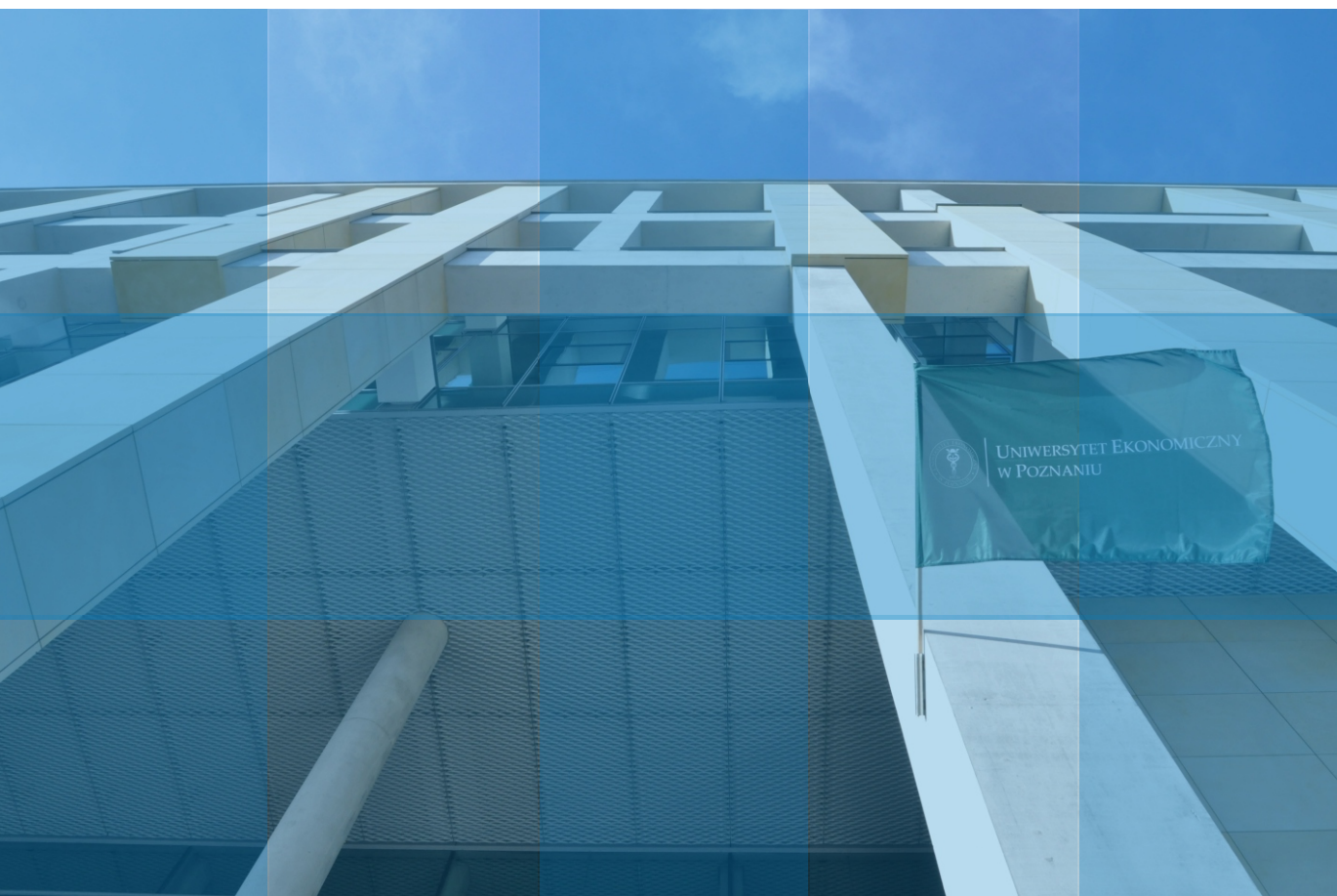


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PREFACE

Dear Readers,

We are pleased to present the latest issue of the Research Papers in Economics and Finance published by the Poznan University of Economics and Business. We have selected a few scientific papers that we consider important for the academic discussion, inspiring and providing substantial added value.

This issue opens with a great paper written by **Hanna Mielniczuk** from Brickendon Consulting Poland, entitled Norwegian Organizational Culture. A case study from a **Norwegian organization**. The author has identified the organisational culture profile of the selected Norwegian organisation culture and checked the compliance of the cultural profile of the organisation under study with the determinants of Norwegian organisational culture. The preferred type of culture in organisation showed the dominance of the clan culture. Employees of the organisation identified with their internal system of values, which increased the effectiveness of their work and social relations. It is worth emphasising that the author's research is based on several important variables: knowledge of the Norwegian language, experiencing Norwegian culture through living in Norway and numerous interpersonal contacts of the author of the paper.

The second paper entitled ***The influence of effective human resource management on the success of SMEs in Gaziantep and its environment in 2018*** has been written by Selim Corekcioglu, Deniz Horuz, Muhammed Paksoy from the Szent Istvan University in Hungary and Gaziantep University in Turkey. The authors examined Small and Medium Enterprises (SME) in Gaziantep. The survey was conducted on 136 companies, 89 of which stated that there are no organised human resources units and management systems in their enterprises. According to the authors, SMEs which perform human resources management effectively have been economically successful in terms of competitiveness, employee counts, employee performance, market growth and economic development.

The third paper written by **Israel Michael Nachzac** from Israel is entitled ***The use of the risk management procedure in Hi-Tech project management***. Following the author's survey based on 21 completed questionnaires received from project managers who managed about 550 projects, there is a gap between the acting managers' understanding of how to manage the actual project risk during a life cycle of the hi-tech and understanding the importance of management in controlling the variety of risks. The author concluded that the implemented project risk management does not meet the PMs' expectations and risk management is still at infancy. According to the author, the managers should pay more attention to inherent risks and those emerging in their projects through their management organisation as part of the overall traditional management, as well as emphasise the awareness of using the risk management procedure by all levels of management.

The fourth paper entitled *Analysis of music festival customers in Poland in 2018-2019* has been written by **Agata Truszczyńska** from the Academy of Music Managers in Warsaw, Poland. In the study, the author uses Chan Kim and Renée Mauborgne's concept of customer and non-customer analysis in the music festival industry in Poland. The conclusions of the paper are based on a questionnaire survey conducted by the author. Three layers of non-customers have been distinguished. The main issue for non-customers is a very poor catering offer in terms of food for vegans and vegetarians. A number of people feel fear and danger when they are in a crowd. Some non-customers like spending their free time at home instead of spending time at music festivals.

The fifth paper entitled *Innovative development of countries in the context of global economic imbalances* has been written by **M. Shkurat and A. Temerbek** from Vasyl' Stus Donetsk National University in Ukraine. According to the authors, the level of innovative development of the countries and technological equipment of industries create opportunities to improve the living standards of people and determine the level of economic development of countries. The authors explain that these processes deepen technological and economic gaps between the regions of the world. Furthermore, developed countries have more opportunities for active development of the innovative component in the national economy, but their indicators in innovation and high-tech industries have declined in contrast to developing countries.

Yours faithfully,

dr hab. Piotr Lis, prof. UEP – Editor in Chief



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RESEARCH PAPERS IN ECONOMICS AND FINANCE

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Norwegian organisational culture. A case study from a Norwegian organisation

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ABSTRACT

This work presents the concept of organisational culture, with a particular emphasis on Norwegian organisational culture. It explains why organisational culture plays an important role in an organisation's success and features the main determinants of Norwegian organisational culture which distinguish it from other organisational cultures and support the coherent functioning of the organisation. The main goal of the work is to identify the organisational culture profile of the selected Norwegian organisation culture and to check the compliance of the cultural profile of the organisation under analysis with the determinants of Norwegian organisational culture, which were established on the basis of the work of Norwegian researchers such as B. Espedal, T. Grennes or J. Bru. The assessment of Norwegian organisational culture showed that Norwegian organisations are dominated by a clan-like culture, also showing the features of female culture, and thus based on trust, cooperation and compliance of goals. The research carried out for the purposes of this study showed the compliance of the cultural profile of the studied enterprise with the profile of Norwegian organisational culture – the responses of the employees of the Beta Hotel allow us to draw conclusions that the company is also dominated by the clan culture and features of female organisational culture. The questionnaire also made it possible to identify the type of culture desired by the Beta Hotel staff – the preferred type of culture still shows the dominance of the clan culture, which allows for the implications that employees are satisfied with the current situation in the company. The results of the study show that employees of an organisation identify with their internal system of values, which may translate into the effectiveness of their work and social relations, and, as a result, the success of the organisation.

Keywords: organisational culture, dominant type of culture, questionnaire survey, enterprise, Norway.

1. Introduction

Organisational culture is a commonly used term, but it seems to cause some degree of ambiguity. Over the years, many definitions and views on organisational culture have been created, which should not come as a surprise, since the very concept of „culture” raises much controversy in literature. Researchers present different ways of understanding organisational culture, but most of them agree that organisational culture is, among others, shared, empathetic and responsive. It emphasises what is common, unites, stabilises and reduces uncertainty. It is a social glue; it is the whole of

human ways of living in organisations and the whole of interpersonal relations, attitudes, values, norms and beliefs (Czerska, 2003).

The concept of organisational culture aroused considerable interest of entrepreneurs in the 1980s, when it was proved that the success of the company is connected with its cultural aspects. Over the past decades, it has been proven that it plays an important role in shaping many key areas of the organisation and has an impact on its success (Cameron, Quinn, 2006). For this reason, shaping a coherent organisational culture is now the task of almost every manager, which is why the author decided to explore the topic of organisational culture in this study.

Particularly noteworthy is the Scandinavian organisational culture, which stands out against the global backdrop, emphasising values such as consensus and equality, opposing the popular approach based on rigid hierarchy and control. Scandinavia is a place where many corporations have been established that are recognised as highly innovative and meet the needs of demanding customers. As one can find in both 2017 and 2018 Bloomberg Innovation Index, Scandinavian Economies were all ranked among the first 15 in the world.

In this study, the author has decided to explore the organisational culture of a Norwegian organisation following a belief that Norwegian business culture is worth researching and has a positive impact on the functioning of the company.

The main goal of the work is to identify the organisational culture profile of the selected Norwegian organisation culture and to check the compliance of the cultural profile of the organisation under study with the determinants of Norwegian organisational culture. The author tries to answer questions such as: What are the determinants of Norwegian organisational culture? What are the features of the organisational culture of the audited entity? Does the organisational culture of the examined hotel correspond to the determinants of Norwegian organisational culture?

Although there have been numerous studies on it since the 1980s, when the interest in organisational culture began, the breakthrough publication was the work of T. Peters and R.H. Waterman's "In Search of Excellence", published in 1982, which proved that organisational culture plays a key role in the company's success. Since then, the subject of organisational culture has been explored by many researchers from different countries, including Czesław Sikorski, a Polish researcher, who provided a lot of important information about it. In his research, he analysed fundamental issues related to organisational culture, such as strategies for shaping organisational culture, varieties of organisational culture or its impact on the functioning of an enterprise (Sikorski, 2002). His first publications on organisational culture were published as early as the 1980s.

Another important study on organisational culture was the 2004 GLOBE (Globe Leadership and Organisational Effectiveness) project of House, Javidan, Dorfman and Gupt, which looked at the interrelationships between social culture, organisational culture and leadership in organisations. The study was international in nature, with 17,000 mid-level managers from 62 countries around the world participating

in it, and provided a wealth of information on organisational cultures and the issues of individual countries (House, 2004).

Operational terms used in this study:

- **Hierarchy culture** – a type of culture based on structure and control. The company is characterised by a hierarchical culture, it is highly formalised and hierarchical – internal control and cohesion of the organisation is possible thanks to centralised decisions as well as numerous regulations and rules. The organisation strives for the fastest and most efficient work possible. Leaders have excellent coordination and organisational skills, monitoring the work of the enterprise, which is determined by regulations and rules. The working environment is highly formal, and the emphasis is on the undisturbed activity of the company, which in the long run supports the achievement of efficiency, predictability and sustainability (Cameron, Quinn, 2015).

- **Market culture** – a company characterised by a market culture conducts its activities in a way that makes it similar to the market. It focuses on external matters and its own position in the environment, paying less attention to internal affairs. The organisation operates mainly thanks to economic market mechanisms, mainly money exchange – it carries out transactions (exchanges, sales, contracts) mostly with external entities, such as suppliers, customers or trade unions. The emphasis is on the end result, market position, regular customer base, profitability and profit. The main task of the company is to pursue a clearly defined goal by means of an aggressive strategy. This type of culture assumes that the environment is hostile and the customers are demanding and picky. The cohesiveness of the organisation ensures the willingness to overcome the competition, and the company's success is understood as the share in the market (Cameron, Quinn, 2015).

- **The clan culture** – owes its name to its similarity to a family-type organisation. Contrary to the culture of hierarchy and the market, organisations focus not on procedures and numerous rules or their own position in the environment, but on teamwork, the greatest possible involvement of individuals and the company's sense of responsibility for employees. Shared values, participation and strong ties are essential. Leaders who act as mentors and tutors, a friendly working atmosphere and care for employees make the organisation more like a family than a company. Employees work well together and their morale is appreciated. Personal development, loyalty and tradition are also emphasised (Cameron, Quinn, 2015).

- **The culture of adhocracy** – a type of culture that is oriented towards innovation and creativity. The main task of the enterprise is to produce and improve the offered goods and services so that they become difficult to replace. Non-stereotypical ideas and risky proposals are valued, and the emphasis is on flexibility and innovation that enable increased resources and profits. It is also important to quickly adapt to new conditions and be able to predict the situation in the future. The name of the adhocracy culture type comes from the phrase *ad hoc*, which suggests *ad hoc*, dynamic and temporary activities – teams in an organisation are created for a specific task, and then resolved immediately after solving a given problem, which facilitates adaptation in a situation of uncertainty. The management encourages the search for non-standard solutions, and supports entrepreneurship and creativity (Cameron, Quinn, 2015).

2. Methods

The research subject is a Norwegian organisation whose name has been anonymised and replaced with the name „Beta Hotel”, which in the following work corresponds to the analysed hotel. The audited entity operates as a joint-stock company that has been offering hotel services since 2014 and is located in Tromsø in the northern part of Norway. The analysed entity's employees form the following organisational units: a group of strategic leaders, a management team, middle managers / superiors, administration, reception, kitchen / waiters and a cleaning team. The tool that was used to diagnose the organisational culture of the Hotel Beta is the questionnaire for organisational culture assessment (OCAI) by Cameron and Quinn. OCAI is one of the most common tools for measuring organisational culture, verified by thousands of companies in their research. OCAI is considered to be an exceptionally useful and precise tool in the analysis of the most important aspects of an organisation's culture. OCAI allows for measuring six key dimensions of organisational culture, relating to the following characteristics of an organisation: leadership, employee management, what binds the organisation together, strategy and success criteria. The questionnaire aims to establish the dominant type of culture in the enterprise, using the types of hierarchy, market, clan and adhocracy (Cameron, Quinn, 2006). The questionnaire consists of six questions with four answers. In each question, 100 points should be divided among four answers, depending on the degree to which the given answer reflects the actual situation in the analysed organisation. Most

points should be given to the answer that most accurately reflects the reality. For example, if answer A is the best reflection of the real situation, answers B and C are somewhat close to the actual state, and answer D is the least accurate, then one can allocate, e.g., 60 points to answers A, 15 points to answers B and C each, and 10 points to answers D. The most important condition has been met, with the total number of points being 100. The questions have to be answered twice – the first time the answer should be given on the basis of the current situation in the surveyed enterprise in order to identify the current type of culture. The second time, one needs to answer the same questions, but taking into account the desired state in the organisation – it aims at determining the type of culture that is preferred by the employees of the organisation. Therefore, it is a type of culture that allows the company to function more effectively and respond more efficiently to the challenges of the environment. In the following work, a modified OCAI questionnaire is used – the original questions in English were transformed in a way to make them more understandable and accessible, bearing in mind that for the purposes of the study, the questionnaire will be completed by company employees with varying levels of English. The questionnaire has also been translated into Norwegian, due to the fact that a significant part of the employees is of Norwegian nationality, and moreover, the main focus of the work is placed on the Scandinavian organisational culture. Table 1. shows a modified OCAI questionnaire.

The survey was conducted in an online form – the original concept of conducting a stationary survey among hotel employees through the distribution of surveys by the manager had to be changed due to the dynamically developing situation related to COVID-19. As a result of the announced pandemic and the necessity to close the Beta Hotel for an indefinite period, most of the employees were dismissed or suspended from their duties for an indefinite period. Therefore, collecting data from employees of the Beta Hotel was very difficult – there were only a few employees left, therefore 27 responses were obtained. The respondents represented various organisational units: kitchen / waiters (20 people), mid-level managers / superiors (3 people), reception (2 people), cleaning team (2 people). It is worth mentioning that before this situation, about 100 employees were employed at the Beta Hotel.

The data was collected through the Google Forms platform at the turn of February / March 2020. The author was constantly in contact with the Employee's Manager of Beta Hotel.

Table 1: Modified OCAI questionnaire

Organisational Culture Assessment Instrument (OCAI)		
Company or organisational unit	Hotel Beta (select one)	
Employee group		
	Strategic Leader Group	
	Management Team	
	Middle Management Team/Supervisors	
	Administration	
	Front Desk	
	Kitchen/Waiters	
	Housekeeping	
	Other -	
1. Dominant Characteristics		now preferred
A	Hotel Beta can be described as a friendly workplace. People tend to share a lot and trust themselves. Working atmosphere is rather easy-going.	
B	Hotel Beta is a progressive and dynamic place. People tend to take risks and aren't afraid of changes.	
C	Hotel Beta focuses on achievements. People are competitive and determined to deliver results. Employees work as individuals rather than like a team.	
D	Hotel Beta is a disciplined and structured organisation. Strict formal procedures are on regular daily basis.	
	Total (100)	100 100
2. Organisational Leadership		now preferred
A	The leadership of Hotel Beta tend to represent mentoring, simplifying given tasks and care. The communication is rather friendly and convenient.	
B	The leadership of Hotel Beta tend to take risks and make innovative decisions. The role of an individual is important.	
C	The leadership of Hotel Beta tend to act in a performance-based, straightforward and aggressive manner.	
D	The leadership of Hotel Beta tend to demonstrate coordination and effective organisation.	
	Total (100)	100 100
3. Management of Employees		now preferred
A	The management style in Hotel Beta can be described by teamwork and mutual agreement.	
B	The management style in Hotel Beta can be described by risk-taking, innovation and freedom. Changes and creative projects often occur.	
C	The management style in Hotel Beta Edge can be described by competitiveness, high requirements and accent on employee's results.	
D	The management style in Hotel Beta can be described by security of employment, predictability and stability. Every-day reality usually remain the same.	
	Total (100)	100 100
4. Organisation Glue		now preferred
A	The glue that holds Hotel Beta together is dedication, loyalty and trust. People rely on one another and can count on one another.	
B	The glue that holds Hotel Beta together is continuous change and improvement. Innovative decisions and creative ideas are valued.	
C	The glue that holds Hotel Beta together is desire to win and accomplish targets. Aggressive and bossy behaviour occur on daily basis.	
D	The glue that holds Hotel Beta is regulations and coordination. Well-ordered every-day reality is crucial.	
	Total (100)	100 100
5. Strategic Emphases		now preferred
A	Hotel Beta emphasises personal growth. High trust, acceptance and commitment among employees are crucial.	
B	Hotel Beta emphasises gaining new resources and facing new challenges. Trying new things and looking for opportunities are crucial.	
C	Hotel Beta emphasises competition and results. Achieving targets and winning are major goals.	
D	Hotel Beta emphasises stability. The organisation focuses on effective functioning and supervision.	
	Total (100)	100 100
6. Criteria of Success		now preferred
A	Hotel Beta determines success based on its improvement of human resources, teamwork, work dedication and loyalty.	
B	Hotel Beta determines success based on its exceptionality and special quality. Creative spirit and innovation are important.	
C	Hotel Beta determines success based on accomplishments and wins. Outperforming competition is important.	
D	Hotel Beta determines success based on its efficiency and effectiveness. Well organised schedules and plans are crucial.	

Source: own study.

Due to new conditions, the author transformed the questionnaire into an online survey that was sent to the Manager, who then sent the survey to the remaining employees. The employees of the Beta Hotel filled out an online questionnaire and the data was automatically saved by the Google Forms which was then visible for the author.

3. Results

The results were compiled in a graphical form using Microsoft Excel and a profile of the organisational culture of the Beta Hotel was created on the basis of the obtained responses, presented in Diagram 1. All diagrams presented in this research were developed independently based on the results of the study.

When analysing the cultural profile of the Beta Hotel presented in Diagram 1, one can notice that the discrepancies between the current and the desired state are very small, noticeable primarily in the area of market culture. The graphical representation of the organisation characteristics shows that the dominant culture profile, both now and in the desired version, is the clan culture, which currently accounts for 37.5% of the overall profile of the Beta Hotel. The culture of hierarchy (25%), followed by adhocracy (21.5%) and the culture of the market (16%), which constitute the smallest share in the organisational culture profile of the Beta Hotel, are much less important in the overall profile. Based on the results obtained, one can conclude that the Beta Hotel puts emphasis on teamwork, good relations between employees, as well as knowledge sharing. The employees' replies also indicate that the Beta Hotel has a friendly atmosphere that fosters a sense of responsibility and commitment. The management emphasises the value of respect and loyalty, and is characterised by highly developed coordination and organisational skills. A fairly high score in the area of hierarchy culture indicates that despite the clan's culture, which is the dominant profile, the Beta Hotel values well-organised everyday life, which is possible thanks to the applicable regulations and rules. The profile of the Beta Hotel therefore suggests that it is a formal place which, however, bases its activities on teamwork and strong ties. The results of the study also show that, according to the employees, innovative ideas and non-standard solutions are valued, which is indicated by a significant percentage of the adhocracy culture (21.5%) in the general cultural profile. The profile of the culture preferred by the employees is very similar to the current organisational culture of the Beta Hotel, based on which it can

be concluded that the employees are satisfied with the situation and work in the organisation. The employees' small need for change is directed towards the market culture – currently it constitutes 16% of the cultural profile of the Beta Hotel, while – according to the employees – it should be 13%. This means that despite the low importance of the will to overcome competition, aggressive strategy or focus on the final results in the current profile of the Beta Hotel, the employees feel the need to reduce activities related to competition, tough requirements and achievements. According to Cameron and Quinn (2015), whether an organisation needs a dominant culture or a harmonious culture depends on the type of challenges that a given company has to face. Considering that competition in the hotel industry is growing year by year, a poor market culture may pose a threat to the functioning of the organisation. The change desired by the employees could weaken the Beta Hotel's position on the market, bearing in mind that the current share of the market culture in the overall profile is small. Therefore, one can assume that in the case under study, the proposed change is beneficial only from the point of view of employees who prefer a friendly, cooperative relationship with their superiors and tend to reduce aggressive, results-oriented behaviour. The chart also shows that employees prefer a slightly higher level of adhocracy culture, which means that the importance of creativity and innovation should be increased at the Beta Hotel. The desired change seems to be beneficial from the point of view of contemporary customers who, having a wide range of hotel services to choose from, are looking for creative solutions tailored to their individual needs on the market. This imposes obligations

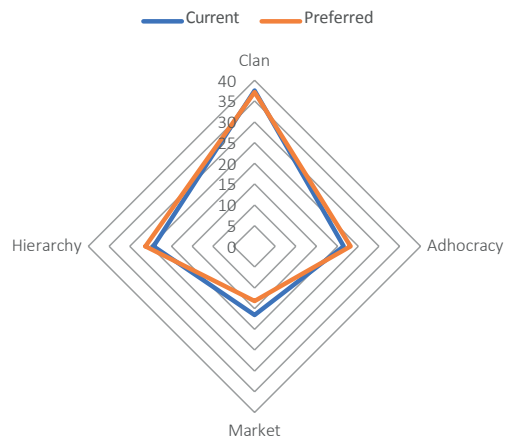


Diagram 1: Profile of the organisational culture of the Beta Hotel
Source: own study

on hotel service providers to constantly improve their offer, which will stand out from the competition. The proposed change is also beneficial for the employees of the Beta Hotel, who are thus encouraged to seek non-stereotypical ideas and creative proposals. The results also show that employees prefer a slightly higher influence of the hierarchy culture in the organisation (+ 2%), which may suggest that they lack clear guidelines for the daily tasks outsourced. The clearly dominant culture of the clan means that the way of making decisions is not centralised, and the employees have a lot of freedom in the way of solving given problems. Based on the

responses, one can conclude that employees need somewhat clearer rules and principles of conduct that would strengthen the sense of stability and security.

By analysing individual questions of the questionnaire, it is possible to assess what profile of the organisational culture dominates in specific areas of the organisation, so the following are taken into account: dominant features of the Beta Hotel, leadership, employee management style, what binds the organisation together, strategic emphasis and success criteria presented in Diagrams 2-7.

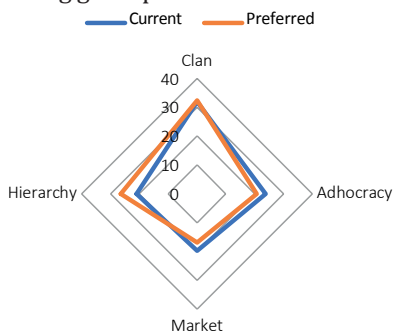


Diagram 2: Dominant characteristics

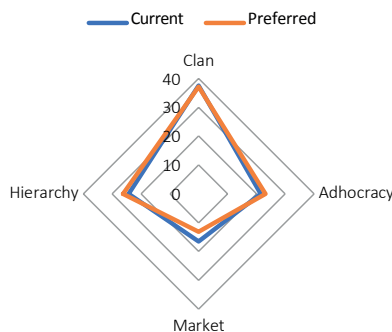


Diagram 3: Organisational leadership

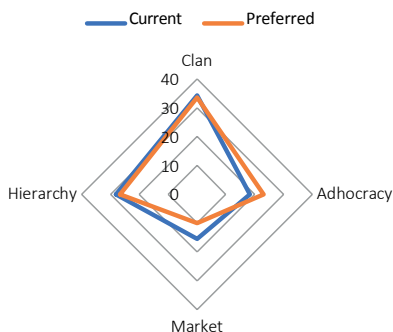


Diagram 4: Management of employees

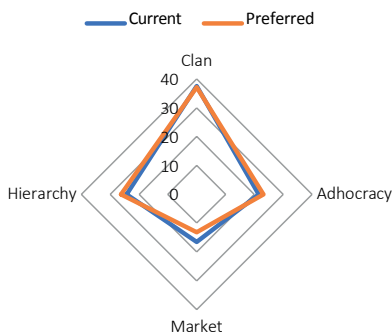


Diagram 5: Organisational glue

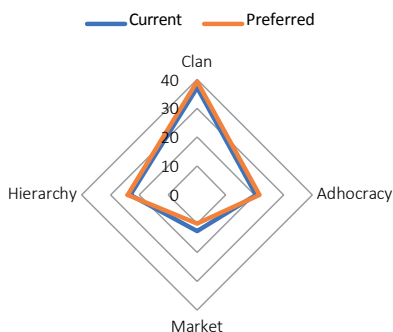


Diagram 6: Strategic emphasis

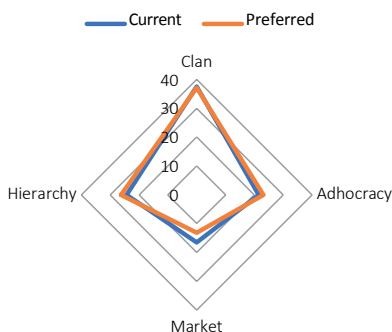


Diagram 7: Criteria of Success

Analysing the results in individual areas of the Beta Hotel (Diagrams 2-7), one can conclude that in most areas there is compliance with the general profile of the Beta Hotel – the clan culture remains the dominant profile, with a smaller share of adhocracy and hierarchy culture, and also it can be seen that in some cases there are slight discrepancies between the current and the desired culture. For example, in the area of leadership, employees declare the need to change towards a culture of hierarchy, which may indicate that they lack the sense of security and stability that a leader should evoke. In the case of the style of human resource management, a lower influence of the market culture and a stronger culture of adhocracy are desirable, which means that employees lack creative, ad hoc projects that dynamise work at the Beta Hotel, and also indicate the need for a response to employee initiatives. On the other hand, in the area of dominant organisational features, the employees of the Beta Hotel believe that the strength of the influence of the hierarchy culture should be higher, which may suggest that everyday functioning in the organisation is unclear or opaque, and therefore a higher hierarchy is needed.

Comparing the profile of the organisational culture of the Beta Hotel with the key determinants of the Norwegian organisational culture, one can notice compliance in most aspects. Treating employees as partners and mutual trust are key aspects of Norwegian corporate culture, which is compared to a clan culture (Grennes, 2006). The study showed that the clan's culture is dominant in the profile of the Beta Hotel, which indicates that its organisational culture is in line with the Norwegian standard – the emphasis is on values such as cooperation, participation and respect. As Espedal (2009) emphasises, the main standards of Norwegian organisational culture are cooperation, partnership and trust, which can be found in the Beta Hotel, as evidenced by its general cultural profile. Norwegian organisational culture is also characterised by a very weak correlation with male culture, thus focusing on results and profit, competitiveness and tough requirements towards employees (Grennes, 2006). A similarity can therefore be seen in the weak strength of the market culture (16%) in the overall profile of the Beta Hotel – the organisation is not oriented towards achievement, competition and aggressive behaviour. The determinants of Norwegian organisational culture also include the emphasis on equality and fairness, which we can learn from the Norwegian manager June Kristine Lima Bru, who interviewed eight key managers in Norway, including

Alf Christian Thorkildsen, former CEO of Seadrill Norge As. However, the OCAI questionnaire used does not directly test these aspects of the organisation's functioning, so it cannot be determined whether these values are valued at the Beta Hotel. However, based on the data of the Beta Hotel, which can be found on their LinkedIn profile it is known that the organisation employs employees of many nationalities (including Bulgaria, India, the Philippines, Poland), which gives the basis for the conclusion that also in terms of equality, the organisational culture of the Beta Hotel corresponds to the characteristics of the Norwegian organisational culture.

4. Discussion

Despite the disadvantages of the selected tool, which is not able to thoroughly analyse a given culture, due to its purely quantitative nature and the limited number of respondents, caused by the sudden situation related to the COVID-19 pandemic, it can be stated that the research objectives have been completed – the questionnaire allowed for the analysis of the main areas of the organisational culture of the Beta Hotel and comparing it with the determinants of the Norwegian organisational culture. On the basis of the conducted study, it can be concluded that the cultural profile of the Beta Hotel is consistent with the profile of Norwegian organisational culture – both profiles show a strong correlation with the culture of the clan and the female type of culture. When interpreting the above research results, it should also be noted that most of the respondents in the research carried out belonged to lower-level organisational units (kitchen, waiters, cleaning team). The presented results illustrate the view of the units that are subject to management and are not at the top of the hierarchy. Therefore, it should be taken into account that if the questionnaire were completed by employees representing all positions, including the management team, the results of the study would be different and would present a view of, among others, the management and leadership also from the perspective of senior managers, which would probably change the overall picture of the Beta Hotel's profile. However, the result of this survey allows us to examine the level of employee satisfaction with the current culture in the enterprise and may indicate to the management where changes should be made in the functioning of the organisation. In the examined case, the employees show satisfaction with the current culture, which allows us to conclude that they are satisfied with the

current culture, the profile of which is consistent with the determinants of Norwegian organisational culture.

5. Conclusions

The research carried out for the purposes of this study showed the compliance of the cultural profile of the studied enterprise with the profile of Norwegian organisational culture. The responses of the employees of the Beta Hotel allow us to draw conclusions that the company is dominated by the culture of the clan and the features of female organisational culture, which are main indicators of Norwegian organisational culture (Grennes, 2006). The questionnaire also made it possible to identify the type of culture desired by the Beta Hotel staff – the preferred type of culture still shows the dominance of the clan culture, which implies that employees are satisfied with the current situation in the company. This allows us to draw the conclusion that the employees of the organisation identify with their internal system of values, which may translate into the efficiency of their work and the relationships of their superiors and colleagues, and, as a result, also

the success of the entire organisation (Peters, Waterman, 1982).

I am convinced that my article will be a valuable source of information for other researchers who want to learn more about the determinants of Norwegian organisational culture. When writing my thesis, I encountered considerable difficulties in finding materials on the topic. I also believe that my work will be useful for company managers who should pay attention to the organisational culture of their companies. Especially the Norwegian organisational culture – departing from the hierarchy and control model, building a sense of security and trust among employees, may turn out to be a useful hint in the area of management. According to the global Deloitte Millennial Survey 2019, young generations feel disappointed with traditional business motives, which should warn entrepreneurs that the needs of employees and their morale should not be neglected. Perhaps the solution is a bit of the Scandinavian influence in each organisation, because as reported by the World Happiness Report 2019, Finland ranks first among the happiest nations in the world, followed by Denmark and Norway third.

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The influence of effective human resource management on the success of SMEs in Gaziantep and its environment in 2018

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ABSTRACT

In this paper, the authors investigate an impact of effective human resources management on the success of SMEs in Gaziantep, Turkey. A survey has been performed on small and medium sized enterprises that benefit actively from the support and grants of the Small and Medium Enterprises Development Organisation of Turkey (KOSGEB) to learn about human resources management structures of small- and medium-sized enterprises in Gaziantep. The survey results have been analysed and evaluated by using the SPSS 18 statistical program. The information and results about human resources management structures and economic achievement of the SMEs have been obtained from the survey. It is shown that SMEs which perform human resources management effectively have been economically successful in terms of competitiveness, employee counts, employee performance, market growth and economic development. Finally, the effect of KOSGEB support which is aimed to improve human resources structures of small- and medium-sized enterprises has been investigated. It is shown from survey results that human resources management support and grants of KOSGEB have a positive impact on the development and success of small- and medium-sized enterprises.

Keywords: Human Resources Management, SMEs, Competitiveness, The Small and Medium Enterprises Development Organisation of Turkey (KOSGEB), Turkey.

1. Introduction

Human resources management is an important management system regulating the recruitment, performance management, career planning and wage policy of the employees who are important sources for enterprises. Human resource planning with some strategies and functions ensures enterprises to obtain achievements and reach targets by using resources such as employees, time and money effectively and accurately.

Effective human resources management and organisation will enable companies to reach their goals and plans by using the most valuable factor for business, i.e. manpower, efficiently and systematically (Xu et al., 2020). Human resources management recognises that people are an important asset. It provides the basic elements such as meeting the needs of employees, increasing their usefulness and

performance, ensuring job satisfaction, career and future plans, and aims to emphasise their importance (Mohelska and Sokolová, 2018). Small- and medium-sized enterprises, which form the basis of Turkey's economy, must adapt to the changing and evolving competitive environment due to globalization. Businesses are trying to grow financially, to easily access up-to-date information and technologies and to use human resources effectively in order to increase their competitiveness and reach global markets (Aggarwal and Kapoor, 2012). Effective human resources management and planning is an important factor for small and medium-sized enterprises to achieve sustainable competitiveness and continue their economic development (O'Regan and Ghobadian, 2002).

In the first part of the survey, findings regarding the demographic characteristics of the respondents have been collected. In addition, findings related to the general characteristics

of the enterprises of the respondents have been obtained. In the next part, findings related to the human resources structures of their enterprises have been obtained, and findings related to the implementation of human resource management functions have been collected in enterprises that are human resources units. Finally, findings related to KOSGEB support have been collected. The data has been analysed with SPSS.

In the first part of this study, the general definition, features, advantages and disadvantages of SMEs, as well as the support provided by KOSGEB to SMEs and their role in the development of SMEs is examined. In the second part of the study, the definition of human resources management, its historical development, objectives and human resources management are explained, and general information is presented. Explanations are made about the application and general effects of human resources functions. In the third part of the study, research has been conducted on the human resources management of small- and medium-sized enterprises in the Gaziantep province. Human resources structures have been researched by surveying SMEs in Gaziantep, which is registered in the KOSGEB database and actively benefiting from grants, and the effects of human resources management on SMEs were evaluated by examining the survey results. In the conclusion and recommendations section, interpretations are made based on the results obtained from the study and suggestions are presented for improving the human resources management of enterprises.

2. Literature review

Human resources management enables businesses to use their competitiveness, development and resources efficiently. Human resources management is a system that covers the planning, implementation and methods that provide the most useful and efficient management of the employees in the enterprise (Cerdin and Peretti, 2001).

The processes from recruiting employees, increasing their motivation, creating a regular and peaceful working environment and completing the quitting process are carried out in line with human resources management and planning (Zafar, 2010).

Although this resource management implemented by enterprises is an element that increases the production capacity and efficiency of the enterprise, human resources management is not just an application that determines the number of personnel. The availability of qu-

alified and well-equipped personnel related to the work and responsibilities to be performed ensures that employment and efficiency are achieved in production and integrated into the system (Gundogdu and Devocioğlu, 2009)

Human resources aims to minimize risk and unexpected situations in company such as human changes in the information, technology and production systems of businesses, and with various studies and analyses, it also aims to minimize the negative effects of these situations and to turn into positive effects in the business in the most beneficial way (Mura et al., 2019).

Human resources provide the completion of the deficiencies of enterprises by training the personnel working in an enterprise with various training plans and programs before an unexpected situation and risks arise. The effective use of human resources helps the business processes to be completed quickly, facilitates economic development and increases production capacity (Ibicioğlu, 2006).

Marangoz and Biber (2011) investigated the relationship between the businesses' market performance and human resources practices. It has been observed that the human factor is the most important factor for businesses and the successful sustainability of human resource management provides great benefits to the development of businesses.

In this study, the personnel identification process, performance measurement, job enrichment, job simplification and job rotation were discussed as human resources practices. By examining the results of these activities, information on achieving the targets has been obtained. The impact of human resources practices on market performance was also examined. According to this study, the result of the business enrichment and the personnel selection process have a positive effect on the market performance of enterprises (Piligrimiene et al., 2019).

Kesen and Kaya (2014) presented an empirical study to examine the effects of human resource management practices and organisational culture types on employee performance. In this research, the effects of which human resource practices affect the performance of the employees and the culture of the organisation types on the productivity of the employees were examined. The performance effect was investigated by applying the survey method to different companies. According to the results of the study, the selection of personnel with human resources practices and recruitment, teamwork, cross-training and giving feedback about their performance have a positive effect on the performance of the employees.

In the Marmara Region, surveys about human resources management were applied to enterprises in organised industrial zones, and the opinions of the enterprises were collected and evaluated (Yumuşak and Kışlalioğlu, 2013). According to the survey results obtained from this study, large enterprises or small- and medium-sized enterprises (SMEs) accept the importance of human resources, regardless of the size of the business.

In the study of Singh (2018) it was concluded that there is no difference in the perspectives on the management of human resources management, as the years of business activity increased. On the other hand, instead of creating a regular human resources system, the results were obtained by giving different duties and responsibilities to employees and trying to solve the problems in this way.

Kraev and Tikhonov (2019) conducted a study on the place and importance of human resources planning on businesses. According to this study, small- and medium-sized enterprises understood the importance of employees in order to adapt to today's competitive conditions and started to give importance to the issues of human resources.

Serinkan and Cabar (2008) conducted research in textile enterprises in Denizli on the management and organisation problems of SMEs. This study depicted the management problems and operation problems of textile companies that are SMEs in Denizli Organized Industrial Zone. SMEs were reached through a survey. According to the survey results, the management and organisation problems are lack of institutionalisation and branding, insufficient human resources planning, management and decision mechanism.

It has been revealed that in SMEs, employees generally change too much, employees with required qualities cannot be employed. These factors have negative effects on businesses and prevent SMEs from growing. As the enterprises in the textile sector generally focus on production and sales, the result is that the decision-making is the business of the owners rather than the managers. In addition, the result that human resources management is not developed in these enterprises was obtained from this study (Singh, 2018).

Özgener (2003) carried out a study on the management and organisation problems of SMEs in the growth process of flour producers in Nevşehir. Enterprises in the flour sector in Nevşehir are positively affected by international competition and current technological developments. However, this technological development and competitive environment brings

with it some problems. These enterprises have to employ experienced and qualified personnel in order to follow technological developments and to open up to new domestic and international markets. In this study, the management and organisation problems of enterprises in the growth process in Nevşehir province were investigated and their solutions were emphasised.

3. The influence of effective Human Resources Management on the success of SMEs. Gaziantep province Research

In this part of the study, human resources structures of SMEs in Gaziantep are analysed. In order to analyse and compare the impact of existing human resources management on the success of SMEs, questionnaires were filled by the enterprises. The responses have been analysed, interpreted and compared.

3.1. Scope and importance of the research

In this study, the impact of effective and strategic human resources management on the success of small- and medium-sized enterprises were investigated. By conducting research on the SMEs in Gaziantep, it was aimed to examine the human resources management structures of the enterprises. The authors compared competitiveness, employee numbers and performances, market growth and economic success of companies which effectively implement human resources management and other companies. They also asked a question whether KOSGEB support provides sufficient benefit to human resources management of companies.

3.2. Population and samples

In this research, the authors investigate human resources management structures of SMEs in Gaziantep and the impact of human resources management on the success of SMEs. In the data base of KOSGEB Gaziantep office, there are 14 275 SME. Within the total number of registered SMEs, there are many micro-scale enterprises that have one employee. It has been assumed that micro enterprises without human resource management systems will not have a crucial effect on this study. In terms of time, cost and limitation, it would be difficult to reach all these companies and fill the survey. For this reason, the companies that actively use 201 KOSGEB support and which are considered to be suitable for the purpose of the study are registered as the main mass of the enterprises registered in KOSGEB Gaziantep office. 201 SMEs were selected as the population which benefited from at least two of KOSGEB's

Personnel Support, Consultancy Support, Training Support, Certification Support and SME Project Support at the same time. All the findings, analyses and comparisons were made on the basis of the questionnaire filled out by 136 companies. While the current number of the population was 201, 136 samples were chosen at 95% confidence level, the error margin was calculated as $\pm 5\%$.

3.3. Determination of hypotheses

In order to investigate the effect of human resources management on the success of SMEs, the following hypotheses have been created:

- H1: SMEs which have a human resources management unit more successful than other SMEs are characterised by an increase in sales, reaching large markets, better work efficiency and personnel performance.

- H2: Effective human resources have a positive impact on the economic success of SMEs.

- H3: SMEs which have human resources units have more personnel and higher sales revenues and live longer operating periods.

The purpose of the hypotheses is to examine the role of human resources management in the economic success competitiveness and productivity of SMEs in Gaziantep and its environments.

3.4. Methods of survey and survey design

In the survey, it was examined whether the SME's have human resources systems and planning in practice. In addition, it was aimed to analyse whether the enterprises with human resources management system implement the human resources functions at the desired level. Instead of asking too many questions, the questionnaire was designed as 30 questions. While creating the questionnaire (Aslan, 2012) and (Pembe, 2004), previous studies had been examined and designed in line with the aim of the study. Questions 1-5 revealed demographic features, 6-10 revealed the general structure and characteristics of the SMEs, question 11 showed if SMEs have a human resources unit. Using the 5-point Likert scale, questions 12-19 were asked to learn the functionality of the human resource management, questions 20-24 were asked to learn the economic successes and competitiveness of SMEs, and finally, questions 25-30 were asked to reveal the effect of KOSGEB support on human resources.

3.5. Reliability analysis of survey form

The confidence level of the questionnaires is expressed by the α coefficient and varies between 0 and 1. The confidence interval of the α coefficient varies according to the following

scales:

$0.00 < \alpha < 0.40$, not reliable

$0.40 \leq \alpha < 0.60$, low reliability

$0.60 \leq \alpha < 0.80$, very reliable

$0.80 \leq \alpha < 1.00$, very high reliable

The reliability analysis of the questions related to human resources management is shown in Table 1 and the α value of the questions shows that the questions have high reliability (Cronbach and Shavelson, 2016 and Cronbach, 1951).

Table 1: Reliability analysis

Questions	Cronbach's Alpha	Number of Question
12-19	.877	9
20-24	.884	5
25-30	.956	6

Source: based on own research.

3.6. Survey Analysis

In this section, the results and outputs of the survey are analysed.

3.6.1. Analysis of demographic characteristics of respondents

The demographic features of 136 respondents are shown in Table 2. When the demographic results of the survey are evaluated, it may be seen that there is a male-intensive structure in SMEs, and the age range of the employees is generally middle age. When education levels are compared, it may be seen that most of the responders have a bachelor's degree.

3.6.2. General characteristics of the companies responding to the survey

When the results are analysed, 55.1% of the SMEs serve in the manufacturing sector, 30.9% serve in the service sector and 14% serve in the trade sector. It has been found that SMEs operate intensively in the manufacturing sector. When the legal structures of the enterprises are examined, 38.2% are sole proprietorship, 44.9% are limited companies and 16.9% are joint stock companies. The results also show that the operating periods of the enterprises are the following: 15.4% – between 1-4 years, 22.1% – between 5-9 years, 38.2% – between 10-14 years and 24.3% – 15 years and more. According to the test results, the number of employees of SMEs are the following: 19.9% – between 0-9, 47.1% – between 10-49 and 33.1% – between 50-249. Considering the net sales revenue or financial balance sheets, 16.2% of respondents are between 0-999999 TL, 40.4% are between 1-7 million TL, 42.6% are between

7-39 million TL, 0,7% 7 of them have a value of 40 million TL and more. According to the survey results, SMEs are generally small and medium-sized.

Table 2: Reliability analysis

Gender	Frequency	Percentage %
Female	34	25
Male	102	75
Age	Frequency	Percentage %
18-30	34	25
31-40	65	47.8
41-50	32	23.5
51+	5	3.7
Educational Status	Frequency	Percentage %
Secondary	17	12.5
High school	33	24.3
Associate Degree	19	14
University	67	49.3
Title	Frequency	Percentage %
Owner	63	46.3
Executive manager	24	17.6
Mid-level manager	13	9.6
Personnel	36	26.5
Position	Frequency	Percentage %
Management	59	43.4
Production and Planning	31	22.8
Finance	20	14.7
Sales and marketing	26	19.1

Source: own analysis based on available data.

3.6.3 Human Resources Management Structures of the Companies Responding to the Survey

The questionnaire applied to SMEs in Gaziantep province firstly collected information about human resources management structures and characteristics of SMEs. The statistics related to the human resources management characteristics of the respondents are shown in Table 3.

Of the 136 companies that responded to the survey, 89 did not have a human resources management unit, which is 65.4% of the total. The remaining 47 enterprises, 34.6%, had a human resources unit.

According to the survey findings, it may be noticed that there are fewer enterprises with human resources units, and SMEs are generally considered to be away from the corporate management approach. It is thought that human resources planning has been done in these enterprises and human resources management functions have been implemented.

In terms of operational periods, enterprises with human resources units have more than 10 years of operational time. Maturity and development are thought to be directly proportional

to the passing time.

When the number of employees is compared, the enterprises with human resources units have an intensive working range of 10-49 people and 50-249 people. The enterprises which do not have existing units have intensive personnel in the range of 0-9 people and 10-49 people. The increase in the number of employees is directly proportional to the opinion that a human resources unit should be established and operational resources should be used in a planned manner. In other establishments, the low number of employees was thought to be easier to control and related to the ability of a person or a group to manage the business without the need for a system.

The main purpose of the company was to transform its products and services into economic value. The higher the financial data, the higher the success of enterprises. Economic value is the most important factor that enables an enterprise to become stronger, increase its efficiency, competitiveness and reach wide markets. When the statistics of the enterprises with human resources units are examined, net sales revenues are in the range of 7-39 million TL

and they are at the upper limit of middle class according to SME definition. When the net sales revenue statistics of the other enterprises that do not have a human resources unit are examined, it may be seen that they are small-scale

enterprises which are intensely in the range of 1-7 million TL. When the service areas of these enterprises is examined, the findings show that SMEs are heavily involved in the manufacturing sector.

Table 3: Human Resources Management Structures

Human Resource Department	Frequency	Percentage %	Mean	Standard deviation
Yes	47	34.6		
No	89	65.4	1.65	0.477
Total	136	100		

Source: own analysis based on available data.

3.6.4. Findings of Human Resources Functions

The evaluations of the questions about the human resources management structures and how the human resources functions were implemented within the enterprise are evaluated in this part.

When the answers to questions which are the application of human resource planning, recruitment and recruitment function within the enterprises are examined, it may be seen that those functions were applied effectively in the enterprises, with the average being 4.51.

When the answers given to the questions were analysed in order to see the effectiveness of the training and development of the personnel function in the enterprises, positive answers were obtained and the average of the answers given was 4.34. The survey findings indicate that enterprises have initiatives to train their personnel.

When the answers given to the questions were examined to analyse the criteria and characteristics of performance management, one of the human resources management functions, it was seen that this function was applied and the respondents have positive thoughts, with the average being 4.30.

Looking at the statistics of the questions asked to measure the functioning of the career management and planning function for the future plans of the employees, it may be seen that career planning was made for these employees. It is understood from the answers that this function was carried out positively in the enterprises and the average was 4.30. Businesses make career planning for their employees.

The statistics of the answers given to the wage management system function showed that there was a positive practice. In addition, it is understood that this function varies according to the performance of the employees, and the average answer was 4.34. According to the survey findings, certain principles were used in pricing.

According to the statistics of the question

asked to find out whether there was an effective communication and working relationship between managers and employees, the working relationship function received positive answers, and the average was 4.43. It has been concluded that employee-employer relations were positive.

According to the statistics of the question asked in the questionnaire to investigate whether the measures and regulations required for occupational health and safety were present in the enterprises and to see the effectiveness of this function, this function was actively applied and its average was 4.51. What was generally mentioned in the interviews was that there was a legal obligation and they should give importance to occupational health and safety as there were audits.

The question of effective human resources management was the most important factor that leads to success in business measures the importance and impact of the human resource management of the respondents. The correct use of human resources by enterprises will increase productivity and efficiency. The respondents think that human resource management plays a role in success. The respondents say that human resource management has a positive effect on the success of enterprises. In addition, the idea that effective human resources management takes businesses one step further was common.

3.6.5. The Influence of Effective Human Resources Management in Business on Success

In order to analyse the effects of human resources management on enterprises, it has been investigated whether the enterprises have had a human resources unit for the last year.

Questions were asked to confirm the hypothesis H1 which is "SMEs which have a human resources management unit are characterised by an increase in sales, reaching large markets, better work efficiency and personnel performance". The statistics of the questions asked to

see the changes in the sales, profitability of the company, business efficiency, competitiveness, market growth and employee performance changes are as follows.

There has been an increase in domestic and international sales based on financial records, analysis and observations report; 47 of the human resources units stated that the increase was high and the average was 4.32. 89 enterprises without human resources stated that they were intensely low and medium level and the average was 2.73. It may be thought that this difference arises from the effective use of human resources and the planned studies will reduce the loss of time.

When the question asked to measure the profitability and work efficiency of the enterprises was examined, the enterprises with human resources units say that the profitability and productivity is high with an average of 4.26 answers. Others say that this change was small and medium scale with an average of 2.73 answers. When the answers were evaluated, it was thought that the efficiency and profitability of the enterprises with human resources planning was high because the performance management of the enterprise was high and the number of employees was ideal.

The statistics of the answers to the question asked to see the changes in the competitiveness and market size of the enterprises show that the enterprises with human resources management units were more successful in competitiveness and market growth and the average answer was 4.32. The reason for this is that these enterprises have a more institutional structure. Their own brand and quality on the market allow them to put forward one step further.

The average of the response statistics of the question which examined the performance, loyalty and job satisfaction of the employees was 4.26, which reflects that the companies with the human resources management system were more successful in this field. Career management and planning make employees more satisfied. Eliminating employees from the idea of future anxiety was seen as an effective factor in increasing their performance.

They also employ more staff. When the number of employees and response statistics were analysed, the average answer of the enterprises with a human resources unit was 2.66 and the number of employees was in the 50-249 band. The average response of the enterprises without human resources units was 1.85, and the number of employees was generally in the range of 10-49 people.

When the net sales revenue values of the enterprises were analysed, the average of 2.89

responses of the enterprises with human resources units were gathered between 7-49 million TL. The average response of non-human resources enterprises was 1.98 and it was seen from the survey analyses that they were heavily involved in the sales revenue range of 1-7 million.

Finally, the question posed to see the value and position of people in enterprises was scored by medium and high scale enterprises with and without human resources units. It was accepted that human beings have an important place in business.

"H1: SMEs with human resources management unit; the increase in sales was more successful in terms of reaching large markets, job efficiency and personnel performance. These statistics show that enterprises should attach importance to human resources management.

Businesses should have an institutional structure in order to achieve economic and human success. Working systematically and managing resources will take businesses one step further in the globalising world.

The independent sample t-test (Student, 1908, Lehmann, 1992) was used to compare the response averages of these two groups and the impact of human resources management on enterprises has been examined and presented in detail in Table 4.

In the first part of this table, if the value of Sig. is less than 0.05, the variances are not homogeneous. In this case, the "unaccepted equal variances" line is used, i.e. the bottom line is used and the values in the top line are ignored. Looking at the table, Sig. values were 0.159 for profitability and job yield, 0.896 for competitiveness, 0.347 for employee performance, 0.696 for an increase in sales, 0.274 for the number of employees, and 0.063 for the net sales revenue, and it was decided that the variances were homogeneous because it was greater than 0.05.

In this table, the value of Sig. (2-tailed) indicates whether there is a difference between the groups. If this value is less than 0.05, it is decided that there is a difference between the groups. If this value is greater than 0.05, it is decided that there is no significant difference between the groups compared. When looking at the table, this value is 0.000 and less than 0.05 for the answers. There is a significant difference between the enterprises with human resources units and those with no human resources.

If it is decided that there is a difference, it is said that whichever group has a higher average, that group has a higher effect than the other group. If there is no difference, the groups are said to be the same (equivalent) even if the averages are different from each other. When the

average values in Table 5 are analysed, it may be concluded that the enterprises with human resources units have a higher average than those without. The H1 hypothesis was found to be correct.

In order to investigate the accuracy of the hypothesis that “H2: The effective and satisfactory human resources functions applied in SMEs positively affect the economic success of enterprises”, values against Pearson Corre-

lation were expressed as “r” and take a value between - 1 and + 1. The direction of the relationship is determined by the sign of “r” and the degree of the coefficient is determined by the magnitude of the coefficient (Immink and Weber, 2014) (Pearson, 1895).

Negative values indicate that one variable increase while the other decreases, plus the values indicate that the values of both variables increase and decrease together.

Table 4: Independent Sample T-Test

Specification		f	Sig.	t	df	Sig. (2-tailed)
Profitability and Business Efficiency	Equal variances assumed	2.003	.159	9.968	134	.000
	Equal variances not assumed			10.608	111.23	.000
Competitiveness	Equal variances assumed	.017	.896	10.283	134	.000
	Equal variances not assumed			10.610	102.32	.000
Employees Performance	Equal variances assumed	4.010	.347	9.866	134	.000
	Equal variances not assumed			10.716	117.07	.000
Increase in Sales	Equal variances assumed	.153	.696	10.649	134	.000
	Equal variances not assumed			11.099	105.204	.000
Number of Employees	Equal variances assumed	1.207	.274	7.340	134	.000
	Equal variances not assumed			8.108	121.68	.000
Net Sales Revenue	Equal variances assumed	8.948	.063	8.632	134	.000
	Equal variances not assumed			10.183	133.58	.000

Source: own analysis based on available data.

Table 5 shows that Pearson’s Correlation values between the recruitment and recruitment function and economic achievements were 0.269; 0.248; 0.232; 0.239; 0.440 and there was a positive relationship between them. Pearson’s Correlation values between the personnel training function and the economic successes were 0.226; 0.407; 0.502; 0.432; 0.392 and there was a positive relationship between them. Pearson’s Correlation values between performance management function and economic successes were 0.426; 0.575; 0.586; 0.519; 0.571 and there was a positive relationship between them. Pearson’s Correlation values between career management function and economic successes were 0.379; 0.443; 0.332; 0.390; 0.346 and there was a positive relationship between them. The Pearson Correlation values between the wage management system function and economic achievements were 0.309; 0.491; 0.540; 0.575; 0.412 and there was a positive relationship between them. According to the correlation analysis between the human re-

sources management functions and the economic success criteria of the enterprises, effective implementation of the human resources management functions within the enterprise has a positive effect on the net sales revenues, domestic and international sales, profitability and business efficiency, competitiveness, market magnitudes and the performances of the employees. It was seen that these functions have positive effects on their economic successes.

As regards, the hypothesis “H2: Effective and satisfactory human resources functions applied in SMEs positively affect the economic success of enterprises, it has been observed that human resources management functions are effective in success.

In order to investigate whether the hypothesis “H3: Businesses with human resources units have longer operating times, more staff numbers and higher net sales revenues”, the questionnaire responses were interpreted by using an independent sample T-Test and the response statistics were evaluated. When the average of

the answers given to the question of duration of activity was checked, the average response of the enterprises with human resources unit was 3.09 and the duration of the activity was generally between 10-14 years. When the average of the answers given by the enterprises that do not have human resources units was considered, this value was seen as 2.52 and the average operating time was in the range of 5-9 years.

When these averages were evaluated within themselves, the fact that the duration of operation of an enterprise was excessive was thought to be effective in the development of the enterprises and transforming them into an institutional structure. Time has been observed as an important factor for a business to mature, grow and increase its success.

Table 5: Human Resources Management Functions Correlation Analysis

Human Resources Management Function		Net Sales Revenue	Increase in Sales	Profitability Business Efficiency	Competitiveness	Employee Performance
Staffing Recruitment-Economic success	Pearson Corr.	0.269	0.248	0.232	0.239	0.44
	Sig. (2-tailed)	0.068	0.093	0.117	0.106	0.002
	N	47	47	47	47	47
Staff Training-Economic success	Pearson Corr.	0.226	0.407	0.502	0.432	0.392
	Sig. (2-tailed)	0.127	0.005	0	0.002	0.006
	N	47	47	47	47	47
Performance management - Economic success	Pearson Corr	0.426	0.575	0.586	0.519	0.571
	Sig. (2-tailed)	0.003	0	0	0	0
	N	47	47	47	47	47
Career management-Economic success	Pearson Corr	0.379	0.443	0.332	0.39	0.346
	Sig. (2-tailed)	0.009	0.002	0.023	0.007	0.017
	N	47	47	47	47	47
Wage Management System- Economic success	Pearson Corr	0.309	0.491	0.54	0.575	0.412
	Sig. (2-tailed)	0.035	0	0	0	0.004
	N	47	47	47	47	47

Source: own analysis based on available data.

Independent sample T-Test statistics are shown in Table 6. Looking at the table, Sig., it was decided that the variances are homogeneous since their values are greater than 0.055 for the operating time, 0.274 for the employee number and 0.063 for the net sales revenue.

In this table, Sig. Sig (2-tailed) value is examined to see if there is a difference between the groups. A 2-tailed value was checked. If these values are less than 0.05, it is decided that there is a difference between the groups. Looking at the table, this value was 0.001; there are less than 0.05 for the number of employees and 0.000 for the net sales revenue. There was a significant difference between the enterprises with human resources units and those with non-human resources. It has been interpreted that there was a significant difference between the operating time, number of employees and net sales revenues.

"H3: Businesses with human resources units have longer operating times, more staff and more net sales revenue." The hypothesis was confirmed by independent sample T-Test

analysis. It has been concluded that the enterprises with human resources units have more employees and have greater economic value than those which have been operating for a longer period of time.

3.6.6. Impact Analysis of KOSGEB Support on Human Resources

In the last part of the survey, the questions about KOSGEB's Qualified Personnel Support, Consultancy Support, Training Support, Certification Support, SME Project Support and Entrepreneurship Support provided by KOSGEB for human resources supply, management and institutionalization of SMEs were asked. With these questions, it was aimed to observe the usability, applicability of these supports for SMEs and their effects on SMEs. The answers given by the enterprises to the survey questions are as follows.

Generally, the answers given to the question of benefiting from Qualified Personnel Support and measuring the impact on SMEs were positive. 33.9% of the companies that answered

this question answered "Agree" and 43.8% answered "Strongly Agree". When the application principles of this support were examined, it was seen that the application does not require the project prerequisite and it can be applied

directly, and this support was easily and effectively used by the enterprises. Another issue is the employment of university graduates, which is really necessary and useful for SMEs.

Table 6: Business Qualities Independent Sample T-Test Analysis

	Quality	F	Sig.	t	df	Sig. (2-tailed)
Operating period	Equal variances assumed	8.132	0.055	3.251	134	0,001
	Equal variances not assumed			3.436	109.234	0,001
Number of employees	Equal variances assumed	1.207	0.274	7.34	134	0
	Equal variances not assumed			8.108	121.68	0
Net Sales Revenue	Equal variances assumed	8.948	0.063	8.632	134	0
				10.183	133.588	0

Source: own analysis based on available data.

When the answers to the question asked to determine the usefulness and usability of the Consultancy Support for the enterprises were examined, 44.7% of them answered "I am undecided". When the application principles of the support were examined, it was stated that there were no service providers within Gaziantep province regarding the prerequisites of the support according to the interviews made with the enterprises which wish to apply for this support in general.

In order to determine the benefit and usability of the Certification and Training Support to the enterprises, 40% of the respondents chose "I agree". 40 answers were given according to the answer statistics. The averages of this support and the opinions obtained from the interviews with the enterprises are thought to be beneficial because this support is easy to apply and it is applicable.

SME Project Support is one of the types of support for project based human resources management provided by KOSGEB for institutionalisation and branding of enterprises. According to the statistics of the answer to the question asked to investigate the impact and applicability of this project, enterprises gave 31.7% "Undecided", i.e. 31 answers. The fact that this support is project based and the inability of SMEs to adapt to the applications that will continue for a long time in general reduces the usability of this support. In addition, it is seen that project based support is important for enterprises in terms of human resources management and the division of labour.

Businesses must have a competent and systematic human resources policy in order to reach big targets. Entrepreneurship Support is the beginning of human resource management

offered by KOSGEB. With this support, the foundations for successful enterprises are laid. Applied Entrepreneurship Training, which is the basic condition of Entrepreneurship Support, aims to establish successful, competitive and long-lasting SMEs. When the questionnaire analysis is evaluated, it is seen that the enterprises with effective human resources management are more successful, competitive, long-term enterprises. Applied Entrepreneurship Trainings are in line with the same goal. When the answers to the question asked to measure the contribution of Applied Entrepreneurship Trainings to human resources management were analysed, the respondents' answers included 29.5% "Undecided", 30.3% "Agree" and 25.4% "Strongly Agree". It is seen from the answers that the Entrepreneurship Support and Applied Entrepreneurship Trainings have a positive effect.

The question of whether KOSGEB support provides sufficient contribution to the human resources management of enterprises was directed to the enterprises and asked for information about their satisfaction. When the answers given were analysed, the respondents answered "I am undecided" - 38.5%, "Agree" - 26.7% and "Strongly Agree" - 20.7%. According to the results of the survey, the impact of KOSGEB on improving human resources management of SMEs is not fully satisfied. The reasons for this may be attributed to factors such as application requirements of the support, requested documents, the level of development of an enterprise and the absence of personnel following the support processes.

The answers given to KOSGEB support and the answers given to the success criteria of the enterprises were examined by correlation

analysis in SPSS. Table 7 shows the analysis results. The number of Pearson's Correlation coefficients between the increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue with Qualified Personnel Support is 0.374, 0.415, 0.375, 0.411, and 0.291 respectively. It may be seen that there is a linear positive relationship between qualified personnel support, increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue. When qualified personnel support increases, it is seen that the success of SMEs will increase.

Pearson's Correlation coefficients between the increase in sales, profitability, business efficiency, competitiveness, employee performance and net sales revenue were 0.319, 0.380, 0.309, 0.272 and 0.235 respectively. It was seen that there was a linear positive relationship between an increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue with Consultancy Support. Consultancy Support has a positive impact on the success of SMEs.

Pearson's Correlation coefficients between an increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue were 0.214, 0.227, 0.309, 0.217 and 0.131 respectively. It was seen that there is a linear positive relationship be-

tween training and certification support, increase in sales, profitability, job efficiency, competitiveness, employee performance and net sales revenue. Training and Certification Support accelerates the success of SMEs positively.

Pearson's Correlation coefficients between the SME Project Support Program, increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue were 0.208, 0.256, 0.193, 0.258 and 0.160 respectively. It was seen that there was a linear positive relationship between the SME Project Support Program, increase in sales, profitability and job efficiency, competitiveness, employee performance and net sales revenue. The SME Project Support Program gives positive impetus to the institutionalisation and branding of SMEs.

Pearson's Correlation coefficients between Applied Entrepreneurship Training and sales increase, profitability and job yield, competitiveness, employee performance and net sales revenue were 0.391, 0.440, 0.342, 0.395 and respectively 0.273. With the Applied Entrepreneurship Training, it was seen that there was a linear positive relationship between increase in sales, profitability and job yield, competitiveness, employee performance and net sales revenue. Applied Entrepreneurship Training was seen as the beginning of an effective human resource management.

Table 7: Business Success Criteria with KOSGEB Support

Grant Name		Increase in Sales	Profitability and Business Efficiency	Competitiveness	Employee Performance	Net Sales Revenue
Qualified Staff Grant	Pearson Correlation	0.374	0.415	0.375	0.411	0.291
	Sig. (2-tailed)	0	0	0	0	0.002
	N	112	112	112	112	112
Consulting Grant	Pearson Correlation	0.319	0.38	0.309	0.272	0.235
	Sig. (2-tailed)	0.029	0.009	0.034	0.065	0.111
	N	47	47	47	47	47
Training and Certification Grant	Pearson Correlation	0.214	0.227	0.309	0.217	0.131
	Sig. (2-tailed)	0.1	0.082	0.016	0.096	0.318
	N	60	60	60	60	60
Project Support Grant	Pearson Correlation	0.208	0.256	0.193	0.258	0.16
	Sig. (2-tailed)	0.101	0.043	0.13	0.042	0.209
	N	63	63	63	63	63
Entrepreneurship Training	Pearson Correlation	0.391	0.44	0.342	0.395	0.273
	Sig. (2-tailed)	0	0	0	0	0.002
	N	122	122	122	122	122
Contribution of KOSGEB	Pearson Correlation	0.413	0.399	0.423	0.439	0.283
	Sig. (2-tailed)	0	0	0	0	0.001
	N	135	135	135	135	135

Source: own analysis based on available data.

KOSGEB's support for human resources management was 0.413 and Pearson's Correlation coefficients were 0.399, 0.423, 0.439 and 0.283, providing positive support.

In order to observe the effect of KOSGEB support in enterprises with and without human resource management systems, an independent sample T-Test was performed to observe and compare the differences between them. Table 8 presents the response analysis.

When the averages of the answers given by SMEs with and without human resources units are examined, the enterprises with human resources units gave more positive answers on the impact of KOSGEB support. It can be concluded that the institutionalisation and more qualified enterprises use the state support more or that the state support has positive effects on the development and growth of enterprises.

Independent sample T-Test statistics are shown in Table 8. Looking at the table, Sig. values are 0.006 for Qualified Personnel Support, 0.758 for Consulting Support, 0.237 for Tra-

ining and Certification Support, 0.445 for SME Project Support Program. On the basis of Qualified Element Support it may be concluded that variances are not homogeneous for less than Sig. 0.05. Since the values were greater than 0.05, it may be concluded that the variances were homogeneous.

In this table, the Sig. (2-tailed) value is examined to see if there is a difference between the groups. The 2-tailed value has been checked. If these values are less than 0.05, it means that there is a difference between the groups. When looking at the table, this value is 0.001, 0.251 for Consultancy Support, 0.197 for Training and Certification Support and 0.315 for SME Project Support Program.

For businesses with human resource management for the overall impact of KOSGEB, the Sig. value is greater than 0.05 and it may be concluded that the variants are homogeneous. The Sig. (2-tailed) value is 0.000 and there is a significant difference between the enterprises with and without human resources units.

Table 8: T-Test Analysis of Human Resources Management and KOSGEB Support

Specification		f	Sig.	t	df	Sig. (2-tailed)
Qualified Staff Grant	Equal variances assumed	7.86	0.006	3.26	110	0.001
	Equal variances not assumed			3.76	109.8	0
Consulting Grant	Equal variances assumed	0.096	0.758	1.16	45	0.251
	Equal variances not assumed			1.23	31.9	0.227
Training and Certification Grant	Equal variances assumed	1.42	0.237	1.3	58	0.197
	Equal variances not assumed			1.36	39.13	0.181
Project Support Grant	Equal variances assumed	0.591	0.445	1.01	61	0.315
	Equal variances not assumed			1.04	58.8	0.301
Contribution of KOSGEB	Equal variances assumed	1.72	0.191	4.19	133	0
	Equal variances not assumed			4.5	110	0

Source: own analysis based on available data.

4. Conclusion and recommendations

This paper has examined the impacts of effective human resources management on the accomplishment of SMEs in Gaziantep and surrounding area. If we go deeper to the root of past studies, we can see that research was conducted for different regions on issues such as human resources planning and management practices in enterprises, management and organisation problems of SMEs. These surveys were generally aimed at examining businesses in a particular city or region, and there was not enough work for SMEs in Gaziantep and its sur-

rounding area. This study of the fundamental dynamism of Turkey and SME human resources management in an active industrial city of Gaziantep and the surrounding area provided useful findings about the characteristics and human resources functions.

Today, when competitive conditions are increasing and changing rapidly, SMEs and large enterprises can survive by using human resources, which are their most valuable and effective treasures, accurately and efficiently. SMEs should generally move away from the identity of a family company established by a single person and family, and become companies with effec-

tive human resource management with more corporate and competent features. They will be able to keep up with globalising competitive conditions by using their resources and values at high efficiency, strategically and in the most profitable way.

In this study, important information about human resources profiles and their economic success has been obtained through a questionnaire applied to companies that actively benefit from KOSGEB support.

Of the 136 enterprises participating in the study to find out whether there are human resources units directed to SMEs, 89 stated that they did not have human resources units and 47 said that they had human resources units and management systems in their enterprises. When this ratio was compared, it was concluded that the SMEs in Gaziantep and the surrounding area are generally non-institutional personal and family enterprises. It is thought that the targets of enterprises in this structure mostly aim at obtaining their own needs and earnings of a family and business owners. According to the survey analysis, these small enterprises employ fewer personnel and have less net sales revenues, which do not provide a sufficient and necessary impact on the country's economy. In order for these businesses to benefit the economy and interests of the country more, they should be transformed into strategic enterprises with more corporate and brand value human resources management systems.

It can be seen from the survey results that companies with human resources units and strategic human resources management structures employ more employees and a have higher economic value. These enterprises contribute to the economic development of the country with a high financial value rather than meeting the needs of business owners. They can also be expressed as businesses that renew themselves more and achieve a controlled and systematic human resource planning system to reach their locations and goals.

Considering that the driving force which runs the businesses are people, the best people and groups of people who do this function should be chosen correctly. Human resources management controls basic activities such as choosing the right personnel for businesses, the ideal number of personnel without burdening the business, and it controls using resources effectively. By establishing a certain business management system and rules, it ensures that the company increases the competitiveness, market size and profitability of the business perfectly and continuously like a gear chain.

Businesses that do not have a successful hu-

man resource management may appear to be strong with the size of their capital or financial support from outside. However, since there is no strategic planning, management system or resource control mechanism, it will lose its power in the future. This process, which seems to be successful, will be replaced by uncontrolled growth and consequently uncontrolled resources.

It is necessary for SMEs to control their human resources in the best way in order to make their success and economic values permanent and upgradeable. People are the only resource that can manage the basic activities of SMEs such as decision mechanism, business management, performance control and resource planning. In order to confirm this view and see this effect in businesses, this view has been confirmed by the hypotheses put forward in this study.

"H1: in SMEs that have human resources management units the increase in sales is more successful in terms of reaching large markets, business efficiency and personnel performance". The hypothesis was directed to businesses through a questionnaire and the survey results proved this. Looking at the survey analysis, it was seen that domestic and international sales of SMEs with effective and strategic human resources management are generally higher than those of SMEs without ordinary corporate structures. This shows that effective and productive activities are carried out within enterprises with human resources management and have positive effects on sales. The access to new markets and increasing the enterprises' market size change in direct proportion with their human resources management. In addition, human resources planning has a positive impact on the employees' job satisfaction and performance.

In line with these results, SMEs should be informed about the positive impact of human resources management on success. It will be beneficial for SMEs to provide them with a more institutional identity and to provide them with various types of educational and government support so that they can use their resources correctly and effectively. Quality management systems integrated in human resources management should also be prioritised.

In order for the human resources management system to fully benefit businesses, human resources management system functions must also be implemented effectively. In order to investigate the effect of this, the questionnaire posed to the enterprises investigated the effectiveness of these functions of the enterprises with human resources management, and their

contribution to the success of the enterprises was examined.

The validity of this hypothesis was verified by survey analysis and putting forward the hypothesis "H2: The effective and satisfying human resource functions implemented in SMEs positively affect the economic success of businesses". The fact that the human resources management system is on paper does not benefit companies. The purpose of this management system is to increase the satisfaction, performance and value of the people with emotion and logic within the enterprise with the functions it contains. If an employee is not satisfied with the work they perform and cannot get the pleasure they want, that person cannot be expected to be beneficial to the business. If career planning is not made for employees and if employees cannot get an idea of their future, they cannot focus on their jobs and work with high performance. If the enterprise does not have a certain personnel selection criterion and cannot select the right qualified and equipped personnel, it will be difficult or even impossible to achieve success. In addition, if the training and motivation programs are not sufficient to increase the efficiency of the employees, they affect the success of the business negatively. Analysis of the answers given in the questionnaires also confirmed it. It has been observed that there is a positive relationship between the effective implementation of human resources functions within the enterprise and the success of the enterprise.

In order to achieve success, which is the biggest goal of businesses, people who are actively involved in every part of the enterprise must be satisfied in all aspects. The realisation of this condition will bring businesses to success without deviating from their targets. As a result of this success, employment will increase, which in turn will benefit the national economy. With the increase in profitability, the wages, training opportunities and personal rights provided to the employees of the enterprise will also improve and will positively affect employees and then indirectly the society. For this reason, human resources functions should be effectively implemented within businesses.

The main objectives of this research were to reveal the difference in success between businesses with a human resources management system and those without. To learn this, the authors have put forward the hypothesis "H3: Businesses with human resources units have longer operating periods, more staff numbers and higher net sales revenues". The results obtained from the surveys are in line with this hypothesis. When the statistics of the respon-

ses given to the questionnaire are analysed, it is concluded that the enterprises that have human resources units and implement effective human resources management have been operating for a longer period of time. Compared to the number of staff they employ, businesses with a human resources management system employ a higher number of staff and contribute to reducing unemployment. In addition, the results of these enterprises' net sales revenues were higher. There is a positive relationship between the human resources management system and the numerical size of the enterprises. It would be beneficial for companies to be encouraged and supported in this direction.

In the last part of this study, it is aimed to see the support of KOSGEB, which is the leading organisation that provides support to SMEs, to improve the human resources structures of SMEs and the impact of KOSGEB on this issue. In the last part of the questionnaire, KOSGEB's Qualified Staff Employment Support, Certification Support, Training Support, Consultancy Support, Institutionalisation and Branding for SME Project Support Program and Entrepreneurship Support Program, which is the start of human resources management for businesses, information was obtained.

Sig. for companies with human resources management for the overall impact of KOSGEB value is greater than 0.05 and variances are found to be homogeneous. The Sig. (2-tailed) value is 0.000 and it is seen that there is a significant difference between the enterprises with and without human resources unit. KOSGEB support has been shown to contribute positively to businesses.

When the questionnaire response statistics were analysed, the enterprises have expressed a positive opinion about Qualified Employment grant. By providing qualified personnel to the managerial skills rather than the physical workforce of enterprises, it enables the enterprises' technical and administrative units to act together. Two years of vocational high school, which meet the needs of SMEs with qualified technical staff, can be added to this generally successful support.

Certification, Training and Consultancy Support was the support that helps SMEs to have a more institutional structure. According to the statistics obtained from the surveys, this support is used at a lower level and its effects are low. Enterprises should be informed in line with their awareness and goals. Easier application procedures will increase usage and benefit rates. This support will guide businesses to gain a corporate identity and will greatly benefit their growth.

The SME Project Support Program is a KOSGEB support to increase the institutionalisation and competencies of SMEs and has not been fully supported and benefited by businesses. Having a project-based application may have prevented small businesses from benefiting from this support. It would be beneficial to turn this support, which also provides stock control and personnel management software for institutionalisation, into a structure that all businesses can use.

Aiming to build successful and strong businesses with Entrepreneurship Support, KOSGEB satisfies people with this support model. Applied Entrepreneurship Training, which is given to people before opening a business, helps business builders to take their steps correctly and soundly. This support model will be further developed, and combined with today's technology it will make a greater contribution to the economy.

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The Use of the Risk Management Procedure in Hi Tech Project Management

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ABSTRACT

To start doing anything a man should have an impulse. The author's motivation to investigate the issue of „Risk Management Procedure in Hi Tech Project Management” derives from the commercial world of managing hi-tech projects. Such an impulse in the entrepreneurial world is called an entrepreneurial intention (B. Bird 1988). The 21st century technology is characterised by development and implementation of sophisticated products, which are subjected to various risks and incredible market competitiveness. The management of conventional and traditional projects has objective difficulties to cover all management components dictated by risks and the competitive market. The paper's aim is to deal with the question of “whether risk factors receive enough attention by management?” and recommend expanding the awareness among all the management and use risk management which will help with improving the ability to cope with the management difficulties.

Based on the author questionnaire results it was found that risk management should be part of project management, which fully meets the PMs' expectations and has been found to meet the hypothesis assumptions.

Keywords: Project Risk Management (PRM), Risk Management (RM), Questionnaire, PM (Project Management).

1. Introduction

In today's competitive business and sophisticated technology environment, business entities are faced with greater uncertainty (risks and opportunities) as they strive to create value. Hi-tech projects are exposed to the complex effects of risks, due to tied contracts, resources and structural features. The paper deals mainly with the subject of hi-tech projects risk management, which currently is handled by the senior management levels, and exposes the needs to explore the awareness of management at all levels of risk management, which may help companies reduce costs and stay competitive. In order to do this, businesses and investment managers have to pay attention to project risk management, both inherent and emerging in their organisations.

The paper is divided into four parts. The first part presents a literature review and hypotheses regarding the follow's subjects: history, risk management process, management awareness, risk management practices in projects. Professionals state that risk management must be conducted

the strategic and disaster risk management, standards and process. The hypotheses which will be examined in the study are presented. The second part contains a study of the follow's subjects: the methodology of the study, namely the description of the research sample, the data collection process and information regarding the construction of the questionnaire. The third part contains the results which were collected by the author and on the basis of another questionnaire, the expectation questions based on the hypotheses' assumptions, the limitation of the questionnaire and the gaps between risk management implementation and reality. The final part presents conclusions regarding the influence of intentions on the basis of both the literature review and the research.

2. Literature Review and Hypothesis

The methodology used in this study is based on documents, research and literature review, as well as an analysis of the concepts used in the literature. The author has analysed the literature published between 1978 and 2017 in

books, the International Journal of Project Management, the International Journal of Information Management, Hand Books and international standards.

2.1. History

One of the first definitions of risk is attributed to Bernoulli, who proposed measuring risk with the geometric mean and minimising risk by spreading it across a set of independent events (Bernoulli, 1954). Accordingly, the traditional definition of risk is measured by the two main combined variables: a) frequency of occurrence (probability) of the 'risky' event, i.e., the number of times the risky event is repeated in a predetermined period and b) extent of the consequences (magnitude) that the event generates, i.e., all the results of its occurrence. The first two academic books on risk management were published by the fathers of risk management, Mehr and Hedges (1963) and Williams and Hems (1964). Nothing is simple, given the complexity and magnitude of the risks that companies face. Scholars recognise a macro classification of risks into two main categories (Mowbray et al., 1979). First, pure or static risk is risk that only causes damage without the opportunity of earning from its occurrence. Always negative, it is characteristically unexpected because it is determined by accidental events. Second, speculative or dynamic risk is risk that can cause either damage or earning opportunities. These are the typical commercial risks, consequences, for example, of a new technological implementation that has not generated a profit but is unique. Such risks are normally related to planning and managing different businesses and functions of an enterprise, such as production, products, marketing, project management and sales. Following Chapman and Cooper (1983), risk is the possibility of facing economic and financial losses or physical material damages, as a result of inherent uncertainty associated with the action taken.

The Project Management Body of Knowledge defines risk as an uncertain event or condition which, if it occurs, has an effect on at least one of the following project objectives: scope, schedule, cost and quality (Project Management Institute, 2008: 275). Risk is everywhere and is a potential problem that might happen. Regardless of the outcome, it is a good idea to identify risk, assess its probability of occurrence and estimate its impact (Alhawari et al., 2012).

Regarding the use of risk management in projects, professionals state that risk management must be conducted because all of the pro-

ject management handbooks say so, and it should be done in the way the standard handbooks recommend it (Project Management Institute, 2008; Office of Government Commerce, 2007; Association for Project Management, 2006; 2004). This concept is found in literature that focuses on risk management (Ropponen and Lyytinen, 1997). Project risk management has the objective to decrease the probability and/or impact of negative events in the project and to increase the probability and impact of positive events (Project Management Institute, 2008: 274). Gemmer (1997) affirms that effective risk management requires functional behaviour of the stakeholders, which means that they may not necessarily comply with the risk management procedure. Dey et al. (2007) affirm that generally stakeholders must be involved in the risk management process, and this is crucial for the project's success or failure.

The promoters of the evaluation approach (Jiang and Klein, 2000; Procaccino et al., 2002) assume that knowledge of risks implies that they can and will be managed, therefore the project will end successfully. Management awareness/approach to project risk management is an approach which answers the question of how to deal with risks in order to prevent project failure. The management approach to risk management has processes based on rational decision making and complies with an engineering view on project management. It focuses on identifying the events and situations specific to projects that can interfere with the original plan and developing measures to keep the current project on track. The contribution of the management approach of risk management to the project's success is direct, as it focuses on the relevant and specific risks of the current project. The promoters of the management approach (Gemmer, 1997; Ropponen and Lyytinen, 1997; Kutsch and Hall, 2005; Dey et al., 2007; Bannerman, 2008) generally recognise risk management as a process consisting of well-defined steps of identification, analysis, response, monitoring and control (Bakker et al., 2010a). According to the contingency approach, risk management is not considered to be a separate management process. Instead, it is embedded in the various processes and procedures of the project (Jun et al., 2011).

2.2. Risk management practices in projects:

Risk management has developed rapidly over the recent decades as an integral part of project management (Del Cano and Cruz, 2002). It includes the processes concerned with risk management planning, identification, analysis, responses, as well as monitoring and

control of a project (Project Management Institute, 2008). Risk management is a discipline, which integrates knowledge from a variety of different business fields, where wide varieties of methodologies treat specific problems (Al-hawari, 2012).

Risk management is a very important and integral part of any business, well recognised by the project management institutions (Del Cano and Cruz, 2002). Risk management refers to strategies, methods and supporting tools to identify and control risk to an acceptable level. The risk management objective is to identify all applicable risks in a project. This involves ranking the risks based on their importance, frequency of occurrence, level of impact, and then establishing the actions needed to control the identified risks. Kutsch and Hall (2009) conclude that little research has been done to establish whether project managers involved in IT projects really apply risk management and what reasons lay behind their decisions not to pursue any active management of risk in some cases. The subject literature focuses on what project managers should do, more than on what they did do (reactive attitude instead of proactive attitude). As long as no evidence is produced to explain why project managers fail to apply project risk management, the acceptance of best practices in project risk management standards is insufficient. Risk management is an iterative process and it occurs all through the project life cycle. When risk events occur, using an effective risk management technique will facilitate measuring the project performance in terms of schedule, cost and quality. The risk management practices have a considerable

influence on the stakeholders' perception of project success.

Effective risk management requires adherence to a thinking in which risks are treated, not denied and problems are identified and not hidden. Regardless of the approach, a standard method for identifying, assessing and responding to risks should be included in any project as this influences the outcome of the project. Risk management follows a stagegate (Figure 1) process (ISO 31000, 2018). A preparatory step requires defining the risk management plan as being consistent with strategic business objectives and conducting a context analysis. The first stage aims to identify all the risks to which the enterprise project is exposed. The second stage determines the probability and the expected magnitude associated with the occurrence of the damage. A threshold of acceptability must be defined to proceed to the next stage, depending on the risk appetite of top management and on the resources available for risk management. The third stage is the treatment of unacceptable risks, which identifies the most appropriate actions to reduce the risk. Finally, the process is supervised. In the literature, the first two stages (identification, evaluation and analysis) are often called risk assessment. The implementation of a risk management system is a long-term, dynamic and interactive process that must be continuously improved and integrated into the organisation's strategic planning and awareness (Di Serio et al., 2011). Figure 1 presents the general risk management process and the levels of the managers involved in the project.

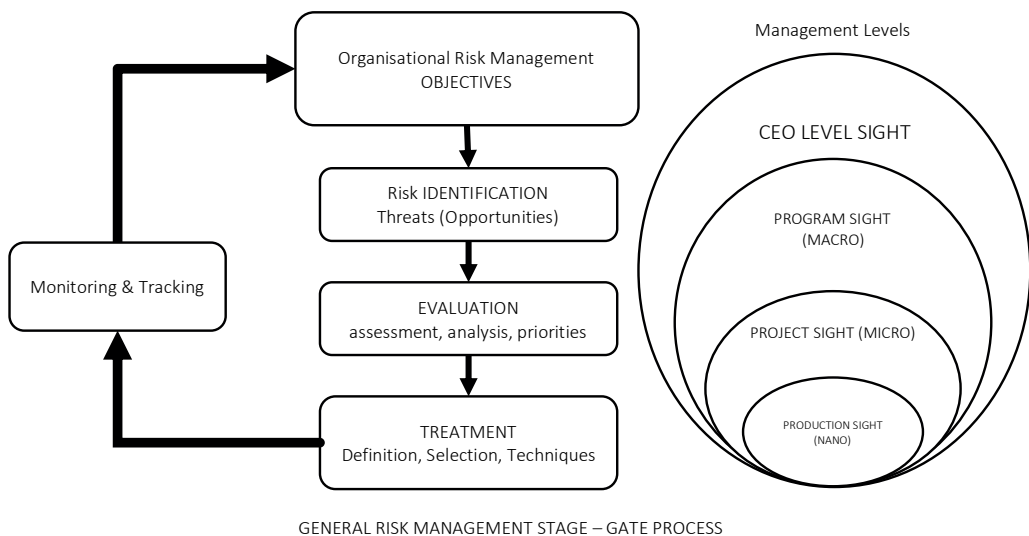


Figure 1: The general risk management process and the levels of the managers involved in the project

Source: the author's own work

2.3. Literature summary

It is therefore of great importance for project management and senior management to take advantage of making appropriate, solid decisions based on risk evaluation on uncertain outcome risks, as – at worse – it would cut-down losses due to a disaster, and – at best, improve profitability in the cases of opportunities. “Uncertainties present both risks and opportunities, with potential to erode or enhance value”. The sources of uncertainty with adverse effects / outcomes (the probability of which is defined as risk) are described as being due to the volatility / complexity / heterogeneity of risk, the impact of external events (such as customer preferences, competitor strategies, technology and so on), the response to external events / developments (such as compliance with policies / regulations / standards, development of strategies, and so on) and the behaviour of employees. Project management and the involvement of low-level management are part of the human resources factor. In a technological hi-tech project carried out on the basis of a legal contract, the Statement Of Work (SOW), Specification (SPEC) and Terms and Conditions (T&C) as well as maintenance of supplier-customer relations, senior management is responsible for implementing every contractual commitment (schedules, production costs and profits) (Erik W. Larson and David H. Gobeli, 1988). The process of project risk management is one of several control tools that enable senior management to inspect and meet the contract’s obligations. On the basis of this literature review and the questionnaire circulated by the author of the article, the following hypotheses can be formulated:

- h1 – Awareness of all management levels is essential for the implementation of the project risk management process.
- h2 – All levels of management are essential and should have responsibility, authority and influence over the risk management chain (related to schedules, technology complications and total costs).
- h3 – The customer and the shareholder should be involved in the project risk management procedure.
- h4 – Risk which is detected at an early stage of the activity is easier to handle.
- h5 – Use of identifying and handling risks is a tool for reducing unnecessary expenses.

3. Study

This paper intends to provide an indication to the use of the project risk management procedure as an inherent management activity via

the hi-tech project’s conventional management. Project risk management is a process entailing ongoing management, which is intended to detect risks, hazards and opportunities while assessing the scope of harm / damage, prioritising their handling as per their magnitude, determining improvement and investment required to obtain improvement and controlling the implementation of such improvement attempts. By raising the management’s awareness of using the project risk management procedure, the assumption is that the management’s responsibility and commitment at all levels of management will improve the project implementation. The assumption is that by running the author’s questionnaire and interviews with senior and low-level project managers (PMs’) who are / were leading hi-tech defence and general projects in Israel, will help to analyse the relationship between the theoretical research goals and the defined hypotheses based on the real collected data. The paper uses the results of the questionnaires conducted by the author, summarising the management experience of PMs’ with more than a few hundred projects worth several billion dollars. The format of the questionnaire was based on the informational knowledge and experience of the PMs’. The author has 30 years of experience in the management of hi-tech projects.

3.1. Paper Goals

Presenting the data outcome and structure collected with the author’s questionnaire; associating the main hypotheses with the qualitative, informative and quantitative results from the questionnaire data. Presenting the gap between the managers’ awareness of the project risk management procedure during the project life cycle and the data collected. The paper intends to emphasise and inspire the awareness of each person to use and be involved in the process of risk management of hi-tech projects as well as to join forces and take part in the risk management procedure. In the following paper, the use of literature focuses mainly on project risk management activities at all levels. Project risk management activities are to supplement management practices and investigate the project’s structure, organisational environment, external environment, products, processes and procedures. Furthermore, by supplementing the existing knowledge with “lessons learnt”, the best business practices can be developed.

3.2. Methodology

The paper emphasises and concentrates on all levels of managers’ management awareness of risk management, which should be followed

by the managers' authority and responsibility to manage and the techniques used. The method to be used in conducting the study was chosen with regard to the following options:

Option 1 – Observation in a 'live' hi-tech project in the industry: this means that the project risk management will be monitored in parallel time to the project running schedule, the cash flow and other additional activities are monitored.

Option 2 – Design of a simulated hi-tech projects environment: develop of simulation system (tailor made) which will help to computerize and monitor the risk management procedure as a part of the project management.

Option 3 – Questionnaires concentrate in risk management that will include senior project managers who are/were management leaders in hi-tech defence and general projects in Israel.

3.3. *The Decision*

In this study, the questionnaire method has been used, with each of the project managers in the hi-tech industry receiving a questionnaire, with the data collected being analysed and presented. Running a questionnaire and interviews with senior and low-level project managers (PMs') who are / were leading hi-tech defence and general projects in Israel, has helped in analysing the relationship between the theoretical study goals and defined hypotheses, based on the real data which was collected.

A similar approach to the paper done by the author's paper based on a questionnaire was published in the past by Raz, Dvir and Senhar (2002). The data presented information about industrial projects executed in Israel over the last 15 years and were collected using structured questionnaires distributed among 182 project managers. These managers were approached during executive project management seminars, academic training programs or via personal contacts. A total of 127 completed questionnaires were returned with a response rate of about 70%. The projects were performed in a variety of industries including, construction, electronics, computers, mechanical, aerospace and chemical, and involved various technologies such as electronics, computing, materials, chemical, biochemical, optical, mechanical, semi-conductors, aeronautical and construction. They were all completed or terminated before the collection of the data. The projects were either financed internally, as new product development efforts, or they were customer-paid projects, for which a contract had been signed before the project's initiation. Projects ranged in budget from \$40,000 to \$2.5 billion, and in duration from three months to twelve years. The paper's main conclusions

were that "it seems that risk management is still in its infancy, and that there is still a long way to go. More awareness, more application, better training, more tools, and additional studies, are needed to further promote the understanding, usage, and usefulness of risk". The author's (unique) questionnaire summarises more than a few billion dollars' worth of projects and hundreds of projects per year of management experience. The projects covered a large variety of branches and manufactured products which were supplied to customers (companies and governments) who were located in Israel and other places around the world. The format of the questionnaires was based on the information, knowledge and experience of the PMs'.

3. Results

The questionnaire (composed by the author) applied in this study was first tested in February 2017, beginning with 6 acting PMs' and 2 academics. The parameters that were tested included: the time that it takes to answer, the text's clarity and the logic of the questions (this took about 3 months). After the questionnaire was tested and qualified, the main research was conducted, with the procedure starting in May 2017. The questionnaire data was uploaded on the SPSS application. The questionnaire contained 47 questions of quantitative, qualitative and information type. The questionnaire's publication and replies were conducted via traditional mail, electronic mail (Internet) and personal interviews / meetings. The main subjects of the interviews included management and queries with managers about project risk management use and the performance of large-scale projects.

The study focused on several sections and was basically divided into three sections: 1) expectations, 2) implementation of the risk management procedure in the projects and 3) information which was used for the questionnaire database in the study. The expectations were defined according to the assumption of the hypothesis.

Implementation Question (the author's questionnaire): "What was the share (%) of the total project's expenses in million dollars dedicated to risk management issues?" The study focused on PMs' management budget which should allow them to run the projects, with part of it spent on operating the risk management procedure; the following implementation question deals with the funding share which was implemented for RM procedure. The study's finding was that 36.4% of the PMs' had 5%

of the share (which shows that only 5% of the budget was invested in implementing the RM procedure).

Expectation Question (the author's questionnaire): "Based on your experience, what should be the ratio of management involvement between risk management and conventional management?" The study's finding was that

89.5% of the PMs' answered that the ratio of management involvement between risk management and conventional management should be 11-25%. It shows that minimum 11% of management involvement should be implemented to RM. Remark: The study basically showed the idea of not enough use of the risk management procedure in projects.

Table 1: Data based on the data collected with the author's questionnaire

1	Number targeted	25
2	Number of respondents	21
3	Response rate	84%
4	In total, the PMs have experience of	≈ 215 years
5	In total, the PMs have managed	≈ 550 Projects
6	Maximum, one project budget value managed	≈ 1,250 M\$
7	Total revenue of the managed projects	≈ \$18,000 million
8	PMs who managed >15 Projects	≈ 61%

Source: the author's own study.

Expectation Questions (based on the hypothesis assumption). 1. The author's questionnaire: "Is it necessary to use IPT's (In Process Team) in risk management?". The results of the questionnaire showed that hypothesis h3 was accepted by the majority of respondents: 80% Agree, 20% Partly Agree. 2. The author's questionnaire: "Is risk which is detected at an early stage of the activity easier to handle?" The results of the questionnaire showed that hypothesis h4 was accepted by the majority of respondents: 94% Agree. 3. The author's questionnaire: "Should the customers / shareholders be involved in the project risk management procedure?" The results of the questionnaire showed that hypothesis h3 was accepted by the majority of respondents: 37.5% Agree, 37.5% Partly Agree, 25% Do Not Agree. 4. The author's questionnaire: "Should risk management be conducted throughout the entire project duration?" The results of the questionnaire showed that hypothesis h1 was accepted by the majority of respondents: 73% Agree, 21% Partly Agree, 6% Do Not Agree. The rationale of this question is based on the continuity of supporting the customer after project delivery. 5. The author's questionnaire: "Is identifying and handling risks considered as a tool for reducing unnecessary expenses?" The results of the questionnaire showed that hypothesis h5 was accepted by the majority of respondents. 6. The author's questionnaire: "Based on your experience, should risk management be part of project management?" (Question based on PMs' opinions). The results of the questionnaire showed that 100% of respondents chose Agree. This was the most significant answer

given by the PMs. According to a sample based on survey results that were collected by the INTECH Institute in 2012 in Lithuania, "PMs agreed that risk management has to be part of conventional project management. The perceivers of risk management are the project participants, and a contractor is any entity which has the power to influence project decision-making directly. Related to experience, only 11% of the respondents affirmed that they have experience in risk management. Most of them are project managers and have more than 15 years' experience; this proves the relationship between risk perception and the experience of respondents. Some 34% of the respondents affirmed that they have no practical experience in risk management, while 55% of the respondents affirmed that they do not have enough practical experience in risk management. 97% of the respondents answered that risks must be managed in the early stages of the construction project". 7. The author's questionnaire (information): "What was your daily responsibility as a manager?" The results of the questionnaire showed that hypothesis h5 was accepted by the majority of respondents. 8. The author's questionnaire (implementation): "What were the major subjects of concern in the projects you managed?". The results of the questionnaire showed that hypothesis h2 was accepted by the majority of respondents. 9. The author's questionnaire (implementation): "How many levels of management (on average) were managing the projects?". The results of the questionnaire showed that hypothesis h2 was accepted by the majority of respondents. The results show the numbers of management levels.

Limitations: The author's questionnaire was conducted in the state of Israel and answered by Israeli PMs. Most of the project activities were operated in the defence and commercial branches. The Gaps: The results of the questionnaire showed that the actual implementation and what was really implemented in risk project management does not meet the PMs' expectations.

4. Summary and Conclusions

The paper results are based on the data gathered in questionnaires that were conducted on the site and with active hi-tech project managers who have 215 years of experience and managed 550 projects. With the total revenue of \$18 billion. Based on the PMs' opinions and experience, it was found that 100% of the respondents agreed that risk management should be part of project management, and 97% of the respondents answered that risks must be managed in the early stages of the construction project.

The paper reveals the need for risk management awareness in all the management levels of the project during a life cycle of the project's process. The study intends to recommend a follow-up re-search on quantitative and qualitative values and on the importance of project risk management engagement, while dividing management into levels, from the production line level through the level of development, storage, procurement and all the other levels being part of the project. To motivate and generate awareness of the importance by senior managers, the project risk management procedure should be used in correlation with the general management procedure.

It was found that the implemented project risk management does not meet the PMs' expectations and the ratio of expectation to implementation is ≥ 0 . It seems that risk management is still at infancy and that there is still a long way to go. Based on the paper (the

author's questionnaire and the literature review), managers should pay more attention to inherent risks (89.5%) and those emerging in their projects through their management organisation as part of the overall traditional management, emphasise the awareness of using the risk management procedure by all levels of management and mix traditional management.

More awareness, more application, better training, more tools and additional studies are needed to further promote the understanding, usage and usefulness of risk management in hi-tech projects. It is clear from this and other studies that in risk management we need to improve the risk management techniques to various types of projects and develop better and more specific tools to manage risk in different project types. Such specific tools should become part of the common toolbox of every organisation and every project manager. We need to tailor and develop different tools for all hi-tech projects that address the specific uncertainty issues and promote better thinking and analysis on project risks. We must also learn to distinguish among project risk management tools for simple versus more complex and large projects. Finally, since there are various risk management tools available, further re-search is needed to find what works best and in what circumstances and environments. As more organisations are adopting project risk management as part of their normal business processes, additional understanding and deeper learning of risk management will continue being at the fore of the discipline of project management. The foundation for building TRM (Total Risk Management) similar to TQM (Total Quality Management) (Stensaasen, 2010) starts at the bottom (the managers) and must be supported by the upper senior management; there are two opposite driven forces which have to be synchronised, focusing the senior project management's attention on the importance of inherently using the project risk management process as part of general management.

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An analysis of music festival customers in Poland in 2018-2019

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ABSTRACT

The research was taken up because of the author's interests. The author is an active participant of all mass events in Poland and goes to music festivals at least once a year. Being an attendee of such festivals and also a member of the community under investigation, the author started to notice the recurring behaviour of the visitors. The author's main interest in this area is the motives the clients of the entertainment industry have when choosing the form of spending free time and how the organisers of music festivals in Poland can influence this decision. In order to gather the necessary data, the author used the theoretical division of client layers offered by W. Chan Kim and Renée Mauborgne in the 'Blue Ocean Strategy'. The data have also been supplemented with the author's own knowledge about the practical side of this problem. By constructing an extensive yet very interesting form, the author got 1000 answers altogether related to the position of Poles in the surveyed area. Using a number of recommendations from the Marketing and Strategy positions, the collected results have been supplemented with noteworthy theory.

Keywords: Non-customers, Customers, Blue Ocean Strategy, Usability Analysis, Poland.

1. Introduction

The annual holiday season offers an increasing variety of entertainment events. The Polish proposal is rich in various events and it is still growing. Almost every holiday weekend there is an opportunity to participate in organised culture. Festivals are more and more often extending beyond the summer time frame, penetrating other seasons in a form adapted to the weather conditions. As a result of the research carried out by the Polish Central Statistical Office (currently known as Statistics Poland) within the confines of a publication entitled "Culture in 2017", it was presented that 47.3% of all mass events were artistic and entertainment events (Poland, 2017). The number of users is also growing noticeably from year to year, which means that the organisers of many events are faced with a real challenge.

This above-mentioned paper focuses on the market of music festivals in Poland which, apart from providing a musical element, requires

precise organisation, offering exceptional quality. Many business activities, city leaders as well as non-profit organisations try to satisfy the needs of consumers on a massive scale. In order to meet the requirements of potential customers it is necessary to know their expectations, limitations and tastes. The client, in order to choose a form of spending free time, is guided by a number of criteria, including: the character of an event, the date of its occurrence or the opinion of previous participants. Event organisers can have an influence on all of these factors. However, they should not do this on unreliable grounds. Preparing a strategy by organisers and good basis for decision-making is necessary to gain a successful effect and it will encourage potential customers to take advantage of the offer. Any changes to the formula of a musical event should be made after a detailed analysis of potential demand.

The main aim of this paper is to present the specificity of customers in the music festival market and their analysis in terms of the useful-

ness of the available offer. The article describes primary participant's action and opens a view to original prospects for organisers. The paper puts forward additional research questions: how do music festival creators affect individual audiences and how do they try to attract more and more demand? What preferences do the clients and three layers of non-customers have? Are the surveyed conscious consumers of this market and do they react to current problems related with the industry?

The assessment will make it possible to present in detail the shortcomings of the industry and will highlight the strengths and weaknesses of mass events in Poland. This data can be used to guide the agents towards better solutions for the future projects and will help understand the unwillingness of the potential audience.

Research hypothesis: Beyond the invited artists as the key success factor for music festival organisers the respondents enumerate non-cultural variables, in particular a wide range of additional attractions, reliable customer information about all the aspects of the festival and also an intuitive service system.

Papers about festivals are usually a return into the recipients of these events, often taking on a promotional character, leaving aside the research sphere of this creative market. In Poland there are few studies covering this subject. A report by a team of researchers from Poznań: "The festivals impact on Polish cities" (Poprawski, 2015) highlights the importance of the festival-goers' behaviour. Despite very different preferences, the participants share common passions and fascinations, which lets them qualify as a kind of subculture.

A paper by Bielski et al. entitled "Green Festivals" touches upon a problem of the impact of the invasive festivals industry. They talk about the problem of the festival community around the world and mention the objectives of the United Nations Environment Programme: "Music & Environment Initiative". The idea is primarily to use the popularity of music to promote environmental awareness and help in order to 'green' the music industry (Bielski, Mieszkowicz, Partyka, Pastuszek and Pieśluk, 2013).

The closest research undertaken in this field was an article published in 2015 on the "Turystyka Kulturowa" ["Cultural tourism"] website, which focuses on the evaluation and development opportunities of one of the Polish festivals – OFF Festival in Katowice. The researchers conducted their research on a specific sample – the inhabitants of Katowice and on the festivals participants. The collected data allowed for a projection of an average visitor and preparation of an optimal strategy for further

development of the festival (Majchrzak, Matulewski i Makohonienko, 2015).

However, the above works do not focus directly on a strategic analysis of those interested in this market. The researchers touch upon specific cases but not the experiences of an average customer. These motivations influence their choice of the form among the possibilities offered in the entertainment industry.

It is worth explaining a few terms that will be repeated in the research. The results include a specification of a customer group with different preferences. The notion of a consumer with a different distance from the market derives from the "Blue Ocean Strategy" (Chan and Mauborgne, 2015). The strategy consists not only in closing in on a group of users who already benefit from the market, but also in noticing the resource of customers outside the wall of bloody (implicitly like "red waters") competition and fighting for those interested in the market. The whole process of creating "Blue Oceans" involves innovative thinking and taking into account markets unrelated to the entertainment industry, which are chosen by means of expanding the knowledge about consumer groups. The book proposes a division into customers and three layers of non-customers. The client is an active participant of festivals. They are precisely the users of the festival organiser. There are many terms in the literature that define participants from many perspectives. The most interesting and highlighted figure by event tourism researchers is a "specific cultural tourist" (Irleand, 1988), as Armin Mikos von Rohscheidt explains: there are people for whom the motive for visiting cultural sites or participating in a cultural event was decisive for undertaking a trip or at least one of the important arguments for undertaking it" (Rohscheidt, 2016). The non-customers are divided into three layers. The first group is made up of people who are more and more inclined to other activities but occasionally they use this offer. The second level of non-customers reject festivals as a form of entertainment not only because of their unwillingness to participate but also because of the possibility of meeting their needs in different ways or because of other barriers. This text will try to find as many reasons for abandoning the festival market as possible. People who have never thought about taking advantage of the music festival offer are called third degree non-clients. These are individuals who are not interested in this market, whom festival makers often unconsciously exclude as potential customers. Noticing the barriers of participation, as well as the values of other competitive industries, allows to spot the

weaknesses in the organisation of mass events. Philip Kotler and Milton Kotler claim that “companies often fail to notice these microspheres of growth because they are used to thinking in terms of purely large markets” (Market Your Way to Growth: 8 Ways to Win, 2012).

What has been very useful in the present study is a utility buyer’s map. It tends to notice that many experiences which customers may fall through connect with the activities of the creators of musical events. It consists of six stages of the buyer’s impression cycle and six utility levers of these stages. The components depend on the industry’s specifics and are selected to draw attention to the most important aspects of the market.

The main assumption of the ‘Blue Oceans Strategy’, from which the defined phenomenon descend, is to find a way of market innovation by meeting the client’s expectations, as well as to take a broader view of the sector in order to look for sensitive and incomplete points of offer organisation. However, customers usually require very different needs and it is not always possible to draw one-way conclusions from the analysis. Nevertheless, the method of getting to know the existing resources in the short and long term, brings us closer to the foundations for the creation of a completely new market. It gives a broad understanding of the participant’s motives and also allows to notice theoretical common features. The next chapter will allow us to extend the knowledge on the other, utilitarian side.

2. Research methods

The paper uses a qualitative survey with the use of a Google questionnaire conducted on a random sample of 1002 people. The survey could be filled in by a person of Polish origin, without any age, preferences or frequency of participation in mass music events. The form was completed by the respondent once (it was not a cyclical survey). The interviewer did not participate in the answering time. The questions used in the study were open and closed and the respondent was informed about the details of the study before filling in the questionnaire. The time range of the survey encompasses five months: from 1 November 2019 to 11 March 2020. The research took place before the Covid-19 epidemic.

3. Results

The research was mainly conducted by young people. Respondents aged 14-25 represent 76.3%. The scale of the gender structure is preserved in a similar way. As many as 74.8% of the interviewees are women. The most accurately defined group in the survey are the participants of music festivals (55,8%). They are called customers in the figure 1. According to the specifications of the groups defined above, the respondents were divided into specific layers presented in figure 1.

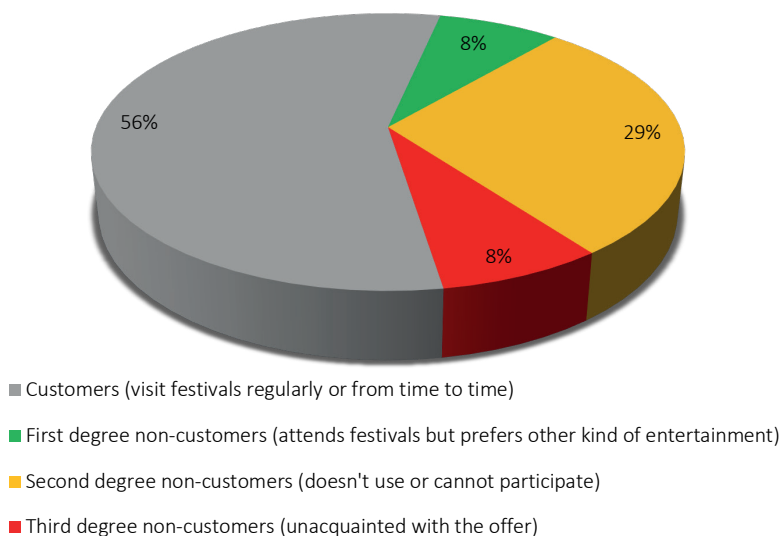


Figure 1: Frequency of participation in music festivals
Source: the author's own elaboration

3.1. Analysis of music festival customers

The largest number of young people emerged in the group of participants in music festivals. There are 74.3% recipients of the organiser's activities who are in the age range of 14-25. The decrease in the average age may be due to the offered line-up or greater maturity of young people. Participation in such an event usually does not require the age of 18 (statutory age of legal liability in Poland).

The promotion of music events begins with germination of awareness of their existence. The client, who knows the basic information about the festival, comes back to the event and more often considers participating in it. When asked about the dates of Polish festivals, most respondents knew about July's Open'er Festival (79.6%), Orange Warsaw Festival (68.2%) and Pol'and'Rock (54.4% of the respondents). As regards the other mentioned events in Poland, the date could not be determined by more than half of the interviewees (there were: OFF Festival, Kraków Live Festival, Auditoriver and Sunrise Festival). The ability to place particular festivals on a map is characterised by a similar relationship. The location of Pol'and'Rock was known to 88.6% of customers, Open'er – 79.1%, almost ex aequo with Orange Warsaw Festival (77.7%).

3.1.1. User preferences of festivals

The research shows that the participants identify themselves with known patterns, such as common music, but also with the music which is not obvious in perception, as well as with music which follows musical experiments. They expressed a high interest in popular music, such as rock (369 people), broadly defined alternative music (362 interviewees) and purest pop music (323 recipients).

Outside the festival season, the participants of these mass events enjoy other forms of entertainment. First of all, they choose the tourist market, travelling not only to arrive at a festival, but also to explore other cultures and see something unusual (61.1%). Every second participant chooses to spend time at home (49.6%), and two out of five people enjoy the entertainment of pubbing – meeting friends in order to socialise (42.1%). For 35.7% of festival-goers, the time spent with their families is important. Every third festival-goer is physically active (30.2%). Every fourth person in this resource chooses the theatre, opera or philharmonic (26.8%), computer and board games (26.8%) or museums and art galleries (25.4%). Such information allows the organisers to consider whether the currently used techniques of linking the forms of spending time at festivals sufficiently covers the existing preferences.

Polish festival-goers increasingly often choose foreign festivals. Five out of one hundred respondents choose to attend foreign music events (5.5%). They can give the organisers an idea of what makes external events stand out and more attractive than the local ones. The most frequently mentioned competition for Polish festivals are Czech Colours of Ostrava, the Belgian edition of Tomorrowland, the Hungarian Sziget Festival and the travelling Lollapalooza festival (Berlin edition). The differences for which they choose western mass events are primarily: the aspect of safety, better line-up selection and price to quality ratio. Interestingly, they also talk about monotony in inviting stars. The biggest festivals in Poland (Orange Warsaw Festival, Open'er Festival and Krakow Live Festival) are organised by one agency – ALTER ART. There is a great responsibility resting on them, as well as a test of originality, to make each of these festivals more unique and different year after year. However, often among the participants, voices of outrage and conspiracy theories about the organisers can be heard. First of all, they notice a tendency for artists to repeat themselves within these events over the next years. From year to year, this is more noticeable and can repel the regular goers. The motivation to take advantage of the foreign offer is also the desire to commune with a different culture of fun at festivals and to combine musical experiences with tourism.

One important aspect of the clients' needs analysis is to notice their preferences, requirements and to outline their opinion about the specific components of a mass event. When asking about the conditions for choosing festivals, what is most important is the list of artists as well as the amount and the schedule of their performances (92.14%). A valuable aspect for clients, emerging from the survey, is also the credibility of the event (57.7%). Little-known new events, as well as those organised by unknown or non-industry entities are rarely chosen. At a time when there is more and more concern for the ecology and discussion about problems touching this kind of events, only 22.9% of participants pay great attention to the organiser's approach to these points. Providing an environmentally friendly solution for the industry is partly important for 51.1% and 26.1% do not pay any attention to this aspect. Despite the fact that there are pro-environmental intentions from organisers, there is still lack of awareness among the participants. The results of the study conclude that a good practice and a sense of duty to segregate waste and take care of our planet is at a low level in Poland. It may turn out to be a good practice to involve partici-

pants to make a step towards cleaner festivals. One of the ideas could be a competition consisting of collecting used plastic packaging and exchanging them for gadgets from the event's sponsors (Parszowski, 2015). Showing the attitude of event organisers towards the impact of mass events on the environment, or being a part of pro-environmental associations, may also interest those involved and build environmental awareness in this market. One of the international non-profit companies set up to provide help to events and festivals on their way to becoming more sustainable projects aimed at reducing environmental impact is A Greener Festival (AGF, 2020). It provides certification and facilitates access to best practices.

Less than every third person pays attention to ensuring safety during a festival (26.1%). The majority of participants (86.8%) declare that they do not choose festivals because of their popularity among famous people. They do not need to go to an event to meet the influencers. Additional attractions offered at an event, such as cooperation with recognisable brands or stands of other cultural and social entities are not an incentive to choose a festival. Two out of five people do not acknowledge these benefits (41.4%), and for half of the customers it is not the most important aspect (50.5%).

The financial issue is a deciding factor in taking part in festivals (37.4% of the audience). The cost of the ticket is just the tip of the iceberg. The participants also took into account the cost of travelling to the venue of the event, possible accommodation, as well as the subjective evaluation of the profitability of the event.

Another need of participation is the availability of friends during the festival (12.3%). At this point there was a declaration that well-chosen company can reward all mistakes and obstacles that normally deny participation. Every tenth respondent pays attention to the date of the event (10.6%). It may be involved with a possibility of taking a holiday (working people) or the occurrence of an exam session (students, scholars).

3.1.2. Experiences of music festival customers

In order to conduct a deep analysis of the aspects of user experiences, a tool developed by W. Chan Kim and Renee Melborgne – a utility map, was used (Chan and Mauborgne, 2015). Based on the division from the “Blue Ocean Strategy” and modifications in favour of the analysis, the main steps have been identified as follows: Purchase, Delivery, Use, Accessories.

Purchase. In this aspect, a major capability problem for the customer is the price. More

than two out of three respondents consider the cost of the festival to be a problem in the event organisation. According to the surveyed participants, the greatest aspect managed by the organisers is simplicity, convenience and safety of placing an order. As many as 69.1% of the organiser's clients do not consider buying a ticket to be a problem. The instructions for the steps are intuitive and there are no major difficulties in choosing the right pass and paying.

Delivery. Moving on to the delivery of the ticket – for 73.4% of festival-goers, the choice of the delivery option is not a big problem, and the waiting time for the ticket does not cause a usability barrier for 70% of customers. The ease of this process is ensured by the possibility to send most tickets via e-mail. Some event platforms also offer a profile on their websites, where after creating an account the pass is stored by the organiser in a properly marked tab.

Use is all that customers experience personally and directly. When participating in an organised event, festival goers notice the biggest deficiencies in the successful arrangement of the performance schedule (72.9% – an obstacle to perfection here may be overly long/short breaks between concerts) and an insufficiently organised flow of the mass of people during the event (67%). To a lesser extent, customers complain about the organisation of the exchange of passes for wristbands (43.4%), possibility of payment (45.2%) and distribution of scenes (42.9%).

Accessories. Nowadays, festivals are not only about music. The space surrounding musical performances is filled with social, pop-cultural, theatrical, historical and practical initiatives. How the organisers complement the offer of a music show affects the amount of demand.

After summarising the above analysis and gaining insight into the free voices of the respondents, a usability map has been created. It allows for distinguishing the most important painful points and those, which according to the users, are most refined.

The next step is to become familiar with the activities of those who do not participate in festivals in a wider entertainment industry. The first group of non-customers are still purchasers of music festival offers, who sway to other forms of spending time more and more often. However, this layer is able to point a way for specific innovation routes. Their participation and the level of awareness of the impact of many different issues affecting each individual at the event can target sensitive parts of the organisation and help to introduce a new real value.

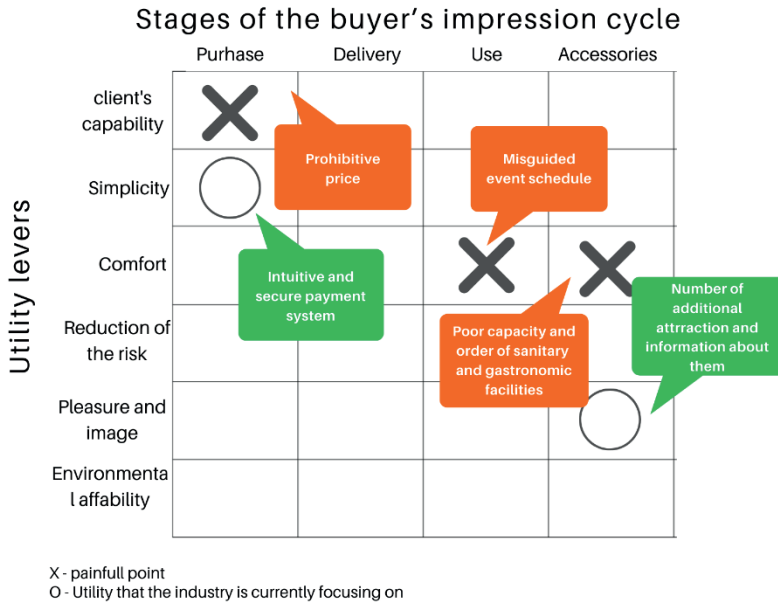


Figure 2: Utility map of music festival clients
Source: the author's own elaboration

3.2. First layer of non-customer analysis

In the prepared survey, only 79 respondents declared that they choose a different form of entertainment more and more often, giving up the examined market (7.9% of all respondents). Despite the small sample, this is a very diverse group of clients. Women (73.4%) are the main contributors to this part of the survey. Every fourth man stops participating in music festivals (25.3%). This part is much smaller than the market users but shows similar age relationships.

Interested in music more than in festivals themselves, it creates the greatest resource in this attempt. More than half of the respondents participated in at least one concert in 2019 (53%). Interestingly, many of these events differ from those mentioned by the festival clients. There are more specific, personalised events. A large group of interviewees named concerts of their friends as well as performances of music groups and bands of artists spreading musical projects, reeditions of film music such as Polish Studio Accantus or Percival Schutzenbach.

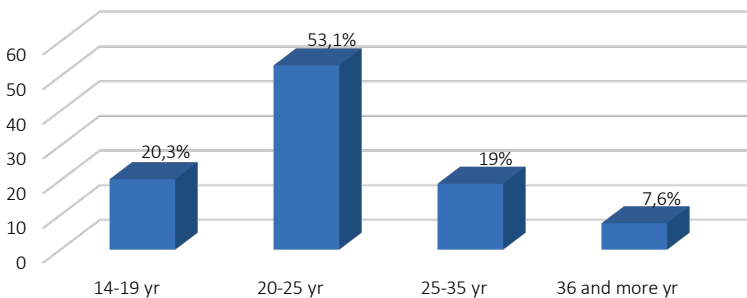


Figure 3: Age structure of the first layer of non-customers
Source: the author's own elaboration

3.2.1. Preferences of first layer of music festival non-customers

Musical tastes of the group under analysis vary considerably. Despite the great renewal of interest in pop (52 votes), rock (50 votes) and alternative music (47 votes), there is also interest in rap (30 votes), electronic music (25 respondents), R&B (16 people), jazz (14) and metal (11). The distinction is much bigger than in the customers of festivals, which may cause a greater problem in meeting the musical expectations of these people at multi-genre festivals.

The first class of non-customers also attend festivals, so it is worth noting what they suggest in their decisions. The most important aspect for them is the list of proposed artists (81%). Just as customers, they do not choose events which are not authentic. Credibility is an important aspect for 55.7% of them. Two out of five people choose the festival because of its location (40.5%). The organisers' care for the environmental topic is a factor which determines the festival choice by only 29.1% of the respondents. When the market's refugees choose an event, they do not pay attention to additional attractions (45.7%), and above all, they are not interested in the festival popularity or the number of celebrities visiting it every year (83.5%).

More and more often, their decision to spend free time is made in favour of other entertainment opportunities offered. The most frequent non-client of the first degree chooses travelling (66.3%) and spending time at home (58.4%). On average, one in three resigning exchanges festivals for visits to museums, art galleries, theatres and operas (33.8%), spending time with friends in pubs (32.5%) or doing physical activity (31.2%).

3.2.2. Experiences of first-degree music festival non-customers

The main reason why clients leave the resource of festival audience is the negative experiences of staying at such events. Most festivals are a way out of their comfort zone (40.5%). To the same extent, those fleeing the market do not engage due to the seasonality of this industry (40.5%). They also have problems with: high physical and mental strain felt after the events, insufficient care for environmental topics and increasing publicity of the risk associated with dangers of mass gatherings. However, most of these arguments do not go to the essence of participation problems. These conclusions are built on deeper feelings and experiences in the festival area.

More than half of the respondents consider overly high prices to be a problem in Po-

lish festival experiences (59.5%). According to those who gave up the market, the biggest problems, are also: preparation of the participant flow system (58.2%), arrangement of the hourly schedule (58.2%) and access to a variety of possible payment methods (57%). The capacity of the festival area affects the participants' safety and comfort. It allows for full involvement in dream concerts if the schedule is also well thought out. Unfortunately, the list of artists and their distribution on particular stages is unsatisfactory for almost half of those resigning from the market (48.1%).

It is worth emphasising the fact of dissatisfaction with the gastronomic offer in the festival area. More than half of first level non-customers believe that food is poorly adapted to today's market. Meals are expensive and the offer of an increasingly popular vegan and vegetarian diet is often poor. Meatless meals are usually a modification of meat dishes by eliminating animal products without offering substitutes or price discounts. Such meals during the exhausting festival days may not be enough, and the prohibition to bring own food may be a reason for increased swoons and other health problems.

3.3. Second layer of non-customer analysis

A large number of 286 respondents (28.5%) declared themselves within this group. It is a bipolar group, because it not only contains the opponents of this market but also the so-called "silent admirers" who do not have the opportunity to take part in festivals. Most of the group is made up of women (79.7%), with men comprising one fifth of the stock (20.3%). The majority of second degree non-customers are pre-university students, who do not usually have access to free resources and whose parents do not always agree for such recreation. Furthermore, there are disabled people, who need help to participate in such events (summary 45.5%). Another group, similarly numerous to the previous one, is a collective containing 36.7% of the respondents aged 20-25. The smallest groups are the 26-35 age range (9.8%) and those over 36 years old (8%).

3.3.1. Preferences of second layer of music festival non-customers

As in the previous layers, the most preferred musical genres in this group are pop (65.7%), rock (64.3%) and alternative music (54.2%). One in three respondents tends to listen to rap (35.3%). Electronic music (19.2%), trap (15%), classical music (14.3%), metal (14.3%), R&B (11.9%), soul or blues (10.8%), jazz (9.4%), techno (9.4%) and kpop (2.8%) were mentio-

ned with less interest as favourite genres. Interestingly, a very small percentage of non-clients shared the attachment to the Polish variation of disco music called disco polo (1.3%).

When using entertainment services, the second class choose other ways to spend their time than participating in festivals. First of all, they stay at home (63.3%) or travel (45.5%). Non-participants also like to play computer and boarding games (42%). Building a closer relationship with the family is one of the ways to use their time (39.5%). They are also interested in sports (29.4%).

3.3.2. Justification of non-participating in the music festivals market

This group combines both consumers who give up on music events in favour of other activities and those who are limited by various factors to participate in festivals. The first and the biggest obstacle is the financial issues. More than half of the respondents think that festivals in Poland are overly expensive (59.1%). The fact that the largest festivals particularly take place in the environs of large cities discourages or limits 16.1% of the respondents. The summer season in which most musical mass events are held is a barrier for every tenth person in the described sample of interviewees (9.8%). In consciousness 8% of second layer non-customers predominate a belief of bad fame of popular events. Similarly, there is a lack of companionship and a sense of blockade to go to such a venture alone (7.3%). One out of five people feels fear and danger when they are in a crowd (22%) and thinks that participating in such events is a way out of their comfort zone (21%). It is also hard to encourage people who simply enjoy other entertainment (17.5%) or do not like listening live music (1.7%).

3.4. Third layer of non-customer analysis

The last and at the same time the most distant group of respondents are third level customers who have never thought about participating in music festivals. This is the smallest isolated group of interviewees (7.7%). What is fascinating is that most of the approaches to the third layer survey are taken by people aged 20-25 (55.8%). A similar trend was observed in the first layer, which means that young adults have very broad qualifications and cannot be attributed to only one of the groups formed.

3.4.1. Preferences of third layer of music festival non-customers

The long-distance music festival market characters stand out from other layers in terms of musical tastes. Similarities are found only in

the two strongest genres: pop (62.3%) and rock (37.3%). Every third person not interested in the market listens to rap (31.2%). Then, they tend to go for classical (18.2%) and electronic (15.6%) music. Interestingly, they are not the biggest fans of musical experiments such as alternative music (only 16.9% of respondents listens to this wide genre).

Non-customers like to spend their free time at home (64.9%). Every second respondent in this group chooses board or computer games as an idea for entertainment (51.9%). Almost half of the interviewees will use their time to travel (48.1%) or spend it with family (48.1%). Instead of taking part in the described events, they are engaged in physical trainings (39%), go pubbing (31.2%) or clubbing (22.1%). Every fifth representative of the third layer of non-customers explores other types of art like theatres, operas or philharmonics (19.5%).

4. Conclusion and discussion

The organisers try to recognise the spheres of customer dissatisfaction and – based on these problems – propose new, different solutions. The efforts to expand the number of industry recipients are not sufficient. The nature of the clientele of Polish festivals makes it possible to draw up a list of opportunities that our events have not achieved yet (for example: Do local citizens take advantage of the offer, and if not, why?).

Isolating and analysing individual interests of the groups allows us to notice common features of the structure. Then, it is possible to find previously undiscovered traits, defects and brakes in taking part in the festival entertainment. Information about the preferences in alternative markets can facilitate the search for common features and initiate improvements in respect to a given group.

Most of the conclusions are consistent with the author's point of view. Unfortunately, the surveyed are not sensitive to current problems related with the industry. The thread of small ecological awareness influence the opinion-forming totality of event organisation and might be a discouraging factor. The outcome of the research should inspire organisers to introduce changes and to illuminate this problem on a bigger scale. Many of the participants, despite their bad opinion on the treatment, do not see this as their fault. It does not look at it from society's behaviour perspective, narrowing the problem down to the organiser's incorrect waste management.

Music festival creators win consumers over by way of new ideas connected with up-to-date

aspects and industry needs. They have emerging trends in their sights and try to match their projects to new reality and to the wider audience, the examples of which are included above.

The respondents listed a huge amount of non-cultural variables (aside from the invited artists) which in their view are important success factors – for example: an intuitive and save payment system or a suitably established schedule.

The results of the research can be used by the industry to learn more about the possibilities of maximising the resources of the interested parties, as well as to supplement information about a distinguished group's opinions and preferences. There are only a few studies of a music festival consumer in terms of the organisers long-term strategy, whereby collected data can have a great potential and bring many benefits in spreading innovation and customer-oriented adjustments at Polish festivals.

The user experience during the pandemic is totally different. On the one hand, people experience loneliness and struggle with their deeper feelings, but on the other hand, they have a lot of opportunities to “rediscover social ties”, e.g. by participating in virtual gigs, drinks and dinner parties. Consumers are building new “social intimacy”, which could have a big impact on their preferences in the future (Accenture, 2020). How can the organisers take advantage of this time of live event stagnancy? By collecting data from the social media statistics and analysing the trends of actions in order to remodel their marketing strategies for future years. Because like Philip Kotler said ten years ago: “In the world where nothing is certain, they are looking for companies that in their mission, vision and collection of values, have an ability to express the goals that meet their deepest desire of social, ecologic and environmental justice” (Kotler, Marketing 3.0, 2010).

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Innovative development of countries in the context of global economic imbalances

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ABSTRACT

The paper emphasises the fact that innovation is a driver for development and a leading factor in economic growth and ensuring a high level of competitiveness. The impetus for further development is given to those countries that already have a sufficient innovation level of the economy. The aim of the research is to determine the role of innovative development of a country in its economic development and competitiveness of the national economy. The world's leading countries now face the challenge of building a competitive economy, so the dynamics of positioning countries in the Global Competitiveness Index (GCI) and Global Innovation Index (GII) has been provided and the view that innovation plays an important role in the country's development and the formation of its competitiveness confirmed. The authors have distinguished groups of countries by systematising the places they occupy. Furthermore, they have identified features of innovation strategies of the countries in the proposed groups. The paper also suggests integrated assessment of innovation and economic development of countries, which allows to determine their level, trace the dynamics and determine the relationship between innovation and economic development for every country. Additionally, the study has shown a relationship between the level of innovation and economic development for all countries under analysis. However, there is a difference in the degree of this relationship, which is higher for developing countries. Thus, it is expedient for these countries to pursue an active innovation policy to increase the level of economic development. Despite the fact that developed countries have more opportunities for active development of the innovative component in the national economy, their indicators in innovation and high-tech industries are declining and developing countries come to the fore.

Keywords: innovative activity, economic development, technology, technological and innovative development.

1. Introduction

Economic development is formed due to the influence of national and global factors, which are multifaceted, diverse and sometimes contradictory. This is largely due to the peculiarities of different aspects of the development process. Defining the determinants of economic growth in modern economics should provide answers to the challenges facing society within the formation of a new technological paradigm.

2. Literature review

The question of global economic development, its determinants and asymmetries has occupied the attention of many scientists, such as Filipenko (2002), Lukyanenko (2011),

Baltserovych (2000), Stolyarchuk (2009) and others. However, the issue of asymmetries of global economic development in the context of imbalances in innovative development of countries is still insufficiently studied.

There are a large number of factors and determinants of economic growth, some of which are relevant over a period of time. The fundamental determinants of economic growth are: capital, technical and technological determinants, socio-subjective determinants and synergetic determinants. A new stage of rethinking the qualitative and quantitative impact of these factors on the economic growth of individual countries and the world economy as a whole is currently taking place, based on the prevalence of a new post-industrial stage of world economic development.

The new economic order forms a new paradigm of economic development of countries and acquires signs of globality, which also leads to the transformation of the concept of “development”. This issue has been covered in a large number of studies by domestic and foreign experts. The analysis of scientific research made it possible to identify two approaches to determining the essence of development, i.e. philosophical and economic.

Systemic transformations are changing the traditional understanding of the term “development”, especially in the context of globality, as the development of global economic processes no longer corresponds to the linear trend and is difficult to predict (Zapukhliak, Herman, 2014). According to A. Filipenko (2002), current approaches of economic development should be grouped as follows:

1) scientists of the first current believe that the result of economic development is to improve the welfare of the population, improve the quality of life and meet the needs of members of society;

2) the representatives of the second current consider the general laws of development and express the opinion that it has a cyclical nature and is associated with the processes of evolution and progress (Lukyanenko, 2011). At the same time, world practice shows that development is not always accompanied by progress, so it can be regressive (Zapukhliak, Herman, 2014);

3) such scientists as R. Nureyev (2018), N. Kuznetsova (1996) consider development as a complex and multidimensional process;

4) representatives of the historical and philosophical approach (B. Shavans, 1999), V. Bryansky (1999) emphasise the fact that development is a natural and multifactorial process of alternating order and chaos in the context of social synergetics.

Global economic development is a nonlinear process that unfolds in time and space, covering countries, regardless of their level of economic development and the degree of involvement in global economic processes, formed under the influence of both internal and external factors and civilisational factors. It is the latter that are beginning to have an increasing impact on global economic development. A. Filipenko (2002) identifies four groups of influencing factors: 1) the initial level of development of countries, 2) the state of human capital, 3) economic system of the state, 4) exogenous conditions of development.

It should be noted that in developed countries, the growth rate is characterised by gre-

ater stability over the long term than in the poorer ones, which are characterised by sudden unexpected changes in economic growth, mainly due to political instability or military action (Zhylynska, Chernyak, Bazhenova, 2019).

When studying the asymmetries of global economic development, it should be noted that they are objective characteristics of world processes that complement each other, because development itself is a contradictory process in terms of content and consequences. J. Stolyarchuk (2009), a Ukrainian scientist, has thoroughly studied the trends of global economic development and supports the idea of forming a global model of economic development, and at the same time points to the existence of asymmetries, which are manifested in the lack of structural equilibrium of the global economic system and existing contradictions between them.

3. Methodology

The theoretical and methodological foundations of the study are the provisions of economic theory, theories of international economic relations, theory of economic development, scientific works of domestic and foreign scientists concerning the innovation development of countries as a factor of their economic development.

The aim of the research is to determine the role of the innovative development of a country in its economic development and competitiveness of the national economy. In order to conduct the research, several methods have been used, including: the method of system generalisation – to generalise existing theories and concepts of innovative development of countries; the induction and deduction method – to study the theoretical and methodological foundations of the unevenness of global economic development; the method of comparative analysis – to study the global economic development and countries’ innovation activity; the graphic method – for visual demonstration of the results of the study; the method of analysis and synthesis – for distinguishing groups of countries by systematising the places they occupy in both GCI and GII; the economic and mathematical modelling methods – for calculation of integrated assessment of innovation and economic development of countries and finding connections between innovation activity and economic development, as well as other methods. Data from the leading international organizations – WIPO, World Bank, UNCTAD have been used for the study.

4. Results and Discussion

Global economic, socio-political and cultural development of society from the last quarter of the 20th century to this day occurs under the ever-increasing influence of globalisation. Its economic component is primarily related to the sources, factors and forms of economic progress. We are talking here about investment and technology, labour, intellectual and financial resources, management, marketing, etc.

The forms of manifestation of these processes are the following:

- increase in international trade and investment, liberalisation and deregulation of capital movements;
- unprecedented diversification of global financial and technology markets;
- a significant increase in the role of TNCs in world economic processes;
- strengthening global competition;
- emergence of global, strategic management systems;
- increase in the importance of information and communication technologies in economic development.

The modern period is characterised by profound transformations, changes in the geocivilisation space against the background of the decline of industrial world civilisation in the first quarter of the 21st century and the parallel formation of the foundations of integrated civilisation in avant-garde countries in the second quarter. Industrial civilisation is accompanied by local and global military conflicts, economic wars, redistribution of world domination and destructive reforms. These processes lead to uncertainty in world dynamics, exacerbate intercivilisational, interstate and social contradictions and create uneven global economic development (Zapukhliak, Herman, 2014).

It is well known that the determining factor of economic growth and ensuring a high level of competitiveness of a country is its scientific and technological development, which contributes to structural transformations in almost all spheres of human life. The whole history of human development is inextricably linked to the progress of technology, and each new level of socio-economic development is based on the formation of a new technological way of management. Schumpeter's Theory of Economic Development (Schumpeter, 1934) considered technological innovations as the main driving force of economic growth. Such logic has led to the recognising of the crucial role of structural economic policy and distinguishing the leading innovation industries and traditional ones in order to reach dynamic economic growth (Bazhal, 2019).

During the development of scientific and technological revolutions, the nature of human life changes dramatically. The consequences of their impact on the socio-ecological and economic development of the entire civilisation were noticeable in the second half of the 20th century. A new stage of the scientific and technological revolution unfolded in the world, at the epicentre of which were the United States, the Soviet Union, Japan, France, Italy and some other Western European countries, as well as Canada. And much as the first scientific and technological revolution, the scientific base of which was created in the early twentieth century as a result of scientific breakthroughs in science and theoretical physics by countries such as Germany, France, the UK and the United States, led to qualitatively new transformations in industry, the modern information revolution revolutionised almost all areas (not only material production and services, but also intellectual labour). The period of scientific and technological revolution of the second half of the twentieth century was characterised by the formation of nuclear energy, gradual automation of production and constant growth of its energy consumption, creation and rapid improvement of computer technology, beginning of the development of outer space, as well as the emergence of genetic engineering (Lukianenko, Poruchnyk, Kolot, 2011).

Thus, if in the 1950s in most capitalist countries there appeared quite favourable conditions for economic growth, which was carried out mainly through the extensive use of natural and intellectual resources, then since the early 1960s, economic growth has slowed down significantly, and there emerged a need to intensify production. This need was satisfied by the introduction of the latest achievements of STP in all areas of the economy, in particular, new resource, labour and energy-saving, environmentally friendly and waste-free technologies (Fig. 1).

The equalisation of economic growth in the regions of the world among developed and developing countries indicates economic globalisation, spread of industrial production to all countries, reduced industrial capacity of developed countries and accelerating economic growth in developing countries.

According to OECD experts in the mid-20th century, the rate of economic growth of the world's leading countries was determined by the progress of new technologies by 38%, and at the end of the century - by 65% (Shiryaev, 1990). So today it is becoming increasingly clear that the economic power and progress of

each country is due primarily to the intensity of the introduction of new technologies and achievements of scientific and technological progress.

In modern conditions of development of the global market environment the possibility

of introduction of the newest technologies and access to other resources, is not uniform. For example, more than 60% of the world's population cannot integrate into the digital economy because they still do not have access to the Internet (World Development Report, 2016).

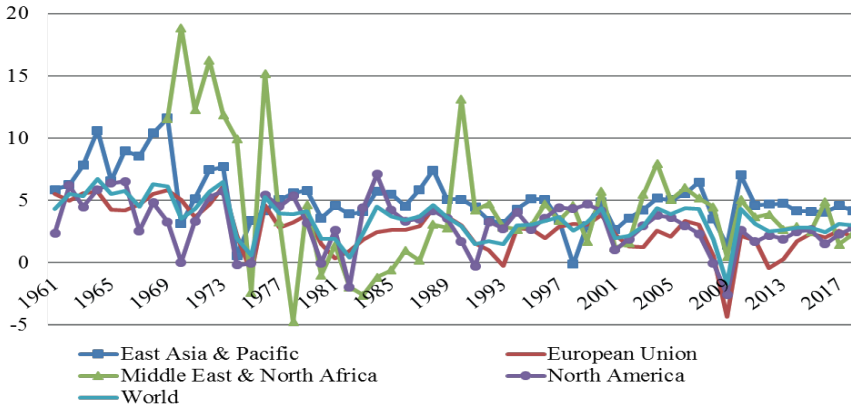


Figure 1: GDP growth (annual %) by regions of the world, 1961-2018
Source: World development indicators (2020)

Unlike innovations in the past, the current benefits of technological change are not equally distributed in all regions of the world. Real income lags behind the growth rate of productivity, and regional socio-economic inequality is deepening (Frey, Osborne, 2016, p. 7). Socio-economic and historical preconditions for the development of economically developed societies create more opportunities for the introduction and use of new technologies. However, with the development of mechanisms for coordination and control over geographically dispersed production chains, the process of automation is slowing down even in socially developed countries (Mulyavka, 2016). After all, it is

possible to hire cheap labour on the periphery with a higher level of exploitation and lower standards of labour protection. This decision is explained by the simple logic of capitalist relations: minimising costs to maximise profits. It is cheaper for owners of industrial enterprises in the USA or Germany to transfer production facilities to poor societies in Africa and Asia than to technologically re-equip production at home (Dyer-Witthford, Nick, 2015, p. 135). These processes lead to redirection of trade flows of industrial goods and establishment of new industrial supply chains, formation of new industrial centres (Fig. 2).

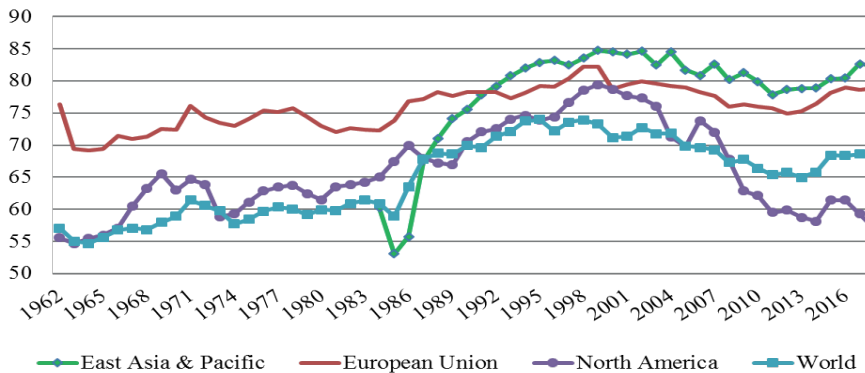


Figure 2: Manufactures exports (% of merchandise exports), 1962-2018
Source: World development indicators (2020)

Despite the fact that a number of non-Western societies are successfully coping with the process of industrialisation, income inequality between countries has deepened markedly since the Industrial Revolution (second half of the 18th century). In 1820, income in Western societies was 1.9 times higher than in non-Western countries. Over the next 180 years, the West significantly distanced itself from the rest of the world: in 2000, per capita income in Western societies was 7.2 times higher than in non-Western ones (Fig. 3).

This, in turn, leads to the re-equipment of industrial facilities in developing countries and indirectly affects the overall level of economic development of a country and its socio-economic status. This is especially true in the countries of the Asia-Pacific region.

Despite the fact that developing countries have the opportunity to implement modern technologies, the rate of technology spread is still lower than in developed economies, which

leads to uneven distribution of resources and imbalances in regional development (Frey, Osborne, 2016, p. 16). To overcome existing imbalances in both economic and innovative development, developing countries need to make qualitative changes in their national development strategies, providing more attention and resources to the development of the innovation sector of the national economy.

Innovation is considered a guarantee of sustainable and long-term economic development for a country. However, innovative development involves not only technological restructuring of industry, but also requires additional investment in human resource development, i.e. knowledge, skills and creativity. Countries that invest in industrial innovations, education and human development, spend significant resources on R&D and have a national strategy for the innovation potential development, could increase their competitiveness and gain an advantage on the world stage.

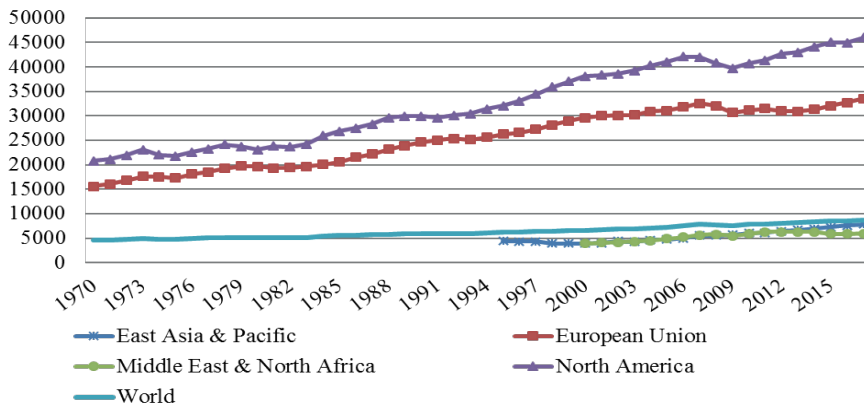


Figure 3: Adjusted net national income per capita (constant 2010 US dollars) 1970-2018
 Source: World development indicators (2020)

The positioning of countries in the global economic and innovation space confirms the statement that there is a direct relationship between the key indicators of these sectors.

The global distribution of innovation remains significant and quite diversified, as high-income economies lead in shaping the innovation landscape, while there are large gaps in all innovation performance between these leaders and other less developed countries, and this gap is gradually widening. In this case, developing countries can achieve better results in the development of national economies only if effective implementation of innovation policies takes place.

The innovative dimension of development of countries is provided by numerous ratings

and indices, which are developed and published by recognised international institutions. These are, first of all, the Global Innovation Index (GII), the Global Competitiveness Index (GCI), the Bloomberg Index of Innovative Economies, the European Innovation Scoreboard, the OECD Scoreboard on Science, Technology and Industry, and others.

According to the methodology of the World Economic Forum to assess the level of competitiveness, one of the elements of the GCI is the technological potential for innovation. Innovation is especially important for emerging economies. And although less developed countries can still increase productivity by adopting existing technologies or gradually improving other areas, this approach is no longer enough

to increase productivity in those countries that have reached the innovative stage of development (Schwab, 2019)

The degree of economic development and the economy's competitiveness are inextricably linked with the process of increasing the innovation component in the structure of the economy and the corresponding innovation strategy. Thus, effective innovation strategies in a country lead to increased competitiveness of the economy, which is why the authors have decided to analyse the positioning of countries

on the GCI on the one hand, and the leading indices that characterise the degree of innovation in the country – on the other.

The criterion for the selection of countries was the place they occupied in the Global Competitiveness Index in 2019. It should be noted that over the past three years, the list of countries in the top 10 has not changed; there are only changes in the ranking for this period. Additionally, in 2018 the methodology for assessing the level of global competitiveness changed.

Table 1: Top 10 countries according to the Global Competitiveness Index in 2019 and the positions of these countries in 1999, 2009, 2017

Country	2019		2017		2009		1999
	Place [141]	Mark [100]	Place [137]	Mark [7]	Place [137]	Mark [7]	Place [58]
Singapore	1	84.8	3	5.71	5	5.53	12
USA	2	83.7	2	5.85	1	5.74	1
Hong Kong	3	83.1	6	5.53	11	5.33	21
Netherlands	4	82.4	4	5.66	8	5.41	3
Switzerland	5	82.3	1	5.86	2	5.61	5
Japan	6	82.3	9	5.49	9	5.38	14
Germany	7	81.8	5	5.65	7	5.46	3
Sweden	8	81.2	7	5.52	4	5.53	4
United Kingdom	9	81.2	8	5.51	12	5.30	10
Denmark	10	81.2	12	5.39	3	5.58	7

Source: based on the Global Competitiveness Report (Porter, Cornelius, 2000; Porter, Schwab, 2009; Schwab, 2019).

The dynamics presented in Table 1 show that most of the leading countries in the Global Competitiveness Index have held leading positions for the last 20 years. However, the general trend indicates a gradual increase in the position of countries in the Asia-Pacific region, in particular, Singapore, Japan and Hong Kong, while some developed Western countries are losing their positions (Denmark, Sweden), or even fall out of the top 10 (Canada, Finland).

The leading countries now face the challenge of building a competitive economy. The fact that among the leaders of innovative development are developed countries with high income confirms the view that innovation plays an important role in the development of a country and the formation of its competitiveness. That is why the Global Competitiveness Index is also used for assessing the innovative dimension of the development of countries.

High productivity of the economy is the most important factor determining long-term growth and income. The Global Competitiveness Index 4.0 report (Schwab, 2019) outlines a new set of factors important to the productivity and competitiveness of the country's economy in the Fourth Industrial Revolution (4IR) (Fedak, 2018, Syhyda, 2018). The inextricable link between

the innovative development of a country and the formation of its competitiveness is obvious – the countries that occupy the first positions in the Global Competitiveness Index are also leaders in the Global Innovation Index.

The Global Centre for Innovation can be considered the most objective means of assessing the country's innovation activity. It is well known that the list of leaders in the global innovation environment usually includes developed countries. However, since 2016, the top 25 Global Innovation Index (in 2020 – 14th place) inc-

Table 2: Ranking of countries by GII, 2020, 2018 and 2007

Country	2020	2018	2007
Switzerland	1	1	6
Sweden	2	3	12
USA	3	6	1
United Kingdom	4	4	3
Netherlands	5	2	9
Denmark	6	8	11
Finland	7	7	13
Singapore	8	5	7
Germany	9	9	2
Rep. of Korea	10	12	19

Source: based on Dutta, 2007; Dutta, Lanvin, 2020; Dutta, Lanvin, 2018.

cludes China – a country with a middle income (upper-middle). Apart from China, the only country with an above-average income level that is close to the top 25 is Malaysia (33rd place in 2020). Following the results of 2020, Vietnam, India and the Philippines are the economies with the most significant progress in their rankings. These countries are now in the top 50. Switzerland, Sweden and the United States top the innovation rankings, followed by the United Kingdom and the Netherlands. This year, for the first time, the second Asian economy – the Republic of Korea – entered the top 10 along with Singapore.

As a result of the countries' comparative description on the GII and GCI, the following conclusions can be drawn.

It is possible to distinguish groups of countries by systematising the places they occupy. Thus, there are countries whose places in the GCI are higher than in the GII: Singapore, Hong Kong and Japan – the countries of the Asia-Pacific region. This may indicate that the innovation system in these countries is not a key factor determining the level of competitiveness of the country's economy. The positioning of the countries on the world stage is actively influenced by other factors, such as human potential, industrial production or imported innovations. This assumption is logical because of Japan's experience in building its own innovation system. In the period after World War II, Japan actively involved foreign technologies and that became the base for developing their own technologies and industries, which led to the fact that in the 1980s Japan became one of the most technologically advanced countries in the world. Thus, these countries can be called importers of innovation.

Another group of countries are those whose places in the GCI are lower than in the GII: Sweden, Denmark and Finland. In this group, the country's innovation potential is a more decisive factor in positioning the country on the world stage, but significant innovation potential is not fully used for achieving a significant level of competitiveness. Perhaps, in this case, the results of the country's innovation activities are more exported, so the country acts as a producer and exporter of innovations.

China should be added to this group (14th place in GII and 28th place in GCI). China is not in the top 10 of the indexes we observe, but its role at the global arena is huge and the features of its innovation strategy should be noted.

The next group of countries are those who cannot be unanimously assigned to the first or second group of countries: their places on the proposed indices are almost the same (Nether-

lands, Germany, USA, UK). The level of innovation and competitiveness of these countries is about the same, so they are effective innovators because their innovation systems are able to produce the amount of innovation that is necessary for economic development and increasing the country's competitiveness.

Table 3: Grouping of countries by positioning according to the GCI and GII, 2019-2020

Importers of innovation, GCI>GII	Producers of innovations, GCI<GII	Effective innovators, GCI~GII
Singapore, Hong Kong, Japan	Sweden, Denmark, Finland, China	Netherlands, Germany, USA, UK

Source: the authors' own analysis.

It should be noted that the countries suggested for grouping have common features in the implementation of innovation policy measures. In order to develop and provide innovations, most countries successfully create and use networks of technology parks and science cities (USA, Germany, UK, Sweden, Denmark, China), free trade and investment zones (China), venture funds and public-private partnerships (China, USA, UK), as well as business incubators (Japan, Denmark, USA, Germany).

The group of countries that we suggested as Producers of innovations has common features of the innovation strategy. The existing over-concentration of innovative developments around large multinational companies leads to an increase in the export potential of the knowledge and technology transfer. Significant state financial support for research and projects borders on delegating the innovation management process to the regional and municipal levels. The countries in this group are innovators in implementing e-government. Universities and research institutions are independent agents with significant government and external funding and have the ability to commercialise projects.

A group of Effective innovators demonstrate common goals of innovation strategy – to achieve leadership in science and technology (USA), to seize world leadership in high-tech development, production and export of high-tech goods and services and to become an innovative state (Germany), which will increase the national level of welfare of the nation. The countries of this group are characterised by the active participation of the public sector in stimulating research and their implementation in production processes, availability of a significant number of high-tech industries and services, the significant role of higher education and its close relationship with industry.

According to provided research, the authors see that the leading countries in the GCI are also leaders in the GII, which confirms the strong connection between the innovative development level and the overall level of economic development. These countries conduct certain measures to stimulate innovative development and occupy leading positions in the indicators of innovation performance.

To obtain mathematical confirmation of the analytical conclusions, the authors propose to conduct economic and mathematical modelling of the interaction of innovation activity and economic development of countries. As none of the existing indicators of economic development or indicators of the innovation sphere can fully characterise the effectiveness and efficiency of the policy implemented by a country, we propose to calculate the integrated indicators of innovative development and economic development.

To perform this task, a mathematical apparatus has been used, namely – calculating the multidimensional average for each of the indicators.

The multidimensional average is an integral estimate of an object in a multidimensional feature space; such an estimate is geometrically interpreted as a point in multidimensional space, the coordinates of which indicate the scale or position of the j -th unit or j -th object. The algebraic value of the feature of the j -th unit of the population is represented by a vector

$$X_i = \{x_1, x_2, \dots, x_m\}$$

and their aggregation means the translation of vectors into a scalar.

The aggregation of features is based on the so-called theory of “additive value”, according to which the value of the whole is equal to the sum of the values of its constituent elements.

If the features of the information set $\{X\}$ are represented by different units of measurement, then additive aggregation requires bringing them to one basis, i.e., pre-standardisation (rationing). The vector of initial features

$$X_i = \{x_1, x_2, \dots, x_m\}$$

is replaced by the vector of standardised values

$$Z_i = \{z_1, z_2, \dots, z_m\}$$

Integral estimation is defined as a multidimensional mean, i.e., the arithmetic mean of standardised values of the features – for the j -th unit of the population:

$$\bar{\rho}_j = \frac{1}{m} \sum_{i=1}^m Z_{ij} \quad (1)$$

The authors suggest calculation of integrated assessments of innovation and economic development of chosen countries. Based on a previous study of global innovation trends, the leading countries were identified as leaders in the GII and GCI, which allowed to divide countries into groups of exporters of innovations, importers of innovations or effective innovators. The countries were chosen to calculate the integrated indicators of innovation and economic development. Integrated estimates are calculated for the following countries (in the dynamics for 2010-2019): China, Denmark, Finland, Germany, Hong Kong, Japan, Singapore, Sweden, Netherlands, UK, USA.

Among the indicators of innovative development there are: Computer, communication and other services (% of exports of commercial services) (X1); Computer, communication and other services (% of imports of commercial services) (X2); High-tech exports (% of exports) (X3); R&D expenditures (% of GDP) (X4); Number of researchers in the R&D (per 1 million people) (X5); Exports of ICT goods (% of total exports of goods) (X6); Imports of ICT goods (% of total imports of goods) (X7); Patent applications, pcs. (X8) – stimulator. Integral assessments of innovative development provided in figure 4.

Analysing the dynamics of integrated assessment of innovation development, we can say that for the period of 2010-2019 the most significant development was shown by China (with an average annual growth rate of integrated indicator amounting to 12.5%), Germany (+11%) and Hong Kong (+10%). The average rate of development is observed in Singapore (+7.3%), Denmark (+6.1%), USA (+5.6%). Slight growth in innovation development in the UK (+1.7%). Netherlands, Japan, Sweden and Finland showed a negative result in innovative development for the period of 2010-2019 (-0.1%, -0.1%, -2.5%, -9.8%, respectively).

The indicators of economic development include: Adjusted net national income per capita (thousands of US dollars) (X1); GDP per capita (thousand US dollars) (X2); Employment in industry (% of total employment) (X3); Employment in services (% of total employment) (X4); Machinery and transport equipment (% of value added in production) (X5); Exports of industrial goods (% of exports of goods) (X6); Exports of commercial services (billion USD) (X7).

Regarding the integrated assessment of economic development, the leader among the represented countries in 2010-2019 was China, where the average integrated indicator grew by 29.5% annually. High economic development

is also demonstrated in Germany (+16.1% on average annually) and the UK (+14.6%). Favourable development is observed in Singapore (+8.8%), Netherlands (8.7%), USA (+8%).

Slight development was shown by Denmark (+5.1%), Hong Kong (+4.7%), Sweden (+3.6%), Japan (+1.2%) and Finland (+0.6%).

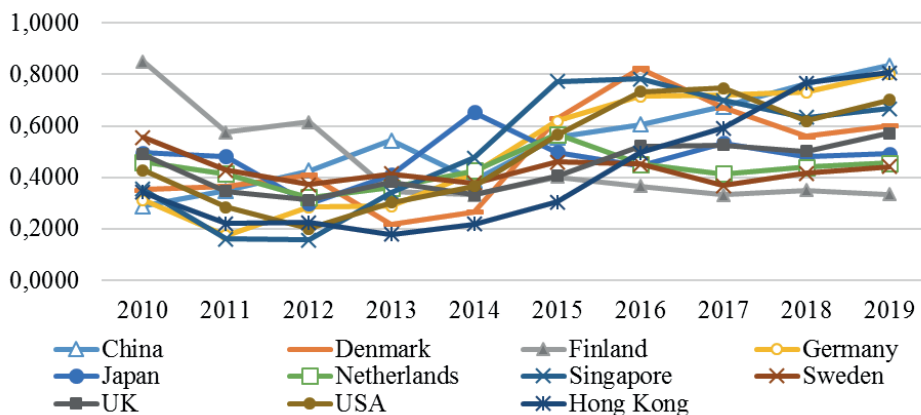


Figure 4: Integral assessments of innovative development, 2010-2019
Source: calculated by the authors

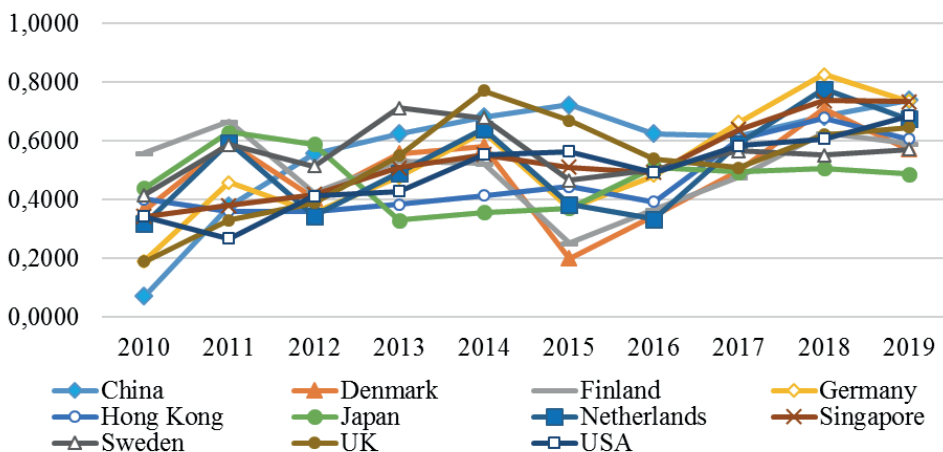


Figure 5: Integrated assessments of economic development, 2010-2019
Source: calculated by the authors

To assess the correlation between the integrated indicators of innovation and economic development, linear pairwise correlation coefficients were calculated using the CORREL function in MS Excel. The even correlation coefficient indicates the direction and closeness of the relationship between the indicators and varies within [-1; +1]. The sign before the coefficient indicates the direction of dependence (direct or inverse), the closeness of the relationship is determined by the Chaddock scale (Table 4).

Thus, we obtain the following results: China $r_{xy} = 0.708$, Denmark $r_{xy} = -0.341$, Finland $r_{xy} = 0.145$, Germany $r_{xy} = 0.634$, Japan $r_{xy} = -0.420$,

Singapore $r_{xy} = 0.631$, Hong Kong $r_{xy} = 0.898$, Sweden $r_{xy} = -0.627$, Netherlands $r_{xy} = -0.045$, UK $r_{xy} = 0.053$, USA $r_{xy} = 0.705$.

The closest direct link between innovation and economic development is demonstrated in Hong Kong (0.898) and China (0.708). This means that innovation has a positive and very strong connection to the economic development of a country. There is also a strong positive relationship in Germany, Singapore and the United States. A weak link has been observed between innovation and economic development in Finland, the United Kingdom and the Netherlands. There is a moderate inverse relationship between innovation and economic de-

velopment in Denmark and Japan. Significant inverse feedback is typical of Sweden.

Using the method of proportional distribution, the calculation of integrated assessment of innovation and economic development of countries allowed to determine their level, trace the dynamics and determine the relationship between innovation and economic development for every country. Furthermore, the study showed a relationship between the level of innovation and economic development for all countries studied, but there is a difference in the degree of this relationship: for developing countries (China, Singapore, Hong Kong) it is higher. Thus, it is expedient for these countries to pursue an active innovation policy to increase the level of economic development. And as we see following the conducted research, these countries are already stepping up their innovation activities.

Table 4: Chaddock scale to characterise the closeness of the relationship between indicators

Quantitative measure of correlation (modulo)	Qualitative measure of correlation
0,0	No connection
< 0,3	Weak connection
0,3-0,5	Moderate connection
0,5-0,7	Noticeable connection
0,7-0,9	High connection
0,9-1,0	Very high connection
1,0	Functional communication

5. Conclusions

The level of innovative development of a country and technological equipment of industry creates opportunities to improve the living standards of mankind and determine the level of economic development of the country. However, these processes take place in the conditions of the formed global inequality and only deepen technological and economic gaps between the regions of the world.

Economically developed countries are more ready to adopt the latest technologies, as it is advisable to replace expensive labour with au-

tomated processes. In these regions, the ICT industry is traditionally more developed, and developed social guarantees for employees provide mechanisms to reduce the negative influence of automation on unemployment.

Based on the analysis of global innovation development trends, the leading countries that are leaders in the Global Innovation Index, the Global Competitiveness Index have been identified. The authors have distinguished groups of countries by systematising the places they occupy in both GCI and GII: Importers of innovations (Singapore, Hong Kong, Japan), Producers of innovations (Sweden, Denmark, Finland, China) and Effective innovators (Netherlands, Germany, USA, UK). Furthermore, they have identified features of innovation strategies of the countries in the proposed groups.

Using the method of proportional distribution, the calculation of integrated assessment of innovation and economic development of countries has been suggested. That allowed for determining their level, tracing the dynamics and determining the relationship between innovation and economic development for every country. Also, the study showed a relationship between the level of innovation and economic development for all countries studied, but there is a difference in the degree of this relationship: for developing countries it is higher. Thus, it is expedient for these countries to pursue an active innovation policy to increase the level of economic development.

Despite the fact that developed countries have more opportunities for active development of the innovative component in the national economy, their indicators in innovation and high-tech industries are declining and developing countries come to the fore, with China deserving special attention. It is substantiated that innovation activity in China has intensified in recent decades, which leads to the improvement of both the country's innovation indicators and general economic indicators. Other countries in the Asia-Pacific region (Japan, Singapore and Hong Kong) are also improving their performance on these indicators, in contrast to European countries and the USA.

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