fundamental assumptions that underpin the democratic system. This could lead to the conclusion that the co-creation of public value is one constitutional possibility for the direct participation of the sovereign in the process of shaping public policies.

Table 1.*Examples of ways to define public consultations in the social sciences*

Approach	Example definitions	Characteristics
Language	Consultation.	They centre around etymology.
Legal	<p>A form of involving citizens in the decision-making process of public authorities (Miaskowska-Daszkiewicz, Szmulik, 2010, p. 359).</p> <p>A concept legally regulated by local government laws. Public consultations form the basic framework for public participation in decision-making on local or regional issues, they are considered a form of direct democracy, although they are not of a sovereign nature, but only of an opinion-making character (their non-binding character is emphasised in doctrine and case law) (Haładyj, 2014, p. 680). In doctrinal terms, they are conceived of as a process in which representatives of the authorities present to citizens their intentions directly or indirectly concerning them (Haładyj, 2014; Zychowicz, 2011, p. 13).</p> <p>One of the forms of participation of the inhabitants of local government units in public affairs, consisting in consulting them on matters of importance for a given local government community or part thereof and constituting a means of supporting civic initiatives for its benefit and a means of informing the inhabitants (commune, district, voivodship) about the activities of the local government administration (Brunka et al., 2003, p. 149).</p>	They focus on the legislative solutions that condition the conduct of the process; court judgements that influence the development of the procedure for conducting them; international legislation that influences the development of national legislation.
Political science	They are a form of direct democracy (Kubas, 2014); they are an intentional stage of the public decision-making process with the participation of persons, groups of persons or communities interested in the subject of the decision (Konsultacje społeczne..., 2019). Public consultations is the second of the three stages of public participation (Konsultacje społeczne..., 2019).	They focus on distinguishing the instruments of direct democracy; the impact of public participation on the legitimacy of political systems according to their types; and they focus on the mechanisms that foster or limit public participation.
Sociological	An instrument for reconciling conflicting interests and thus for resolving conflicts; it is a form of interaction between stakeholders in the decision-making process and gives them certain responsibilities (Knosala, 2016, p. 28).	They focus on issues related to channelling potential social conflicts and laying down the rules of social life.
Communication	Two-way communication between the public administration and the social partners, carried out to obtain feedback on the administration's proposed solutions (Gawroński, 2010).	They focus on issues related to the conduct of the public communication process.
Public governance	It is a process of obtaining opinions from individuals and organisations directly or indirectly affected by certain public sector activities. Consultations is one of the most important forms and tools of public governance, an institutionalised form that provides a platform for the exchange of views and the development of positions regarding the functioning of specific industries, regions, communities, etc. and the satisfaction of needs. The reliance on public consultations in the public sector, as one form of social dialogue, stems from legal legislation that sees the need for public involvement and participation in matters that affect it (Nogalski, Rybicki, 2006).	They focus on the impact of conducting public consultations to optimise and increase the efficiency of public service management processes.

Source: own study.

In the last few decades, these issues have been analysed through the lens of the new public governance concepts of co-production and co-creation⁴ of public value. In the case of the above-mentioned social science disciplines, on the other hand - the analysis of public consultations is linked to the broader issue of public participation (Swianiewicz, 2012; Niżnik-Dobosz, 2014).

Taking this into account, it is possible to define public consultations in such a way that the process aspect of the concept of co-creation of public value is emphasised. Adopting such a perspective *public consultations are a legally standardised instrument of direct democracy involving citizens in the process of co-creation (Ostrom, 1996) of public value in order to influence the effectiveness of public management in solving collective problems (Hausner, Jessop, Mazur, 2016, p. 13) through bottom-up, cooperative and consensus-oriented involvement (Podgórnjak-Krzykacz, 2017) for the benefit of both parties (Ramaswamy, Ozcan, 2014).*

Public consultations in Polish legislation are regulated at the level of national laws and laws on the organisation of local government units. As far as their authoritative power is concerned, they perform only opinion-giving functions, and the outcome of their conduct is not binding for the decision-making centres. In terms of the law, we can divide them into (1) obligatory consultations, whose obligation to conduct their results directly from the law, such as the adoption of a development strategy or change of a municipality's boundaries, and (2) optional consultations, whose catalogue is open and which may concern 'other matters important' for a given local community (Article 5a of the Municipal Self-Government Act). From 2014 onwards, there is also a new division, initiated by amendments to the Rules of Procedure of the Council of Ministers, which separates consultations in the governmental legislative process into two categories: (A) public and (B) social. The main difference between the two, as interpreted in government studies (Guidelines for conducting impact assessments and public consultations...), is the introduction of the criterion of social partners, who are not explicitly indicated in the specific laws, but it is beneficial for the further legislative process to consult them.

⁴ Co-production, and then co-creation extracted from it, are concepts transposed into public governance from a reference to the mechanisms of industrial production functioning. The main difference lies in the stage of citizen involvement in the process. In this sense, when citizens are involved in the co-creation of a public service already at the stage of its strategic planning, and perhaps even initiate the process themselves, then we are dealing with co-creation. On the other hand, when citizen participation and involvement are limited to the final stages of the process, which precede the implementation of a service that has already been planned and prepared, then we speak of co-production (Brandesen, Honingh, 2018, p. 27; Sienkiewicz-Małyjurek, 2016).

The process of analysing the legal conditions is complicated by the fact that public consultations and the procedure for conducting them are not codified in a single legal act (Public consultations..., p. 9), as well as the fact that in some laws the legislator does not use the term 'consultation', although their detailed provisions define, for example, the procedures for consulting residents⁵.

An analysis of the scholarly literature on public consultations and their role in public governance indicates that authors often raise legitimacy, transparency, leadership and influencing the quality of public service design, which have been developed since the New Public Management paradigm (Partycypacja obywateli..., pp. 13-18; Małecka-Lyczak, 2014; Kożuch, 2006; Kożuch et al., 2021).

On the other hand, in conducting public consultations, we can observe that the start of this process is already met with reluctance from the entity managing the consultations and its participants (Zalewska-Turzyńska, 2017). An analysis of the literature complemented by source material in this area (national press, local press, content of digital broadcasters) leads to the following observations:

- quality of public value co-creation in the public consultations process carried out using existing methods is relatively low;
- residents are unable to identify the tools with which they can influence public decisions;
- those in power are reluctant to use public consultations in their decision-making processes.

The low quality of public value co-creation in the public consultation process is an issue highlighted by the Supreme Chamber of Control in 2019. The body carried out an audit of the public consultation⁶ on the issuance of environmental decisions conducted⁷ between 2015 and 2018 (Public consultations...). The audit report stated that:

- the audited consultations met only one of the seven principles in the Consultations Code (CC)⁸. Only the principle of universality was met;

⁵ The Spatial Planning Act refers to "consultation" (with the announcement in the press and the display of documents for public inspection and the possibility to submit opinions, thus describing the procedures undertaken in public consultations - Article 38), and in the Act on the provision of information on the environment and its protection... - the consultations procedure is described as "proceedings requiring public participation", as described in Article 5 of the above-mentioned Act: "Everyone has the right to participate, under the conditions specified by the Act, in proceedings requiring public participation".

⁶ The types of planned developments indicated their onerous impact on the community that lives in the immediate area. It concerned the planned construction of: poultry houses, piggeries, a vehicle dismantling station, wind farms, an aircraft engine repair facility and sand mining.

⁷ One of the areas of obligatory consultations in Polish legislation, which is set out in the Act on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments (Journal of Laws 2008, No. 199, item 1227 as amended).

⁸ The 7 principles of consultations in the CC: 1. good faith, 2. universality, 3. transparency, 4. responsiveness, 5. coordination, 6. predictability, 7. respect for the general good (Seven principles of consultation, 2013).

- meetings with residents were described as "chaotic" both in terms of their preparation (lack of a moderator, external experts, scenario) and the discussions held (although this was described much more bluntly in the report as: quarrelling, mouthing off and pressurising). Documentation (minutes) following meetings was not compiled reliably and mayors did not fully use residents' submissions when issuing the final decision on consulted issues.

Even though residents feel they have an influence on local decisions, they are unable to indicate the tools through which they can influence decision-making processes or which formal platforms for cooperation with local authorities they can use. The research conducted by the Public Opinion Research Centre (Public Opinion Research Centre announcement 2018) shows that:

- more than 60 per cent of respondents recognise that local authorities take the voice of residents into account when making decisions, but a third of respondents could not identify any form of public dialogue with local authorities;
- of the 15 different types of forms of cooperation with local authorities (with formal and informal dimensions) that were listed in the research questionnaire, only 4% of respondents indicated social consultations as a possible form of cooperation with the authorities. Informal cooperation instruments such as direct meetings with the municipal authorities received the most indications.

Even though social consultations are one of the forms of social participation⁹, those in power are reluctant to use this form of cooperation with the inhabitants, which means that the potential of these tools in the process of co-creating public value is not fully exploited. This is pointed out by M. Zalewska-Turzyńska (2017) indicating potential sources of these problems, namely:

- competitiveness of the objectives of the participants in the process - it is difficult to reconcile everyone,
- problem of consistently sticking to an earlier position,
- social embedding of participants - formation of lobbying groups,
- dilution of responsibility,
- bureaucratisation of the process,
- low investment in diagnosis.

⁹ Forms of public participation can be divided into formal (statutory) and informal (not prescribed by statute), obligatory (delegated by statute) and optional forms. Other forms of public participation include: local referendum, recall, people's veto, plebiscite, local resolution initiatives, citizens' budgets, informal meetings with municipal authorities, access to public information, complaints and petitions, UX tests, thematic workshops, etc.

Public consultations should be characterised by dialogue with respect for differing opinions, but participants in the process relatively often feel that they are not equal partners, which affects their involvement. This manifests itself in, for example: low attendance¹⁰, lack of substantive preparation for the discussion taking place, and lack of a sense of influence to change the decision under discussion¹¹.

The phenomena indicated above have a negative impact on the quality of public consultation. Therefore, the exploration of these research areas - especially as both theorists and practitioners emphasise their important role in public governance - becomes all the more important when we take into account the development of modern concepts concerning the co-creation of public value, which aim to exploit the potential of bottom-up initiatives so that the products or services developed are tailored to the expectations and needs of its end-users. The evolution of the concept of public governance and the role of the citizen in shaping public services is shown in Table 2.

Table 2.
Citizen/resident in the concept of public services

Concept of public services	Period of origin	The role of the citizen	Description of citizen-power interaction	Nature of citizen participation
Weberianism	1940s	Petitioner	Something he/she wants because he/she himself/herself does not have and cannot	Passive
New Public Management/ New Public Governance	1970s-80s	Customer/ stakeholder	he/she wants something because he/she is entitled to it	Passive
Public service-dominant logic	End of the 20th century - first decades of the 21st century	Stakeholder	he/she wants something because he/she cares	Active
Public service logic	From 2018	Prosument	he/she has something and shares it	Active

Source: own study based on: Chrisidu-Budnik, 2013; Chomiak-Orsa, 2016.

¹⁰ One example is the public consultations before the creation of the Upper Silesian Metropolitan Area. Less than 13,000 people took part, while the area of the Upper Silesian Metropolitan Area was then inhabited by approximately 2.3 million people. The largest number of votes (1,315) were cast in Katowice. The capital of the Metropolis in 2018 (State Electoral Commission data for the last local government elections) had a population of around 280,000, of which around 230,000 were eligible to vote. This means that only 0.5 per cent of those eligible took part in the consultations (Machaj, 2017, pp. 18-30).

¹¹ The research conducted by Jacek Sroka shows that those in power treat the joint agreement of positions as protection, while the participants, who have no real decision-making power, do not feel that they can really influence the change of decisions of those in power by articulating their proposals. This research analysed the functioning of deliberative democracy institutions found in the Polish political system. In one interview concerning the work of the District Employment Council, an interviewee who represented the NGO community said that (original spelling): "as an association representative, so to speak, I have the least involvement in all this. There are mayors. There are, well, sort of their own people who they can, I don't know, employ, they can support, so here my person, so to speak, well this is such a very, very, modest fraction of what I can..." (Sroka, 2008, p. 158).

The contemporary development of new digital and communication technologies, which allow simultaneous contact between many participants in the consultation process, generates new challenges, but also risks related to the privatisation of public discourse to individual preferences, which contradicts the basic assumptions of public value co-creation¹². In the same way that concepts of public governance developed in relation to new consumer behaviour, where purchasers of different types of goods and services wanted to have a greater say in this production process: how the product was designed (Perechuda, Chomiak-Orsa, 2015; Ramaswamy, Ozcan, 2014), how it was created, how it was advertised and sold, this can be applied to the phenomena in the field of cooperation between participants in public networks, whose role evolved from petitioner through customer and stakeholder to move towards presumption.

3. Research methodology

The systematisation of existing knowledge on public consultations in public governance and identifying research needs in this area is based on a systematic literature review according to the Prisma methodology (Page et al., 2021). The search was conducted in February 2023 based on the Scopus database, as it is one of the largest scientific databases that contain information on peer-reviewed and thus credible and reliable scientific papers (Mongeon, Paul-Hus, 2016; Harzing, Alakangas, 2016). The process of identifying publications on public consultations in public governance, on which the analyses illustrated in this paper are based, is shown in Table 3.

¹² In the 1970s, when the concept of co-creation was developed, technological barriers were some of the most serious constraints to the spread of these technologies. In the 2020s, the development of digital technologies makes it possible to overcome these barriers, but the activity of consultancies such as Cambridge Analytica show that these tools can be used to mass personalise messages almost to individual preferences. This in turn can lead to manipulation and abuse. In an extreme situation - it is a threat to the stability of the functioning of the entire political system, where the citizen becomes, as it were, the victim of an unfair process of controlling his/her preferences, while he/she himself/herself does not have the tools to oppose and respond to them. The privatisation of discourse also stands in opposition to co-creation, the aim of which is to create public rather than private value (Brandesen, Steen, Verschuere, 2018; Kaiser, 2020).

Table 3.
Citizen/resident in the concept of public services

Stage of the search process	Result
I. Search terms “public consultation*” and “social consultation*” in the Scopus database in the areas of social sciences and business and management, in English	Number of publications identified after removal of duplicate records: 944
II. Limiting the number of identified records by analysing titles, abstracts and keywords according to the following exclusion criteria: 1. Publication outside public governance 2. Publication that is an introduction to an issue, a number, a collection of papers, a conference issue	Number of excluded publications according to criterion 1: 704 Number of excluded publications according to criterion 2: 26 Number of publications further processed: 214
III. Limiting the number of publications through whole content analysis. Exclusion criterion: public consultations was only a side thread, one of the factors mentioned in the content, but the scope of the paper dealt with other issues.	Number of publications excluded: 167 Number of publications included in the study: 47

Source: own study.

In the first phase of exclusion (phase II of the research process), the dominance of publications on public consultations in implementing medical, biotechnology and transport solutions was evident. In contrast, in a significant proportion of the publications reviewed in the second phase of exclusion (phase III), the authors focused on other research problems and mentioned public consultations only in the content. Therefore, the number of publications included in the analyses was 47 (Annex 1). These publications were analysed by the author team and the VOSviewer and the Bibliometrix software were used to present the findings.

4. Research results

The results of the research carried out were presented according to the research questions presented in the introduction to this paper. They were preceded by a bibliometric analysis to indicate the characteristics of the publications included in the research. The following sections contain first the bibliometric analysis and then the results to answer the research questions.

4.1. Bibliometric analysis

The bibliometric analysis began by verifying how the distribution of publications on public consultations in public governance evolved over the years. This trend is illustrated in Figure 1.

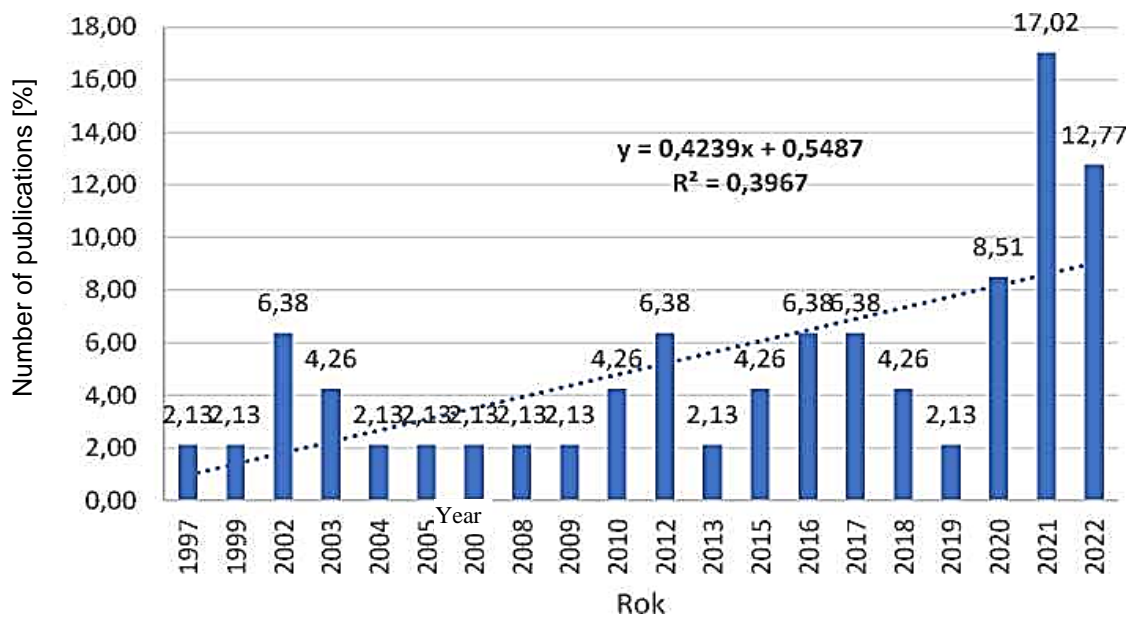


Figure 1. Annual growth of publications on public consultations.

Source: own study.

The results shown in Figure 1 indicate that research on public consultations in public governance is on an upward trend. However, fluctuations in the number of publications are apparent. The years with the most publications in the study area were 2002-2003, 2010-2012, 2016-2017 and 2021. However, it can be assumed that with the growing interest in public participation in delivering public services (Osborne, 2018, 2021), this topic will receive increasing attention.

The type of publications included in the study includes: research papers (85.1%), chapters in monographs (4.25%), post-conference papers (6.4%) and reviews (4.25%). Leading authors dealing with the issue of public consultations in public governance are: Gustavo Cunha Garcia, John Gastil, Jonathan Soares Pereira, Flavio Saab and Jane Suiter. Studies on the subject are mostly published in the Australian Journal of Public Administration, the Australian Journal of Political Science, Political Studies, and Public Administration. The analyses presented above allow us to conclude that the selection of publications for the research is apt, includes texts in high-quality journals and allows for analyses aimed at seeking answers to the research questions posed and achieving the purpose of this paper.

4.2. Research issues addressed in public consultations

An analysis of the research issues undertaken on public consultations in public governance is presented using the VOSviewer programme. The results are illustrated in Figure 2.

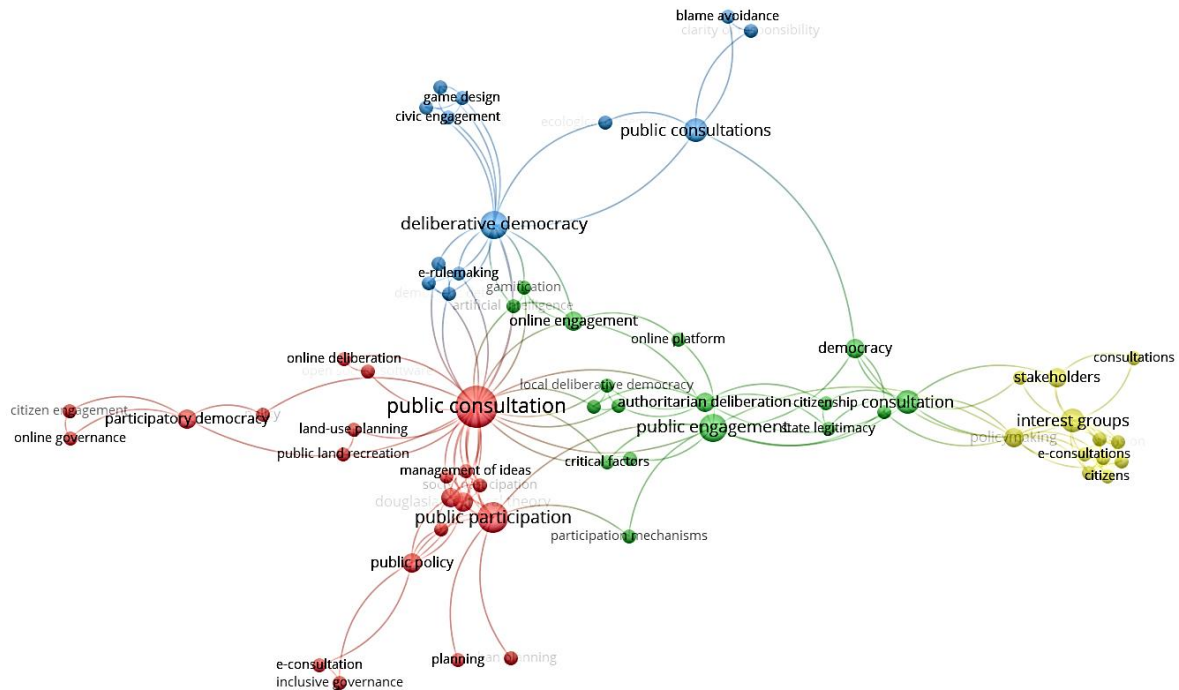


Figure 2. Research issues in public consultations.

Source: own study based on the VOSviewer version 1.6.19.

Analysis of the results shown in Figure 2 identifies four thematic clusters:

- Cluster 1 - red - issues directly related to conducting public consultations. Research conducted in this area includes, among others, the scope of public participation in the implementation of public policies, planning of activities with the participation of the public, and technological solutions enabling the inclusion of the public in the implementation of public services.
- Cluster 2 - blue - issues of deliberative democracy and accompanying issues. The research area in this cluster relates primarily to the course of collective debating processes, the advantages, and disadvantages of this process, and ways of reaching consensus.
- Cluster 3 - green - issues related to community involvement in public consultation processes. The issues addressed in this cluster concern ways of motivating the public to get involved in implementing public policies and services.
- Cluster 4 - yellow - the issue of the impact of stakeholders and interest groups on the process of public consultations implementation. This cluster includes research dedicated to the impact of stakeholders and interest groups on public consultation processes.

It is also worth noting that clusters 1, 2 and 3 are strongly interlinked and their research themes intersect. Reference to democracy and consultations can be found in each of these clusters. Therefore, the division into these clusters is mainly due to the dominant research problems in these clusters. The first cluster is dominated by the main issue of public consultation, the second by deliberative democracy and the third by issues of public

involvement in public affairs. It is also significant that cluster 4 is furthest from the main thematic strand of public consultations in public governance. These themes have spun off most likely because of the significant implications of stakeholder and interest group influence on public consultation processes.

4.3. Research needs for public consultations

The VOSviewer programme was also used to analyse the development of the public consultations issue over time, as illustrated in Figure 3.

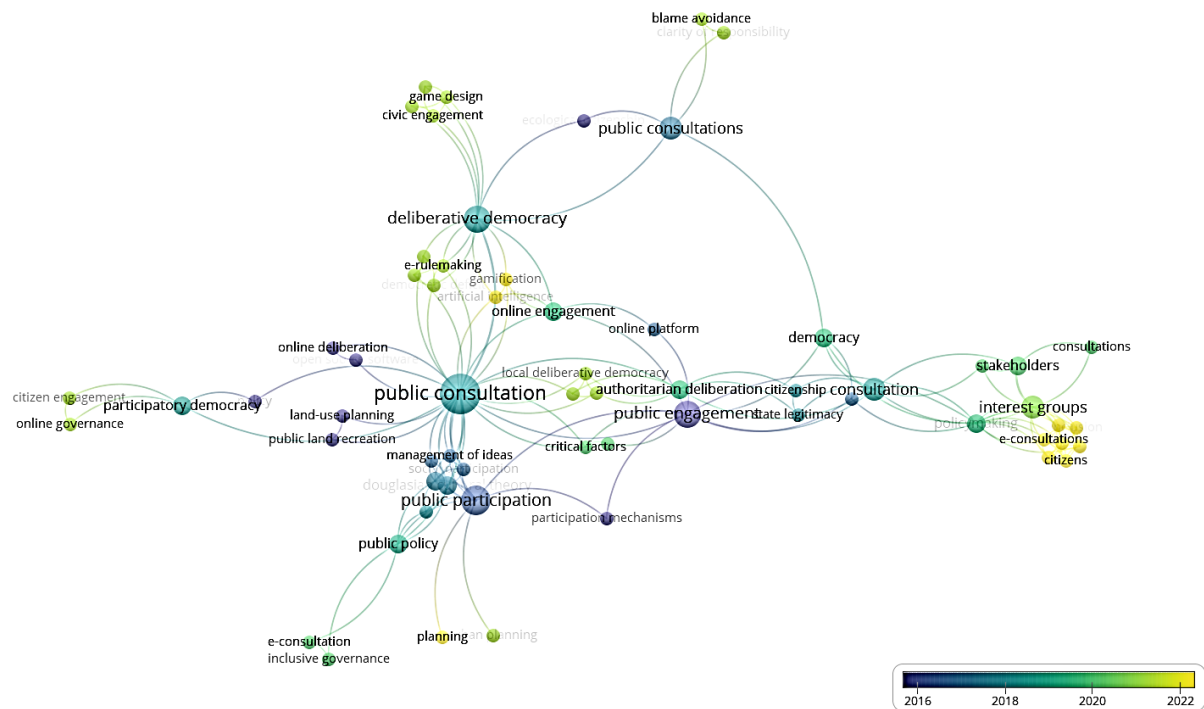


Figure 3. Development of research on public consultations issues.

Source: own study based on the VOSviewer version 1.6.19.

According to the results presented in Figure 3, before 2016, publications focused on community engagement in public policies, the mechanisms used to do so, and online deliberative consultations dominated. Around 2018, public consultations researchers focused mainly on deliberative and participatory democracy and Douglassian cultural theory, and after 2020 on stakeholders and interest groups, participatory public policy making, accountability and authoritative deliberation. Recent years have seen abundant research on the use of technology in the conduct of public consultation. Complementing the above analyses is an exploration of the thematic map presented in Figure 4, which was prepared using Bibliometrix software.

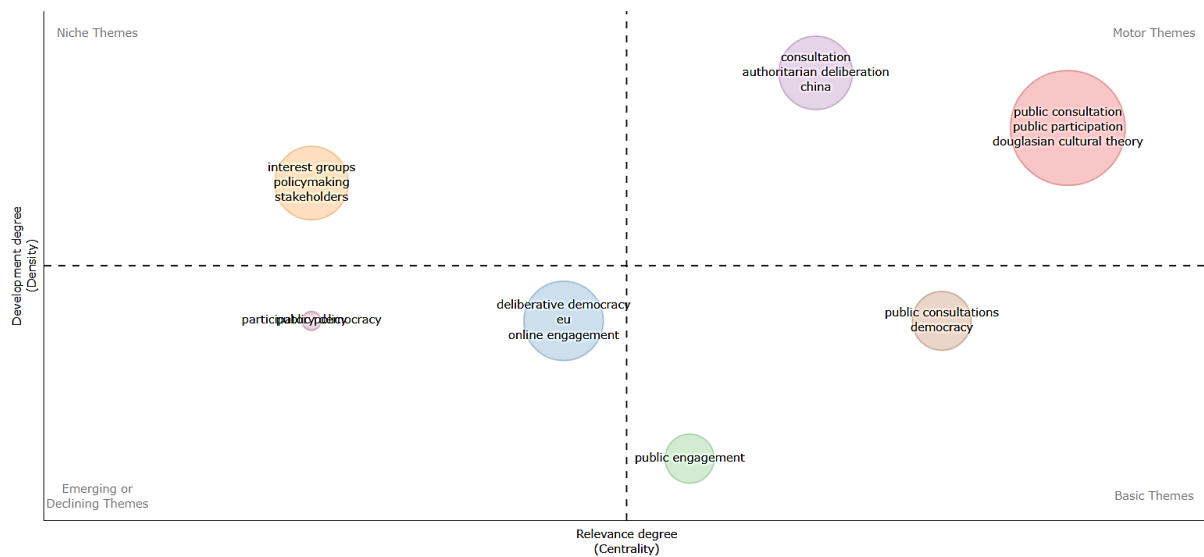


Figure 4. Public consultations as a research subject - thematic map of the themes addressed.

Source: own study based on the Bibliometrix.

An analysis of the thematic map indicates that the general themes of public consultation, democracy and public engagement are core, well-established research themes. The driving themes are authoritative deliberation, public participation and Douglassian cultural theory. These themes are prominent and developing in public consultation research. In contrast, themes with low recent development and relevance are participatory and deliberative democracy and online public involvement in public service delivery. Interest groups and stakeholders, on the other hand, have received a lot of attention in recent research, which is in line with the results of the analyses presented in Figures 2 and 3.

5. Discussion and conclusions

The objective of this paper was to identify research directions on public consultations to date and to identify potential thematic groups around which future research on these issues will evolve. The main findings, answering the research questions posed in the introduction, indicate that:

- issues related to the conduct of public consultations have not been sufficiently researched in the public governance sciences and there is a need for continued research in this area. A significant increase in interest in this topic is observed in 2021-2022, when the rate for the number of such publications exceeded the 10% level;
- there are four thematic clusters, grouping together the undertaken research problems of public consultations in public governance. Three of them showed strong links with each other. The first is made up of issues that are directly related to public consultations including, but not limited to, public participation in the implementation of public

policies. The second cluster is areas related to deliberation. The third is on how to involve and engage communities in the formulation of public policies. A more loosely related and niche cluster is the fourth group of issues concerning interest groups as actors in public policy making. New issue threads related to the development of modern technologies such as gamification and artificial intelligence have also started to emerge in the network;

- added value of this paper is the mapping of thematic groups that are driving forces for further research on public consultations and niche topics hitherto insufficiently explored and with the potential to be developed in further research. The group of driving themes includes issues related to public participation in terms of cultural risk theory and public participation in Chinese authoritative deliberation. Niche themes, which have begun to receive attention since 2020, focus on issues related to stakeholders and interest groups in participatory public policy-making;
- in the theoretical implications presented, it has been identified that the development of this research issue in established Western democracies has been developed globally since the 1970s, while in Poland it only became possible after 1989 and was linked to the systemic transformation and the restoration of real political subjectivity to citizens. Just as new paradigms of public governance have developed in relation to changes in consumer behaviour, so has the evolution of the role of the citizen in these concepts, who may move from the role of a petitioner, customer and stakeholder to prosumer;
- importance of public consultations as a tool for shaping public policies is noted and emphasised in theoretical considerations, while the observation of the practice of its conduct using current methods is characterised by low quality in the process of co-creation of public value.

The findings presented serve aggregating and informative functions, which are supported by bibliometric studies and their visualisations. The findings can provide an element of justification in the design of future research on public consultations on public governance grounds by considering the existing body of research.

The topics presented also have the potential to be developed in the future. Further bibliometric research can be updated on a regular basis to keep up to date with the direction of research related to public participation in public policymaking. This, in turn, will make it possible to observe the dynamics of change and to conduct comparative analyses that can be used to identify research gaps that still exist and groups of issues that already have an established theoretical basis.

A certain limitation encountered by the author team concerned the broad selection of keywords, which affected the precision of the designation of a given publication. This can be seen in the difference between the number of records generated in the first stage of the work (944) and the number of publications corresponding to the area of public governance (214), and the number of publications to which the research material was eventually narrowed down

(47), as only one in five publications met the basic criterion of public consultations being one of their leading themes.

This observation could contribute to further discussion on how to increase the accuracy of keyword selection while maintaining freedom of choice to maintain the highest precision of indications during bibliometric research, which would be reflected in the accuracy of thematic mappings. One suggested solution could be a percentage estimate of the thematic content of the publication and an estimate of the ranges that would allow a phrase to be included or not indicated. It seems that this could be of great importance at a time of increasing digitisation of source materials and an increase in the parameters of search engines, which could increase the effectiveness of the source research carried out.

Another limitation observed is in the terminology used, which affects the precise identification of the overall research material. This relates to the described fact that different terms are used interchangeably in Polish statutes to describe the consultations process - in one, the phrase 'consultation' is used explicitly, while in others it is used to describe 'consultation/formulation of opinion' or 'proceedings involving public participation'. Furthermore, through non-statutory interpretations, a new category of division is introduced. The advisability is also debatable because if, in principle, consultations are intended to have a universality function, it does not require an additional category to oblige the entity managing the consultations to include other social partners who are not explicitly mentioned in the specific laws.

The results presented may also have important implications for the practice of public governance and the conduct of public consultation. This is because the analysis shows that after 2018, consultations issues are analysed in the context of deliberation (also in the dimension of Chinese authoritarianism), cultural theory of criticism and, from 2020, interest groups. These findings may influence the development of work aimed at modernising the tools used to conduct public consultations in Poland to increase their effectiveness. At this point, it is worth noting that in Poland the deliberative survey has been conducted only once, in 2009 in Poznań. The subject of this survey was issues related to the development of the stadium, which was being built for the Euro 2012 tournament. More frequently used deliberative tools are citizen panels, which have been conducted several times so far, e.g. in Gdańsk, Wrocław, Lublin, Łódź and Kraków (Rykała-Podgórska, 2020).

Research problems directly related to public consultations in public governance require further development, as their subject matter is still under-researched. Their further development could be guided by the thematic map shown in Fig. 4, which would allow for the introduction of up-to-date research. When undertaking this work on the Polish ground, it would be necessary to engage in activities related to the identification of factors and conditions that could positively influence the improvement of the quality of public consultations, since - as was discussed in more detail in the main part of the paper - despite the fact that no formal shortcomings can be alleged, the report of the Supreme Chamber of Control shows that out of the seven principles

of public consultations, only one, the principle of universality, is met. Methodologically, this research could be developed using qualitative research (e.g. interviews with experts, case studies, experimental techniques, etc.), which could be used to develop, among other things, a set of good practices.

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EXPLORING TRANSFORMATIONAL CUSTOMER EXPERIENCE IN DIGITAL BANKING: AN EXPLORATORY STUDY

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Introduction/background: The increase in digital banking in Nigeria has made it easy for customers to experience self-service. The shift towards digital banking means that banks marketing systems will change, which makes it important for banks to understand the service quality dimensions of digital banking on customer experience. The following study was conducted as a qualitative case study to provide a grounded and more versatile understanding of the context-based phenomenon of customer experience of digital banking using three generations of customers.

Aim of the paper: This study aims to explore customer digital banking experiences in terms of advancements, transformational journey of digital banking and challenges for customers.

Materials and methods: A semi-structured interviews conducted from 25 digital banking customers from Nigeria about their experiences with digital banking. The interviews were thematically analyzed to produce themes around customer experiences.

Results and conclusions: The findings of this study revealed customer digital banking experiences, the advancements through digital banking (convenient, comfort, paperless economy), digital banking transformational experiences (delightful, modern, transparent, reliable), and challenges (network infrastructure, electric power supply). The study contributes to bank marketing research in terms of customer experience in digital banking service. It explores the experiences of customer digital banking service which is important for banking marketing and theory advancements.

Keywords: customer experience, digital banking industry, digital banking experience, customer service, digital banking.

1. Introduction

While technological advancement in the banking organization has an important effect on bank marketing efforts (Dootson et al., 2016), digital banking can affect customer connection. Digital banking through smartphones, mobile devices and internet connections has become a beneficial way to deliver several services to customers, which are gradually rubbing off on the traditional banking methods (Cortinas et al., 2010). Digital banking enables the banks to promote online services for customer convenience and to eliminate the cost of the personal transaction between employees and customers in different subsidiary branches (Dootson et al., 2016).

Moreover, the increase in digital banking in Nigeria has made it easy for customers to experience self-service. The shift towards digital banking means that banks marketing systems will change, which makes it important for banks to understand the service quality dimensions of digital banking on customer experience. Past studies focus on service quality and relationship among satisfaction, loyalty and performance of banks (Keisidou et al., 2013) and customer experience (Klaus, Maklan, 2013) while some research gives little attention to customer experience on performance of banks.

Current research has investigated the quality of mobile banking on the satisfaction of customers (Saleem et al., 2016; Amin, 2016), however, digital banking has not yet been treated in terms of viewing the customer experience journey. Piyathasanan et al. (2015) studied the effect of online experience on the perception of customers. In the research, he argued that there are few guidelines on how to improve the digital experience of the customer. Alalwan et al. (2016) researched perceived usefulness, trust and self-efficacy as a variable of customers' use of telebanking in Jordan banks. Telephone, internet services, and mobile devices are major channels of digital banking.

Some researchers argue that online banking services can promote positive customer service, which will lead to customer retention (Martins et al., 2014). Amin (2016) and Raza (2015) studied electronic banking service quality and its effect on customer loyalty while Jun and Palacios (2016) carried out a study on mobile banking service quality. These studies certainly offer benefits in their context, however, an exploratory study is required to understand the customer experience journey of digital banking services in Nigeria.

Despite the benefit of digital banking, it is still in its early adoption stage. Most of the digital banking studies are quantitative and focuses on the acceptance of these digital services. In order to gain an in-depth understanding and experience of this study, the study aims to answer the research questions:

How customer digital banking experiences are emerging by advancements and transformational journey of digital banking along with challenges?

A qualitative case study will be conducted, which is phenomenological. In line with this, empirical data will be collected using a theme interview method that provides a compound understanding of the experiences of three different generations of customers, which is more versatile compared to other quantitative studies on digital banking.

The main contribution of this study relates to a comprehensive understanding of the adoption of digital banking in Nigeria. It, therefore, contributes to research on digital banking and extends previous research of customer experience on digital banking. The objective of the study is to 1) explore the adoption of digital banking services through three generations in Nigeria; 2) find the most prominent factor influencing their experience of digital banking and 3) discover the challenges and solutions of digital banking services in Nigeria.

This study continues with a literature review, followed by the research methodology, while empirically, the experiences of the users of digital banking are analyzed. Finally, the conclusion will provide answers to the research question, and the next is the theoretical implication followed by the managerial implications, which provide suggestions for future research and gives the limitation of the study.

2. Literature review

Digital banking and its development in Nigeria

Sklyar et al. (2019) noted that the concept involves using a computerized method to provide an innovative way of creating value and generating revenue opportunities for the organization. While digital service is an intangible benefit that can be provided using an electronic or automated system (Gimpel et al., 2018). Digital banking in Nigeria is new and gradually becoming improved.

The banking industry in Nigeria is competitive in the local and international scale as it has enhanced its use of technology to serve customers outside the banking hall. Despite the advantages of these digital technologies to customers, the country is still faced with poor infrastructure. This problem has contributed to the high cost of living, especially in engaging in business activity. Lack of good infrastructure, especially in the digital aspect, can harm the adoption of digital banking services in Nigeria despite being in an era of computer-savvy customers.

Taura, Ede and Ogunniyi, (2019) argue that poor digital infrastructure will make it difficult for Nigerian customers to adopt digital banking services fully. It is noted that if needed attention is given to infrastructural development in Nigeria, it will help to improve the method of digital banking. Nigerians have shown their willingness to accept innovative ways of banking despite the problems that prevail in the continent.

Research has proven that there is a direct interaction or relationship between the online transaction and electronic trust in the banking organization. Most times, it involves the third party (Yap et al., 2010). For organizations to reduce the level of mistrust among Nigerians, the government has provided an agency for fighting crime in the country (Neegaard, Ulhoi, 2006). The economic and financial crime commission has helped to instill some level of trust in Nigerians when it comes to digital banking and has assisted in increasing participation in digital banking.

Therefore, banks must develop their digital service to improve the customer experience and become competitive (Gupta, Zeithaml, 2008). With more than 50 million people living in Nigeria, 60% of them use the internet (Taura et al., 2019), so investing in digital banking services is very vital, improvement of digital banking service would result in attracting numerous users or customers for the service.

Customer service experience

Customer experience is the topmost priority of every organization. The increased focus of customer service experience is prevalent in different organizations through social media platforms or channels that result in a more complicated customer journey. Organizations are now exposed to digital innovation, which has become the norm in our business environment (Verhoef et al., 2015).

The interactions between customers using social media platforms have created important challenges and benefits for the organization (Libai et al., 2010). With the social nature of customer experience, friends, family and relatives have greatly influenced customer experiences.

However, organizations have little control over the customer experience and customer journey, which led to the integration or combination of multiple functions, which include service businesses, financing, IT, supplying, personnel, marketing and manufacturing (Edelman, Singer, 2015). Marketing behaviour has shifted from traditional to digital ways of dealing with customers. This is where customer engagement plays a significant role in creating memorable service experiences (Verhoef et al., 2019).

Customers can play a role during service encounters to create a positive service experience (Dagger et al., 2007). This positive experience will, in turn, increase the profit of the organization (Fornell et al., 2006). The change of service system will also affect customer expectation of service delivered. This brings the research to create the customer experience. Customer experience is highly recognized as a success among service providers at different levels within the organization, which are strategic, tactical and operational level (Verhoef et al., 2009) the creation of service is a current phenomenon which outlines the significance of customer experience in all service organization. Some researchers have argued that customer experience is difficult to achieve and rare to attain (Jaakkola et al., 2015) because it is difficult to expect a higher level of cooperation from all departments in the organization.

3. Research methodology

The study was conducted as a qualitative case study to provide a grounded and more versatile understanding of the context-based phenomenon of customer experience of digital banking using three generations of customers in Bayelsa state, Nigeria. The study was done in an actual setting where digital banking services called UBA Master card and UBA online banking services were chosen as a good example of digital services that are provided by a Nigerian bank. The outcome of this digital customer experience will give a good representation of other digital banking services produced by other Nigerian banks.

The current study has the characteristics of a phenomenological research strategy, which entails the experiences of the customers who are studied. In this present study, the result that has been analyzed is a true understanding of the researcher and the subjects of the phenomenon (Helkkula et al., 2012). This case study is about the choice of the object studied. The object of this study is the UBA Master Card and UBA Internet and Online banking service, which are developed and produced by the United Bank of Africa. This represents an empirical example of the research phenomenon.

In general, the banking service in Nigeria is highly digital and accessible for its citizens. The UBA master card is a unique digital service that comes in a debit card where customers can store their balance, check account and transfer money locally or internationally to their loved ones while UBA online service is an application on the phone that aids customers to transfer money anywhere and anytime they feel the need to.

The interview method was used to collect data that provides in-depth information about the phenomenon. In this study, the targeted group of customers interviewed are active users of UBA digital banking services. In order to avoid bias in the interviews, different groups of respondents were included in the study. The total number of participants was 25. The subjects for the research were 20–50 years old and different professions and different gender, which shows that they have had different experiences from the adoption of digital banking since its inception in Nigeria.

Interviews were carried out in 2021 as semi-structured theme interviews, and the discussion carried a length between 18 and 25 mins. The authors conducted interviews face-to-face (25) on public premises. The interview themes covered broad themes, which include the background information of the participants and their general use of digital banking services as it relates to different phases of UBA digital services, which are their experiences, expectations of future use, and ideas and visions of digital banking development in Nigeria. The reason was to gather as exhaustive data as possible.

Table 1.
Sample profile

Variable	Characteristic	n	%
Gender	Male	12	48.0%
	Female	13	52.0%
Age	20-29	5	20.0%
	30-39	9	36.0%
	More than 40	11	44.0%
Employment	Public	11	44.0%
	Private	14	56.0%
Education	Diploma	10	40.0%
	Bachelor	6	24.0%
	Master	9	36.0%
Digital banking experience	2-3 years	8	32%
	3-4 years	6	24%
	5 years	11	44%

Note: N = 25, in-depth interviews with 20-25 minutes duration.

4. Research findings

Key findings of the current study based on five themes: customer's digital banking advantages, experiences, features, challenges and solutions. Furthermore, the authors have given a presentation of comparison amongst three different generations. The analysis provides the most common features that were highlighted and listed under the digital banking advancements, such as convenience (time saver), comfort (digital transaction ease), and digital cash (paperless economy).

This study carried out to explore the digital banking experiences of regular Nigerian customers in terms of digital banking advancements, transformational experiences, top features, top challenges and top solutions. The thematic analysis employed to understand different themes of customer overall digital banking experiences.

Digital banking advancements

Convenient (time saver)

With digital banking today, transactions are made at any time of the day and anywhere. You do not have to experience the face to face contact with the bank officers. At the convenience of your room, you can make your banking transaction. Through your android phone, you can make your transaction.

You have the convenience of making your transactions (Male, 50, Civil Servant).

It saves me time that I would have used for something else. I do not have to rush to the bank and go through some hopeless traffic (Female, 32, Lawyer).

It saves me time, money, energy (Female, 20, student).

Digital banking is much better than traditional banking because it makes banking easier, saves time and money (Male, 45, Lecturer).

By the use of the word convenience, it can be inferred from these respondents of a different generation that digital banking advancements have truly facilitated and reduced both the economic and psychological cost of modern banking about the traditional banking techniques. The respondent outlines the merits digital banking has over the traditional one along the three specific paths: (i). it saves times; (ii) the possibility of error-free digital banking transaction is extremely high; and (iii) it enjoys the merit of being processed or operated from any location: offices, homes and other controlled environments.

Comfort (digital transactional ease)

You do not need to go to the bank and queue. You can make your transaction and even call customer care to assess your money. Apart from accessing your account, you can also obtain a loan through digital means. Most medium scale enterprises have benefitted from digital banking. You can access a loan between 1 to 5 million nairas. This statement supports their claim of comfort in using digital banking services.

I sit at home on my couch and click on my mobile app, I can obtain a loan, and within 5 minutes, my transaction is complete (Male, 40, Medical doctor).

There is digital ease of transacting business at any time of the day, especially at weekends and after the physical bank closing hours (Female, 35, Security consultant).

It is more advantageous because it is very easy and it is not stressful (Female, 20, Student).

Paperless economy (digital cash)

In modern times, Nigerians are very fearful of carrying a huge amount of money around because of the risk of an armed robbery attack. Customers feel safer anywhere with the ease of transacting business by only carry the credit card. The respondents have expressed their advantages in digital banking applications. In the participant's view, the heavy use of digital banking applications has made economic transactions less and less cashless.

Paperless economy suggests economic, transactional efficiency, as customers' mobility without physical cash on them can still command a great volume of business transactions, speedy productivity and a recipe for checkmating crime and criminality in general and robbery in particular and give a feeling that it is greener or more sustainable approach to modern banking.

In the case of the robbery attack, I am well protected (Male, 50, Civil servant).

It is advantageous over traditional banking because you can move around without physical cash (Female, 32, Lawyer).

Before the advent of digital banking, I was a frivolous spender. Now with the use of my digital bank app, it has prevented me from spending unnecessarily (Male, 21, Student).

It is fast, reliable and convenient (Female, 40, Lecturer).

Digital banking transformational experiences

Delightful (sitting at touch)

The participant acknowledged that during relaxation, he could carry out his transaction, which can be an exciting experience for him. Considering the stress of going to the bank to fill a bank teller and waiting for the customer service officer to attend to customers can be very frustrating.

However, with the mobile bank app, transactions can be easily done faster. The invention of digital banking is revolutionary as we can now initiate economic or business transactions by merely operating his android, mobile phone from the comfort of our home. The statement, 'sitting at a touch' connotes simplicity and ease of carrying out financial transactions. This brings joy to the user and the economy at large.

You sit at the comfort of your home to carry out certain transactions (Male, 51, Accountant).

It is a thrilling experience for me. No stress at all when I want to pay my children's school fees (Female, 35, Teacher).

It is a wonderful experience for me to save better. Otherwise, if I had cash, I would have spent foolishly (Male, 50, Civil servant).

Modern (prestigious style)

The Generation Z respondents perceived digital banking users as occupying a class distinct from the general public. They consider it as something that satisfies their social status. Put differently, digital banking is a product for the rich. The participants learned that using a mobile phone in a transaction business can help to boost their self-esteem when they are around peers and family. The participants have also noticed respect and an association of high social class to be an exciting experience they enjoy as their adoption of digital banking services.

Digital banking considered as a prestigious or sophisticated lifestyle, more like a status symbol (Female, 25, Student).

Using my UBA mobile app makes customer in my town to respect because I do not have to give them cash. I just send money to them through my app (Male, 21, Student).

When I go to the store to shop for my toiletries, I get a pleasing look from customers that shows that I am modern and sophisticated when I do not have to pay in cash (Male, 20, Hairdresser).

Transparent (spontaneous verification)

The banking system all over the world is a global system. For example, Nigerian who travel abroad and need to transact business can easily verify their account information. Verification of account details is available anywhere around the world.

I have realized the benefit of using the UBA master card outside Nigeria (Male, 55, Medical Doctor).

You have the opportunity to verify the information you enter before you finally transact (Male, 50, Civil Servant).

Using my UBA Gold Master card had saved me when I was cash trapped in the UK. I was lucky to pay for my medical bills (Female, 38, Nurse).

When I travelled to the UK, I was able to check my account balance when someone from Nigeria made some payments to my account (Female, 35, security consultant).

I paid for my tuition and medical bills using the UBA Gold master card (Female, 32, Lawyer).

Reliable (privacy)

The respondents for the research acknowledge the reliability in the use of digital banking applications in terms of its speed and ease, and it is dependable at most times. This encapsulates the paperless advantages which can protect you from armed robbery attack. Safe, secured and dependable. The three-generation recognizes the benefit of adopting digital banking service.

It is faster, safer and more secured, it is reliable too (Male, 40, Medical doctor).

Digital banking top challenges

Network infrastructure (delayed communication)

However, a 35 old female security consultant, reveals that the network failure problem is a major challenge rocking the digital banking platform. From her choice of words: 'delayed communication' say much about the real and perceived problem likely to be encountered in the course of using digital banking applications. This may range from system downtime, sparely available infrastructures, poor policy based incentive programs in the organization, etcetera.

The challenges I know when it comes to digital banking is the network problem (Gen Y Female, 35, Security Consultant).

There are sometimes delayed transactions especially when I do a transfer, I get debited, and the receiver does not get the money (Male, 55, Broadcaster).

The network fails every time I am in a crowded area. It can be so annoying, and again it is also difficult to do a transfer most times in day time. I always have to wait at night to do it cos the network is not busy at that time (Male, 21, Barber).

Electric power supply (server disconnection)

The respondent, a 21-year-old, male student laments on the issue of server disconnect. Sadly, a country already grips in the epidemic of epileptic power supply poses a real threat to the digital banking organization. The server disconnect represents frequent failure associated with digital banking services. It reveals digital banking service dissatisfactions on the part of the customers who are almost always at the receiving end of the economy.

We need electricity all times to power server and mobile devices (Male, 21, Student).

I went to the bank to get a new debit card, and the bank had no power supply. I had to wait over 3 hours (Male, 34, Tailor).

The generator at the bank went off, and I was there waiting for hours. Then I realized the banking industry does not rely on the national grid for electricity. It is an appalling situation (Male, 55, Broadcaster).

5. Conclusions

The rapid advancement of digital banking has brought about significant changes in customer experiences within the banking sector. This qualitative case study conducted in Nigeria presents multifaceted dimensions of customer interaction with digital banking services across three distinct generations. The findings demonstrate the advantages, challenges, and transformative experiences of customers engaging with digital banking platforms.

The study reveals that digital banking offers unparalleled convenience, enabling customers to conduct transactions anytime and anywhere. This convenience not only saves time but also eliminates the need for face-to-face interactions, contributing to a more efficient and streamlined banking experience. Moreover, the transition to digital banking introduces a sense of modernity and prestige, especially among younger customers, who perceive it as a symbol of social status. The paperless economy aspect of digital banking emerges as a significant benefit, fostering a safer and more secure financial environment by reducing the need for carrying physical cash. This transition to digital transactions also has the potential to enhance economic efficiency and combat crime, presenting a pathway towards a more sustainable banking ecosystem.

However, the study highlights several challenges that hinder the seamless adoption of digital banking. Network infrastructure remains a critical concern, often leading to delayed communication and interrupted transactions. Furthermore, the frequent occurrence of power outages poses a significant barrier to the uninterrupted functioning of digital banking services. Addressing these challenges is crucial for enhancing the reliability and trustworthiness of digital banking in Nigeria.

The three-generation analysis underscores the importance of tailoring digital banking services to the specific needs and preferences of each group of people. While the benefits of digital banking are consistent across generations, certain experiences stand out for each group. Generation X values the convenience and time-saving advantages, Generation Y emphasizes the transparency and verification benefits, and Generation Z identifies with the modern and prestigious lifestyle associated with digital banking.

The results of this study hold important implications for banks and policymakers. To fully capitalize on the potential of digital banking, it is essential to invest in robust network infrastructure and stable power supply. Additionally, efforts should be directed towards enhancing customer education and awareness to foster greater adoption and utilization of digital banking services. By addressing these challenges and leveraging the identified advantages, banks can further enhance customer experiences and drive the continued evolution of the banking industry in Nigeria.

6. Discussion

This study aims at understanding the features, advantages, challenges and solutions of digital banking services among their different generations' in Nigeria. It has provided a deep understanding of digital experience in the largest African economy, Nigeria. Although there has been comprehensive research on customers digital banking experience in the global context (Mbama, Ezequo, 2018) yet the earlier studies did not adopt a qualitative study of three generations developing countries.

Therefore, the findings of the study contribute to research by filling this gap. The overall findings of the study indicate that customer groups from three different generations exhibit different experiences in their adoption of digital banking services. Although Nigeria is blessed with customers of different ethnic groups, they have established some positive and negative experiences.

The findings of the study have indicated that comfortability, convenience, ease of use, cost and time-saving advantages are similar among the three generations. Furthermore, the delightful experience is more prominent with generation X because of the convenience, reliable nature of transacting business in the comfort of the home (no stress), it is also a time and money saver.

Generation Y indicated that transparency is a unique experience for this generation because they tend to transact business outside the country and verify the openness of the transaction. They also engage in paying for their medical bills. While the generation Z emphasizes the experience of (Modern lifestyle) sophistication or an upgrade of social status when they engage in digital banking.

It is also discovered that that network infrastructure and epileptic power supply is a major challenge that affects the three generations. Despite the problems encountered with digital banking, the benefit of digital banking is highly important because of its convenience and time-saving method (Maduku, 2014). The customers revealed that the benefit of adoption outweighs its drawbacks.

Customers of online banking revealed some issues with infrastructural development in the country. If there is no good infrastructure, it will discourage customers from adopting online banking services. Poverty has affected the country's infrastructural services, mostly in the area of providing electricity, which can hinder the adoption of digital banking (Agwu, Carter, 2014).

Therefore, the three-generational cohort has advised that the Nigerian banks should do better by encouraging customers to adopt the digital banking service because the adoption of this service will assist the service providers on what needs to be tackled and improved upon. Another suggestion revealed that the internet connection or availability has to be improved because the speed of making a transaction complete depends on the speed of the internet service (Al-Somali et al., 2009).

For effective digital banking, these banks have to improve on their internet service and bank information security to win customers' trust. The issue of power supply in Nigeria has to be a problem even before the advent of the internet. While the solution to these challenges is to have a good or proper network infrastructure that would enable internet connectivity everywhere and any time of the day and a sustainable electric power supply. The three-generation expressed some similar concern with the problems relating to digital banking services in Nigeria.

7. Theoretical implications

The findings of this study have given some resemblance and divergent experience of three age generations in Nigeria. The study identified three major digital banking experience among the generation: delightful, modern, transparent. The transparent experience is recognized mostly in generation Y. At the same time, it was discovered that the Gen Z had notified some simplicity of transaction, time and cost-saving in terms of being prudent in spending having a sophisticated lifestyle that builds high self-esteem in the adoption of these digital banking services.

Based on the findings of the study, the authors gave a simplistic highlight on the challenges that affect the adoption of digital banking services in Nigeria, which has some similarities between the three generational cohorts. This study identified some solutions for the improvement of digital banking services in Nigeria among three generations.

These are the enhancement of network service and available power supply that would help to improve the adoption and encouragement of digital banking services in Nigeria. These solutions are similar amongst the three-generation.

8. Managerial implications

This study gives a brand new insight and increases the understanding of what a business should require based on the need of customers in each of the different generations. The bank Management should be strategic in its operations to create an outstanding experience for three generations of customers in Nigeria.

The findings of the study have uncovered some problems in adopting digital banking services from the bank manager's point of view. These are delayed communication, server disconnection due to epileptic power supply and lack of available internet services. However, the solution to these findings can provide some significance to bank managers and other financial players.

First, banks must work together with other stakeholders that are affected by this digital service to provide amenities to prevent or eliminate the issues of a failed transaction. In providing good electricity and stable network service, customers can engage themselves in improving the standard of living, for example, in the area of setting up a POS business within the community. This could reduce the crime rate from the youths and reduce internet banking frauds.

Second, since the banking organization is on the exclusive list of the Federal government of Nigeria, the national assembly should come up with a strong policy to regulate the failure of digital banking by imposing some fines on banks that have failed in this area. By so doing, most banks will live up to expectations through the central bank.

These research findings also provide banks with a transparent view of customer's experience in terms of their advantages, benefits, challenges and solutions in adopting digital banking services. This is an opportunity for marketing and managing digital banking services on three different generations.

9. Limitations and future research recommendations

Firstly, this research addresses the digital banking of customer experience among (3) three different generations using phenomenology study from a developing country in West Africa, Nigeria. Future research can investigate customer experience in other developing countries and

compare them. Hassan and Wood (2020) indicated that the perception of digital banking customers could be affected by their culture.

Secondly, the respondents in their study only include active users of digital banking services. Therefore, it would be interesting to include non-users as the subject of the study. Even there may be significant differences among non-users. Thirdly, the current study can also explore only non-users.

Furthermore, the engagement of the non-users of digital banking is an emerging area of interest in developed countries (Komukunenit et al., 2019). Another point here is that this study used a qualitative approach to build a theoretical foundation around digital banking in a developing country.

While it would be have great value to adopt the quantitative approach for future research, this study used a sizeable number of customers in Bayelsa state, Nigeria. It cannot be a representative of the entire customers of digital banking services in Nigeria. However, it would be more interesting to carry out a study in every other state in Nigeria to have a complete view of customer digital banking experiences.

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PROJECT MANAGER DEVELOPMENT PATHS

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Introduction/background: Project managers have a significant responsibility both for the content of the project and for the personnel they manage. However, not everyone can become a Project Manager, because in addition to the knowledge gained through numerous courses and trainings, this person should have appropriate competences that cannot be acquired solely through learning.

Aim of the paper: The aim of the study was to examine the development paths of the project manager and make an attempt to determine the most effective way to acquire competences in the field of project management.

Materials and methods: The research was carried out in the following steps: an analysis of the literature was performed in the field of project managers' competences, their scope, significance and possibilities of confirmation, e.g. through certification. Afterwards, a survey was conducted among a group of professional project managers.

Results and conclusions: The result of the work is an indication of which education paths related to the project management process are useful and enable the preparation of people to become project managers.

Keywords: Project Manager, competences, development paths.

1. Introduction

The project manager (PM, Project Manager - PM) plays a very important role in the implementation and management of the project, and is described—in many publications as a leader, director, manager or leader. His decisions affect the entire process of preparing and running the project, until the final settlement.

Therefore, they have a responsibility not only for the project's success but also for the individuals affected by their decisions. For this reason, PM should have the expertise, experience and appropriate competences needed to manage the project and the people.

There are many paths for the professional development of a project manager. These include: completion of studies in project management, completion of studies not related to project management, supplementing the knowledge with postgraduate studies, completion of numerous courses and trainings, as well as licenses and certifications in the field of project management. In addition to the expertise acquired at various levels of education, professional experience is an integral part of the project manager's work. In this case, there are also several possibilities: starting from student internships through gaining experience in lower positions (e.g. a member of a project team) to gaining experience in jobs connected with the profession. Therefore, there is no single path to acquire knowledge and experience of project managers. In this work, the authors aim to examine the development paths of the project manager and attempt to determine the most effective way to acquire competences in the field of project management.

2. Literature review

3. Project manager – characteristics of the profession

A project is an organization established for a specific period of time with the task of creating predetermined and unique results, at a specific time, and using pre-established resources. For such an action, a person is necessary to carry it out from beginning to end. This individual is commonly referred to as a project manager, (Prince2, 2009, p. 7).

A general definition of a project manager can be found, for example, in PMBOOK - "... is the person assigned by the project organisation to lead the team responsible for achieving the project objectives" (PMBOOK..., 2017). According to Sułkowski (2011, p. 189), leadership play a significant role in the theory and practice of management. These concepts concern the issue of shaping, but also affect the vision of the development of the entire organization or group (managing people). According to the author, management in the area of management refers to the formal and informal coordination of activities of a group of employees. Its tasks serve the implementation of organizational goals. The manager's group responsible for organizational issues should have a formalized structure. The key tasks of the manager include: controlling employees, motivating them, solving problems, as well as facilitating communication between employees and the environment. The relationship is of a manager-employee nature. Involvement in the relationship between the manager and employees can take many forms – from lack of commitment to full, strong emotional involvement. To sum up, a manager is a person who has responsibility for a task or human resources. In order to achieve the intended goal, the manager must demonstrate competence and exceptional skills. The basis for the success of each task, including the project, is the cooperation between the manager and members of the project team (Słownik on-line).

Table 1.

Stages of development of project management over the years

Stages of project management development	Characteristics of the role of the project manager	Criteria for selecting a project manager
Traditional Project Management Period (1960-1985)	- full responsibility for the project, related to the expertise (substantive, technical), i.e. precisely in the field of the project, -role similar to that of a line manager, - formal rights resulting from the job description, - no influence on the assessment of team members.	high level of expertise
Transitional period (1986-1993)	- lack or full responsibility for the project, - independent selection of project team members responsible for individual substantive areas of the project, - informal influence on the assessment of team members.	membership in the management staff (being a functional manager)
The period of modern project management (1994 -)	- project manager in the role of integrator of resources, knowledge and processes, - formal influence on the evaluation of project team members together with line managers.	high level of not only substantive knowledge, but also soft skills.

Source: Piwowski-Sulej, 2013, p. 82.

According to the information provided in Table 1, the tasks and criteria for selecting the project manager have changed over the years. For many years, the project manager was not assigned so many roles, which made this profession underestimated.

Currently, PM acts as an integrator of knowledge resources and processes of a given project. They have a formal influence on the assessment of project team members. In cases where there is more than one project manager – the responsibility is distributed among all PMs. The selection of project managers now depends on such criteria as: the level of substantive knowledge and a high level of soft skills. The project manager plays the most crucial role in the project management team, as they are not only responsible for the course and implementation of individual project activities, but also coordinate, check and evaluate the work of people in lower, subordinate positions. Below is an illustration depicting various levels of management in the project team (Piwowski-Sulej, 2013, p. 82).

Minzberg (2004, p. 197) in his scientific research studied the work of a Project Manager in various organizations. According to the author, the project manager has a threefold role in the project, namely:

- 1) Interpersonal – called interchangeably, it has a representative function. PM's tasks include greeting guests, participating in ceremonies and meetings, representing the organization, giving speeches or interviews, etc.
- 2) Information – collects and disseminates information. Monitors and evaluates the behavior and work of team members, provides information about the project to external parties.
- 3) Decision-making – their task is to improve the project, counteract disruptions in the implementation of projects, distribute resources, assign tasks in the team and negotiate with other project partners.

The project manager carries a tremendous responsibility due to their position and the tasks assigned to them. The scope of PM's work includes (Wachowiak et al., 2004, p. 20):

- analysis of the project environment,
- division of tasks between employees of the project team,
- selection of team members – recruitment for positions,
- improving team members by organizing courses and trainings,
- organization of work in a team,
- integrating the team,
- taking care of positive communication in the team,
- sharing knowledge and experience,
- making decisions important for the project and the team,
- application of the incentive system for the team,
- evaluating team members,
- conflict resolution.

To sum up, a project manager is a person who plays the most important role in coordinating the entire project, starting from the selection of employees and assigning their roles to the final settlement of the project. PM has a huge responsibility associated with a large number of tasks and works. Therefore, the project manager acts as a supervisor between the project management team, contractors and people affected by the project.

4. Qualifications and competences of the project manager in the context of IPMA, PMI and PRINCE2 certification.

To achieve success, a project manager should have: knowledge, experience and skills. Spalek (2012, p. 12) believes that the choice of PM in the context of his knowledge and competences has the greatest impact on the development of the project. More broadly, a project manager – according to the author – is a person who not only has knowledge and competences, but above all, is able to use them both in terms of project management and in contacts with colleagues, subordinates, partners and clients of the project.

Initially, it is worth focusing on competences, i.e. the range of attitudes and skills that PM should manifest. There are many divisions and guidelines for the competence of the project manager. In their publication, Trocki and Grucza (2007) pointed out that the project manager should be a very competent person who can manage a group, therefore the PM should have the following qualities:

- the ability to encourage colleagues to act,
- firmness,

- assertiveness,
- ability to cope with stressful situations and work under pressure,
- ability to plan and manage time,
- entrepreneurship,
- interpersonal skills.

Kandfer (2012, pp. 69-70) highlights another, in her opinion, very important skill of a project manager, which directly affects the success or failure of the project, namely – communication management. According to the author, communication management includes "the *processes* required to ensure the timely and correct development, collection, distribution, storage, retrieval of project information and its final disposal".

In turn, the article by Musioł-Urbańczyk (2010, pp. 96-97) shows an attempt to analyze models of effective competences for managers and project managers. The author has developed a list of 46 competences, which have been divided into four groups: professional competences, social competences, personal competences, and business competences. The analysis carried out by the author of the research shows that the key competences of the project manager that affect the effectiveness of activities are: communication skills, decision-making skills, leadership, ability to motivate team members, team building skills, ability to manage communication in the project, teamwork, negotiation skills, loyalty and flexibility. According to the author, social competences are of the greatest importance for the project.

In addition to scientific papers and other publications describing project manager competences, internationally recognized solutions have been developed and are being applied in practice, such as Project Excellence Baseline 4.0. developed by the International Project Management Association (IPMA, 2015), which describe such elements as: contextual competences, people and practice. Every project manager should have these competences. According to IPMA, PM's competences involve the application of knowledge, skills and abilities in order to achieve the desired result of the project. The new competency model introduced by IPMA assigns appropriate knowledge and skills to each of the above-mentioned elements of competence. To assess the level of competence according to IPMA, a model of Key Competence Indicators has been constructed. The obtained indicators are a key element in the PM certification program (Marek-Kołodziej et al., 2018, p. 264).

The first element of the project manager's competence, according to the IPMA assumptions, is human competence. This includes the general personal and social predispositions of PM needed for the implementation of the project. Human competence contains ten components, which include: self-reflection and self-management, internal cohesion and reliability, interpersonal communication, relationships and commitment, leadership, teamwork, conflicts and crises, entrepreneurship and creativity, negotiation, as well as result orientation.

The second group of components falling within the competence of the PM according to IPMA are perspectives. They concern the knowledge of the project manager about the methods, tools and techniques that PM should have in order to operate effectively (Załoga, 2013).

The last (third) component of PM's competence under IPMA certification is practical competence, i.e. the application of knowledge and skills in the field of project planning and implementation. IPMA has distinguished thirteen components, which include: project definition, requirements, objectives and benefits, scope, project time management, project organization and communication, quality, finance, resources, procurement, planning and control, risk, stakeholders, change and transformation (IPMA, 2015).

All three components of the project manager's competences are included in the key competence indicators, forming the foundation of IPMA certification. It is also worth mentioning that IPMA also introduced the concept of the eye of project manager's competence, which includes three parts: behavioral competence, technical competence and contextual competence, all of which encompass elements of project management. The figure below presents in detail the elements included in the competence of the project manager according to IPMA (Biskupek, Spalek, 2016).

Table 2.
Competences of the project manager according to IPMA

Behavioral competences	Technical competences	Contextual competences
Leadership	Stakeholders	Project orientation
Commitment and Motivation	Risk	Finance
Self-control	Quality	Program orientation
Assertiveness	Resources	Portfolio orientation
Openness	Control and reporting	Permanent organizational structures
Creativity	Communication	Human resource management
Result orientation	Recognition changes	Business

Source: Biskupek, Spalek, 2016, pp. 18-19.

Another way to confirm the competence in the field of project management is to obtain the PRINCE2 certificate (Projects in Controlled Environment). It is a development of the PROMPT (Project Resource Organisation Management Planning Technique) project management methodology based on the structural approach, developed in the mid-70s. PRINCE2 contains a set of methods and criteria divided into stages that allow effective management of resources and regular monitoring of project phases, which is important because it fully describes the roles that are necessary for project management; describes the responsibilities of individual people involved in the project, and their decision-making and executive responsibility. In PRINCE2, a project manager is defined as someone authorized to lead a project on behalf of the Steering Committee. The PM's primary responsibility is to ensure that the project is implemented within certain criteria: time, costs, quality, scope, risk and benefits (Bukowski, 2008, p. 24).

To fulfill those requirements, the project manager should have competences, which PRINCE 2 methodology includes: planning, time management, personnel management, problem solving, meticulousness, communication, negotiation, conflict management (Wodecka-Hyjek, 2010).

Another certification path is described by the methodology developed by the Project Management Institute (PMI). PMI's "Project Management Body of Knowledge" (PMBOK, 2019) book devotes an entire chapter to the role of a project manager. PMI describes the canon of knowledge about project management. It contains proven and generally used, traditional, but also innovative practices in the field of project management. PMI is a system of practices, procedures, methods and principles used by people within one task. PMI's project manager's competence is illustrated in the talent triangle. It focuses on three core sets of competences, which include:

- technical project management,
- leadership,
- with strategic and business management.

Technical skills play an important role in project management, but are currently insufficient in a complex and competitive market. Therefore, the project manager must operate with technical, leadership and strategic competences in order to fully manage the project accurately.

5. Professional experience of the project manager

Work experience is one of the two most important aspects that employers take into account when selecting a candidate for a given position. According to scientific research conducted by Dawid-Sawicka et al. (2022), more than two-thirds of all employers (68%) take into account the length of seniority.

Oleksyn (2006) directly links professional experience with the skills that a project manager should have. According to the author, the greater PM's experience, the greater their skills. An important mention is the fact that the author believes that professional experience is not a result proportional to the years worked in one place of employment. Oleksyn claims that "twenty years of experience in the same position *is a two-year experience, repeated ten times, or a four-year experience repeated five times, because work in the same position lasting more than four or five years usually does not significantly enrich the experience*" (Oleksyn, 2006, p. 56).

Walkowiak (2004) claims that professional experience is gained both through practice and through training and observation. In addition, the author constructed a model of competence formation through experience, which shows that initial competences should be at a higher level due to the improvement of input competences in the work process. Process continuity is possible through feedback and subsequent modifications of output competences.

In turn, Hofman (2012, p. 96) analyzed the labor market in terms of advertisements (job offers) for the position of PM, project manager and project manager from various industries. Analysis of the research results allowed the author to determine what are the required

competences, qualifications and skills of PM from future candidates. Out of 100 job offers for project manager posted on the portal: 44 ads concerned the IT industry, 20 – services, 14 – production, 11 – construction, 5 – telecommunications, 3 – banking, 2 – energy, 1 – education. This means that PM should have not only experience and knowledge in the field of project implementation but also broad general knowledge of the functioning of many industries in which projects are implemented. It is also associated with general flexibility and willingness to constantly improve.

6. Recommendations for improving the competences and qualifications of the project manager in the light of the subject's literature

The workshop at the disposal of PM is very important for the functioning of the project and its results. The competences and qualifications of PM should be constantly improved and developed. Project management is a scientific field that follows innovations, looking ever newer solutions.

Improving the competences of the project manager should include:

- identifying PM competences,
- defining the model of competences,
- examination of the current level of competence,
- identifying competence gaps,
- improving competences,
- monitoring and control.

The method of improving competences can be carried out using and applying various methods and techniques. It can take place in a formal way – e.g. by participating in a professional training or in an informal way – by exchanging experiences in project work. Sitko-Lutek (2004, p. 132) conducted scientific research, which shows that PMs prefer active methods of improving their competences. Theoretical, short, external, one-off and non-independent forms of improvement prevail.

In order to improve key competences, competence gaps should be verified – i.e. those behaviors and areas where a project manager exhibits the least proficiency. The project manager should therefore analyze their behavior and then take actions that will aim at self-improvement.

To sum up, the project manager has one of the most important roles, because he has a huge responsibility for the proper implementation of the project. Currently, PMs from many industries are sought on the labor market, and the key attribute needed for employment is experience. The project manager gains experience not only during his professional work, but also by improving his key skills. When participating in various forms of professional development, it is important to gain knowledge about the individual way of learning – this will

then enable faster acquisition of knowledge that will be accumulated in a sustainable way. The project manager is obliged to continuously educate themselves in the field of their competence gaps. Thanks to this, their place on the labor market will be secure, and the projects they implement will have a greater chance of success.

7. How the tests were carried out

The aim of the study was to investigate and determine the development paths of project managers. The following questions were asked in a survey:

1. What competences were emphasized during the acquisition of knowledge (education, courses, training)?
2. What was the impact of additional education activities on existing skills?
3. What are the possible further proposals for the development of competences in the field of project management by PM?
4. What is the impact of education on the scale of the managed project in terms of both the budget and the scale of people who are dependent on the decision of the PM?

In the conducted research, the method of diagnostic survey carried out by means of a questionnaire was used. An original questionnaire of the survey was developed, containing the imprint and three parts:

- Part 1. Current professional situation – comprised closed questions, the aim of which was to obtain the information from the respondents about their current education and current place of employment.
- Part 2. Professional career – included closed or conjunctive questions concerning PM's participation in courses, trainings, internships and additional activities expanding competences and qualifications.
- Part 3. Competences – contained open, closed and conjunctive questions regarding competences acquired in various ways. This section also included questions about further plans for the development of their qualifications.

The research was carried out in June 2022. The following research steps were carried out:

- sending out the surveys;
- explaining to the respondents how to complete the questionnaires;
- collecting completed surveys and their analysis.

The questionnaire was sent via a google form to 44 respondents, who were project managers working across Poland. In the further part of the publication, the results of the study are presented along with an attempt to interpret them.

8. Results obtained

The relevant survey received responses from 25 project managers ($n = 25$). 60% of respondents ($n = 15$) are men and the remaining 40% were women ($n = 10$).

The largest group of respondents were people aged 40-50, constituting 40% of the total group. 32% of PMs are people aged 25-30. 20% of respondents are between 30-40 years old. The smallest group of respondents (8%, $n = 2$) are people aged 50 and over. This means that respondents are expected to have professional experience that would allow them to obtain a reliable overview of the surveyed group.

Due to the small number of respondents, the following surveys should be treated as preliminary – verifying the research tool in terms of the possibility of obtaining results that could be considered reliable.

9. Education of project managers

The largest group of respondents are people with higher education of the second degree (completed master's studies) – 76% of respondents marked such an answer, 16% of people had first-cycle education (engineering or bachelor's degree), and 8% of people participating in the survey had a tertiary education. None of the respondents had a lower level of education.

On the other hand, in the answers to the question about the nature of their education, 28% of respondents indicated that they had completed engineering or bachelor's studies, not related to their current profession. 24% of respondents have completed engineering or high school studies related to their profession. 24% of respondents have a master's degree in a field related to their profession, while 20% of respondents have master's degrees not related to their current professional work. In addition, 20% of the surveyed people indicated that they had completed additional supplementary studies, e.g. postgraduate studies expanding knowledge and entitlements. A similar group of respondents are people with second-cycle studies related to their current profession, as well as those who have a master's degree not related to their current profession. The obtained data show that the completed field of study is not a determinant for taking up a job as a PM, however, it indicates a strong connection between the functions of a project manager who should have completed higher education, however, in many cases the field of study does not disqualify to take up a job as a PM (Fig. 1)¹.

¹ Let us remind you that none of the respondents declared education lower than first-cycle studies.

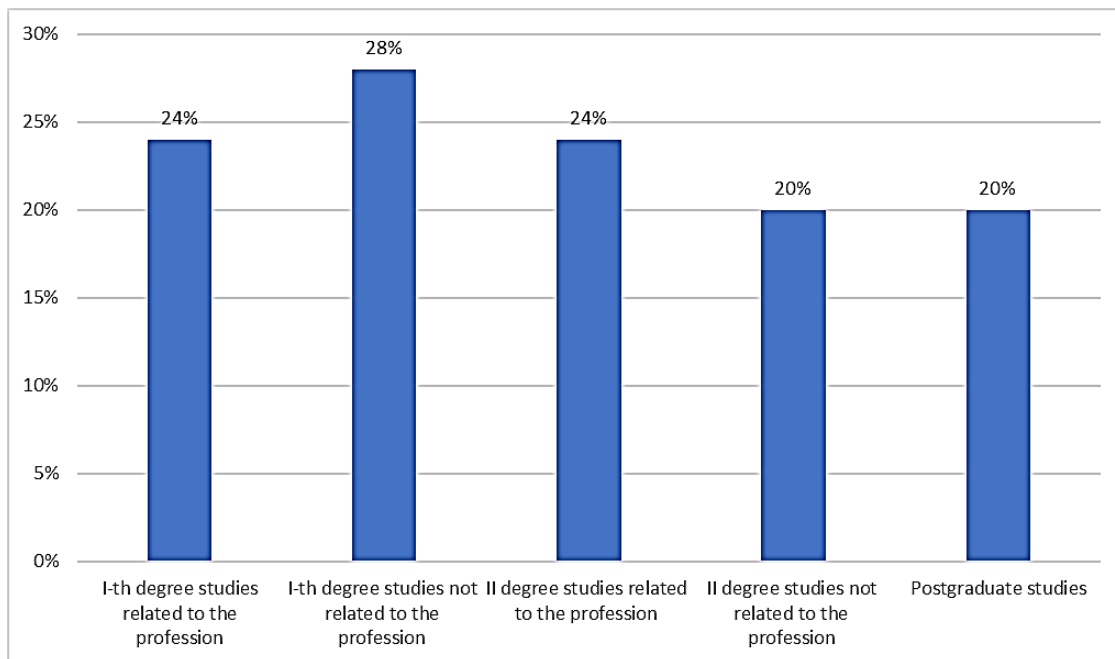


Figure 1. Education of PM's.

Source: own research.

It is possible thanks to specific subjects that direct knowledge and expand skills and competences. One of the questions in the questionnaire was the respondents' determination of the subjects that were carried out during their studies and the number of hours they dedicated to these classes. The respondents chose the following subjects and gave the number of their hours: project management, team management, team management. The respondents' answers were divided according to the number of declared hours of classes.

For the subject called "project management", 16% of respondents indicated that they did not have such a subject in their schedule during their studies. The largest group of respondents were people who carried out such classes in the amount between 20 – 40 hours. A large group of respondents were also people who carried out the subject of "project management" in the number of hours greater than 100. These answers accounted for as much as 24% of all acquisitions. From the obtained research results, it can be concluded that people who did not have a subject called "project management" are those respondents who have not completed any major studies related to their current profession. The remaining 84% participated in classes for at least 20 hours per semester. Consequently, it can be concluded that a very large group of respondents has knowledge in the field of project management gained during their studies. Fig. 2 presents the declared number of hours of classes in subjects related to project management in which respondents participated during their studies.

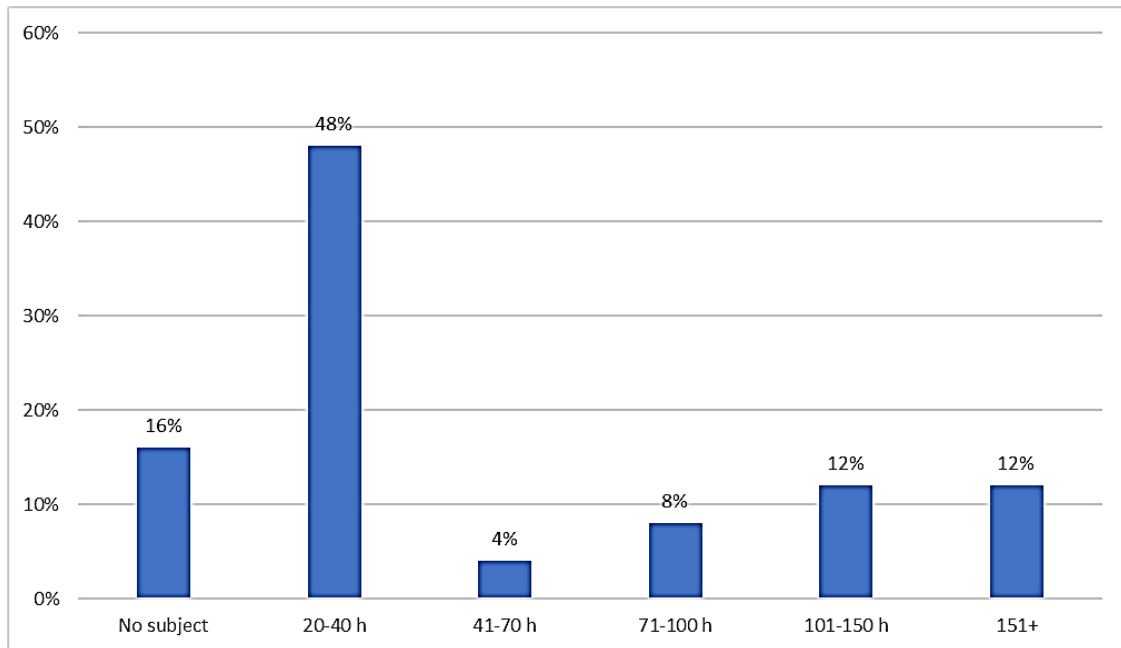


Figure 2. Number of hours of classes in subjects related to project management attended by respondents during their studies.

Source: own research.

The second subject that respondents were asked about was team management. The largest group of people were those who completed the subject in the number of hours between 71-100 (36% of respondents). A large group of people were also those who completed classes in the amount of 41-70 hours (16%) and 101-150 hours (16%). None of the respondents declared that they completed team management classes in more than 150 hours (Fig. 3). Based on the obtained research results, it can be concluded that a large group of surveyed project managers has basic knowledge of team management. Only 20% of the whole group did not study such a subject during their studies, presumably because their studies were unrelated to their current profession.

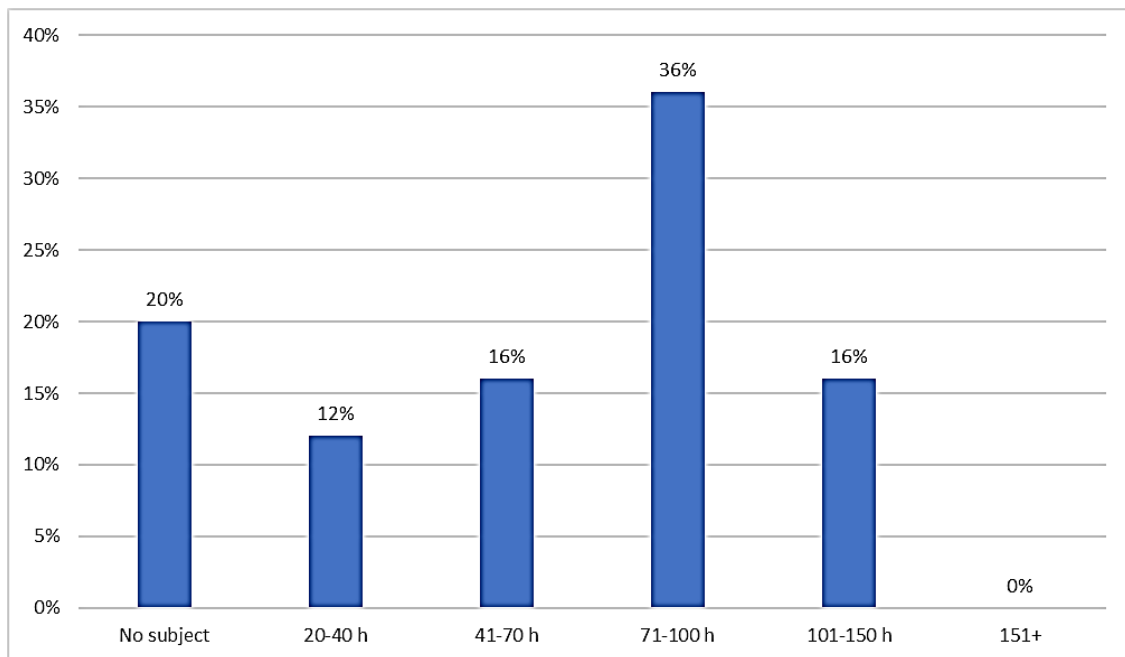


Figure 3. Declared number of study hours in the field of team management.

Source: own research.

An important element of education are student internships and other internships carried out during studies. They enable students to broaden their knowledge with practical skills and gain necessary contacts that will be useful in their further career. Respondents were asked whether they carried out student internships during their studies and how long they lasted. What may be surprising, the largest group of respondents, constituting as much as 68% of all answers, marked the answer that they did not carry out student internships during their studies. Only 32% of respondents declared to participate in their higher education in student internships, where the specialties of internships included industries such as administration, industry, enterprise and the banking sector. In addition, the number of hours of internship was asked. Most answers are within the range of 120 – 200 completed hours of internships (28% of respondents). The second-largest group of answers came from individuals who completed student internships in the number of 20 hours. Lack of internships or low number of hours of classes may in the future result in a lack of practical skills in the field of project management, as well as in the lack of ability to cooperate and co-create a project team.

In summary, the surveyed project managers usually hold at least a university degree, with many having completed engineering and bachelor's studies. A large group of respondents have a directional education related to their current profession – they constitute 48% of respondents. In addition, many respondents completed studies broadening qualifications – postgraduate, supplementary studies (20% of respondents). During their studies, most of the respondents carried out classes in the field of project management, team management or project management. Only 32% of respondents declared having practical knowledge gained during student internships!

10. Certifications, licenses and courses completed by project managers

Another way to acquire knowledge and skills in the field of the project manager profession is to participate in specialized courses that allow to obtain additional certifications or licenses. In many industry companies, having specific courses is a prerequisite for taking up a job. In the questionnaire, respondents were asked about the trainings, courses, licenses they have and whether they plan to continue the path of self-improvement.

Regarding additional certifications and licenses in the field of project management, the largest part of respondents marked Prince2 Foundation licenses, which is 44% of all answers. The second-largest group consisted of project managers with a completed risk management license (28% of respondents). IPMA Level C and Prince2 Practitioner certifications have 12% of all respondents. Two answers constituting 8% of all answers mentioned Prince2 Agile, PMI Project Management and SCRUM MASTER. It could be speculated (and this is a conscious speculation, not supported by the discussed research but practical observations) that the popularity of the Prince2 Foundation certification results from its contractual ease of obtaining - usually training with an exam lasts 3 days in comparison to the need to devote at least 8-100 hours in certification conducted by IPMA and PMI certification involves several hundred hours (about 200-300 – based on interviews with people who obtained it).

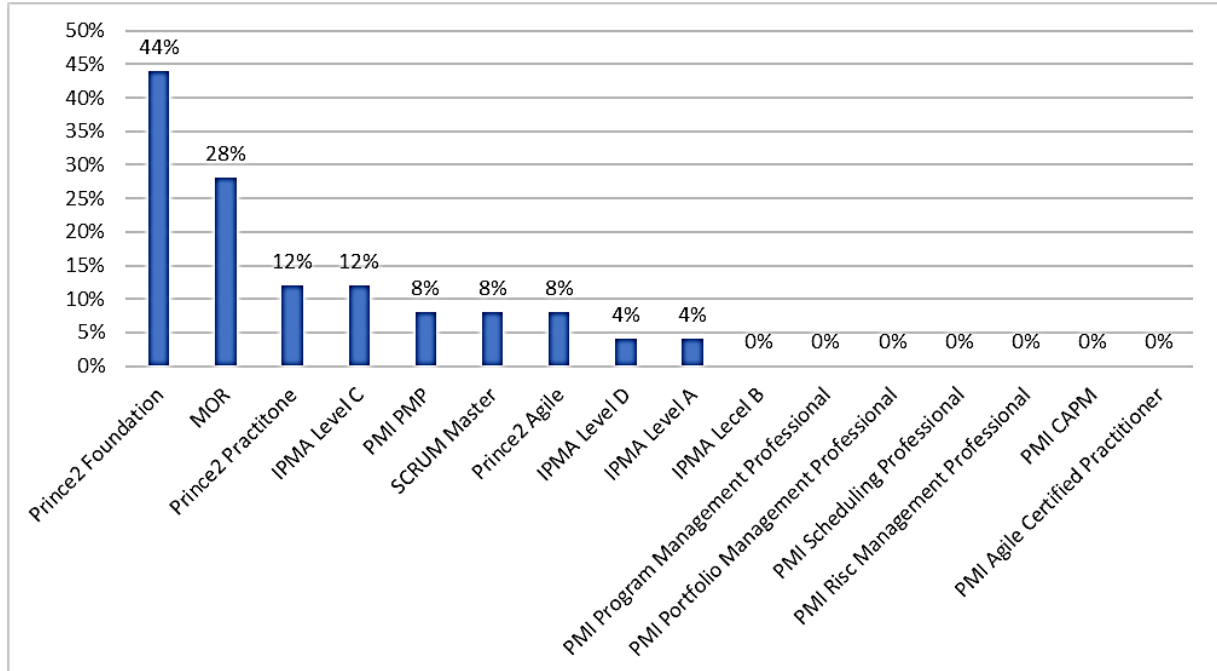


Figure 4. Popularity of certificates held among survey respondents.

Source: own research.

In addition to licenses and certification, there are a number of trainings on the market that expand PM's knowledge and skills. Such trainings and courses include: communication management in the project, coping with stress, change management, coaching. The respondents

were asked whether they had completed any additional training and courses in project management. It was a multiple choice question, however it gave respondents the opportunity to add courses and trainings to the list of courses and trainings mentioned by the author of the survey, others – additional. The largest group were respondents who do not have any additional courses and trainings, constituting 36% of the entire group. 28% of respondents are people who have completed training in the field of communication management in a team. 24% of respondents have a coaching diploma. 20% of all answers fall on the courses: coping with stress and change management. Some respondents took advantage of the opportunity to add their own, not listed courses and trainings, which include: motivation, various soft skills, IT, supervision, etc and First line manager, Risk Review Process, 7 Habits of highly important people.

The surveyed project managers were also asked whether they plan to further expand their qualifications with additional training and courses. A significantly larger group of respondents answered that they still expect self-improvement (60% of respondents), while 40% of respondents do not intend to further educate themselves.

Respondents who expressed their desire to expand their competences were asked to write in which courses and trainings they would like to participate. Such courses and trainings included: Prince2, communication management in the project, coping with stress, change management, risk management, certified project management training, continuation of "soft" training in communication, Professional Scrum Master certification, Prince2 Practitioner, business analysis, IPMA certificate, Risk, Scrum master, Prince, Scrum, Agile, MBA.

To sum up, project managers gain additional certifications and authorizations in the field of project management. The number of respondents affirming this was dominant in relation to the entire group of respondents. Coupled with their willingness to participate in subsequent trainings and courses, this indicates the need to supplement the basic knowledge acquired during the studies.

11. Proposals for paths for the development of competences in the field of project management

An important role in a professional self-development is to set one's own development paths. They are most often based on the observed needs, deficiencies or willingness to deepen knowledge in a given field. Development paths depend not only on understanding the possibilities of professional development but also on the time and financial abilities of the project manager.

Project managers participating in the study were asked to propose their own way of improving their competences in the field of project management. This question was an open-ended one, which means that respondents entered their own answers in the designated space.

The answers can be divided into several groups. The first one concerns precisely chosen development paths. Such answers include: "passing exams in the field of Prince2", "Dedicated studies in Project Management", "Completion of currently started postgraduate studies in the field of administration and management", "Enrolling in coaching training". These answers give information that the people writing them are oriented in the possibilities of development; they know their strengths and weaknesses enough to choose the courses, trainings or studies that might be useful in shaping or acquiring new competences. Moreover, the precise specification of the development path allows not only to set a real deadline for implementation (knowing how long a given course or studies will last), but also to determine the funds needed to implement it. Another group of answers were those related to the process of gaining experience. Such answers include: "Professional experience as a member of the project team, courses and training", "Experience. A project manager is a position for someone who has professional experience, i.e. has already experienced ups and downs and knows how to manage it. PM is not a profession immediately after graduation, due to its individual nature, a young man after graduation, should work in teams to gain experience", "Gaining two years of experience in the current company will allow me to start a further career path". This group of answers is characterized by the fact that it is time-oriented – people who set such a path know that its implementation is achievable by actively dedicating a significant amount of time to gaining experience within a particular organization or company. Most often, gaining professional experience is a free-of-charge path, and its results in most cases depend on the employee's commitment.

The third group of answers were those ones that require the involvement of another individual or a group of people. Such answers include: "cooperation with business or NGOs", "cooperation with experienced Project Directors, imitation and implementation of good practices", "getting to know the international culture of project management through contact with foreign students and completing an internship as part of student exchange – exchange of experiences". During this path, not only professional knowledge is developed, but above all the ability to work in a group, build a team or deal with conflict situations. This path exercises the so-called soft skills, and its implementation time is unspecified.

The last group of answers were those that were unspecified in time, place of implementation, costs, finances or exact development needs of the project manager. Such answers include: "Increasingly demanding projects, 100M€+ budgets", "training", "training to prepare for certification and taking up work in PMO", "practical approach to project management methodology", "active participation in ongoing projects, focus on action".

The essence of self-development lies in setting a clear goal and time for implementation. Only such a specific development path is possible to achieve and its effects are measurable. Perfunctory or imprecise answers of respondents in this group give information that the process of determining the development path has not been fully specified yet.

12. The impact of PM education on the size of the project managed

Respondents were asked how long they have been involved in the project management process. The largest group of respondents (34%) manages projects for up to two years. 28% of respondents have a very long work experience of 16 years or more. 24% indicated that they manage projects in the period of 6-10 years, 20% for answers 2-5 years and 4% for answers 11 – 15 years, a large group of people have work experience in the range of 16 years and more, which may mean that higher education of the second degree (Fig. 5).

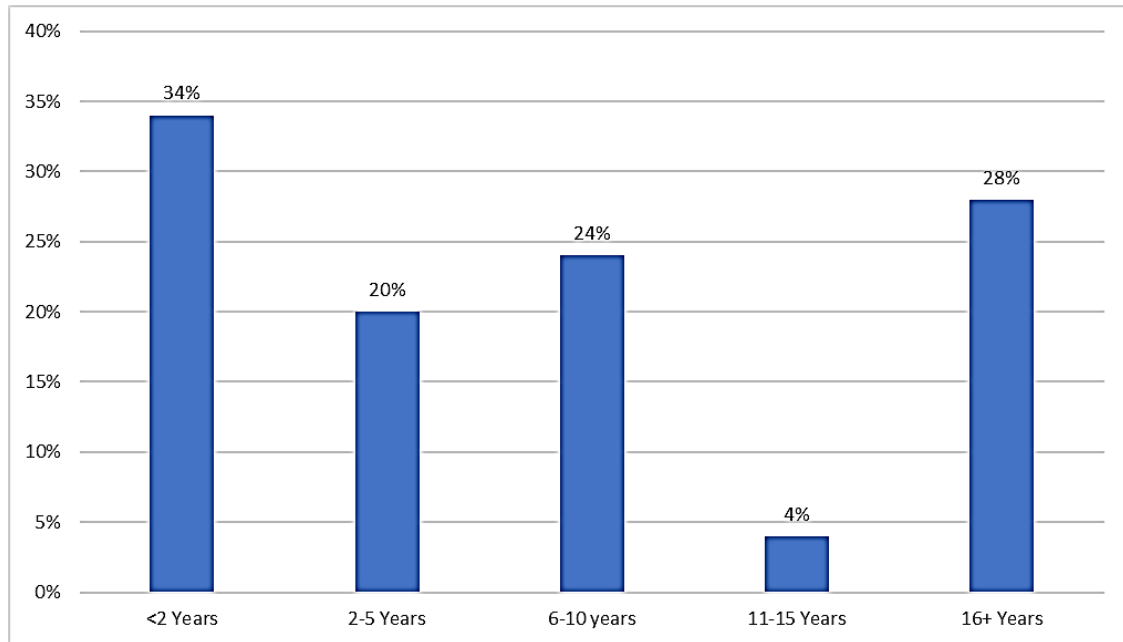


Figure 5. Time to collect project management statements among respondents.

Source: own research.

The next question concerned the number of projects in which a respondent had participated so far. The was a closed question. The largest group of respondents – 52% took part in at least 6 projects. 20% of responses were for the range of 4-5 projects. 24% of people indicated that they had participated in 2 or 3 projects so far. Only one person constituting 4% of the group is currently involved in 1 project (Fig. 6).

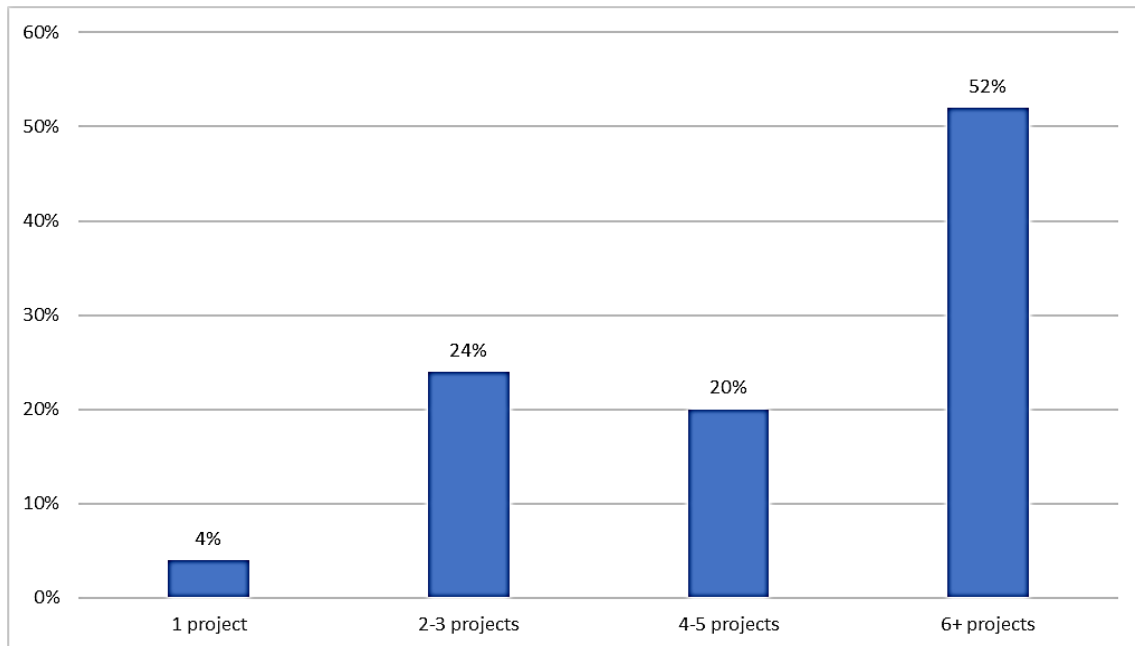


Figure 6. The number of projects in which the respondents have participated so far.

Source: own research.

A project manager is a person who not only supervises the project and is responsible for it, but also a person who manages the entire project team. PM sets goals and tasks for others and is also responsible for their implementation. Fig. 7 shows the size of the project teams with which respondents cooperate. Based on the obtained results, it can be observed that the largest group are teams of up to 5 people – 32% of responses. The second group is composed of teams consisting of 6-10 people – 28% of responses. The least numerous answer pertains to teams consisting of 51 members or more – this answer was indicated by 4% of respondents.

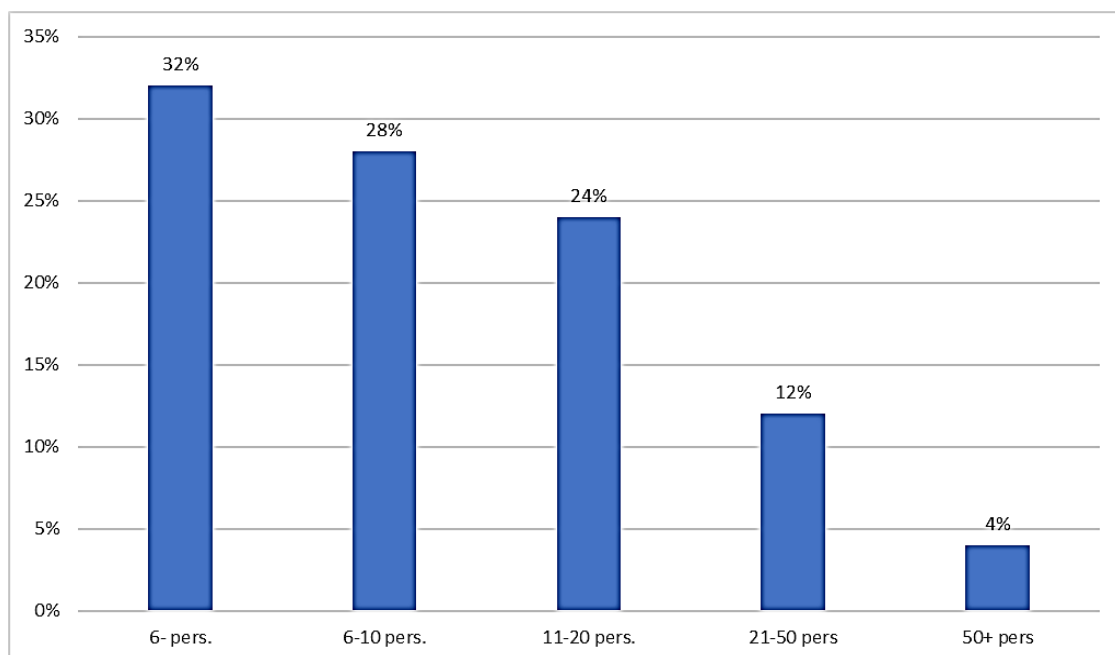


Figure 7. The number of project teams with which respondents cooperate.

Source: own research.

In the next step, a comparative analysis of the obtained research results was carried out, categorizing them into distinct educational groups. The largest group of people with education (45% of respondents) leads a project team of 11 to 20 people. Respondents with upper secondary education graduating from faculties related to their current profession manage staff of over 51 people (30%), 21-50 people (55%), 11-20 people (5%) and 6-10 people (10%). A relationship can be observed between people with higher education in the second field of study and education not related to their profession. People from the first group oversee more staff than respondents with a master's degree in a field different from their current work. The research results for a group of respondents with tertiary education are also important. None of the people declared to manage a team of up to 5 people. It can therefore be concluded that the level of education and the field of study similar to the subject of the project has an impact on the size of the project team.

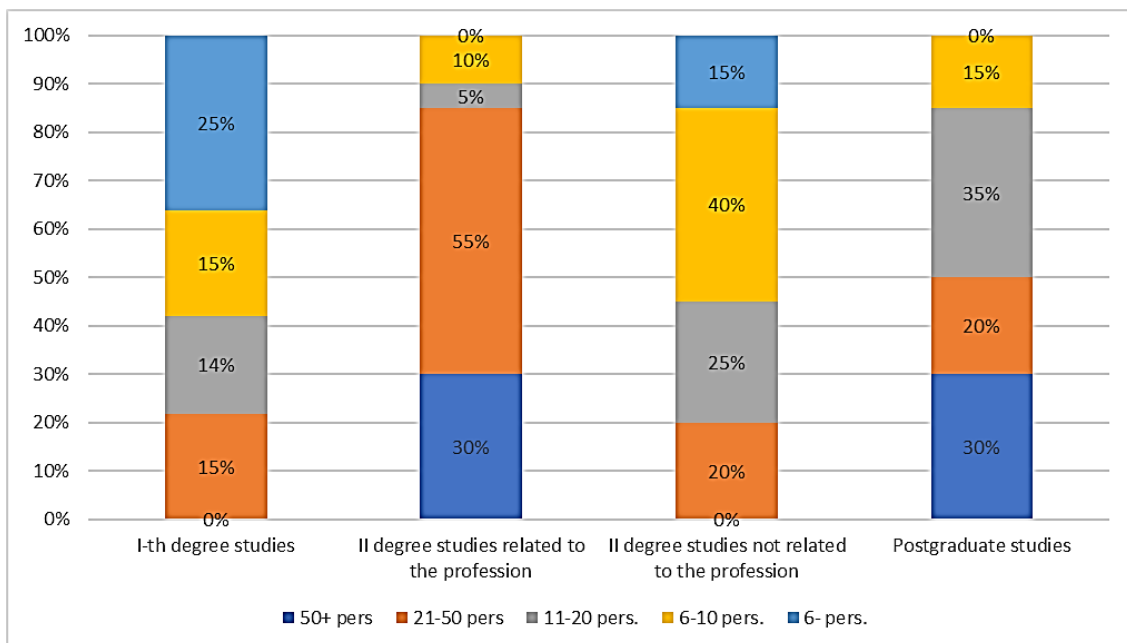


Figure 8. Size structure of project teams in relation to project managers' education.

Source: own research.

The budget of the project, which is currently managed by PM, means a lot of responsibility. It can be assumed that the higher the project budget, the greater the responsibility of project managers. During the survey, respondents were asked about the project budget they currently manage. The majority of respondents selected the option that the budget they currently manage in the project is above 1 million PLN which accounts for 48% of all responses. 32% of respondents manage a budget worth over PLN 100,000. Only 20% of respondents marked the answer "up to PLN 10,000". The research results show that projects managed by the surveyed project managers are expensive and involve a lot of responsibility.

The highest percentage of responses regarding the highest project budgets (over 1 million) concerns people with second-cycle higher education related to their current profession. People who have completed second-cycle studies, but the field of their studies was not related to their current work, mostly manage projects above PLN 100,000. People with first-cycle education are not in the group of people managing projects above PLN 1 million.

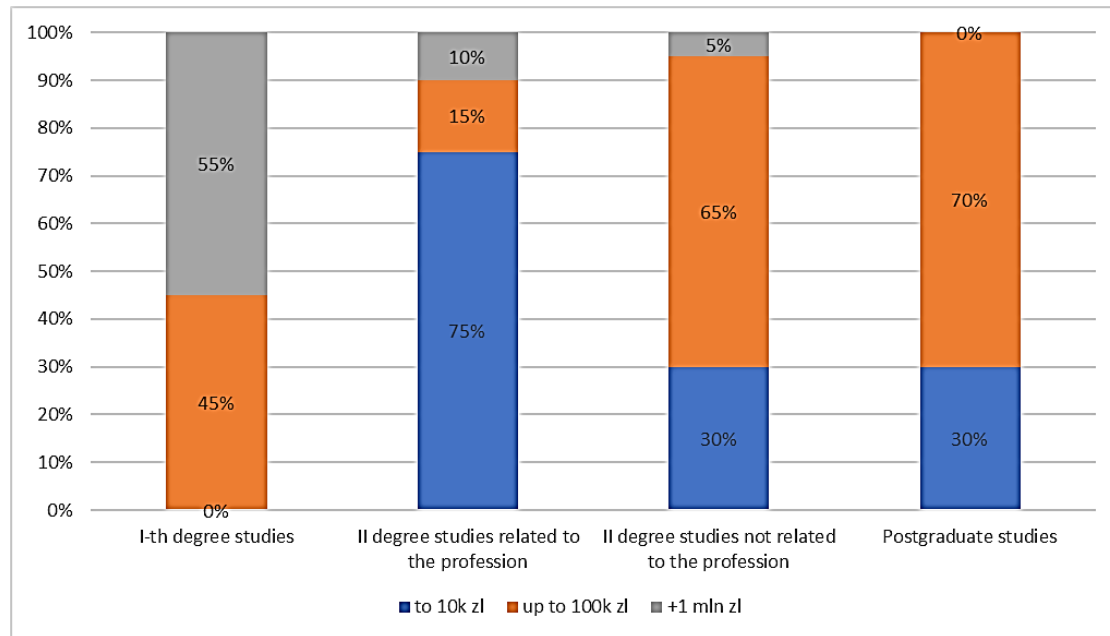


Figure 9. Structure of the size of the project's budget in relation to the education of project managers.
Source: own research.

13. Results discussion

The conducted research indicates the importance of the project manager's role in business, as they are responsible for the transformation of the organization and the correct spending of significant financial resources. The presented research provides analyses that shed light on the described process of building the competences of the project manager, but it is necessary to take into account one significant limitation of the presented research, which the authors are aware of, namely the participation of only 25 respondents in the study. This sample size does not reflect the situation in the whole group of people who are professionally involved in project management. It also means the need to develop, expand, and publish the results of research. They are interesting because they indicate the importance of the process of improving competences among individuals who take an active part in the project management process, particularly in a business environment characterized by a constant intensification of economic changes.

14. Conclusions

On the basis of the obtained results of our own research, the following conclusions can be drawn:

1. Domestic and foreign literature clearly indicates the need to have and improve the competences of the Project Manager. Continuous competence enhancement is one of the most important tasks to be carried out by the Project Manager, who can be realized by university model, competence model (IPMA or PMI) or independent development. All respondents have higher education, often complemented by certification in project management.
2. People with higher education, second-degree education and people with third-degree education usually manage a larger number of service personnel in the project, and run projects with a higher budget than people who have completed first-cycle studies. This may suggest that thanks to the acquired substantive qualifications it is easier for them to manage the scope of large projects.
3. The research shows that additional activities that mainly influenced the current knowledge and skills of project managers are primarily their professional work and the experience gained therein, as well as participation in numerous self-financed courses and trainings. It is very surprising that the majority of respondents, representing 68% of the total, indicated that they did not participate in student internships during their studies.
4. The method used in the study proved to be successful, allowing people to participate in the study anonymously, which likely led to their honest answers. The research also made it possible to verify a simple research model, which allows - as it seems- to quickly obtain verification of the relationship – the competences associated with the Project Manager and, consequently, how to shape it in the future.

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