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CONTENT/SADRŽAJ

A Message from the Editor-in-Chief

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Themes included in the journal are: Engineering management, Industrial engineering, Project management, Strategic management, Logistics, Operations management, Production systems management, Quality control, Quality management, Entrepreneurship, Risk management, Human resources management, Leadership, Organizational behaviour, Organizational culture, Financial management, Information systems, High technologies management, Environmental management, Waste management, Maintenance management, Creative industries management, Security management, and Marketing.

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Information on the journal in English and Serbian can be found at the journal web page: https://fim.edu.rs/en/serbian-journal-of-engineering-management/.

Prof. Dr. Vladimir Tomašević, FRSA

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Teme zastupljene u časopisu su: inženjerski menadžment, industrijsko inženjerstvo, upravljanje projektima, strategijski menadžment, logistika, menadžment operacija, menadžment proizvodnih sistema, kontrola kvaliteta, upravljanje kvalitetom, preduzetništvo, upravljanje rizikom, upravljanje ljudskim resursima, liderstvo, organizaciono ponašanje, organizaciona kultura, finansijski menadžment, informacioni sistemi, menadžment u visokotehnološkim industrijama, menadžment životne sredine, upravljanje otpadom, menadžment održavanja, menadžment kreativnih industrija, bezbednosni menadžment i marketing.

Uredništvo časopisa čine istaknuti naučnici iz različitih zemalja sveta koji su posvećeni postavljanju visokog akademskog standarda i promocije principa inženjerskog menadžmenta u Srbiji.

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Prof. dr Vladimir Tomašević, FRSA

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Uticaj rata u Gazi na bezbednost životne sredine

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Apstrakt: Ovaj rad ispituje efekte rata u Gazi na bezbednost životne sredine, sa naglaskom na lokalna i globalna pitanja. Ovaj rad pronalazi značajne posledice na nekoliko nivoa, ispitujući kako su se nacionalne politike bezbednosti životne sredine ukrštale sa ratom u Gazi i njegovim implikacijama na proces klimatskih promena UN. Ističe se uloga vojnih operacija i njihove posledice, naglašavajući širi uticaj sukoba na bezbednost životne sredine. Pored toga, rad pojašnjava diplomatske izazove koji proističu iz ovih tenzija, posebno kada je u pitanju međunarodna saradnja u oblasti bezbednosti životne sredine. Može se zaključiti da rezultati naglašavaju kako je rat u Gazi uticao na bezbednost životne sredine na različite načine i ima šire posledice po međunarodne odnose.

Keywords: Rat u Gazi, bezbednost životne sredine, klimatske promene

The Impact of Gaza War on Environmental Security

Abstract: This study examines the effects of the Gaza War on environmental security, with an emphasis on both domestic and global issues. The paper finds significant consequences at several levels by examining how national environmental security policies intersected with the Gaza War and its implications for the UN climate change process. It emphasizes the role of military operations and their consequences, underscoring the wider influence of conflicts on environmental security. Additionally, the study clarifies the diplomatic challenges that result from these tensions, especially when it comes to international collaboration on environmental security. Overall, the results highlight how the Gaza War has affected environmental security in a variety of ways and has wider ramifications for international relations.

Keywords: Gaza war, environmental security, climate change

1. Introduction

Environmental security is considered one of the critical issues that has been addressed for decades and which global societies face, the importance of environmental security is increasing day by day as a result of developments and renewable industries in our world, in addition to the human relationship with the environment. the term environmental security became widely use in 1977 following the publication of paper by the American political environmental analyst Lester Brown under the subject of "Redefining Security", where Brown argued that it was time to abandon the conventional understanding of national security as a major threat caused by other nations. He underlined that rather than focusing on nations as the main security threat, future security seems to be more dependent on the human relationship with nature (Dodds, 2017).

Climate change, resources-related conflicts, degraded water and air quality, as well as land and other threats to sustainability, the economy, public health, livelihoods, and over all peace and stability, are all included in the broad category of environmental security challenges. Therefore, in order to overcome obstacles and achieve environmental security, states and international organizations must work together and develop long-term practical strategies (Katsos, 2018).

Nowadays, international security may witness the effects of warfare on the environment because of the ongoing wars and conflicts, particularly in the Middle East. Since the effects of conflict on the environment include things like the use of chemical weapons, an increase in the number of displaced people, etc. that undoubtedly have an impact on air quality, climate change, national security and more regarded as a common security concern. Regardless, the effects of conflicts and wars on environmental security start long before they happen because armies are implicated in the increased energy consumption associated with operating ships, aircraft, and other training apparatuses as well as the development of military forces and training programs meant to maintain military readiness. Studies indicates that up about 5.5% of greenhouse gas emissions worldwide is caused by militaries . Moreover, the aforementioned, armies may need a lot of land, which deteriorates the land and reduces biodiversity. However, these are just a few instances that demonstrate how much conflicts affect environmental security (Weir, 2020).

The Gaza war is considered one of the most exciting recent issues in light of global security developments. On October 7, 2023, Hamas and other armed groups launched rocket attacks against Israel, causing injury to both Israeli soldiers and civilians. They also crossed the Gaza border fence and entered Israeli territory. As a result, things moved quickly, and the Israeli army started bombarding Gaza at a level never seen before, prompting Prime Minister Benjamin Netanyahu to declare war. From this point on, the Israeli-Gaza conflict grew more intense (Diakonia, 2023). But how might this conflict impact environmental security locally and worldwide?

This study investigates, as a case study, how the most recent conflict in Gaza has affected environmental security from a variety of sectors with local expertise in infrastructure security, lowering global warming, and the security of water, food, air, and land. In addition to the extent of the war's impact on international cooperation, and more specifically how the war affected the United Nations' recent efforts for the COP 28 summit. The study also offers suggestions for practical tactics that should be used to lessen the effects of conflicts involving environmental security.

2. National environmental security and the Gaza War

While the mechanisms of conflict have the ability to quickly destroy environmental peace and security, Similar to other wars, the Gaza War require the use of increasing amounts of fossil fuels, which raises carbon emissions.

During the war, Israel used chemical weapons on Gaza. The use of chemical weapons and dangerous substances, like white phosphorus, can have a direct and deadly effect on human life, as is the case in Gaza. This is because the substance sticks to clothing and skin when exposed to oxygen, causing burns that can penetrate bones, and the smoke that results can harm respiratory systems and eyes. White phosphorus has a detrimental direct impact on orchards and agricultural areas, as well as a direct and indirect horrible effect on animals, livestock, and water bodies in terms of environmental diversity. Although the environmental effects of white phosphorus use may not be as obvious, their long-term damage makes them just as dangerous as the fatal effects. The poisoning of the soil is caused by extended exposure to it. The urban areas in Iraq, Yemen, and Lebanon that were previously subjected to phosphorous weapons may provide the best illustration of this, as research has shown that these areas' environments suffered significant harm as well as an increase in air pollution (Editorial, 2023).

In term of water security, Due to a lack of readily available sources of potable water, Gaza has consistently and obviously suffered from problems related to water security. 96 percent of the water in Gaza is unfit for human consumption, according to UNICEF reports from 2019, and given the ongoing conflict, the blockade placed on Gaza is even more problematic. The development of water and sanitation infrastructure suffers greatly when aid is prevented from entering. As a result, the population is unable to access basic necessities. It's also crucial to note that Israel's decision to cut off Gaza's residents' access to electricity means that the desalination plants stop operating, depriving the population of a source of drinkable water, leaving them with no choice but to use tap water tainted with sewage and seawater. On October 17, UNRWA emphasized that the shortage of clean water due to the conflict was a serious threat to Gaza's citizens. It also expressed concern about the spread of diseases that are transmitted through water and the possibility of drought. Combine that with the effects of contaminated water sources and potentially dangerously decreasing corpses. Diseases spread as a result, and the cholera outbreak—which could arise from rainwater combining with sewage that has flooded Gaza's streets as a result of sewage facilities' harming infrastructure—may be the most alarming development (The New Arab, 2023).

Given that Gaza has been under siege for almost 16 years, it is known that supplies like fuel and electricity are not always available. As a result, 60% of Gaza's population lives entirely off solar power, which is advantageous for sustainability and environmental security. Additionally, clean energy is really important in terms of environmental security, but the fighting has recently resulted in the destruction of thousands of structures that house solar panels, which makes efforts to combat climate change more difficult (News and Press Release, 2023).

However, a news agency told Sky News Arabia that Israel might carry out its plan, which calls for filling the underground tunnels used by the Hamas movement with seawater and using it as a weapon to further its military goals (Jeff Goodson, 2023). That's right !Israel started carrying out the plan a few days after the news broke. However, studies show that the seepage of salty sea water into groundwater has a negative impact on the availability and quality of fresh water, which means more water security issues for Gaza and also causes pressure. As a result, such a step may lead to numerous devastating effects on environmental security, such as environmental pollution. In addition to its potential long-term effects on agricultural wealth and coastal groundwater, this plan may also result in soil poisoning and buildings demolition caused by weak infrastructure and soil (News Media Contact, 2016).

3. Gaza War and UN Climate Change Process

People who experience war and conflict frequently find themselves in the midst of a climate crisis; this is the case in nations like Sudan, Yemen, and Afghanistan that have experienced war in the past. Gaza is anticipated to play a role in the climate crisis as well. It is important to remember that conflicts and climate change are related because they both limit Conflicts have an impact on a nation's capacity to handle the consequences of climate damage they cause. On the other hand, resource-related conflicts are an inevitable consequence of the climate crisis getting worse. As such, it is anticipated that Gaza will become included in the climate emergency shortly (BULLENS, 2023). Regardless, non-governmental organizations are crucial in helping civilians survive by giving them access to necessities like food, clothing, shelter, and other support that lessens the difficulties brought on by conflict. Upholding security and peace is one of the main objectives of the United Nations, one of the most well-known non-governmental organizations in the world. The United Nations puts a lot of effort into protecting the environment and reducing environmental degradation and climate change by implementing practical long-term strategies.

The UN's attempts to bring about a localized peace have been impeded by the Gaza War. Numerous UN offices in Gaza have suffered significant damage as a result of Israeli airstrikes due to the escalation of violence and conflict. The effects on security of the Gaza War are all listed above. The United Nations' efforts are threatened by the environmental threat. The impact of the war extended beyond national efforts to include international ones. The Middle East's climate agenda is at odds with Gaza's wartime situation, since the region is already experiencing drought due to climate change, threats resulting from the phenomenon of global warming are already being felt there. The region appears to be already vulnerable in terms of agriculture and resource competition, and it appears that the war's environmental effects will exacerbate and complicate matters. Global threats arising from the Gaza conflict are generally indirect. For instance, as oil prices rise, there is a direct correlation between wars and oil. In the midst of the wars, and particularly in the Gaza war, the price of oil surged to about $92 per barrel. It is anticipated that as long as the conflict lasts, oil prices will rise.The intensification of oil extraction will unavoidably result from rising oil prices because of resource competition. In addition to creating geopolitical tensions over resource-rich regions, rising oil prices could have detrimental long-term effects on the environment. We also add that major conflicts like the Gaza war have caused economic efforts related to climate recovery to be delayed, despite the gravity and urgency of the situation regarding the impacts of global warming (Elgendy, 2023).

The conflict in Gaza will unavoidably impede climate efforts and initiatives to conserve water, develop renewable energy, and other related projects, as incitement to the war. Given the developments in the war, the war hinders diplomatic efforts related to climate change, as climate cooperation between Arab countries and Israel has increased recently. The Palestinian problem will bring attention to the anti-Israel sentiment among Arabs.

It was anticipated that close to a thousand Israeli delegations, including the Israeli Prime Minister and numerous other Israeli government officials, would attend the United Nations COP28 Conference of the Parties in Dubai, where Israel intended to use the event as a platform to highlight diplomatic relations between Arab and Israeli. Though it was anticipated that close to a thousand Israeli delegations, including the Israeli Prime Minister and numerous other Israeli government officials, would attend, the conference was impacted by the escalation in Gaza. Even though many of the participants felt that they should abstain in some way, they did not show up, and the delegation's size was lowered. In terms of politics at UN climate conferences, the war in Gaza has already had an impact. Several presidents, including Turkish President Tayyip Erdogan and others, have used the platform to criticize and accuse Israel of bombing Gaza, discuss war crimes, and try to bring attention to the war rather than the specific topic of climate security (AL JAZEERA AND NEWS AGENCIES, 2023).

4. Recommendation

The war on Gaza will unavoidably result in significant environmental damage over the short and long terms, even though it is challenging to gather data or measurements regarding the extent of environmental damage caused by the conflict and the course of events. In any event, environmental justice will also be necessary to bring about peace in the region. It needs to In order to comprehend the harm caused by the war and the latest developments in the Gaza conflict with respect to environmental health, the relevant authorities need to pursue their ongoing environmental assessment. Adopting both short- and long-term plans based on the published environmental assessments must be done with readiness, While it might be challenging to begin addressing the environmental harm caused by the war while it is still going on, continuously evaluating the harm aids in planning and preparing for the adoption of immediate treatment strategies to limit pollution and safeguard essential services and environmental systems, which can then be put into action whenever the chance presents itself. It is important to remember that recovery programs, when it comes to immediate treatment plans for environmentally damaged areas, long-term care is crucial.

In order to address environmental challenges and coordinate among stakeholders to arrive at the most effective environmental response, it would be beneficial for various local sectors and organizations to work together. In order to restore Gaza's healthy ecosystem, international cooperation is also essential. The environment in Palestine must be protected by international powers, who should also take into consideration that the ongoing threat to environmental security posed by the war will not only affect the region directly but may also spread to neighboring countries, resulting in new environmental disasters (SHUKER, 2023).

In any case, since the conflict is still going on, it is thought that increasing environmental aid from abroad could have a major positive impact on Gaza's environmental security at the moment, particularly given that the region now primarily depends on aid from abroad to meet its basic needs. In addition to managing the environment in refugee camps and supplying clean water and wholesome food, international aid must also alleviate conflict-related pollution by removing hazardous materials that harm the environment and raising public awareness in order to empower people to adopt sustainable practices, lessen their impact on the environment, and fight diseases that spread. Coordination with local environmental agencies and organizations is thought to be the best way to guarantee the efforts made to protect the environment, as a result of the degradation of sanitation, the scarcity of clean water, and other environmental damage.

5. Conclusion

In light of recent developments in global security, the Gaza War is regarded as one of the most exciting issues. The military's use of fossil fuels to power its vehicles increased during the Gaza War. White phosphorus and other chemical weapons that have long-term negative effects on the environment were also used during the conflict (Weir, 2020). The conflict has had a negative impact on UN efforts to protect the environment both locally and indirectly globally. The siege imposed on Gaza caused the sanitation infrastructure to deteriorate because it prevented the entry of international aid and cut off electrical supplies, leaving the population without access to basic necessities (BULLENS, 2023).

Even though it is challenging to quantify the amount of environmental harm that has been done to Gaza as a result of the ongoing war or conflict, the threat this conflict poses to environmental security will not only affect the area directly but also neighboring areas. For instance, in addition to the disruption of power supplies, as we previously stated, Gaza's sanitation infrastructure is already deteriorating. Consequently, there are risks when sewage is dumped into the Mediterranean Sea. a severe risk to the area. We also mentioned that a lot of energy supplies, such as fuel and other supplies, are needed for conflicts and wars in order to outfit and run war machines, but in order to produce building supplies and engage in processes like the manufacturing of cement and concrete, rebuilding Gaza will also need a lot of energy. This will result in increased carbon dioxide emissions, which will further exacerbate the complexity of the climate catastrophe.

The war's persistence and intensification in Gaza could cause it to spread to nearby nations and other arenas, making peace or an agreement more difficult to achieve. This would have a direct impact on environmental security and raise the possibility that World War III could break out as a result of geopolitical conflicts between the major powers.

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Poslovno okruženje i tiho odsutajanje – perspektiva generacije Z

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Apstrakt: Cilj ovog rada je da pruži bolji uvid u karakteristike radnog okruženja generacije Z, njihove stavove prema radu, kao i da pruži smernice poslodavcima u radu sa ovom mladom generacijom. Rad je sastavljen od međusobno povezanih delova u kojima se diskutuje o opštim uslovima savremenog poslovnog okruženja, pojavi novog fenomena pod nazivom tiho odustajanje kao i stavovima prema radu generacije Z. Fenomen tihog odustajanja, posebno karakterističan za generaciju Z, predstavlja put ka odbacivanju kulture napornog rada i rušenju stava da se posao mora raditi „udarnički". Autori smatraju da na ovaj način zaposleni jasno pokazuju da nisu srećni u uslovima gde se često osećaju „spaljeno", stresirano, anksiozno i nesrećno. Period koji je prethodio ovom nosio je moto živi da bi radio, dok je novi radi da bi živeo. Kao takav zavređuje posebnu pažnju autora. U radu su korišćeni raspoloživi izvori stručne literture i rezultati sekundarnih istraživanja.

Ključne reči: Generacija Z, poslovno okruženje, tiho odustajanje

Business Environment and Quiet Quit - Perspective of Generation Z

Abstract: The aim of this paper is to provide a better insight into the characteristics of the working environment of generation Z, their attitudes towards work, as well as to provide guidelines to employers in working with this young generation. The work is composed of interconnected parts in which the general conditions of the modern business environment are discussed, the emergence of a new phenomenon called quiet quit attitudes towards the work of generation Z. The phenomenon of quiet quit, especially characteristic of generation Z, represents the path towards rejecting the culture of hard work and demolishing the attitude that work must be done "hard work". The authors believe that in this way employees clearly show that they are not happy in conditions where they often feel "burned out", stressed, anxious and unhappy. The period that preceded this one carried the motto live to work, while the new one is work to live. As such, it deserves the special attention of the author. Available sources of professional literature and results of secondary research were used in the work.

Keywords: Generation Z, business environment, quiet quit

1. Introduction - Basic characteristics of the modern work environment

The outlines of the future labor market are slowly emerging while the feelings of the general public oscillate from fear and uneasiness to enthusiasm and high expectations. Although the field of work has changed many times throughout history, it seems that today's mega trends intend to transform it in a radical sense.

Over the past few decades, there has been a collapse in wages and jobs among the middle class, leading to political unrest in many economies around the world. The demand for jobs has changed so routines have experienced a decline while non-routine and abstract jobs have become much more in demand and popular. The aforementioned fact caused polarization in incomes. Likewise, some companies have become so-called "superstars" in terms of profitability, productivity and market share, which further strengthened the already mentioned polarization. Job security is no longer the same for all generations; contracts that bind the individual to the organization on the so-called the traditional way, today only members of the older generations (ending in the cohort of older Millennials) own it. On the other hand, young workers no longer have a great chance to negotiate benefit contracts with the organization that include full social security. A fact that must not be forgotten is the constant increase in the gap between urban and rural areas (at the expense of the former), and the trend will only continue to grow. Already, some large cities have a GDP that is three times higher than the same in medium-sized countries (PricewaterhouseCoopers, 2017).

The change that has been "announcing" its arrival for a long time is related to erasing the clear boundary between business and private life. For example, in some professions (highly educated, specialized staff) employees can choose where they will work; location is not in question at all as long as the job is done on time. There are also the so-called "zero hour" contracts, which are present in the category of lower paid jobs, imply that the working hours constantly vary and that the individual works whenever the employer calls him. Between full employment and unemployment there is a whole spectrum of non-standard work schemes - temporary work, additional (part time) work, self-employment, etc. Although in previous periods a small number of workers worked in this category of jobs, since the 90s of the last century its scope has increased significantly, especially in developed economies (nearly 60% of workers are engaged in the aforementioned way). It can be concluded that the "climate" on the labor market may be more favorable to highly educated staff (possibility of flexibility and autonomy), since in poor households householders mostly work in the category of the above, "gray" work arrangements. Considering the fact that work has always brought people together, the question arises of what will happen to social cohesion caused by the increasing stratification in the workforce (International Labor Organization, 2018; Organization for Economic Co-operation and Development, 2015).

Then, employees in developed countries, especially educated ones, already belong to the older population cluster. On the other hand, in underdeveloped parts of the world (population boom), the workforce is becoming younger and younger - e.g. the territory of India alone annually "incomes" 12 million young, able-bodied workers (Krishnan, 2020). It is known that the population from these areas was unemployed before, however, with the introduction of automation, the situation worsens further; it is assumed that 70-85% of jobs in the territory of Ethiopia and India are subject to robotization, which, on the other hand, can leave "armies" of people without work. Unfortunately, support and social assistance networks are not developing at a sufficient speed, so the problem of providing the necessary means of living also arises as a pressing issue (Oxford, 2016).

The effects of today's modern work have been confirmed to have negative effects on people's physical and mental health. Diseases such as diabetes, heart disease, addiction to opiates, anxiety and depression, feelings of loneliness, etc., are becoming more frequent and intense. In general, these negative phenomena, which are often called epidemics of modern life, are related to sedentary working conditions, especially those in which employees do not have the opportunity to "disconnect" from various forms of electronic communication.

Collaboration with artificial intelligence affects the way people are hired, fired, and go about their daily business. On the one hand, there are great advantages related to the possibility of choosing the location of work - employees and the organization can now collaborate with maximum efficiency, in real time, from any geographical point. However, many companies, precisely thanks to AI, can monitor the behavior of their employees through surveillance algorithms, and thus a situation arises where the content of business emails is monitored; parts of it that have a touch of any sentimentality are labeled as "risky for productivity". Therefore, any deviation from the norms, which is prescribed exclusively by the company, in an indirect (silent) way, is now prohibited (Camopllo et al., 2017).

Research conducted on the European market points to the fact that the attitude related to the introduction of robots is slowly changing - although the majority of respondents still think that they can help people, some firmly claim that work is slowly being stolen from people. The main challenge for all countries is to find ways to help make the transition to new jobs (and jobs) as painless as possible and to take a proactive approach regarding the impact of technology on people, social institutions and society as a whole.

2. The influence of environmental factors on the occurrence of quiet quit

"Quiet quit" is a type of organizational behavior, and according to all the aforementioned characteristics of the environment, it is not at all surprising that its intensity is increasing. The authors of this text believe that it should be taken seriously, especially when considering the characteristics of Generation Z as potential job candidates.

Additionally, the creator of the term is Mark Boldger, who in 2009 officially promoted and explained it at a symposium of economists in Texas. However, there will be a special interest in "quiet quit" in 2021/22 influenced by the Tang Ping movement in China and a TikTok clip recorded by Zaid Khan. Since that period, the professional public has been closely following this phenomenon, which is slowly but surely increasing over time (Formica, Sfodera, 2022).

The term can be defined as following - an individual decides to do the minimum of the described work, as much as is necessary to officially call the task finished. In this way, attempts to achieve the highest level of balance between business and private life are manipulated (Scheyett, 2022).

In this case, it is about rejecting the culture of hard work and demolishing the attitude that the work must be done "hard". The authors believe that in this way employees clearly show that they are not happy in conditions where they often feel "burned out", stressed, anxious and unhappy. The previous period of functioning carried the motto live to work, while the new one is work to live. Quiet quit manifests itself in different ways - arriving later and leaving work earlier, not participating in team projects, missing meetings, generally a drop in work enthusiasm (Hetler, 2022; Espada, 2022).

This organizational phenomenon is much more frequent among the young population, i.e. generations Y and Z, somewhat less in generation X and significantly less in the Baby Boom generation. Author Dawson points out that the economic crisis will have a strong impact on "quiet quit" and there are many reasons, starting with low salaries, career stagnation, lack of intrinsic motivation, business stress and exhaustion, insufficient promotion by management, etc. Generally, when people no longer see a future in their career, the above behavior comes as a logical consequence (Dawson, 2022).

Although quiet resignation may appear to be a temporary phenomenon, it is neither naive nor good for business practice; first of all, employees who fall into the category of "quiet quitters" at a job they are no longer interested in and about which they put little effort, stay only because of payment factors. The authors call them "active passive" workers. According to research by the Gallup Institute, more than 50% of the US population is in the cluster of quiet withdrawal. Of course, all these people will exhibit various undesirable business behaviors such as inflexibility, insufficient development of skills and knowledge, reluctance to adapt to team initiatives, etc. (Harter, 2022).

The background of the strengthening of this trend is definitely the pandemic; she made people aware of the importance of life and health. Numerous layoffs (at the beginning of the pandemic) contributed to the end of the "live to work" era, which for many employees proved to be a chance/possibility to find better working conditions. As reported on CNBC news, the quiet walkout is a direct result of the Covid 19 pandemic, during which employees realized that it is entirely possible to take control of the balance of the business/private hourly wage (Tong, 2022).

When talking about the behavior of the management, it is necessary to take into account a number of factors. First of all, there is the constant problem of employees who feel slighted because their work is not recognized and appreciated by the management. The feeling of the so-called organizational injustice grows in situations where, for adequate effort, promotions, bonuses, promotions, etc. are not received, which will further (if left uncorrected) lead to a drop in motivation, commitment, and psychological dislocation from work (Scheyett, 2022).

Organizations that the authors call toxic, characterized by a high level of conflict at all organizational levels, represent a special problem. In this case, the skills and knowledge of employees are not valued, the opportunities for advancement are weak, and everything is done in a tight circle of connections and acquaintances (Özbilgin et al., 2019).

In the context of a "positive" scenario, employees should accept organizational goals and values as their own, and managers should, according to the unwritten conditions of the psychological contract, respect employees in every respect. This relationship leads to increased commitment to the organization and work, increased work performance, and of course not thinking about leaving the job (Allen, Meyer, 1990).

It is certain that certain characteristics of managers, such as emotional intelligence, credibility, empathy, broader conceptual knowledge, etc., contribute to building a quality relationship for employees. When the mentioned traits are opposite, the productivity and initiative of the employees will be in decline. Factors that also influence the growth of silent resignation are mobbing, excessive/unrealistic amounts of work, toxic relationships in the organization, bad organizational cultur, and climate (Uçkun et al., 2022).

If the problem of silent resignation is approached from the perspective of employees, they resort to it in order to get rid of all kinds of business stress; it is completely irrational for them to fight with accumulated problems (lack of motivation, bad management policy, etc.), which in most cases they cannot solve by themselves.

By looking at the professional literature, it can be concluded that employees highly value work in organizations where support and participation are emphasized. Likewise, those whose personality possesses the characteristics of extroversion are much less likely to resort to silent withdrawal, unlike their colleagues with high neuroticism and/or introversion. In this case, the "happy" and "unhappy" working climates are emphasized again, so in the former, employees have the will to perform even additional work tasks, help colleagues, etc. Another very important factor is the feeling of job security, that is, the belief that the manager will not terminate the employment relationship for subjective reasons and without any legal basis. Employees who at work feel like an important part of the business chain, have a work role that matches their qualifications, will feel harmonious and good and will not think of quitting (Hetller, 2022; Johari et al., 2022).

3. Generation Z and attitudes towards work (secondary research)

Members of Generation Z are very ambitious, self-confident and realistic, which in turn makes them very entrepreneurial. As can be read in most literature sources, it motivates them to find their "dream" job and it is believed that they will change it very often, considering that they do not tolerate unfair employers, nor do they "suffer" from those whose values they do not agree with (Pataki-Bittó and Kapusy, 2021).

It is important to point out that they are much more aware of the state of the world than all their predecessors, which also applies to financial well-being. Their great advantage is openness, which is reflected in the acceptance of human diversity without any judgment. The above is perhaps not surprising considering that they have grown and developed in the face of numerous financial crises, political unrest, global terrorism and unfavorable climate changes. All these situational factors, with a strong negative sign, made them very adaptable to the global world and its dynamics.

Given that some members of this generation are already working, it must be emphasized that the beginning of their working career takes place in very complex conditions, including pandemics, economic decline, social unrest and wars. The environment, which constantly signals uncertainty to them, has influenced that their job-related expectations are very low from the very start, as well as that they do not have a detailed career development plan (Snieska et al., 2020).

Young people are more specific than their predecessors, since they are the first who do not know life without the Internet. For the reason above, they are constantly in contact with friends, of whom they have more in online spaces than in real life. They are extremely prone to multitasking and find it difficult to concentrate on just one activity for a long period of time. Their abilities, preferences towards multitasking play an important role in their work as well. It is certain that multitasking has become a reality in business organizations, academic institutions, and even in family life (Krasulja et al., 2019).

In the continuation of the work, the results of three quantitative researches taken from the available professional literature will be presented. The authors of this text believe that in this way they will be able to better describe the characteristics of members of generation Z, as well as their attitudes towards life and work. Also, research should indicate the values of the new generation of the workforce that are significantly different from the previous ones, especially from the Baby Boom and X, and to a smaller extent from the Y generation.

The environment in which the research was conducted has the following characteristics: 1. High degree of complexity, 2. Difficulties in predicting and planning future outcomes, 3. Abandoning old business practices under the pressure of external variables, 4. Radical development of AI, 5. Problems in social, climate, financial, health and psychological segments. Members of generation Z were born in this environment, which directly affects the formation of their values, attitudes, behavior at work and in their private life.

The first research was conducted by the consulting company Ernst and Young, on a sample of 1553 members of the Z cluster, in the USA in the period from February 3 to 6, 2023 (How can understanding the influence of Gen Z today empower your tomorrow? 2023 EY Gen Z Segmentation Study)

The results are as follows:

1. More than half of the respondents (52%) feel a high degree of concern about the situation with the acquisition of money, which becomes increasingly critical from 2021. Also, constant contact with technology allows them to be informed in a timely manner, so they are aware that the situation will not improve significantly (in the near future). Issues such as buying a house, housing costs, pension fund, buying a car, etc., have become a real problem. Likewise, these young people, unlike their predecessors, do not treat money-related issues as taboo, they conduct a public dialogue about it, with less and less faith that they will become rich in the future.
2. Financial realism has become their general attitude and they educate themselves daily on how to earn enough money to live. Given that they declare themselves to be very concerned about earnings (the ways and conditions of its acquisition), they have become very active in self-taught research related to the opportunities that the market offers them. Reality indicates that slowly but surely a generation of thrifty people is forming who strive to optimize their earnings. They are always willing to save, invest or even donate excess money (if there is a possibility to monitor the further movement of the donation).
3. They do not see advancement up the hierarchical ladder as a career imperative - everyone is different and this is not condemned in this cohort. When it comes to choosing a job, they rarely choose to do a job they don't like just for the money.
4. Members of Generation Z are not afraid of work and try to earn money in different ways. Most of them already work permanently or under contract (so-called part time), and/or are additionally financed by freelance arrangements. It seems that it is not necessary to train them how to earn and function beyond traditional jobs for young people (babysitting, delivering newspapers, etc.). The explanation lies in the fact that a lot of new jobs appeared during their time, so they declare that they have no fear of starting their own business in their early years.
5. Almost all cohort members declare that authenticity is very important to them, which is most likely a response to the pursuit of perfectionism that was the main value of their predecessors. They also believe that everyone should be true to themselves and be accepted and respected as such.
6. Trust is an important item for them and they are very skeptical; they distrust governments and large corporations, believing that these institutions have lost their humanity.

The second study was conducted by the authors Graczyk-Kucharska and Erickson, and the results, among other things, were presented in a professional article entitled "A person-organization fit model of Generation Z: Preliminary studies". The results were collected in the period from April 2017 to March 2019, on a sample of 3393 respondents (16-18 years old), under the name "Time for Professionals BIS - Professional Wielkopolska". The questions in the interview were related to the psycho-social side of work, its innovation/traditionality, flexibility, salary and other benefits. In other words, the authors tried to figure out what young people expect from their employers and what today's, modern, psychological contract looks like (Graczyk, Erickson, 2020).

The research included the following parameters - environmental factors, the potential occupation of the respondents (IT, logistics, economics and mechanics), as well as their correlative relationship. The main goal was to prove the accuracy of the hypothesis that a complete alignment between man and organization has a large number of advantages for both employers and employees.
The main conclusions (with possible deviations) would be the following:

1. The female part of the sample prefers to have a good atmosphere at work and considers it more convenient to work in the office than from home. The male part of the sample leans more towards earnings, status and achievements, as well as non-territorial work. The above can be interpreted as a reflection of male and female values in society.
2. Members of both sexes highly value working in innovative companies and believe that passion for work is extremely important.
3. By all characteristics, members of generation Z are different compared to members of generations Z, X and Baby boom.
4. Salary is the first motivating factor, while passion for work is right behind.
5. The respondents do not shy away from working in a team, but they do not mind online business, where they work outside the group.
6. The instability of the environment became a phenomenon that the respondents "got used to".
7. A decreasing number opts for the traditional work scheme, which implies that a long-term career is built under the roof of only one organization.
8. They expect companies to be true to their missions, ethically correct, to communicate clearly and transparently.
9. They highly value a good atmosphere at work, while organizational rigidity is seen as a thing of the past. Possible compensation for a bad climate at work can only be the amount of income and that in the short term.
10. For Generation Z, money is a tool for realizing "dreams" and not something that is kept in an account.
11. Young people are inclined to personal growth and development, so they expect to get the opportunity to express their personal support in the organization as well.

The third survey was conducted in the USA by the InsideOutDevelopment team, and the results are presented in the Coaching That Works report. There were 1125 respondents in the sample, in the age range of 18-23. The data was collected with the help of the SurveyMonkey platform.

The following part of the text can be useful to all employers who will potentially cooperate with them (or are already cooperating).

1. First of all, they insist that the business-private balance policy must be fully regulated and consistently implemented. In addition, the payment and reward system is extremely important to them. In the largest percentage, they choose a job that will provide them with income stability.
2. Young people are afraid of the idea of stagnating in the workplace, doing unimportant tasks and wasting hours performing repetitive administrative tasks. In view of the above, employers are advised to explain each task well; this generation doesn't lack ambition, but their engagement drops every time they can't connect the work they do with organizational goals. They accept business challenges and do not like monotony.
3. Two-thirds of the sample declares that they want to reach the maximum in their work and, accordingly, to have a high income. In fact, researchers believe that this generation is the most ambitious of all the previous ones. In particular, they expect to be promoted already after the first year of work, for which they are ready to work hard - progress and innovation are their imperative.
4. In order for the boss/manager to be considered good, he must give them constant feedback. Growing up with applications, they are not used to situations where they have to guess what is happening. High technology has taught them to get instant answers, so they expect the same at work.
5. According to the results of this research, half of the respondents who left their jobs did so because of a bad relationship with their boss. Young people want managers to recognize their work and reward and promote them accordingly. Also, they don't like to work with bosses who have very unrealistic expectations, so they keep staff under constant pressure, ruling the organization by establishing their own reign of terror.
6. 6. The organizational culture they prefer is one that allows them to make mistakes and learn from them. They don't shy away from asking questions when they don't know something and believe that this way of functioning will ensure further progress in their studies and career.
7. Most of the members have problems with stress, anxiety or lack of motivation. Technology, which was their companion throughout their upbringing, taught them that there is always the possibility of consulting a smart machine, which resulted in them having a problem with making difficult decisions independently in everyday life. Therefore, their managers should be ready to

be their constant support.

8. The best way to gain trust among members of this generation is to establish frequent and elaborate feedback, both positive and negative. Their common attitude is that a lot can be learned from criticism, and they are very constructive in that regard. According to the survey, the majority of respondents stated that contact with superiors is necessary at least once a week. Likewise, they highly value organizational cultures where the manager is always ready to answer various questions and dilemmas.
9. Generation Z is very competitive, so managers should constantly set new goals, by no means easy, but realistic. Also, as a tool for maintaining motivation and advancement, it is recommended to create an organizational culture in which there is "smoldering" competition among staff. In addition to the above, the creation of good payment and reward policies goes hand in hand.
10. Managers should forget about the old system of "bossing" and leave the management of the project to the ideas of young people, since they are very loyal to the work they dedicate themselves to.
11. The system of leadership through fear and punishment should be completely abandoned. Giving direction to carry out daily work, constant supervision and micro-management of everything that employees do should be avoided as much as possible.
12. Generation Z has high technical knowledge about work, which is not the case with soft skills. In general, they do not have enough confidence to act in areas that are not in their comfort zone, so they need to be encouraged, taught communication and emotional intelligence (all of which leads to raising the level of soft skills). In this way, they will be able to make better strategic decisions.
13. A large number of respondents declare that the role of a mentor and/or coach in their career would be invaluable.
14. When it comes to organizational hierarchy, they completely deny the traditional one and believe that there should be collaboration at all organizational levels.
15. They cooperate best with members of generation Y, while the highest percentage of information about the company comes from company websites

4. Conclusion

Companies that want to gain a competitive advantage must understand the ways in which today's young workforce chooses their jobs. Workforce has always been the "key" to achieving productivity and business excellence, so it is considered that all the recommendations given are important to take into consideration.

What should be emphasized is that some organizations will have four different generations under their roof, which is an "ideal" situation for the emergence of misunderstandings, stereotyping and different perceptions of things and circumstances. In order to reconcile differences in the best possible way, the organizational dynamics need to be changed in terms of leading multigenerational teams as well as possible.

Traditionally, the employment of new generations has always led to a divergence in expectations between the employee and the organization. Getting to know the needs of the youngest staff cannot be treated lightly, given the numerous diversities in almost all aspects - the way of communication, the hierarchy of goals, the way of working, the achievement of goals, etc. Likewise, creating a climate that enhances motivation, innovation and good communication among employees from all generational cohorts seems like an excellent idea, although it is often a long and difficult road.

As the authors stated, members of generation Z are entering the labor market in a big way, so employers will be forced to adapt to their specificities. More advanced technological knowledge is their advantage; however, the question arises whether they are so good in the field of interpersonal communication, interpersonal relations and other "soft skills". According to dominant values and beliefs, where salary is not the first and only motive for work, they need to be offered a whole range of benefits in order to make the workplace as attractive as possible.

Given that a large number of members of this cohort are still studying and are not permanently employed, there is still no clear position in the professional literature on how to negotiate with them and achieve a win-win situation. The authors believe that this is a broad field for some further research on Generation

Z.

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Značaj marketinga u sektoru zdravstva

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Abstrakt: U savremenom društvu, primena marketing koncepta postaje ključna, čak i u neprofitnom sektoru, uključujući oblasti poput zdravstva, obrazovanja i kulture. Iako marketing nije tradicionalno prisutan u neprofitnim organizacijama, promene u izvorima finansiranja i povećana konkurencija podstiču ove organizacije da preispitaju svoj pristup. Analizirajući uloge marketinga u sektoru zdravstva, naglašavamo potrebu za prilagodljivim strategijama usled dinamičnih okolnosti i neophodnost usvajanja marketing koncepta u svakodnevnom poslovanju zdravstvenih ustanova. Mnoge zdravstvene ustanove nisu u potpunosti shvatile specifičnost zdravstvene usluge u odnosu na ostale uslužne delatnosti, kao ni specifičnost i pojam pacijenta u odnosu na tipičnu mušteriju. Osim zdravstvene nege, osoblje bi trebalo pacijentima pružiti i tzv. kognitivnu i emocionalnu negu. Upravo iz takvih specifičnosti - učestvovanja (participacije) samog pacijenta u svom lečenju, javljaju se i razlozi za stvaranje lojalnosti ili za odustajanje pacijenata od saradnje sa određenom zdravstvenom ustanovom. Korišćenjem brojnih istraživanja iz oblasti relacionog marketinga, ovaj rad teži da ukaže na brojne propuste koje čine zdravstvene ustanove u odnosima sa svojim ili budućim pacijentima. Holistički marketinški pristup može obezbediti priliv novih pacijenata, ali samo kreiranje i održavanje kvalitetnih odnosa sa njima mogu zdravstvenoj ustanovi obezbediti lojalnost pacijenata, kao i šansu za dugoročni rast i razvoj.

Ključne reči: marketing, zdravstvene ustanove, CRM

The Significance of Marketing in the Healthcare Sector

Abstract: In modern society, the application of the marketing concept becomes crucial, even in the nonprofit sector, including areas such as healthcare, education, and culture. Although marketing traditionally has not been prevalent in nonprofit organizations, changes in funding sources and increased competition encourage these organizations to reconsider their approach. Analyzing the roles of marketing in the healthcare sector, we emphasize the need for adaptable strategies due to dynamic circumstances and the necessity of embracing the marketing concept in the daily operations of healthcare institutions. Many healthcare institutions have not fully grasped the specificity of healthcare services compared to other service industries, nor the specificity and concept of patients compared to typical customers. Besides healthcare, staff should provide patients with so-called cognitive and emotional care. It is precisely from such specificities, such as patient participation in their treatment, that reasons for building loyalty or patient disengagement from a particular healthcare institution arise. By utilizing numerous studies in the field of relational marketing, this paper aims to highlight numerous shortcomings that healthcare institutions make in their relationships with current or prospective patients. A holistic marketing approach can ensure the influx of new patients, but only the creation and maintenance of quality relationships with them can provide healthcare institutions with patient loyalty, as well as the opportunity for long-term growth and development.

Keywords: marketing, healthcare institutions, CRM

1. Introduction

The turbulent environment and significant market fluctuations have necessitated the implementation of marketing orientation in the activities of non-profit organizations, with a specific focus on analyzing positioning strategies for healthcare institutions as representative entities in the nonprofit sector. By applying the marketing concept in day-to-day operations, the foundation is laid for the long-term and successful functioning of these institutions, emphasizing the importance of timely and thorough strategic positioning.

There is a clear trend in which many non-governmental organizations increasingly recognize the value of a marketing approach in achieving their own, as well as broader societal goals. Philip Kotler, one of the most prominent marketing theorists of the 20th century, researched the introduction of marketing into non-profit organizations and confirmed the importance of this approach, particularly in the areas of resource management and quality service delivery. This responsibility is measured through performance indicators and public response, rather than solely through profit, making the modes of analysis more complex compared to the private sector.

In the era of globalization in business activities, pathways have opened up for a more extensive offering of products and services, surpassing the actual demand in the market. Competition, both between public and private healthcare institutions and among public institutions, sets the foundation for improving the quality of services and products. This dynamic requires a fundamental shift in the approach of healthcare institutions to the healthcare services market. Key prerequisites for successful transformations include: a comprehensive analysis of the needs and desires of users, thorough research on the healthcare services market, and strategic marketing planning with precisely defined objectives, strategies, and tactics.

When choosing a marketing strategy, it is necessary to take into account the complexity of the individual - the patient, whose behavior is influenced by various demographic, psychological, sociological, economic, and other factors. From a marketing perspective, these factors represent uncontrollable variables, emphasizing the importance of continuously monitoring and studying the behavior of actual and potential patients to effectively respond to their needs at the time of service delivery. The goal of a healthcare institution is to provide the highest quality, fastest, and most comfortable healthcare treatment to patients, thus striving to become recognizable and unique. Formulating an appropriate strategy to achieve set goals requires detailed marketing research.

Traditional healthcare providers are facing increasing competition from new market players, such as independent private clinics and laboratories, as well as alternative service providers in the field of health preservation. Additionally, the days of unlimited state resources are a thing of the past. Today, achieving cost efficiency, reallocating resources in areas with the greatest health gain, and using performance indicators and service standards are crucial needs.

The notion that hospitals should not strive for profit is outdated, and in today's dynamic healthcare environment, organizations that do not keep up with trends risk becoming obsolete. The efficient operation of non-profit healthcare organizations requires adaptation and alignment with market conditions, making the marketing philosophy crucial. The primary purpose of a marketing approach in healthcare is to focus on the healthcare services market, identify users, analyze competition, and tailor, develop, and align operations to more efficiently meet user needs. Defining a mission is crucial for aligning the operations of healthcare organizations with market conditions. This involves answering questions such as: Who are the users of the targeted service? What are the organization's vision and goals? What advantages does the organization have compared to the competition? Who are the relevant stakeholders whose interests the organization should satisfy?

Given all the challenges mentioned and the context in which healthcare institutions operate, considering the importance of applying the marketing concept and the necessity of strategic thinking in this sector, this paper will analyze the process of strategic positioning of healthcare institutions, exploring key decisions regarding the target market, products, promotion, pricing, and distribution. The paper will present a theoretical and practical framework for improving the relationships between healthcare institutions and patients based on the concept of relational marketing. Specifically, it will analyze how relational marketing strategies influence the improvement of relationships between healthcare institutions and patients.

2. Research Methods

Technological progress has led to the generation of vast amounts of data that have been collected, compiled, and archived, making them easily accessible for research. Due to this easy accessibility, the use of existing data for research purposes is becoming increasingly common, involving the application of secondary data analysis. The primary methodology of this research relies on the analysis of secondary data. Secondary analysis demonstrates a high degree of flexibility and can be applied in various ways, such as empirical exercises, systematic procedures with clearly defined steps for assessment, similar to those used in collecting and evaluating primary data. There are numerous methods of secondary research, and this paper will use content analysis. The goal is to gain a better understanding of the issues related to this topic through the analysis of existing research in this field. This will not only provide a better framework for the main survey but also identify global trends for comparison with the situation in the domestic Serbian market.

In addition to secondary data, a survey-based research method was used. For this purpose, a questionnaire focused on the marketing activities of healthcare institutions and their interaction with patients was developed. This research instrument covered aspects such as traditional advertising, the use of internet marketing, the use of specific software and internet tools for patient relationship management, and more. The presentation of the questions posed and the results obtained will be provided in the next section of the paper in tabular format. The survey was conducted on employees of private healthcare institutions in November 2023, with a total of 30 respondents (employees in private hospitals and clinics, medical practices, dental offices, gynecological offices, and private laboratories).

For the purposes of this study, various survey methods will be applied, including paper-and-pencil interviewing (PAPI), computer-assisted telephone interviewing (CATI), and computer-assisted personal interviewing (CAPI). Quantitative methods enable the collection of data from a large number of respondents, focusing on numerical information such as counting, ranking, and analyzing the correlation and prediction of phenomena in the population. The results obtained, after statistical analysis of the collected data, will be presented in tabular format.

The conducted survey aims to collect data on the extent to which private healthcare institutions in Serbia implement relational marketing in their operations. The ultimate goal of the research is to obtain answers to questions related to the attention given to the satisfaction of employees and clients, advertising strategies and channels used, identification of any errors in approach, and compliance with global trends. The survey results will be systematically presented in the next section of the paper, organized by themes outlined in the survey itself.

3. Results and discussion

The dynamic evolution of life has profoundly influenced the development of healthcare systems, causing significant changes and emphasizing the crucial role of marketing in the field of health. Healthcare is continuously evolving, providing numerous opportunities that stimulate the creativity, enthusiasm, and dedication of professionals in this field. The specificity of healthcare marketing lies in its interdisciplinary nature, employing specific concepts, methods, and techniques to address the challenges of both classical and social marketing. This field differs in that it relates to the provision of services and the creation of markets but without a direct equivalent in money. The effectiveness of marketing strategies is reflected in creating an image of a healthy population, recognizing the category of chronically ill individuals, etc. The application of marketing in healthcare has become imperative due to the challenges in the healthcare sector. Healthcare marketing plays a supportive role in healthcare practices by facilitating communication between service providers and patients. Additionally, marketing contributes to identity formation, actively promoting that identity with the intention of attracting new patients.

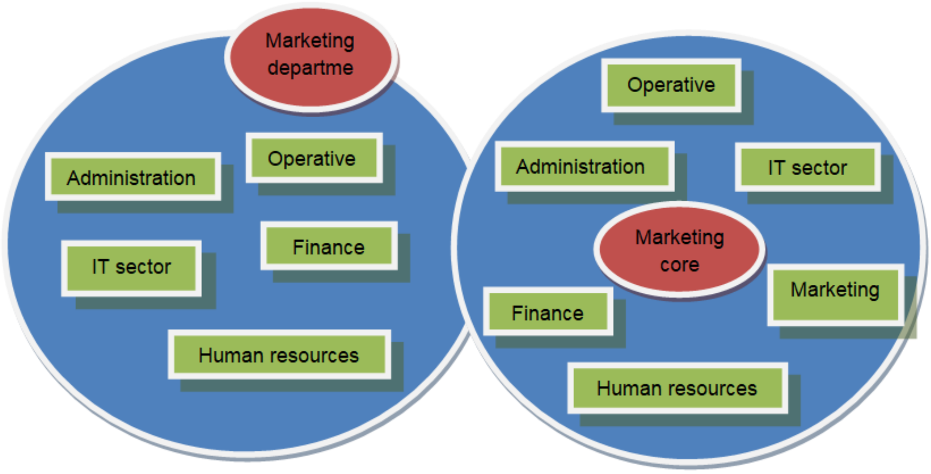
An effective marketing approach involves in-depth investigation of the patients' needs, identifying latent needs and offering new health services that patients have not explicitly requested (Purcerea, 2019).

Marketing is a societal and managerial process through which individuals and groups obtain what they need or want by creating, offering, and exchanging products of value with others (Kotler, 2012). There are two key aspects that are essential to understanding the role of marketing in healthcare organizations. On a conceptual level, marketing represents a philosophy or management approach that places the rights of customers at the center of all organizational activities. The functional level of marketing encompasses the part of the organization that conducts research, assists in designing new services, determines their pricing, distributes them, and ultimately promotes them among customers.

Marketing can be viewed as a functional role added to the organization. When this model is applied in the healthcare system, the conclusion is drawn that the services provided by the organization are not optimally tailored to users, and the marketing function would lack resources for activities other than promotion.

Conversely, when organizations perceive the marketing function as a guiding philosophy shaping strategic directions, healthcare institutions would tailor and create their services to maximize value for the patient. In such an approach, the marketing function would research the market, develop new products, and deliver them to end-users. The concept of incorporating marketing implies the presence of marketing representatives at all levels of the organizational structure and in every department of the organization.

Figure 1. Marketing as an added discipline or as a managerial function



Source: (Sargeant, 1999)

The use of marketing strategies in healthcare organizations brings numerous advantages: identification of all users or target groups within the organization, determining their specific needs, more efficient fulfillment of identified needs of users and target groups, reduction of overall operating costs of the organization, development of communication programs to connect the organization with its environment.

Among healthcare professionals, marketing has not enjoyed great popularity (mostly because most healthcare workers equated it with advertising), but it seems that this perception is outdated, and today it is evident that marketing has evolved from being understood solely as "advertising" to a more comprehensive approach to meeting the needs of healthcare service users (Ouschan et.al, 2006). Private practices and large healthcare institutions must embrace this patient behavior and provide desirable healthcare and other services. Satisfied patients become "loyal customers" and thus contribute positively to success not only based on their personal experience but also based on the recommendations they give to their acquaintances.

Healthcare organizations should regularly conduct their own market research to obtain vital information about potential users of their services. This research can be survey-based and conducted in person, over the phone, or through the internet. When it comes to current users of healthcare services, a brief survey about their experience, likes, and dislikes can always be conducted upon the patient's discharge from the facility. These data can significantly enhance the effectiveness of the marketing department and increase satisfaction among healthcare service users, resulting in greater loyalty (Bodet, 2008).

In a situation where a nonprofit organization provides a service, it is crucial for marketing to be integrated into every segment of the organization to achieve a comprehensive marketing concept rather than individual and transient marketing activities. The higher the level of staff engagement in promoting the organization's image and corporate culture, the greater their commitment, motivation, and productivity will be, resulting in more satisfied users. In modern business, a crucial area is the marketing mix, which constitutes a combination of controlled marketing tools that a company applies to achieve the expected level of sales in the target market. The basic elements of the marketing mix are product, price, distribution, and promotion (Kotler, 2012), but services marketing often encompasses both B2C and B2B sectors, including telecommunications, financial, hospitality, healthcare, retail, and similar services. Organizations engaged in these service activities often incorporate the so-called extended marketing mix into their marketing plan, composed of seven elements: product, price, place, promotion, people, physical evidence, and process.

The perspective for expanding and modifying the services marketing mix first took hold at the inaugural conference of the American Marketing Association dedicated to services marketing in 1981, based on earlier theoretical work highlighting many significant limitations of the 4P concept (Grönroos & Ravald, 2011). At that conference, Booms and Bitner proposed the 7P model, which includes the original four Ps plus three additional ones - processes, people, and physical evidence, as a more applicable model for services marketing (Javalgi et al., 2006). Since then, the 7P model has become widely accepted and has been implemented in healthcare as well. The marketing mix represents a blend of different marketing elements tailored to meet the rational desires and needs of healthcare consumers. With this approach, healthcare institutions can not only survive in the market but also achieve further development.

Today, it can be freely stated that the development of the concept of long-term customer relationships is a global trend. The philosophy of marketing has changed, shifting from the traditional 4P marketing and product/service orientation to a customer-centric approach. It is well known that acquiring a new customer is much more challenging than retaining an existing one. That's precisely why companies implement the concept of relationship marketing, also known as CRM (Customer Relationship Marketing).

Figure 2. - Marketing miks 7P

Source: (Sukotjo & Radix, 2010)

CRM, as an approach, is based on creating, developing, and strengthening business relationships between the organization and specific consumer segments. The primary goal of this approach is to enhance the quality of communication between the organization and consumers, strengthen business collaboration, increase profitability, and improve value, primarily for consumers but also for all other relevant stakeholders. CRM is essentially a managerial approach rather than a technological concept. Through the use of hardware solutions and software applications, this concept helps organizations more efficiently identify "valuable" clients and direct their activities toward them. At the same time, it supports consumers, enabling them to satisfy their needs quickly and efficiently, while building positive relationships with organizations that demonstrate care for them and tailor their offerings to their specific requirements.

Relationship marketing as a process refers to activities and tasks aimed at collectively achieving set marketing goals. This business process can relate to a group or activities through which organizational inputs (employee ideas, etc.) are transformed into desired outputs (new services, new ways to connect with customers, etc.). Such groups and activities can be further aggregated in the process at a higher or lower level (Eppler, 2006). When discussing the healthcare sector, viewing relationship marketing as a process would mean organizing activities that are focused on establishing and maintaining long-term and high-quality relationships between healthcare institutions and users of healthcare services.

At the core of RM as an integral part of holistic marketing lies a business approach that involves creating attractiveness between service users and the service organization, which can result in the establishment of a relationship that is mutually beneficial for both parties (Gronroos, 2007). Establishing such a relationship and the resulting connection with the service user leads to lasting, long-term, and profitable growth, as opposed to one-time transactional sales, representing the essence and main goal of relationship marketing (Sanchez, 2003). In recent years, there has been a noticeable increase in the use of social media in various service industries, including the healthcare sector, as part of a modern trend. Social media is increasingly being used to establish, maintain, and nurture long-term relationships with healthcare service users. Although this trend is relatively new in the field of healthcare, its significance is not negligible. Considering the specificities that distinguish healthcare services from others and the role that patients play in relational marketing, social media becomes a key factor in establishing connections between healthcare institutions and users. The appeal of digital communication is actually based on fulfilling basic human needs, such as the need for connection with other people (Gross, 2018). Every effort invested in communication and relationship marketing in the digital world is worthwhile because a positive customer experience in communication increases their overall satisfaction by 33%. When companies respond to customers via social media, those same consumers spend 40% more than those who do not receive a response (Barry et al., 2011).

Table 1 – Basic Characteristics of Public and Private Healthcare Institutions

Key Characteristics	Public Healthcare Institutions	Private Healthcare Institutions
Ownership and management	State-owned, management under direct supervision of state institutions	Private, management under direct supervision of owners or managers
Objectives	Public interests, providing public services, and achieving social welfare	Profit generation for owners or shareholders
Founded	Funded from the state budget	Funded from private sources, investments, or regular operations
Market competition	State enterprises have a significant monopolistic position	Competing in the market and subject to free market rules

The healthcare sector is undergoing significant transformations in most developed countries, facing challenges from both growing public expectations and competition among healthcare service providers. Traditional healthcare providers are now facing new competitive pressures from new players, such as independent private laboratories and clinics, as well as alternative services focused on health preservation. Patients staying in hospitals are no longer just patients; they have become consumers of hospital services, with the potential to choose where they will be hospitalized in the future.

Currently, patients face a lack of information, control, and options, with access problems expressed through high prices and unjustifiably long waiting periods. To cope with these challenges, the healthcare sector needs more proactive engagement and participation of society in the decision-making process. Healthcare organizations must develop strategies that adapt the healthcare system to the needs of consumers. Special attention should be given to health promotion and preventive measures. Creating a healthcare system where the voice of users drives change is crucial for meeting growing societal expectations and demands.

The state of public and private hospitals can be analyzed from various perspectives, but key points of observation can be grouped into financing, access and waiting times, as well as treatment costs. Public hospitals are usually funded from public sources (taxes), and funds are often limited, which can affect the level of equipment and the quality of services. Private hospitals are funded from private sources (patient payments) and insurance, leading to larger budgets and better equipment.

Another point of observation is the approach to patients and waiting lists, where significant problems may arise. Patients in public hospitals often face longer waiting times due to limited resources or a higher number of patients, while patients in private hospitals have faster and higher-quality access to services (this leads to a more personalized approach – a closer relationship with the patient). The third point is the costs, which are directly on the side of the state apparatus, i.e., services in public clinics are free for patients, alleviating the financial burden, while services in private practice are charged, increasing the overall treatment costs for patients.

Public healthcare institutions are often criticized for perceived inefficiency and lack of effectiveness. An excessive number of employees contributes to administrative complications and increased costs, diminishing overall efficiency. Additionally, the lack of marketing activities makes them less competitive in the healthcare services market. Non-profit organizations, including state healthcare systems, are often resistant to change, and bureaucratic processes hinder problem identification and resolution.

State healthcare systems frequently exhibit unsatisfactory outcomes due to a lack of organization efficiency evaluation systems (human and material), funding regardless of market conditions, and the monopolistic position of healthcare institutions. Communication within these organizations, both vertical and horizontal, is often underdeveloped and not directed towards the needs of end-users - patients. These shortcomings often lead to the conclusion that these institutions primarily function to maintain the status quo and retain staff, rather than actively striving for changes that would improve the quality of services provided. The absence of user trust, resulting from their sense of neglect by these organizations, is a key driver of the privatization of many services, including private practices and clinics.

Many public services are provided "free" in the sense that the user does not pay directly for the service during its use. From this, it can be inferred that if the price is not transparently included in the transaction, and competition is limited, the need for marketing may seem unnecessary. However, all products and services require funding in some way, and the user ultimately bears the costs, even if this occurs indirectly, such as through tax payments.

The research was centrally conducted through a survey, involving 30 participants. Survey participants represented private healthcare institutions, including hospitals, clinics, medical, dental, and gynecological practices, private eye clinics, and laboratories. The aim of the survey was to gain insights into the general situation regarding the relationships between healthcare institutions and their service users. Through the posed questions, the survey sought to provide answers to key questions regarding the implementation of relational marketing in the healthcare field.

Regarding the use of CRM software, the research revealed that 51% of private healthcare institutions use some CRM software solution. This may include software installed on their computers or online software used with a free or monthly subscription. Employees, not only in the healthcare sector but also in other industries, often show resistance to change. The introduction of CRM systems and the need for intensive daily use can pose an additional challenge for healthcare workers, considering the new tasks without appropriate financial compensation for the extra effort. Therefore, it often happens that healthcare institutions have implemented a CRM solution for practicing relationship marketing, but employees do not use the system frequently enough due to the additional time required for data entry and similar tasks, reducing the full potential of the software.

Healthcare service users increasingly search a variety of websites and social media before deciding on the appropriate healthcare facility. However, a concerning fact indicates that even 25% of surveyed healthcare facilities do not have their own website. In the modern digital age, the absence of online presence is often considered an evasion from reality. Nevertheless, healthcare facilities without their own website manage to survive, considering the importance of the "word of mouth" marketing strategy in the decision-making process for choosing a healthcare institution. As trust is a key factor in selecting a healthcare facility, it is important to pay attention to the profiles of healthcare professionals on websites. Research has revealed that among healthcare facilities with a website, a significant 60% do not include profiles of healthcare professionals, while only 40% provide this information. The presence of healthcare professionals' profiles on the website can significantly increase the level of trust among visitors, bringing them closer to the decision to use the services of a specific healthcare institution whose website they visit.

Table 2 - Marketing of healthcare institutions and patient relations

Does your institution use any customer relationship management (CRM) software solution to manage service relationships with customers?		
Yes - 51%	No - 49%	
Does your institution have a website (presentation) on the internet?		
Yes - 75%	No - 25%	
If the previous answer is YES, does your institution have profiles of healthcare workers on the website (education, work experience, etc.)?		
Yes - 40%	No - 60%	
Does your institution use digital relationship marketing (social media) to establish and maintain connections with customers (Facebook, Instagram, etc.)?		
Yes - 67%	No - 33%	
Does your healthcare institution advertise (use advertising)?		
Yes - 88%	No - 12%	
In line with the previous question, does it use traditional channels – radio, TV, newspapers, billboards; and/or modern/digital channels – email marketing, social media, etc.?		
Traditional - 38%	Modern - 35%	Both - 27%
Who is in charge of marketing in your healthcare institution?		
Healthcare workers - 42%	Marketing woekers - 22%	External - 36%
Can you confidently say how many (loyal) patients your healthcare institution has?		
Yes - 32%	No - 68%	

Source: Authors' research - conducted survey

On platforms such as Facebook, Instagram, Twitter, or YouTube, information, news, knowledge, and interests are actively shared, communicated, advertised, and various other activities take place. In today's life, the concept of social media has become indispensable, and users use them to varying degrees. Social media represent a central place where users spend their time, making them fertile ground for marketing activities. However, beyond mere advertising, social media offer the possibility of establishing meaningful, quality, and long-term relationships with users, as well as building the brand of a healthcare institution. Survey research has revealed that 67% of healthcare institutions have profiles on social media, mainly on Facebook. However, a more detailed analysis of profiles shows that many of them have not been active for several years.

In an era where it is expected that all service sectors employ some form of advertising, whether traditional through newspapers, radio, television, or modern through social media, content, video materials, and the like, 12% of healthcare institutions claim not to engage in advertising in their operations. These entities recognize a lack of time in the existing workforce to perform these activities but simultaneously do not hire marketing agencies to handle these tasks. Such an approach is not advisable because these healthcare institutions rely too much on the "word of mouth" method. Given the specific nature of healthcare services, it is important to diversify marketing strategies to achieve a broader reach and attract the attention of different target groups.

It is crucial for healthcare institutions to have a clear understanding of the number of users loyal to their healthcare services. This insight allows for better financial planning and business management in the future, as well as the creation of effective marketing campaigns aimed at maintaining and building long-term relationships with existing and potential healthcare service users. However, research results indicate that only 32% of healthcare institutions have accurate information about the number of their loyal patients. This fact largely depends on the institution's commitment to its users and the use of appropriate Customer Relationship Management (CRM) software, which enables tracking and effective communication with patients.

From these results, the conclusion is drawn that investing in the implementation of relationship marketing, especially in the technological segment such as CRM software, is highly recommended. This not only allows the organization to precisely identify target patient groups and tailor messages to them through various channels but also provides a platform for tracking and improving relationships established with users over time.

4. Conclusion

In this study, the specificities of healthcare services were emphasized as a unique form of service provision. The main focus was on confirming the crucial importance of relationship marketing for healthcare institutions, especially in the context of building and maintaining long-term relationships with healthcare service users. Through the analysis of various aspects, the paper aimed to identify conditions essential for increasing the loyalty of healthcare service users.

As presented in the research results, healthcare institutions are faced with the continuous need to develop their own brand and highlight elements that set them apart from the competition. Aspects such as location, working hours, and the expertise of employees become crucial in shaping vision and mission statements, serving as guidelines for directing towards set objectives. It is important to note that these statements are often communicated internally, necessitating efforts to establish effective communication with the wider public to attract the target audience of healthcare service users.

Today's healthcare service providers are challenged to expand their advertising and presentation beyond traditional clinical outcomes. Patients increasingly seek and expect ancillary services that go beyond basic medical treatments they receive. Modern patients set high standards and expectations regarding the quality of services provided by healthcare institutions. On the other hand, there is also a minimum acceptable level of quality they are willing to accept. The difference between these levels of desired service quality and the minimum adequate service creates the "zone of tolerance."

The research results, along with informal interviews and conclusions from other research methods, clearly show that successful healthcare institutions maintain constant communication with users of their services, not limiting it to a specific day of the week or month but doing so daily. In today's highly competitive environment, building strong relationships with consumers, clients, or healthcare service users becomes essential for success, making it a key element of every marketing strategy. Quality customer relationships represent a vital factor for the prosperity of healthcare institutions, with a special emphasis on branding and the application of relationship marketing. In the healthcare sector, this concept becomes particularly important as it contributes to value creation, building a strong brand, and differentiation from the competition.

People worldwide are increasingly accepting social media as an efficient means of rapid communication. Healthcare professionals should incorporate various social media channels into their marketing plans to actively communicate with patients. Engagement on different platforms such as Facebook, LinkedIn, blogs, and Twitter allows doctors to monitor how patients perceive healthcare and what their expectations are. Directly connecting with patients through social media provides insight into their concerns about healthcare services, current health issues, and general information about their health.

If the question is posed as to whether the implementation of the concept of relationship marketing improves the relationships between private healthcare institutions and patients, the answer is unequivocally affirmative. Relationship marketing, as an intelligent approach, provides healthcare service providers with the opportunity to enhance market position, build a brand, and achieve business objectives. This approach can serve as a strategic tool for achieving marketing goals, as well as for managing and developing long-term relationships with healthcare service users.

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Efekti implementacije informacionih sistema u poslovanje preduzeća

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Apstrakt: Ovo istraživanje bavi se fenomenom sa kojim se moderna preduzeća suočavaju u svom poslovanju usred ekonomske krize i sve otvorenijih i konkurentnijih tržišta. Ispituju se izazovi kao što su niska produktivnost, visoki troškovi proizvodnje i obrada ogromne količine podataka. Za potrebe ove studije sprovedena su istraživanja u određenim preduzećima koja se bave proizvodnjom bezalkoholnih pića, CO2 gasa i gazirane vode. Informacije su prikupljene kroz intervjue sa ključnim zainteresovanim stranama, ankete i upitnike. Mogućnosti primene rezultata istraživanja podjednako su relevantne i za preduzeća sa različitim proizvodnim programima i vlasničkom strukturom. Izvodljivo rešenje za ove poslovne izazove je implementacija digitalizacije poslovanja, koja integriše organizacione jedinice kroz uvođenje jedinstvenog informacionog sistema koji povezuje sve segmente poslovanja u funkcionalnu celinu, za razliku od zasebnih sistema za svaki deo preduzeća. Rezultati istraživanja ukazuju da implementacija informacionog sistema značajno povećava ukupnu produktivnost, smanjuje troškove proizvodnje i poboljšava brzinu i efikasnost. Efekti implementacije informacionog sistema se istražuju iz tehnološke i aplikativne perspektive, uz analizu pozitivnih ekonomskih aspekata, što u osnovi predstavlja ključnu prednost uvođenja savremenog informacionog sistema. Ovo istraživanje razvija konkretna aplikativna rešenja kroz implementaciju informacionih sistema kao deo sveobuhvatnog unapređenja poslovanja preduzeća.

Ključne reči: Informacioni sistemi, poslovna inteligencija, preduzeća

The Effects of Implementing Information Systems in Business Operations of Companies

Abstract: This exploratory research delves into the phenomenon that modern enterprises face in their operations amid economic crises and increasingly open and competitive markets. Challenges such as low productivity, high production costs, and the processing of vast amounts of data are examined. For the purpose of this study, research was conducted in specific companies engaged in the production of non-alcoholic beverages, CO2 gas, and carbonated water. Information was gathered through interviews with key stakeholders, surveys, and questionnaires. The possibility of applying research results are equally relevant for companies with different production programs and ownership structures. A viable solution to these business challenges is the implementation of business digitization, which integrates organizational units through the introduction of a unified information system connecting all business segments into a functional whole, in contrast to separate systems for each part of the enterprise. Research results indicate that the implementation of an information system significantly enhances overall productivity, reducing production costs and improving speed and efficiency. The effects of the information system implementation are explored from technological and application perspectives, along with an analysis of positive economic aspects, which fundamentally represents a key advantage of introducing a modern information system. This research evolves specific application solutions through the implementation of information systems as part of a comprehensive improvement of bussines operations of enterprises.

Keywords: Information systems, business intelligence, enterprise

1. Introduction

The business conditions of enterprises worldwide are undergoing turbulent changes due to economic, social, and military activities. In this regard, companies are compelled to follow trends and continuously modify their business processes, procedures, and introduce new products or services. Additionally, vast amounts of business data further strain the resources of enterprises in terms of processing and anticipating future business trends. Digital data and information, along with their rapid exchange, transform the way all employees and business systems operate (Kamki, 2017).

However, research results indicate that significant data often remains unused and untapped. Although it is known that information is highly valuable (Liautaud and Hammond, 2000), it is often impossible to find. Renowned expert Ranjan (2009) emphasizes that based on that, data and information are often treated as the second most crucial business resource, right after employees. The winners in the market competition will be the business systems that implement high-quality information systems capable of processing quality data and information across all enterprise departments (Davenport, 2010).

Building on this, Schuff (2010) states that one of the advantages of information systems is that they enable enterprises to gain insight into consumer behavior, i.e., what they buy (or don't buy), and provides an opportunity to translate this knowledge into extra profit. With the help of information systems, an enterprise can track operating costs for each individual business activity (Denić, et al., 2014). Schuff also states that by using business intelligence solutions, enterprises can order supplies at the right time and in the necessary quantities, thus avoiding excess inventory. In that direction, well-known authors emphasize that 'Although the market and enterprises as its integral part are inundated with various data and information, simultaneously, the results of research on the availability and usability of information are very significant' (Olzak and Ziemba, 2012).

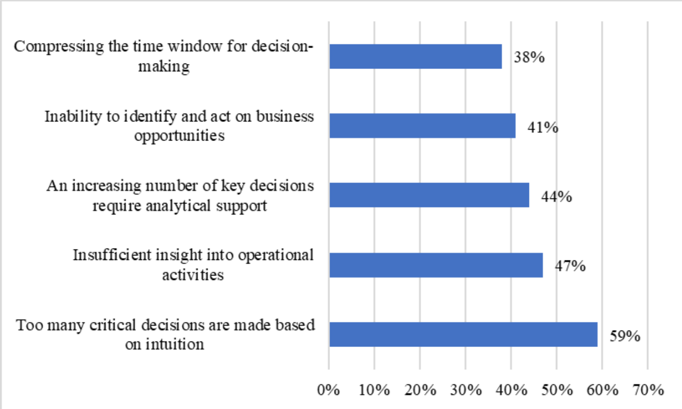
- 95% of data is publicly available,
- within the company, there is 90% of data that is sufficient for business, and only 10% of it is used,
- 54% of users find it difficult to find the information they need
- 43% of managers are not sure of the accuracy of the information they have,
- 77% of managers made wrong decisions in their work due to lack of information.

Relevant research indicates that modern enterprises and business systems extensively leverage the benefits of information systems and business intelligence of these simple yet powerful analytical tools, which are based on new technologies (Denić et al., 2018), employing analytical procedures that have emerged in the past few years. What we mean by implementing business intelligence in a business enterprise is the translation of data into useful information and knowledge, followed by their efficient distribution to key users viz employees (Denić et al., 2016).

2. Information systems and business intelligence

Through the utilization of information systems and business intelligence tools, enterprises connect their employees with the tasks they perform more effectively, as well as with investors, subcontractors, suppliers, and other business partners. The significant importance of business intelligence lies in providing all employees and stakeholders insight into a vast amount of meaningful and complex data (Turban et al., 2010). The main drivers for implementing information systems can often be of both internal and external nature. Krensky and Lock (2013), in their analysis of small and medium-sized enterprises (SMEs), highlight the primary reasons and methods for analyzing business decisions made by these enterprises. In the following Figure 1, it can be observed that company executives clearly aim to shift their focus from data collection to the use of data for more efficient business decision-making.

Figure 1: The main pressures for the use of business intelligence in SMEs



Source: (Krensky and Lock, 2013)

Prominent authors emphasize that knowledge management and business intelligence represent new concepts of continuously collecting, organizing, storing, and sharing knowledge to achieve more efficient business operations (Olszak and Ziemba, 2012). The same authors, Olszak and Ziemba, in their research, delve into the processes of knowledge collection, creation, recognition, and application to achieve ultimate goals, finding the best ways to sustain and adapt enterprises to conditions of continuous change. In this regard, Ranjan (2009) states that the primary goal of information systems and business intelligence is to enhance the timeliness and quality of information. The same author lists several key elements that information systems enable for enterprises:

- analysis of the position of enterprise (company) in relation to the competition.
- identifying changes in consumer behaviour and their purchasing habits.
- analysis of the market condition, trends, upcoming demographic and economic situations and
- analysis of the social, legal, and political environment, as well as the behaviour of other companies in the market.
- project management scope.

In the research conducted by Olszak and Ziemba (2012) on SMEs, several categories of critical success factors for the implementation of business intelligence are highlighted: Organization, Process, and Technology. These categories naturally emerge from the drivers and barriers of business intelligence system implementation. Unique critical success factors (CSFs) for the implementation of business intelligence systems in SMEs have been identified in each of these frameworks and perspectives.

The following table 1 shows the results of the critical success factors comparison from different perspectives.

Table 1: Critical success factors in implementation of BI in SMEs

Perspective of the Organization	Process perspective	Perspective of Technology
Support from top management	Effective change management (e.g. willingness to accept process change)	Data quality
Sufficient number of qualified (trained) staff / teams / managers	Well-defined business problems and processes	Integration between BI system and other systems (eg ERP)
Competent BI Project Manager (Leadership)	Well-defined user expectations - (information requirements)	Appropriate technology and tools
Previous experience and collaboration with a BI vendor	Adaptation of BI solutions to user expectations (requirements)	Simple and easy to use BI system
A clear business vision and plan		Lack of BI flexibility and response to user requests
Adequate budget		

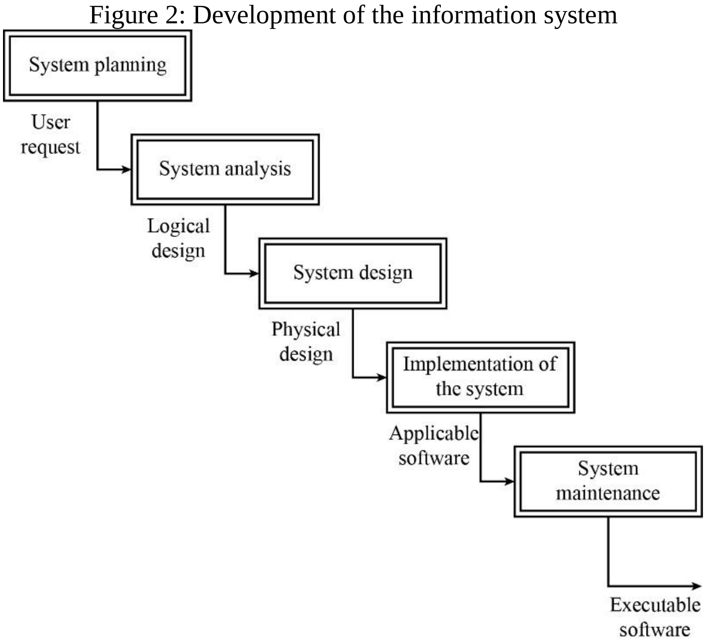
Source: (Olszak and Ziemba, 2012)

Conducted research indicates that the most crucial factors for the implementation of business intelligence systems from the organizational perspective include an adequate budget (20 enterprises), support from top management (18 enterprises), a competent BI project manager (leadership) (18 enterprises), the qualification (capability) of a sufficient number of staff/team/managers (17 enterprises), and the existence of a clear business vision and plan (17 enterprises). Less emphasized is the previous experience and collaboration with a business intelligence system supplier (10 companies). Renowned author Martin emphasizes that a business intelligence project should always begin with the identification of business requirements and that projects based solely on technical conditions are often unsuccessful in practice. In this regard, eminent authors Martin et al. (2011) highlight that the state and availability of data for KPI indicators are among the main aspects leading to the successful implementation of the system.

3. Information systems development methodology

The results of the literature review indicate that the use of information systems and business intelligence will lead to business success only if the users of business intelligence regularly develop business and decision-making processes, recognize their needs, assist in their modeling, and monitor the completion of projects. They should also actively participate in the implementation of new components of business intelligence. The knowledge and skills of the project team and users of information systems and business intelligence are of primary importance. Figure 2 below illustrates the information system development process. Renowned author Turban (2011:256) points out that cost-benefit analysis is one of the most critical parts in the implementation phase of information systems and business intelligence.

Figure 2: Development of the information system



Example in DP bottling plant "Coca Cola" Lipljan

Below is presented the research on the implementation of the Information System at the Coca Cola Bottling Plant in Lipljan, which is part of the Coca Cola system in the Republic of Serbia, consisting of the companies Coca Cola and Coca Cola Hellenic. The journey began in 1968 when the first Coca Cola was produced here. Today, 1,300 employees in Serbia produce a wide range of non-alcoholic beverages for millions of citizens in the region. Thanks to dedicated efforts, significant financial investments, continuous innovation, and creativity, Coca Cola has gained numerous enthusiasts in the country, not only for the renowned Coca Cola brand but also for various other brands. The current production system of this non-alcoholic beverage includes a wide range of both carbonated and non-carbonated drinks, although the brand itself is associated with carbonated beverages. Like in any process, whether in production, distribution, or any business in general, there is always room for improvement and enhancing the process. In the following section, the idea for improving one of the Coca Cola bottling plants is described. The business jubilee is another opportunity to modernize the production, filling, administration, and distribution processes of this brand. Additionally, it provides a chance to strengthen the market position by adjusting prices through production cost reduction. When the company's leadership thinks about information systems and business intelligence, they consider simplifying and making business processes more efficient, effective, and intelligent (Turban et al., 2010). In this section, the development of the information system for the Coca Cola bottling plant in Lipljan, as well as the observation and measurement of the effects of its implementation, are explored and presented. The Coca Cola bottling plant 'Lipljan' was founded in late April 1977, as part of SOUR SLOVIN, RO "IBP" Ljubljana, and initially had the status of an OOUR, employing around 60 workers in the beginning.

It consists of the following organizational units:

- Production unit.
- Sales unit with transportation.
- General service with accounting.

The activities of the bottling plant include the production, filling, and wholesale and retail sale of Coca Cola for the domestic market, delivering goods to customers using its own and other transportation means. Basic assets were initially procured from Germany and Belgium. The concentrate, a crucial raw material, is supplied from the USA. Sugar, another significant raw material, is sourced from the sugar factory in Kovačica. Water, consumed in large quantities due to the nature of the business, is supplied from the company's wells, providing a significant advantage. Before the war, the bottling plant employed about 200 workers, and the production process operated in two shifts. Daily production amounted to about 7,000-8,000 crates or 200,000 pieces of 0.25-liter glass bottles, equivalent to about 56,000 liters of Coca Cola, meeting market demands. In Lipljan, Coca Cola is bottled in 0.25L/24 packaging (crates). Annually, 1,279,150 crates of Coca Cola are produced or sold, as well as in 1-liter bottles, i.e., 1/12 packaging, with an annual sale of 27,500 crates. There were plans to introduce production in 1.5L non-returnable packaging and 0.33L non-returnable packaging, as well as to build a packaging production facility within the factory for 1.5L packaging for the needs of the entire former Yugoslavia. The Coca Cola Bottling Plant in Lipljan marketed its products in Kosovo and Metohija, Sandžak, Raška, Kopaonik, and from the warehouse in Niš, it covered part of southern Serbia. Some sales were also directed to the market in North Macedonia. The results of the effects of the implementation of the Information System and Business Intelligence are presented in the 'results and discussion of the results' section.

Example of the enterprise 'DP Klokot Banja'

The company 'DP Klokot Banja' is another enterprise that was the subject of research and, with its production facility, represents a significant economic potential for the entire municipality of Vitina in Kosovo and Metohija. Klokot Banja built and commissioned a carbon dioxide compression plant from mineral water in 1964, with a capacity of 600 kg per 24 hours. In 1972, a modern bottling plant for Klokot mineral water was built, and its production rapidly increased from an annual output of 1,100,000 to 6,000,000. In 1990, Klokot Banja put into operation a modern plant for the production of CO2 gas and mineral water. The plant is fully automated with machines capable of producing 8,000 to 10,000 bottles per hour. The annual production and sales of this plant were around 12,000,000 bottles, and the CO2 gas production facility was about 1000 kg per 24 hours. The products of the 'DP Klokot Banja' company are presented in the following Table 2.

Table 2: Products of the 'DP Klokot Banja' company

Products of the 'DP Klokot Banja' company	
Name	**Packaging**
Mineral still water	0,5 L; 1,5 L; Bottle 5 L
Mineral carbonated water	0,5 L; 1,5 L; Bottle 5 L
Mineral carbonated water with lemon	0,5 L; 1,5 L
Slightly carbonated mineral water	0,5 L; 1,5 L
CO_2	5, 10 and 15 KG bottles

In order to enhance the business value of the company 'DP Klokot Banja', the inclusion of key performance indicators (KPIs) is proposed. Research shows that over 90% of the most successful small and medium-sized companies have some form of KPI implementation through various concepts and methodologies.

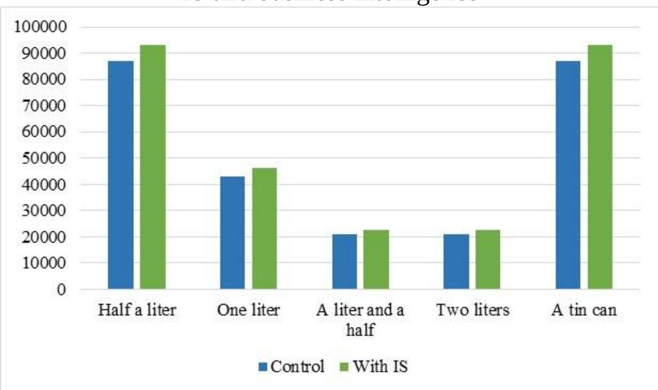
4. Research Results and Discussion of the Results

Based on their research, authors (Turban and Volonino, 2010) state that information, which was once exchanged 'face to face', is now exchanged using computers and mobile phones, and in the process, they are digitally collected, more efficiently exchanged and offered. According to the same authors, information systems and business intelligence can provide the following (Turban et al., 2010):

- Better understanding of information and business,
- Improved communication and collaboration among employees,
- Generation of appropriate new revenues,
- Discovery of hidden costs and missed opportunities,
- Implementation of set strategies and goals,
- Enhancement of efficiency in performed processes,
- Provision of personalization and self-service,
- Easier tracking of business effects and analysis of problem causes,
- More efficient exchange of data, information, and knowledge.

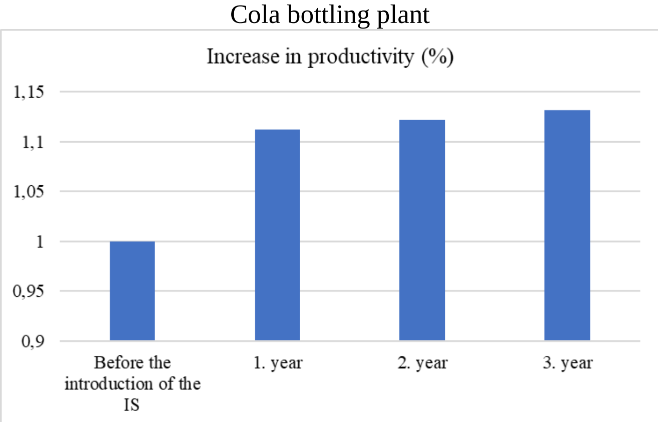
In this direction, some authors in their research state that with the use of data mining (DM) tools, it is much more likely to discover unknown behavior matrices, and it is possible to predict future trends and behaviour more accurately and quickly (Yan et al., 2020). This will enable the enterprise to make proactive knowledge-based decisions. The research results in the Coca-Cola bottling plant indicate that time savings in production lead to an increase in the total number of filled units on a monthly basis by an average of 5.8%, as shown in Chart 1.

Figure 1. Display of increased production in the Coca-Cola bottling plant after the implementation of IS and business intelligence



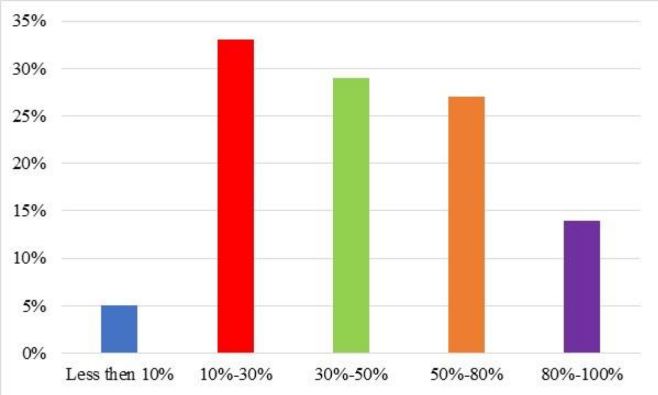
In this regard, the results indicate that the increase in productivity in the bottling plant, which is a direct consequence of the implementation of the Information System and Business Intelligence, is shown in the following diagram.

Figure 2. Increase in productivity with the introduction of IS (%) and business intelligence in the Coca-Cola bottling plant



The next chart, Chart 3, represents the situation after the implementation of the information system in the company 'Klokot Banja', confirming the theoretical results and the previous example in practice.

Figure 4. Business improvemnt after the introduction of the IS, in percentages of the business improvement for the company 'Klokot Banja'



5. Conclusion

Results of the research of relevant literature indicate that companies in developed countries, which have embraced new technologies and implemented them into their processes, have improved production, reduced production costs, executed work more swiftly, operated more economically, and gained competitive advantages, among other benefits. They have found that the essential consequence of applying information systems and business intelligence is cost reduction, process optimization, and the creation of greater profits. Research suggests that the era of information systems involves continuous improvement and daily modernization and optimization of business processes for enterprises.

This study explores the implementation of an information system for a non-alcoholic beverage bottling plant, using the example of the Coca-Cola factory Lipljan. The goal is to integrate the bottling sector into a unified entity, as well as for the company 'Klokot Banja', with the aim of optimizing and enhancing the business processes of these enterprises. For the implementation of the information system, chosen tools were those that were considered the best in addressing the specific problems at the given time. The algorithmic system was designed to be user-friendly and easily maintainable, increasing the system's price but reducing user training costs.

Effective use of information systems and business intelligence has become a factor directly impacting project efficiency, quality, speed of execution, and project security, thereby influencing project success. The information system for the bottling plant was created to be upgradable and improvable according to user requirements if its current implementation becomes insufficient. Users are provided with the option to upgrade and improve the information system. Realistic expectations are that the information system will significantly assist in the bottling plant's operations, and will also bring considerable cost savings that unequivocally justify its development and implementation.

Management of the company and business processes should not be jeopardized by the failure to introduce information systems and business intelligence, i.e., the failure of IT project implementation. Therefore, special attention is necessary in the planning process of the IT project within companies and business systems, preparing project plans, and creating a high-quality and detailed risk management project to minimize the possibility of project failure and collapse. Automation and computerization of the production process are not simple tasks, especially in adapting production process workers to the use of such system.

Therefore, along with the implementation process of the information system, business intelligence, and its installation, efficient and necessary training of users is provided. In this specific case, training is for the bottling plant workers to operate the information system. Training should proceed without major difficulties and with a high success rate, which should be proven in the long run through the uninterrupted filling process continually being performed. The development and implementation of such information system, besides cost reduction, undoubtedly brings better working conditions and safer production with less waste. The computer algorithm and system now take care of the production process, and the role of human is envisioned as initiator and supervisor of the process. This dramatically reduces the possibility of human error, which increases productivity and reduces costs incurred by unplanned material losses.

Research results from 'Klokot Banja' indicate that a real-time information system can provide all the necessary data and information for efficient operation and decision-making in the company using it. It is believed that the information system and business intelligence, coupled with the necessary exchange of knowledge and experiences, can provide a competitive advantage to the enterprise using them.

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Bezbednosni aspekti u bezgotovinskim transakcijama i digitalnoj ekonomiji

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Apstrakt: Porast digitalnih transakcija i sve veća zastupljenost sistema elektronskog plaćanja, pokrenuli su rasprave o potencijalnim prednostima i izazovima, povezanim sa potpunom eliminacijom gotovine iz ekonomskog pejzaža. Određeni trendovi i razvoj daju uvid u tekući pomak, ka digitalnim i bezgotovinskim transakcijama. Potpuno ukidanje gotovine na globalnom nivou je složeno i višestruko pitanje koje takođe uključuje tehnološke, ekonomske, društvene i bezbednosne faktore. Ukidanje gotovine moglo bi da ima i pozitivne posledice na borbu protiv raznih vrsta kriminala i malverzacija. Ova studija ima za cilj da sveobuhvatno analizira implikacije takve promene, uzimajući u obzir sigurnosnu, bezbednosnu, socijalnu, kao i neke tehnološke i političke perspektive. Kako društva sve više prelaze na elektronske oblike plaćanja, razumevanje bezbednosnih prednosti i nedostataka je ključno. Ova studija vrši pregled na tehnološke, regulatorne i bihevioralne faktore koji doprinose celokupnom bezbednosnom pejzažu bezgotovinskih transakcija.

Ključne reči: sigurnost, gotovina, digitalna ekonomija, kriptovaluta, bezbednost, sajber-bezbednost

The Security Aspects Associated with Non-Cash Transactions in the Digital Economy

Abstract: The rise of digital transactions and the increasing prevalence of electronic payment systems have sparked discussions about the potential benefits and challenges associated with complete elimination of cash from the economic landscape. Certain trends and developments provide insights into the ongoing shift towards digital and cashless transactions. The complete abolition of cash on a global scale is a complex and multifaceted issue that also involves technological, economic, social, and regulatory factors. Abolition of cash could also have positive consequences for the fight against various types of crime and malfeasance. This study aims to comprehensively analyze the implications of such a transition, considering primary security, safety, social as well as some technological and policy perspectives. As societies increasingly transition towards electronic forms of payment, understanding the security advantages and disadvantages is crucial. The study explores the technological, regulatory, and behavioral factors that contribute to the overall security landscape of non-cash transactions.

Keywords: safety, non-cash, digital economy, cryptocurrency, security, cybersecurity

1. Introduction

Young generations of consumers want to make purchases online and without using cash. The habits of the generation born at the end of the nineties of the last century and later could have major consequences for cash, that is, for paper money, which has been used for ten centuries (Luther, 2018). The youngest group of consumers sets future market trends, which showed that young people want to shop online, and support mobile contactless payments and mobile banking. Payment systems companies like Paypal, Apple Pay, Samsung Pay, and Alipay are becoming more popular (Hamukuaya, 2021). In Europe, Scandinavian countries considered to be the leaders of these changes, because in them there is agreement between the population and financial decision-makers on this issue, while this is not always the case in other parts of the planet (Arvidsson & Teniska-Hogskolan, 2017).

The pace of technological advancements, including the development of secure and efficient digital payment systems, influences the transition away from cash (Zhou, H. 2021). Innovations in fintech, blockchain, and mobile banking contribute to the evolution of digital payment ecosystem (Zhu, & Wang, 2022). On the other hand, there are many hackers who have learned how to abuse financial systems and successfully defraud and defraud people of large sums of money (Galvan, 2017).

In Asia, China has been actively engaged in various aspects of the digital economy, and there have likely been further developments since then. The digital economy in China encompasses a wide range of technologies, industries, and policies（骆苗, 2020). Beyond payments, there are a few platforms offer a variety of lifestyle services such as food delivery, ride-hailing, hotel bookings, and more. Users can access these services directly through the app（骆苗, 2020). These platforms are widely used in China, the digital payment landscape may differ in other parts of the world. The Chinese government plays a significant role in shaping the digital economy through policies and regulations. The regulatory landscape has evolved to address issues such as data security, privacy, and antitrust concerns（周王祥, 2020).

1. The heightened importance of the globe cashless economy

The abolition of cash is justified with many good intentions. When we look at it from a safety perspective, the goal, is to prevent money laundering and tax evasion because cash can play a big role in criminal activities. Digital transactions create an audit trail for law enforcement, which helps financial institutions fight crime (White, 2015.). Cash used to encourage corruption, besides that notes and coins carry the risk of bacteria (Rashmi, 2023). Matters worse used in transactions for drugs, weapons and terrorism (Rashmi, 2023). The fight against terrorism is one of the reasons why some developed countries are excluding and reducing the use of paper money in everyday transactions. Abolition of cash payments could make money laundering, terrorist financing, illegal work or some other illegal activities involving the use of money, significantly more difficult and in many of its current forms almost impossible. Digital transactions, reduce transaction costs, encourage healthier spending habits and stimulate savings (Beijing Review, 2017).

Cash is often used in gambling but although that is increasingly online too. ‘‘Underground’’ gambling was much easier to hide by cash until in online gambling there are always some records and evidence (Rashmi, 2023).

There are a lot of cases in countries in economic transition, that employers give workers the maximum amount for overtime and other extra payment, which was not taxed, so they used to officially receive more benefits than wages, but that amount also started to be taxed, so they officially reduced the fee for any extra payment. That is apparently kind of malfeasance. That people will have problems with their pensions and when they need to take out loans. However, most of the same employers, if were paying taxes to everyone on the amount, employees really earned, unfortunately, they could comfortably put the key in the lock and close the company (Luther, 2018). Also, many employers if do not register their workers or register them on the minimum basis, intending to pay as little taxes as possible, which makes the issue of putting cash out of use even more important. Changes in consumer behavior, preferences, and trust in digital payment systems contribute to the decline in cash usage. Increased awareness and acceptance of digital currencies could accelerate the shift away from physical cash (Holmström, E. och Holmqvist, 2019).

2. Security measures in the most develop countries of digital economy

Different countries and regions have varying levels of adoption when it comes to cashless transactions. Some countries, particularly in Scandinavia and Asia, have made significant progress toward reducing cash usage, while others still heavily rely on cash（骆苗, 2020). The pace of technological advancements, including the development of secure and efficient digital payment systems, influences the transition away from cash. Innovations in fintech, block-chain, and mobile banking contribute to the evolution of digital payment ecosystem.

Sweden is of course leading the way in the idea of abolishing cash. In that country, over eighty percent of people pay cashless (Arvidsson & Teniska-Hogskolan, 2017). In most Swedish cities, tickets on public buses cannot be bought with cash, there are more and more shops that only accept cards, some banks have stopped operating with cash, and there are also limousines that charge for the services with cards (Lindström. 2017). As many as five out of six banks there banned cash payments and abolished ATMs in rural areas of the country (Lindström, 2017). Banks even have the right and obligation to report to police, the citizens who do not follow the rules and use large amounts of cash (Sweriges RiksBank, 2020). Even then, Denmark was breathing down Sweden's neck in this matter, and along with them, Norway, Finland and Iceland were the world leaders in cashless payments, where swiping a card even five years ago was common for the smallest purchase. The Danes have made it possible for merchants, gas stations and restaurants to no longer accept cash. This should reduce companies' costs and increase their productivity (Chavolla, 2018).

Germany is somewhere in the middle of the scale of non-cash payments, in Luxembourg, France or Estonia, people pay by card more often (Hayashi, 2021). Young people want simple and efficient payment, and he notes that they will inevitably be the initiators of changes, which would first come from the most developed countries, in an economic and digital sense. Abolition of cash in the north of Europe, possibly can be in the next ten years, while it will hardly be the case with other territories (Hayashi, 2021). Sweden's central bank, only nine percent of Swedes used cash for their last purchase. It is estimated that the corona virus pandemic has accelerated the already rapid Swedish transition to card and digital payments (SwerigesRiksBank, 2020). Their central bank is then that coins and notes could completely disappear from use in just 10 to 20 years (SwerigesRiksBank, 2020).

In addition to classic forms of cashless payment, where money still exists as a classic currency, only payments are made electronically, it is realistic to expect further expansion of digital currencies - like the Digital Yuan, which is already experimentally broadcast in China, so it is kind of cryptocurrency (Christensen, 2023). In Asia, China is certainly leader in mobile payment. The adoption of digital payment methods, such as mobile payments and online transactions, has been rapidly increasing there in recent years. China has experienced a significant shift towards a cashless society, especially in urban areas.

China is home to some of the world's largest e-commerce companies, such as Alibaba and JD.com. These platforms have played a significant role in shaping the digital economy by facilitating online retail, digital payments, and logistics. WeChat and Alipay are two prominent mobile payment and lifestyle platforms in China (Donna Lu, 2019). Both have become integral parts of daily life for millions of Chinese users, offering a wide range of services beyond just payment processing. Both platforms allow users to make mobile payments by scanning QR codes, transferring money to friends, and making purchases online or offline. Both platforms allow users to make mobile payments by scanning QR codes, transferring money to friends, and making purchases online or offline (周猛王祥峰, 2020). There is also WeChat Pay that employs encryption technologies to secure transactions, ensuring that data transmitted between the user and payment system is protected. Multi-factor authentication methods, such as password verification and biometric authentication, add an extra layer of security（周王祥, 2020). WeChat Pay transactions leave a digital trail, making it easier to trace and verify payment activities. This can be beneficial for both users and business in tracking their financial history. Unusual transaction patterns or suspicious behavior can trigger security measures (Donna Lu. 2019). WeChat Pay utilizes QR code technology for transactions. QR codes are dynamically generated for each transaction, reducing the risk of unauthorized use. Users can link biometric data such as fingerprints or facial recognition to enhance the security of their WeChat Pay accounts. The security of WeChat Pay is dependent on the security of the user's device. Compromised or insecure devices could expose users to risk (Fang, et al. 2023). Users may have limited control over the security features of WeChat Pay, as certain security settings may be determined by the app's default configurations.

3. Comparison of the most develop areas of digital economy (and their experience)

In China, the number of fraud crimes showed constant fluctuations in recent years, while theft crimes decreased considerably. Crime situation in China, according to governmental statistics, the total number of crimes committed in China has rapidly decreased over the past years (白牧蓉 张嘉鑫, 2020).

Sweden and China have been at the forefront of transitioning to non-cash payment systems. However, it's important to note that developments in the field of non-cash payments can change rapidly. If we compare on the moment the non-cash payment systems in Sweden and China:

We could see that Sweden has made significant strides toward becoming a cashless society. The use of cash for transactions has declined sharply in recent periods (Kinberg-Batra, 2021). China has witnessed a rapid transformation into a nearly cashless society, particularly in urban areas. Factors driving this shift include widespread access to digital infrastructure, high levels of trust in digital systems, and government support for electronic payments. Swedish, a mobile payment app, is widely used for peer-to-peer transactions and in various retail settings. Card payments, including contactless transactions, are prevalent. Many businesses and services prefer card payments over cash (Huang, 2021).

In China the widespread adoption of mobile payment platforms, such as WeChat Pay and Alipay, has been a driving force (Chinese American Forum 2017). QR code-based transactions are highly popular. WeChat Pay and Alipay are dominant players, offering a range of services beyond simple transactions, including social interactions, investment, and more. QR codes are extensively used for transactions, and even small vendors in rural areas commonly accept mobile payments.

The Swedish government actively promotes digital payments and has embraced a vision of becoming the world's first cashless society (Kinberg-Batra, 2021). China has been actively exploring the use of digital currency, with the development of the Digital Currency Electronic Payment (DCEP) system, often referred to as the digital yuan (Chavolla, 2018). Sweden has a robust digital infrastructure, and technological innovations are continuously introduced to enhance the efficiency and security of non-cash transaction (Donna, 2019). China's fintech sector has experienced rapid growth, fostering innovation in digital payments, blockchain, and other financial technologies.

What would be the similarities and differences of these two systems:

Similarity

- High mobile penetration - both Sweden and China have high rates of mobile phone penetration, facilitating the widespread adoption of mobile payment solutions (Huang, 2021).
- Reduced reliance on cash - both countries have experienced a significant reduction in the use of cash for transactions, with digital payment methods becoming the norm (Fang, et al. 2023).
- In both Sweden and China have supported the transition to non-cash systems, recognizing the potential benefits in terms of efficiency, transparency, and financial inclusions (Luther, 2018).

Differences

- While Sweden has Swedish as a dominant mobile payment app, China's landscape is characterized by the duopoly of WeChat Pay and Alipay (Donna, 2019).
- Digital development - China has taken significant steps in developing its digital currency (DCEP), exploring the potential of a government-backed digital currency. Sweden didn't have it (Christensen, 2023).
- China's centralized approach to digital payments has raised concerns about data privacy and government surveillance. Sweden didn't mention anything about it (骆苗, 2020).

4. SWOT analysis

A SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) of the security abolition of cash provides a structured way to evaluate the potential advantages and challenges associated with transitioning to a cashless society from a security perspective.

Strengths:

- Enhanced Traceability - digital transactions leave a traceable record, making it easier to detect and investigate fraudulent activities （周王祥, 2020).
- Technological advancement in encryption, biometrics, and other security technologies can provide robust protection for digital transactions（张轶晖, 2023).
- Fraud detection and prevention digital payment systems can leverage machine or even artificial intelligence learning for real time fraud detection, reducing the risk of unauthorized transactions（骆苗, 2020).
- User authentication – multi- factors authentication methods such as biometrics and PINs, enhance user identity verification and overall transaction security（Zhou, et al. 2021）
- Reduced physical theft - The elimination of physical cash reduces the risk of theft, both from individuals and during transportation（Ronggang,　2017).

Weaknesses

- Cybersecurity vulnerabilities - increased reliance on digital systems introduces the risk of cybersecurity vulnerabilities, including hacking, data breaches, and malware attacks （Huang, 2021).
- Technological dependency - society becomes more vulnerable to disruptions due to technological failures, power outages, or cyberattacks on critical infrastructure （肖 临 王四春 李冠合 唐沧新, 2020).
- Financial exclusion - some segments of the population, particularly the elderly or those in remote areas, may face challenges in adapting to digital systems, easing to financial exclusion (Beijing Review， 2017).
- Privacy concern – the collection and storage of vast amounts of transactional data raise concerns about user privacy, necessitating robust privacy protection Galvan, B. M. (2017).

Opportunities

- Innovations in Security Technologies - continued advancements in security technologies, such as blockchain and quantum-resistant cryptography, can further strengthen the security of digital transactions（Chinese American Forum， 2017).
- Financial inclusions - a cashless society can promote financial inclusion by providing access to banking services for individuals who were previously unbanked or under-banked（Huang, 2021).
- Regulatory improvements - governments and regulatory bodies can play a crucial role in establishing and enforcing standards that enhance the security of digital transactions （Hamukuaya, 2021).

Threats

- Cyber security threat landscape - the evolving nature of cyber threats poses a continuous challenge, requiring constant adaptation of security measures to counter emerging risk (Fang, et al. 2023).
- Resistance to change - Individuals and businesses may resist the transition to a cashless society, leading to a slow adoption rate and potential vulnerabilities during the transition period (Chavolla, 2018).
- Economic impact of security breaches - Large-scale security breaches could have severe economic consequences, eroding public trust in digital systems and disrupting financial stability （Huang, 2021).
- Regulatory challenges - inadequate or inconsistent regulatory frameworks may create loopholes that malicious actors can exploit, leading to security breaches（白牧蓉 张嘉鑫, 2020).
- Cryptocurrencies operate on decentralized networks, and transactions are secured using cryptography. However, there have been instances of hacking and security breaches on crypto exchanges and wallets, leading to the loss of funds (Chavolla, 2018).

Important to mention is that the security implications of abolishing cash are dynamic and context dependent. This SWOT analysis is regularly revisited and adjusted to reflect the evolving landscape of digital payments and security measures.

5. Conclusion

Officially there is no specific timeline for the complete elimination of cash worldwide. The pace and extent of the shift away from cash will likely vary from one country to another. While some regions may progress rapidly toward a cashless society, others may retain cash for an extended period. Additionally, unforeseen events, economic shifts, or technological breakthroughs could influence the trajectory of this transition. Certain trends and developments provide insights into the ongoing shift towards digital and cashless transactions. The abolition of cash is, of course, justified by noble goals, and some of them are certainly safety reasons, because the tax will harm criminals on the black market, as if criminals are not already ahead of the police and financial institutions in cryptocurrency trading. Some countries actively promote digital payments to enhance efficiency, reduce corruption, and improve financial inclusion. So, government policies and initiatives play a crucial role. Soon or later, it will be necessary to pay more attention to measures to safeguard digital transactions and protection against cyber threats. Achieving a cashless society would likely require a coordinated effort on a global scale. However, cash cannot be abolished so soon on the global level, because it is still being used by plenty of population groups in many countries.

In this study is noted that the security landscape is dynamic, and both advantages and disadvantages may evolve over time. Users should stay informed about the latest security features, configure settings appropriately, and follow best practices to enhance the security of their digital transactions. Additionally, the regulatory environment and data privacy practices may differ between countries, affecting the overall security perception. Less use of cash has reduced the crime rate, but crime is also becoming an online business, so the damage from cybercrime is increasing. Such forms of criminal activity cannot be completely eradicated, like using cryptocurrencies, such as cases where hackers blackmail governments or companies and demand payment of ransom through such forms of payment. Improvements in the security of digital transactions and the development of robust regulatory frameworks are essential for widespread acceptance. In a meantime, concerns about cybersecurity, privacy, and regulatory compliance need to be addressed to build trust in cashless system.

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Marketing i savremeni uslovi poslovanja

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Apstrakt: Sa razvojem tehnologije, Internet i e-trgovina zauzele su značajno mesto u funkcionisanju savremenenog društva. E-marketing postao je vodeća tehnologija bez koje mnogi elementi e-trgovine ne bi mogli dostići trenutni nivo popularizacije. Rast i razvoj društvenih mreža podstakao je veliki broj istraživanja u sferi internet marketinga. Na ovaj način, putem društvenih mreža i interneta omogućeno je plasiranje proizvoda i/ili znatno brže i povoljnije. Dostupnost interneta dodatno je doprinela razvoju internet marketinga. Iako se internet marketingom često smatra samo online promovisanje proizvoda i usluga, ovaj način plasiranja proizvoda i usluga dodatno je potpomognut marketingom putem e-pošte i bežičnih medija. Brz i neometan razvoj marketinga u e-trgovini doneo je i mnogo poteškoća u primeni različitih aplikacija za plasiranje proizvoda i usluga. Istraživanje alata koji se primenjuju u marketing misku predstavljaju poseban izazov za istraživače. U ovom radu analizirani su elementi marketing miksa sa posebnim osvrtom na trend rasta i razvoja tehnologije u e-trgovini. Glavni pristup u studiji je 7P marketinški model, koji doprinosi potrebnoj adaptaciji plasiranih usluga. Imajući u vidu da je internet marketing široko rasprostranjen i korišćen u e-trgovini danas, sa posebnim preferencijama da se standard rasta njegove popularizacije nastavi i dalje, cilj ovog rada je da se analizira značaj i efekat marketing miksa u e-trgovini. Analiza radova na ovu temu pružila bi dobru teorijsku osnovu istraživačima, a dobra teorijska podloga doprinosi boljem razvoju prakse za razvoj biznisa preduzetnika sa jedne strane i jednostavnu i brzu kupovinu kupcima, sa druge strane.

Ključne reči: online marketing, marketing miks u e-trgovini, e-trgovina, 7P model.

Marketing and Modern Business Conditions

Abstract With the development of technology, the Internet and e-commerce have taken an important place in the functioning of modern society. E-marketing has become a leading technology without which many elements of e-commerce could not reach the current level of popularization. The growth and development of social networks has stimulated a large number of researches in the field of internet marketing. In this way, through social networks and the Internet, it is possible to market products and/or significantly faster and more favorably. The availability of the Internet has additionally contributed to the development of Internet marketing. Although Internet marketing is often considered only the online promotion of products and services, this way of marketing products and services is additionally supported by email marketing and wireless media. The rapid and unhindered development of marketing in e-commerce has also brought many difficulties in the application of various applications for the marketing of products and services. Researching the tools that are applied in the marketing mix represent a special challenge for researchers. In this paper, the elements of the marketing mix are analyzed with special reference to the trend of growth and development of technology in e-commerce. The main approach in the study is the 7P marketing model, which contributes to the necessary adaptation of marketed services. Bearing in mind that Internet marketing is widely spread and used in e-commerce today, with special preferences for the growth standard of its popularization to continue, the aim of this paper is to analyze the importance and effect of the marketing mix in e-commerce. The analysis of papers on this topic would provide a good theoretical basis for researchers, and a good theoretical basis contributes to better development of practice for business development of entrepreneurs on the one hand and simple and fast shopping for customers on the other hand.

Key Words: e-commerce, marketing mix, internet marketing, 7P

1. Introduction

The development of society encouraged the development and availability of Internet services. Easy access to products and services through Internet technology has enabled cheaper and faster marketing of products, expanding the range of sales. In this regard, in this paper, a special focus is given to the marketing mix and its relationship in e-commerce. Marketing is considered a process and part of production that encourages easy placement and availability of products and services. Every element of selling and buying on the Internet is permeated with marketing. Before the very development of the Internet, many media were used to market and familiarize the market with products and services. Some of them include inclusion in TV shows, newspapers, radio stations, etc. For the purpose of good promotion, the seller is obliged to inform the market well about the good sides of his product. Depending on the type of media that the seller chooses, more information is placed verbally or non-verbally or even a combination of both. With the development of the Internet, companies have been given the opportunity to conquer wider markets. In this way, they are enabled to market their products simultaneously in several countries. Internet marketing today has many synonyms. It is sometimes referred to as online marketing, web marketing, network marketing. These terms basically mean the marketing of products or services via the Internet. Internet marketing also refers to promoting products or services through wireless media and e-mail. The ECRM system, which has been particularly popular in customer relations in recent years, is an electronic management system that is also classified as Internet marketing. The development of Internet marketing has created new ways of marketing information about services provided to customers. Here, he is primarily referring to online orders. The good side of Internet marketing is its accessibility to all companies and enterprises regardless of their solvency. In this way, unhindered marketing of products to retail manufacturers is also possible. The Internet has provided excellent conditions for effective communication between manufacturers and customers. The development of Internet marketing also encouraged the development of Internet banking. With the help of the development of Internet marketing, the need for new occupations related to virtual design and creativity arose. In this way, the product or service is marketed to customers in the most attractive way possible.

The way marketing works in the field of e-commerce seems very familiar and accessible, but in fact it is an undiscovered area for researchers. Its development is unsystematic and difficult to trace and define. Many researchers have sought to investigate its methodology since ancient times. K. Kelli (1999), D. Tapscott (1999), D. Chaffei (2007), ID Kotliarov (2012) and many other researchers followed the development of Internet marketing, trying to attribute to it a systematic development. With its development, business techniques are also changing. That's why, nowadays, no attention is paid to the basis of the marketing mix, which is considered a very important basis for successful business. Bearing in mind everything that has been stated so far, in this paper we tried to analyze the marketing mix approaches with special reference to the "7P" that were conceived in 1981 by the American virtual environment researchers BH Booms & MJ Bitner (1981).

2. Defining electronic commerce

In recent years, e-commerce has gained in importance and popularity, although it has been around for much longer than that. Effective functioning of e-commerce was stimulated by the development of electronic data interchange (EDI - electronic data interchange) in the sixties of the last century (Tian and Stevart, 2008). In this way, companies are given the opportunity to communicate easily and quickly. With the advent of the Internet in the 1990s, an even faster development of e-commerce was encouraged by the marketing of goods (Tian & Stevart, 2008). With the development of e-commerce, which enabled easier and faster exchange of information, an increasing number of companies joined the Internet business. One of the most well-known are certainly Amazon, Baidu, Dell, Sina, Ebai and Yahoo (Kin, 2009).

Despite the fact that e-commerce is growing rapidly, many researchers suggest that international cooperation will only gain its value in e-commerce. They point out that its growth will exceed the expected framework in the current economy. This accelerated growth trend worries many underdeveloped countries, considering that they are not sufficiently prepared for what is expected. This especially applies to the value of taxes. Namely, developing countries are in a disadvantageous position regarding tax collection (Global Business Coalition, 2019).

Many commercial activities use different types of product advertising, while in e-commerce business is conducted exclusively via the Internet (Siliafis, 2008, p. 143). The advantage of online shopping is reflected in low product marketing costs, better offers and the ability of customers to compare prices offered by different sellers (Chaparro - Pelaz et al., 2016, Chang et al., 2010). With the above in mind, the Association for Electronic Commerce formalized the definition of e-commerce: "Electronic commerce means various types of cooperation in which there is an exchange of information that is exchanged through various sources of technology."

There are other definitions of e-commerce. Namely, as early as 2001, Raymond considered e-commerce "a communication leader that encourages the exchange of useful information on the basis of which different sources of business are connected, primarily customers and suppliers." Turban and his associates pointed out shortly after in 2002 that e-commerce is "a rapidly developing factor in the field of various businesses such as buying, selling and exchanging via virtual networks". Poliakh et al. (2017) dealt with legal and theoretical aspects of e-commerce. Namely, these authors considered that e-commerce is an important type of business that encourages good cooperation between different sources of sales via the Internet with the help of different sources.

The most recent research in the field of e-commerce was carried out in Ukraine by Kvilinsky et al. (2019). They investigated the speed of growth and development of e-commerce in Ukraine and beyond. In this way, e-commerce has become richer for new forms of business that force all factors of online commerce to rapidly adapt. We include the manufacturers themselves who strive to conquer the market without competition in the most effective way, consumers whose goal is to buy a product as cheaply as possible while saving their time, and the state whose goal is to encourage international cooperation. Malitska and Melnik (2018) define e-commerce as a business challenge that is carried out by exchanging information with the help of the Internet. These authors highlighted the basic elements of e-commerce. They believe that e-commerce must include e-marketing, e-capital and e-money flow, e-insurance services, e-banking.

Khan (2016) points out that e-commerce must be approached as another form that enables the efficient exchange of goods and services. He points out that people who use the Internet do not consider buying and selling via the Internet to be important, but they follow the rise and fall of prices as well as new versions of the product they are shopping for. According to Shahrijari et al. (2015), e-commerce is the exchange of goods or services through social networks enabled by the Internet. According to them, e-commerce would not be efficient enough and in demand without certain link chains such as marketing, transaction processing, e-data exchange, various product tracking systems and information exchange.

Ishoraite and Miniotiene (2018) point out that e-commerce is a very good business. With its help, the growth of company profits is encouraged in an easy and fast way. Also, it enables the conquest of a wide market at the same time. With the help of accessibility to various information, it enables effective cooperation between buyers and suppliers. Based on everything we have stated, analyzing the definitions of e-commerce by different authors, we must point out that one stands out and is widely accepted. That's the OECD definition. The OECD defines e-commerce as "the exchange of goods with the help of highly accessible electronic technology using various types of product design designed to attract as many customers as possible". They also point out that all orders are made online, but that payment does not have to be made in this way (OECD, 2013).

Marketing mix in e-commerce

We can analyze the marketing mix in two domains. The first domain is related to service growth. This domain includes all activities that are undertaken in order to provide the most efficient service possible via the Internet. Online trade implies undertaking certain activities in order to achieve successful communication between the buyer and the seller. The second domain refers to the undertaking of activities in favor of the development of innovative components of e-commerce. In 1997, IBM defined e-commerce as "changing business events with the help of the Internet." To date, e-commerce and all the business that is implied by it are constantly developing in terms of innovative techniques and methods, all with the aim of facilitating sales to sellers and easy availability of products to customers. That is why it is very important to research active events in the field of marketing mix, as well as to examine the relationship, that is, the connections between marketing as a science and other scientific fields that are closely related to it.

In order to carry out a successful marketing business on the international market, it is necessary to thoroughly examine all current events on that market. Getting to know the market allows certain measures to be taken in order to bring the company closer to customers in a simple way. The need for companies to expand their business beyond the borders of the country where their primary base is located indicates the necessity of conducting certain research in order to obtain current research findings and to make the international market more accessible (Ćuzović, S., Sokolov-Mladenović, S. , 2012).

Elements of the marketing mix

The need to conduct research within the marketing mix has become increasingly relevant. The first most significant study in this field was conducted by J. Rathmel (1974) and P. Eiglier and E. Langeard (1976), in the 1970s. This study based its objectives on researching the function of marketing in business. After a few years, the authors BH Booms (1981) and MJ Bitner (1981) explained more precisely how the 7P business model works in marketing. The original and simpler model, 4P, included four elements of marketing business. These four elements include the product itself, the price at which it is placed on the market, the market where the product is sold and the promotion itself as a marketing base. This model was extended to 7P by J. McCarthy and E. Jerome (1964). The more modern 7P model, in addition to the above-mentioned elements, contains three more elements. These three elements include the production process, the human factor and the physical effect. The original 4P model was soon replaced by the more modern 7P model so that the company could more easily compete with the competition on the market.

The basic factor of the marketing mix is the product. There are many product definitions. The most widespread and accepted product definition is the one highlighted by Kotler (Kotler et al., 2015). He points out that by product we mean anything that could fulfill the wishes and needs of customers (Kotler and Keller, 2006). That is why it is important that each product is made according to the customers (Kushvaha & Agraval, 2015). With the help of a product that is well designed, made and well presented to the market with the help of elements of the marketing mix, all conditions are created for the smooth development of e-commerce. The Internet enables the promotion of various services and products that may be needed by consumers at some point. In order to encourage consumption of certain products, supply and demand must be known. That is why it is very important to be familiar with the classification of products and services. This classification resulted from numerous research findings (Ganesha et al., 2020):

- Products that can be marketed visually or auditorily.
- Products that require good market research first in order to be successfully sold later. This includes vehicles, computers, small and large household appliances. In addition to these products that are more expensive on the market, we also include cheaper products such as books.
- The third level of classification refers to products and services offered through Internet programs. Here we include the purchase of transport tickets, the rental of means of transport, the reservation of hotel accommodation, etc.
- Products of exceptional importance that are marketed through an online auction.
- Products for larger purposes. Here we include products that are consumed every day (toys, clothes, shoes, household chemicals, cosmetics...).
- The level that has special importance is food products.

The characteristics of each level that we have listed directly depend on the events that are implemented by the marketing mix. In recent years, the basic legalities that can be implemented in the field of e-commerce, and which relate to the way of promoting products and services, have been researched. What makes e-commerce as a market special compared to other markets are virtual services and products. They have no material value. The basic principle of these services and products is the application of online formats in order to be placed on the market. Here we list the various advisory services that appear to us when we enter a website. In this way, the customer can get information about the product that he did not find on the site. The specifics of this way of doing business include the following:

- The customer receives the necessary service at a given moment,
- This service is not materially tangible, but enables easier functioning,
- These types of services are marketed only in an online format via the Internet.

This way of doing business, which has become increasingly popular in recent years, is changing the traditional ways of marketing products and services. Online service provision does not contribute to direct contact between the buyer and the seller, but allows the buyer to obtain relevant information about the product through digital content.

Another important element of the marketing mix that we mentioned is the price of the product. It implies a well-designed strategy that will satisfy the producer's need for profit on the one hand, and satisfy the customers' ability to pay on the other (Kushvaha & Agraval, 2015). With the help of online shopping, customers have greater opportunities to choose sites that offer different product prices. For the customer, it is an easier way of functioning, because it saves his time. On the other hand, the price for the seller must cover his basic costs and provide him with a certain profit. That is why it has a very important role for both the buyer and the seller. (Ameur et al., 2015). That is why it is important to plan the amount of the price well. All products that are placed on the online market must have a base price (Levi et al., 2012). The basic principle for price formation contains three elements (basic price, customer solvency and current competition on the market). Since these elements are subject to change, the online market must be constantly tested. Research shows that large companies, such as Amazon, are subject to large price changes. For example, Amazon had 9715 changes in the prices of goods and services in less than two months (November 24 to December 14) (Rueter, 2014). In this way, it exceeded the values offered by its competitors such as Best Buy Co., Target Corp., Wal-Mart Stores Inc. and Toys 'R' Us Inc. These surveys show that Amazon is willing to change prices for home appliances or clothes 10 times a day. The price of the most popular products on the site can be updated every few minutes. This is their development strategy for marketing products at favorable prices. The results of these findings tell us that the price has a dynamic character and is adaptable to changes in the market, as well as that it can satisfy the solvency of each customer individually at a certain moment.

The way in which the sale will take place directly depends on the characteristics of the product itself or the group to which it belongs. This would mean that for products or services that have an informative character, there is no time limit or costs for fulfilling the order. While products that have a physical nature are said to have a shelf life, unforeseen costs, etc. That is why it is important that every customer is well informed about the characteristics of the product offered to him. When shopping online, the point of sale refers to a website or a social network. Kotler and Armstrong (2010) point out that a point of sale is actually a group of companies that offer products for wider sale, while Davis-Sramek et al. (2008) point out that the point of sale actually means any possibility to buy a product or get a service (Ovomoiela & Oieniii, 2013). In modern society, by point of sale we actually mean a place where individual products are offered at fixed prices, as is the case with the aliekpress.com site, or at an auction, as is the case with the ebai.com site. What is most important in these situations is simple access and easy selling to both buyers and sellers.

The third aspect of the marketing mix is related to product promotion. Product promotion means providing information about the product or services. There are various media that promote products such as television, radio, advertising on websites. The modern way of product promotion involves online promotion. Through promotion, the placement of post-work information between buyers and sellers is enabled (Vahab et al., 2016). Zeithaml et al. (1996) points out that promotion is a part of marketing that encourages customers to seek a service (Ovomoiela et al., 2013). It has a very important function in maintaining customer trust (Almuhrzi & Alsavafi, 2017). The promotion is carried out with the help of various applications in e-commerce. In this way, it is easier for customers to get informed and join the purchase phase. Good promotion and successful shopping are the best marketing to other customers. Greater customer interest in products contributes to good marketing (Iakhneeva and Podoliak, 2009). The actions we undertake in the marketing process include the following:

- Publication of various information through mini-advertisements on the computer or phone screen. Advertising can be carried out through websites, social networks or other sources offered by e-commerce. Zenith Optimedia (2015) points out that the demand for this type of promotion will only grow, and that it already exceeds the provision of information through television, which is otherwise much more expensive. Comparing television advertising and social media advertising, social media advertising has a share of 32.3%, with the largest growth in the mobile advertising segment. New smart applications additionally encourage this type of promotion.
- During e-commerce, smart bots take over the role of seller or advisor during the purchase. They provide information that is needed when trading certain products. Each service provider has bots that provide specific information. In banking, these are bots that provide information about banking services. They also play a role in informing about various changes regarding the shipment or goods.
- The third activity that can be undertaken to promote the product is reflected in sending invitations to join in various actions. These invitations can be sent via email or via social media. In this way, the company promotes its products, and also receives information about the needs of customers or their friends about certain types of products.

- Public relations is also one of the activities undertaken in the promotion process. They are carried out through social networks, by sending specific content or shopping advice. Research conducted by Nielsen (2015) on a sample of respondents of different ages and genders showed that the type of advertising that inspires the most trust is a friend's recommendation. With the help of e-commerce, all users are enabled to improve the company's way of doing business and improve the quality of products and services.
- The last method of promotion that we will describe is promotions that are carried out with the help of search engines. In this way, the availability of the product during the search is maintained, the provision of information during the search is facilitated and the level of the search is increased.

This element is explained through the classification of elements of the marketing mix through the service.

Judd (1987) offered another element that contributes to the successful implementation of marketing in e-business. He believes that "Man" is an indispensable element of the marketing mix. He believes that it is necessary to study people's consciousness in order to provide the best possible services through promotion. Company employees who are engaged in market attention research must take into account personal needs, mutual cooperation of people and their altruism. In this way, it contributes to better business within the collective (Kushvaha & Agraval, 2015). Considering that technology is rapidly developing, people's activities are getting less and less attention. Their functions and roles in all elements of production are taken over by smart applications. This can contribute to the quality of services, because the application of technology does not depend on human fatigue or bad mood during work. The disadvantage of relying on this type of production, exclusively through technology, is that technology is limited in terms of creativity, product design or promotion, which on the other hand is an important feature of the human factor. Also, the human factor explores the market in a different way, providing reliable information about the emotional domain of customers. Also, it is important to point out that in modern society, an important segment during the application of technology is artificial intelligence, which in many ways affects the respect for the individuality of customers. The complete replacement of the human factor by technology or a robot is difficult to implement. Partial replacement is possible, but the productivity of technology cannot reach 100% that can be achieved by the human factor. The participation of the human factor is often underestimated in online commerce, because they are not directly accessible to customers, but their role is not negligible.

The process is an integral part of the marketing mix. By it we mean taking certain actions in order to successfully provide services or place a product on the market. The basic principles of the process must be followed in order for the product to be successfully placed on the market. These principles must be combined adequately with other principles of the marketing mix (Hashim & Hamzah, 2014). Customers often have problems while purchasing products through e-commerce. Namely, due to the lack of direct contact with the product itself, customers cannot be convinced of the quality of the product they want to buy. Due to the lack of physical environment, the quality of the product cannot be assessed. During direct contact with the product, the customer has the opportunity to assess the way the product is applied, assess its physical appearance and assess the correctness of the specified product specifications. Because of this, companies must analyze the features of the product itself and the information available on the site, in order to satisfy the general impression of customers (Kushvaha & Agraval, 2015). We can analyze the physical element of each product in e-commerce by looking at two domains. The first is a physical domain that refers to the point of sale itself, that is, to the online office. The second domain is of a virtual nature and it refers to the easy and quick availability of products to customers during e-commerce. In this domain, researchers often include information obtained through social networks, smart applications on the phone or tablet, information through websites, etc.

3. Types of internet marketing

Search Engine Marketing, or SEM for short, has made it possible for a large number of users to reach their desired customers. In this way, with the help of certain sites, users get useful information and achieve their goals. Certain advisers help them in all this, especially in terms of finances. The search engines used in this type of marketing are Google, Yahoo, Bing, etc. Search engine marketing is based on advertisements, which are published on pages that require a certain type of subscription. The more frequent the ads, the higher the subscription amount. In addition to the above, this type of marketing is considered a significant driver of business progress, and a significant cause of increased purchases on online stores by customers. In other words, search engine marketing is a type of marketing that includes the advertising and promotion of certain websites by increasing their visibility on search engine results pages (SEPR) with a certain financial incentive.

A lot of people have a negative attitude about *email based marketing*. The first thing they think of is the large number of unsolicited emails with irrelevant information and various types of abuse and cyber attacks. However, the important thing about this type of marketing is the difference between email marketing and spam. Unlike spam, which is not supported by laws and regulations, email marketing is. The main question that all marketers ask is how to distinguish email marketing from spam. In today's modern world, due to technological globalization, people accept and agree to receive certain contents of emails without even noticing it. The reason for this can be found in the lack of time and lack of interest in answering and reading certain content in your free time. Also, through detailed research, it can be noticed that users, more precisely customers, indicated on some sites that they want to receive certain news and promotions, where they gave their email address, but that they are not really interested in that and that they do not pay attention to those emails and themselves they consider them unnecessary. The main difference that can be used when considering these two concepts is their observation through the prism of trust, loyalty and respect. All companies that use this type of marketing should know that recklessly sending emails is not marketing. According to Kot (2018), email marketing is an ongoing activity of establishing relationships with customers through email. As for the basic steps in this marketing, it is important that they are continuous and sustainable, so that cooperation with consumers is not interrupted in the short term. Companies should keep in mind that email marketing is not just sending mail to customers, but special attention should be paid to the method, time, period and moment of sending with the aim that the product or service we offer is sold in the greatest possible quantity and does not influence for any reason negative on the current relationship with consumers. If companies do not implement this type of activity, customers lose their motivation, attention and interest in browsing and reading e-mails sent by companies in the future. In recent years, email marketing has been considered an important and economical tool in the modern business world. One of the reasons is that everyone has email addresses these days. Research has determined that there are 3.7 billion open emails in 2023, and that their number is predicted to grow to 4.1 billion in 2024 (Radicati Group, 2018). In addition to being the cheapest type of marketing, email can bring in a lot of profit. The Association for Data and Marketing expresses its opinion that email is considered the first marketing channel for return on investment and that it can amount to up to 300% ROI (Return he investment). Email-based marketing can have positive consequences, such as more website users, higher sales volumes, lower promotional costs, and better customer relationships and customer loyalty. All this requires certain preparatory activities, which should contribute to the proper use of this type of marketing. According to Deal (2014), email is the digital workhorse, which directs a significant portion of attention to consumer retention activities. According to the research he conducted on the respondents, and regarding the retention percentages of consumer loyalty, Deal found that the most effective is email marketing (56%), followed by social media marketing (37%) and finally content marketing (32%). Also, through email marketing, and thanks to smart segmentation, specific content can be sent to all possible consumers, while maintaining a personalized approach. Personalization is a unique way to inform all consumers in a cost-effective way (Sahni, Wheeler & Chintagunta, 2018). First of all, ranking companies through mistletoe-based marketing is the simplest and easiest way, which is important for strategic planning. In this way, email becomes one of the most useful methods for securing profits and building relationships with consumers. Email marketing is considered one of the most basic and easiest methods of establishing direct contact with customers through internal emails. It is popularized by companies, because they establish contact with their consumers without any costs. With the help of e-mails, consumers can freely express their opinion, attitude, positive and negative sides of the product or service provided. Also, a company or its marketing organization can only send a specific message or content to specific customers. Any communication via e-mail is marketing and directly contributes to building trust in the company, its products and services or even promoting its brand. This is also how you stay in contact with consumers and constantly point out the importance of the company and its products and services.

Marketing based on social media gives companies a large number of opportunities to reach customers or their social communities and thus establish better contact with them (Kelly, Kerr, & Drennan, 2010). This type of marketing has changed the way brand content is built, distributed and used. It made it possible to build a brand image at the will of customers, by transferring attention from the firm to the social communities of consumers (Tsai & Men, 2013). In luxury areas, social media is a major factor in brand success (Phan et al., 2011). For example, Louis Vuitton (LV), a branded fashion line, uses a Facebook page to share its short videos with followers or customers and thus allow them to enjoy a part of the show (Kapferer, 2012). Through an online chat system, Burberry has launched an application, which is available 24 hours a day, enabling online ordering and purchasing of products and services. Ordering and shopping is reserved for Chinese consumers. This brand has also opened its accounts on social platforms, such as kaikin001.com and douban.com. Also, a large number of famous bloggers leave comments on this brand's account, which positively affects the sale of their products. According to research by Spillecke & Perrei (2012), in 2020 this brand had 180,000 followers, compared to 2017, when that number was 90,000 followers. Hermès has launched a new website, J'aime mon carre, which is linked to its Facebook page and is all about promoting signature scarves. Promotion is done with the help of pictures or short videos showing girls with a necktie-like scarf (cpp-lukuri.com, 2013). Kim and Ko (2012) argue that the marketing of luxury brands consists of five dimensional activities, namely: interaction, customization, entertainment, trend and word of mouth. Marketing itself has the task of securing a platform and a page on a social network, with the aim of achieving marketing communication and branding of products and services. Among its activities can be counted the social sharing of images, videos, clips and entire content, as well as advertising campaigns in the media. Marketing is gaining more and more importance as the number of website users grows, that is, the number of users of the following platforms: Twitter, Facebook and Youtube. According to Wu and Hisa (2005) and Radcliffe-Thomas (2012), blog sites are used to share knowledge and latest information to a wide range of social media users. A blog represents the activity of a user on the Internet, more precisely a blogger, with the help of which he shares content with other users (Li and Chen, 2009). Content means certain information, ideas, videos, images with text, and the like. In today's world, there is an opinion that through a blog, any social media user can very quickly share their information or ideas with other users anywhere (Ip & Wagner, 2008). Bloggers have a constant motivation to attract as many users as possible to view their blog, because each click on the website brings certain advantages, either in the form of financial benefits, in the form of expanding their brand and increasing interested customers. Posts on Facebook and other social networks can also be counted as a blog, because they have the opportunity to share their content with other users, and on the other hand, users or site visitors have the latest information about current activities and events related to their area of interest. (Yang et al., 2014). In order to have specific information about targeted products and services, visitors access various types of blog sites. The information obtained in this way is effective for making an adequate and timely decision about purchasing a product or using a service (Hansen et al., 2010). A blog is considered a key tool for transmitting information to users or followers, but one should not leave out the thesis that the world of the Internet and technology is becoming more and more competitive in today's conditions. A large number of websites work daily in order to survive in the Internet world and thus provide their users with twenty-four hour services and achieve their maximum profitability (Watson, 2011). Various websites on social networks are trying to keep up with the latest steps in their field of business and thereby gain as many users as possible, but their loyalty or customer loyalty is a question that cannot be answered yet.

Viral marketing is considered modern strategic marketing and is a form of establishing relationships with consumers. It can relatively quickly reach the masses and thus inform customers about the benefits of products and services (Miller & Lammas, 2010). It is otherwise called word-of-mouth marketing because it directly motivates users to share information with their friends (Wilson, 2000). By information, we include certain product specifications, company improvements in certain aspects, expansion of the production area, various promotional activities, etc., which can be shared via social media, e-mail or existing social networks. In order for each user to be interested in sharing information with their friends, companies provide certain incentives in the form of credit points, e-cash, additional discounts, discount codes, etc. Viral institutions have a number of advantages compared to mainstream media institutions. Their significant ability consists in winning over a certain group of consumers, because common interests are created from the friendship network itself (Adamic & Adar, 2003). This kind of relationship has a more significant influence and acceptability on the promotion of the third party among possible consumers, because it is built with the recommendation of friends. Voerndl et al. (2008) highlights effective and timely diffusion among interested users and self-initiated transmission of informational content by one user to another as one of the significant advantages of viral marketing. The degree of spread of viral marketing is identical to the degree of spread of an epidemic, because it has a contagious character, which is valuable to potential customers and spreads through social influence. Certain online organizations have managed to reach that level without marketing, relatively only with communication relationships between consumers (Die, 2008). Amazon, Google and Hotmail are considered such organizations. Consistent with this, the organizations Procter & Gamble, Microsoft, BMW and Samsung applied viral marketing, through which the informative message was effectively spread through the market in the form of an infectious disease (Rodrigues & Fonseca, 2016).

Personalization and IT support of marketing in e-commerce

A significant factor in the improvement of marketing in electronic commerce is determined by the indication for the construction of a special offer within the technical and technological capabilities of organizations and modern competition. This factor is personalization or information for specific consumers according to the defined content. The functioning of personalized offers in electronic commerce consists in sending the user's own data to the online store. Then, the supplier's information system, which is previously automated, processes information about the historical activity of the search engine, as well as other data of its functioning in the database. Information is processed with the help of unique software, and potential customers are selected based on the current classification. An example of this can be found with the ABC KSIZ method, which is relatively applied in the usual general trade.

Information service - "personal recommendation" of the company's products and services is made in accordance with the marketing scenario that adapts it to the types of customers and their characteristics. By another name, this service is called the "consulting service" of a commercial company, which is founded on the foundations of cognitive marketing in an electronic environment, which is relatively active and developing. According to authors K. Kalianam & Sh. McIntire (2002) considers work personalization as a unique element of the marketing mix. They represent the 4P + P2C2S2 model, which includes the dimensions of personality, distinctiveness, customer service, society, security and model. Taking into account the results of the conducted research, personalization includes the adjustment of the complete marketing mix with elements of offered products and prices, sales markets and cooperation with maximum care in the use of personalized customer information. All this provides the possibility of grouping all dimensions on 7P. Therefore, personalization and uniqueness in e-stores provide advantages and disadvantages when developing prepared offers. The service used by users and their security are key elements of the process, and the social community is part of marketing activities. There is an opinion that the specific informational activity of the e-seller is a key factor in the decision of customers. On the other hand, effectively obtained information, which has the purpose of meeting the needs of customers, can cause anxiety in certain cases.

The latest methods for retail growth in the modern world consist of manipulating factors. E-stores apply many techniques just like regular stores. Among the techniques, we can list cross-selling, up-selling and down-selling, in which the customer has the right to reject the purchase of products or services due to realistically high prices. Also, sellers aim to eliminate even the slightest appearance of doubt among buyers. Doubt can cause panic and fear, leading to a loss of customer loyalty. Previous research points to the well-known fact that the cost of acquiring a new customer is much higher than the cost of retaining a customer. It is emphasized that companies should put special focus on optimizing the assortment policy and perfecting the supply chain, and less on the method of manipulative activities towards customers. As a negation, a higher level of specificity of commercial offers and a level of haggling with customer preferences appear. Kotliarov (2012) points out the "continuous reduction of the customer's personal space". The improvement of technical and informational methods for processing and organizing data rests on the consistency of the development of a general informational technique for getting to know customers and their wishes. With the availability of a huge database of e-store information, there is a need for security and protection against cybercrime. The security and protection of the information database is considered an essential element of the modern and modern world based on the e-shop and the internet customer.

The attitude of consumers towards this type of information availability is gaining more and more importance and indicates its essentiality in the quality of information on e-markets. Also in the market, where the competition is fully developed, the customer can use the possibility of information support with the aim of adequate and timely selection of products and services. Therefore, the choice can be emotional, logical and optimal.

1. Emotional choice includes spontaneous decisions, based on emotions and without any intention. With such a choice, the necessary time for decision-making and information is always lacking, for example basic data about the product and services, characteristics, etc. The emotional choice is considered the most rational and often ends up causing some kind of consumer disappointment.

2. The main feature of logical choice is maintaining balance in consumer behavior. With the necessary amount of information database, the balance can be achieved, but on the other hand, the disadvantage is that there is a possibility that the information will be fragmented and not structured. A large number of product and service data is available to the consumer, and he has the additional activity of analyzing each one individually.
3. The highest level of rational customer behavior leads to an optimal choice. Such a choice is preceded by having all the necessary information about the product and service. The data is personalized, so that in addition to meeting the special needs of individual customers, they also provide certain benefits to potential customers. Due to financial constraints, an important question that arises is the choice of customers both on e-markets and on regular ones.

Through the operational grouping of individual information about products and services and their regrouping with the wishes of customers, the optimization of customer choices is carried out. The established IT service provides the opportunity to create a visual image of the offer of a specific product and service for a specific customer, according to his wishes, with all advantages and disadvantages, an assessment of the supplier's loyalty, delivery time and costs, as well as certain discounts.

The time required for the delivery of products or the performance of services, as a variable of the purchase factor, is the time from the moment of the order to the moment of delivery of the product to the consumer's address. Includes: Shipping, Shipping and Delivery. Delivery is the time that passes from the moment of the order to the moment of delivery of the product to the forwarder. Delivery is the time that the product spends during transportation, while delivery time is the time interval that elapses from the goods leaving the distribution center to the consumer. Any minimization of delivery time leads to greater consumer satisfaction (Ćuzović & Sokolov-Mladenović, 2009).

4. Advantages and disadvantages of internet marketing

With the help of internet marketing, clients are given timely information. On the Internet, it is possible to establish communication 24 hours a day, seven days a week. Internet marketing provides a greater field of search and customization (Lamoureuk, 1997), and in addition, frees suppliers of accumulated inventory, reduces costs of storage, transportation, etc. (Avery, 1997). People tend to associate internet marketing with direct marketing because companies that participate in network marketing usually shorten the supply chain and reduce commission and labor costs. The possibility of service and similar media For transactions and similar physical distribution media For certain goods, Internet marketing is a unique characteristic. Companies that sell digital products or services e.g. software programs, sheet music, news, consulting services, online shopping and reservation cards, insurance, banking, brokerage, tax and other financial services industries and can best achieve such benefits. Using the Internet as a channel distribution may not only significantly reduce shipping costs, but also ensure immediate delivery of services and products.

Moreover, Ruckman (2012) is his part exposed to Internet research is becoming everything. It does not matter the agent during the purchase process. Marketing departments within your own company today are more Internet marketing for the following reasons:

- It is attractive for profile customers, so it is possible to effectively reach the target customer,
- Running direct marketing companies is faster and cheaper,
- It is measurable, so success can be easily observed.
- It is profitable in the long run.

The disadvantages of using internet marketing are that there is no real face-to-face communication. Internet marketing is not recommended for types of products and services that are mainly based on structuring a personal relationship between suppliers and consumers. The type of product or such service may be the sale of life insurance or any product that requires physical inspection. Despite the fact that Internet marketing does not allow the customer to be in direct contact with the product, to touch or try it, it enters the subconscious of the consumer with the task of convincing him to look at the product and try it in the store (Martin et al., 2003). The limitation of Internet marketing consists in the reliability of technology, the issue of maintaining security, the impossibility of privacy and the increase of various costs, all due to the global growth of information technologies, their prices and competition.

5. Conclusion

Internet marketing has long been considered an unreliable and undesirable form of marketing communication. In today's modern world, that attitude has been abandoned and internet marketing is defined as a set of activities aimed at creating a brand, establishing better relations between suppliers and consumers and creating new relations with potential customers, with the aim of developing a global sales network. The marketing activities that are applied in internet marketing are very significant in contrast to the activities in the usual marketing. They can collect a large number of users and the number of potential customers is constantly increasing. However, at the very beginning of the application of this type of marketing, the company is expected to define a precise goal, clear and concrete tasks to maximize its profitability.

The research revealed that numerous authors define the marketing mix in online shopping by the following elements:

- The product is created by the production process from available stocks or finished goods. It can refer to information products and services, which are delivered through various online channels or online stores.
- The price primarily depends on the specific characteristics of products and services, as well as on the market conditions on which products and services are sold or delivered to end consumers.
- The point of sale includes a number of sales channels, including a website, a trading platform, social networks, a blog or a mobile application.
- Promotion consists of informing the public on the Internet by posting on the screen in the form of pop-ups, mobile messages, paid searches or informative content on social networks. All of this has the task of maximally involving customers in the negotiation process and satisfying their preferences.
- People means moving people from the visible zone to the hidden part of the zone.
- The process is based on a combination of production and transportation of final products and services to customers. Processes are required to be 100% automated with a fast flow of information, without slowing down and pausing.
- As physical evidence, we consider the internet environment, i.e. a website or a group on a social network.

Using the marketing mix in practice is an effective method to increase the performance of the company's product and brand with the help of personalized experience methods. Among the performances, we include the increase in sales and profit growth, the incentive for consumers to adapt products to their needs, and the company's motivation to produce such products. It goes without saying that by applying experiences, the company strengthens its credibility and loyalty among customers because it responds to the wishes of consumers by providing them with personalized and precise services and products.

The conducted research concludes that the Internet, in addition to providing insight into a different image of individual elements of the marketing mix, also provides a new method for potential consumers to express their preferences and desires in a fun and creative way. This research covers the concept of internet marketing, its current and future development and provides recommendations for future research on the use of internet marketing, its benefits and limitations. Among the limitations of internet marketing are the issues of reliability of information, security of the area of operation, lack of privacy and constant growth of costs due to the global development of the internet network. In terms of security, one can notice a sudden progress, especially in the area of banking. Every company should strive to be protected in three areas: integrity, trust and authenticity. Big steps are already noticeable in job searching via the Internet or mobile applications. In the 21st century, online shopping plays a key role, because it facilitates the process of selling and delivering products to a wide number of companies. A new era of technology and innovation has arrived, which requires the inclusion of all people in the global Internet network.

The research conducted by us aimed to determine who is a significant marketing mix in electronic commerce in relation to gender, age, level of education and user status. Through the conducted research, we tried to determine the importance of the marketing mix in electronic commerce. The results of our research indicate that the importance of the marketing mix is correct, but it could certainly be better. Our basic research hypothesis is not rejected.

The problem in this area is the lack of a larger number of studies that analyze the importance of the marketing mix in e-commerce, and therefore we did not have an adequate number of findings to compare the results. The shortcomings of this research and directions for future research relate to the characteristics of the sample. First of all, the sample is non-random or voluntary, which contributes to uncertainty in the generalization of conclusions. This uncertainty stems from the specific profile of "volunteers", which threatens the representativeness of the sample (group of people with higher education, greater sociability, female activity, inability to control understanding and fill in according to attitudes). As we pointed out, due to its specificity, the analysis of the importance of the marketing mix in electronic commerce is insufficiently researched, but this should not sway us, but should give us new ideas, tasks and questions about the understanding of the importance of the Marketing Mix.

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Stavovi domaćinstava na Kosovu i Metohiji prema održivom razvoju

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Apstrakt: Ovaj članak istražuje stavove i preferencije domaćinstava u tri opštine (Štrpce, Gračanica i Kosovska Mitrovica) na Kosovu i Metohiji u vezi sa pitanjima održivosti. Za potrebe rada sprovedena je anketa u kojoj su podaci prikupljeni upitnikom od ukupno 81 predstavnika domaćinstava iz tri opštine. Kroz sveobuhvatnu analizu rezultata ankete, istraženi su ključni faktori koji utiču na održivost domaćinstava, identifikovani izazovi i prepreke sa kojima se domaćinstva suočavaju u primeni održivih praksi, a predložene su i smernice za unapređenje održivosti. Ključni zaključci ukazuju na potrebu za integrisanim pristupom u promovisanju održivosti, koji uključuje obrazovanje, infrastrukturna ulaganja, političke podsticaje i podršku domaćinstvima u cilju stvaranja održivog društva koje štiti životnu sredinu i promoviše bolji kvalitet života svih stanovnika.

Keywords: održivost, Kosovo i Metohija, anketa.

Attitudes of Households in Kosovo and Metohija towards Sustainable Development

Abstract: This article investigates the attitudes and preferences of households in three municipalities (Štrpce, Gračanica and Kosovska Mitrovica) in Kosovo and Metohija in relation to sustainability issues. For the purposes of the paper, a survey was conducted, in which data were collected by questionnaire from a total of 81 representatives of households from three municipalities. Through a comprehensive analysis of the results of the survey, the key factors affecting the sustainability of households were investigated, the challenges and obstacles faced by households in the implementation of sustainable practices were identified, and guidelines for improving sustainability were also proposed. The key conclusions point to the need for an integrated approach in promoting sustainability, which includes education, infrastructure investments, political incentives and support for households in order to create a sustainable society that protects the environment and promotes a better quality of life for all residents.

Keywords: sustainability, Kosovo and Metohija, survey.

1. Introduction

Sustainable development has become imperative in modern society, and issues related to environmental protection, waste management, energy efficiency and sustainable practices are becoming increasingly important topics both at the global and local levels. In this context, research dealing with attitudes, practices and preferences of households plays a key role in understanding factors influencing sustainability at the local level and identifying potential interventions and policies to promote sustainability. Numerous issues have been addressed in the literature when it comes to sustainability in households. Research (Rashid et al., 2021) explores the level of sustainable consumption of Malaysian households from the perspective of income and consumption expenditure. Wang and Xie (2023) analyzed households' participation in energy transition and sustained use of clean energy in China. Numerous researches and different topics indicate the importance that households can have for environmental protection and sustainability.

The research area of this paper refers to Kosovo and Metohija. According to the Serbian constitution, Kosovo and Metohija is an autonomous province. From 1999 to 2008, the territory of Kosovo and Metohija was under international administration. However, in 2008, the provisional institutions in

Kosovo and Metohija declared independence. In the literature, there are some studies that were related to the area of Kosovo and Metohija and that dealt with various issues of sustainability and the environment. Dedić et al. (2022) gives a short review of the impact of mining from Trepča company on the environment and concluded that there is an evident impact on water, air and land as a result of improper waste treatment. In the article (Stojčetović and Šarkoćević, 2017) a survey about the attitude of the population of the Štrpce municipality on the impact of the small hydro power plant on the quality of life is presented. Tahiri et al (2022) analyzed Kosovo and Metohija potential for the development of sustainable tourism. Veselaj (2019) conducted research to analyze the inclusion of sustainable development principles in relevant legislation as normative concepts. However, according to the author's knowledge, the attitude of households about the environment and sustainability in this territory has not been investigated, so this work, among other things, aims to fill that gap. In this context, this article aims to explore the attitudes, practices and preferences of households in Kosovo and Metohija regarding some sustainability issues. Through a comprehensive analysis of the survey results, the article will explore key factors affecting household sustainability, identify challenges and obstacles households face in implementing sustainable practices, and propose guidelines for improving sustainability.

2. Methodology

The research was conducted in three municipalities on the territory of Kosovo and Metohija, in Štrpce, Gračanica and North Mitrovica. The questions in the survey are based on the questions used in the OECD (2023) survey on Environmental Policies and Individual Behavior Change (EPIC) that explores households' environmental attitudes and actions in the areas of energy, transport, waste and food systems across nine OECD countries. The survey was conducted in the period October-november 2023. A total of 81 respondents participated in the survey, whose detailed structure is presented in Table 1.

Table 1. Structure of respondents

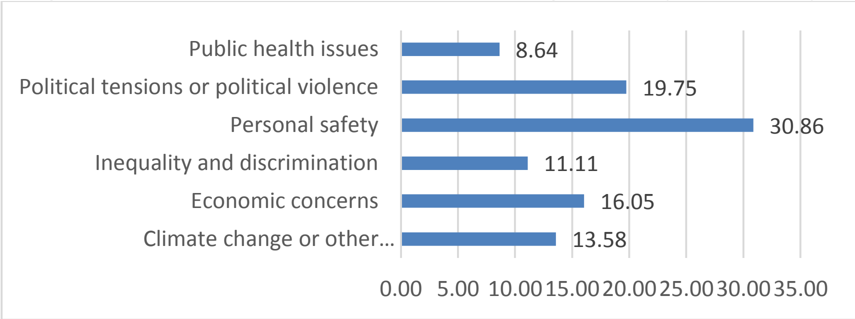
	N	%
Gender		
Male	53	65.43
Female	28	34.57
Total	81	100
Age structure		
20-25	12	14.81
26-35	18	22.22
36-45	27	33.33
46-65	24	29.63
Municipality		
Štrpce	29	35.80
Gračanica	21	25.93
North Mitrovica	31	38.27

3. Results and discussion

The analysis of the results on the attitudes of households on key issues indicates diverse priorities and concerns among the households that were the subject of the research (Figure 1). According to the obtained results, it is evident that personal safety (30.86%) is the most expressed concern among households in Štrpce, Gračanica and Kosovska Mitrovica, which suggests a significant concern for their own safety and the safety of their families. These results may be the result of political instability and tension that exist in the past but also in the current period. Another significant concern is political tensions and political violence (19.75%), which indicates the need for stabilization of the political situation and peaceful resolution of conflicts. In third place are economic issues (16.05%), which indicates the importance of financial stability and prosperity among households. This may be a consequence of the high rate of unemployment and economic inequality that is present in Kosovo and Metohija.

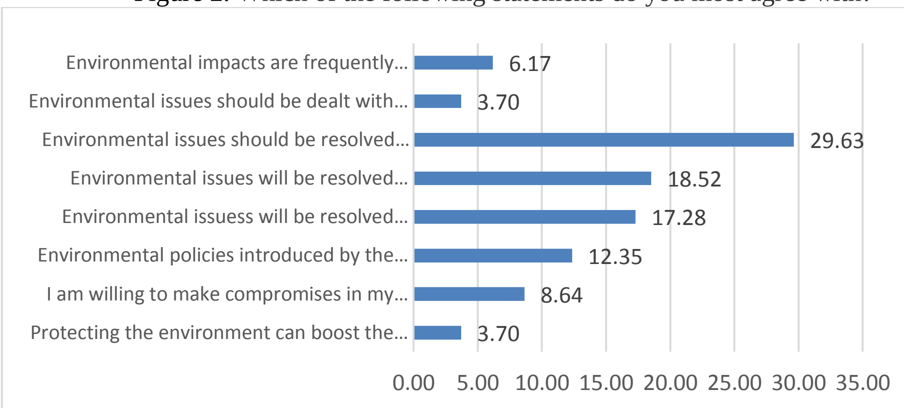
Considering all of the above, it is not surprising that the respondents for climate change and other environmental problems (13.58%), inequality and discrimination (11.11%) and public health (8.64%) showed a lower level of importance, but they are still relevant and require attention.

Figure 1. How important are each of the following issues to you personally?



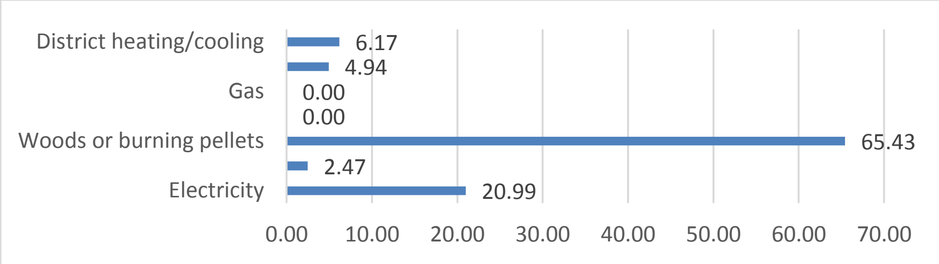
Analysis of the results of the survey on the attitudes of households on environmental protection reveals diverse perspectives and attitudes on ways to solve environmental problems (Figure 2). A small percentage of respondents (3.70%) believe that environmental protection can have a positive effect on the economy, which indicates a lack of awareness of the potential economic benefits that can be provided by the preservation of natural resources and the reduction of environmental risks. Unfortunately, less than ten percent of respondents (8.64%) express their willingness to make compromises in their current lifestyle for the benefit of the environment, which also indicates the need for greater efforts in raising awareness and motivation for environmentally responsible behavior. A certain percentage of respondents (12.35%) believe that the government should not burden them with additional financial costs through the introduction of environmental policies, which can be a challenge for the adoption of effective environmental protection policies. It can be said that a larger percentage of respondents (17.28% and 18.52%) rely on technological progress and individual behavioral changes as key factors in solving environmental problems, while the largest percentage of respondents (29.63%) believe that environmental issues are solved mainly through public policies. Finally, only 3.7% of respondents believe that environmental problems should be solved exclusively by future generations, while a small percentage (6.17%) of respondents believe that environmental impacts are often exaggerated.

Figure 2. Which of the following statements do you most agree with?



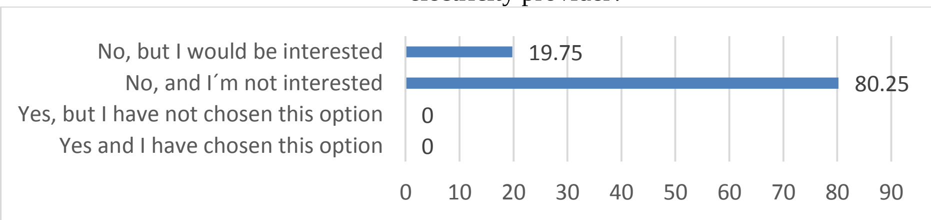
Analysis of the results of the household heating provides insight into current practices and preferences that affect energy consumption and the impact on the environment. The most prevalent method of heating among respondents is the use of wood or pellets (65.43%), which indicates a traditional approach to heating that is still dominant in Kosovo and Metohija. This may be due to the availability of wood as a cheap and locally available fuel, but it may also have negative environmental consequences in the form of emissions of harmful gases and air pollution. Electric heating is also significantly represented among households (20.99%), which may be due to the practicality and cleanliness of this heating method, but it may also be more expensive compared to other options. However, if it is taken into account that over 95% of electricity in Kosovo and Metohija is obtained from thermal power plants, it can be said that this method of heating has a negative impact on the environment and sustainability. Other methods of heating, such as district heating/cooling (6.17%), and the use of oil, gas or other fossil fuels (4.94%), are less common, while gas (0%) and solar heating are not represented among respondents (0.00%), which indicates the lack of investments in renewable energy sources and the need to promote more sustainable technologies for heating. These results suggest the need to promote more energy-efficient and environmentally friendly heating options, as well as support and incentives for switching to renewable energy sources.

Figure 3. Which of the following energy sources do you use for space heating?



In the survey, the respondents were asked the question whether their households were offered electricity produced from renewable energy sources by the supplier. Unfortunately, the vast majority of respondents (80.25%) are not interested in the offer of electricity produced from renewable energy sources by their electricity suppliers, even though they did not even receive such an offer from the supplier. This may be due to a lack of information or education about the benefits and possibilities of using renewable energy sources, as well as the possibilities provided by their supplier. A smaller percentage of respondents (19.75%) expressed interest in this option, which indicates the potential but also the need to increase awareness and promote sustainable energy sources among households. This may include providing information on the environmental and economic benefits of using renewable energy sources, as well as considering opportunities to reduce prices and facilitate the switch to this option for interested consumers, as well as introducing incentive measures for households. These results emphasize the need for stronger engagement of electricity suppliers and authorities in the promotion of renewable energy sources and raising awareness of their importance for a sustainable energy future. Also, they indicate the need to consider policies and measures that would facilitate the transition to renewable energy sources and support interested consumers.

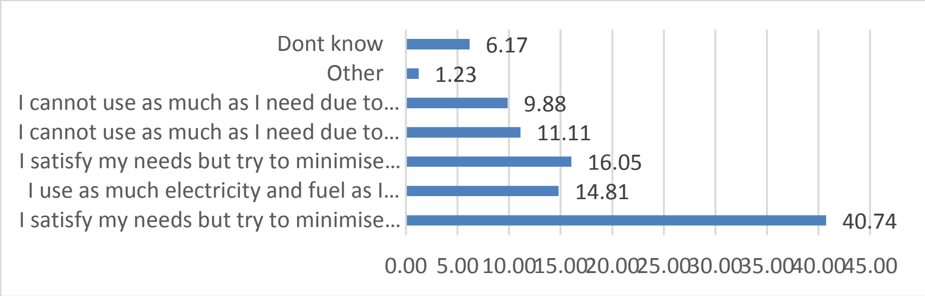
Figure 4. Are you being offered for electricity generated by renewable energy sources by your electricity provider?



Analyzing the results of the survey on household energy use provides insight into various behavioral patterns and reasons that influence energy consumption. The largest number of respondents (40.74%) declare that they meet their needs, but try to minimize energy consumption for financial reasons. This indicates the importance of economic sustainability and the need for rational use of energy to reduce costs. A smaller number of respondents (14.81%) declare that they use energy as much as they want, which suggests a lack of awareness for the efficient use of resources and the possible negative consequences of excessive energy consumption. Another significant part of respondents (16.05%) declares that they meet their needs, but try to minimize energy consumption for environmental reasons. Although this percentage is small, it is encouraging because it indicates a growing awareness of the impact of energy consumption on the environment and the need for sustainable behavior. Some respondents (11.11%) state that they cannot use as much energy as they would like due to high costs, while others (9.88%) state that they have problems with inconsistent or unavailable supply. These results indicate the challenges that households face in relation to energy access and costs. A small percentage of respondents (1.23%) cite "other" as the reason for their energy consumption, while a few of them (6.17%)

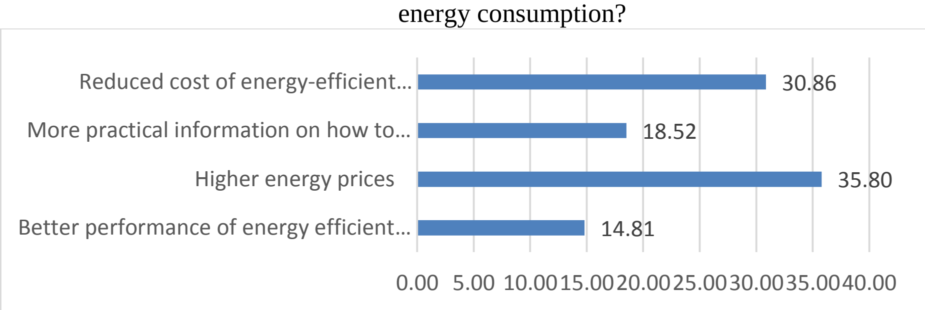
state that they do not know which statement best describes their household. These responses highlight the need for additional analysis and research to better understand the factors that influence household energy consumption.

Figure 5. Thinking about your energy use at home, what statements best describe your household



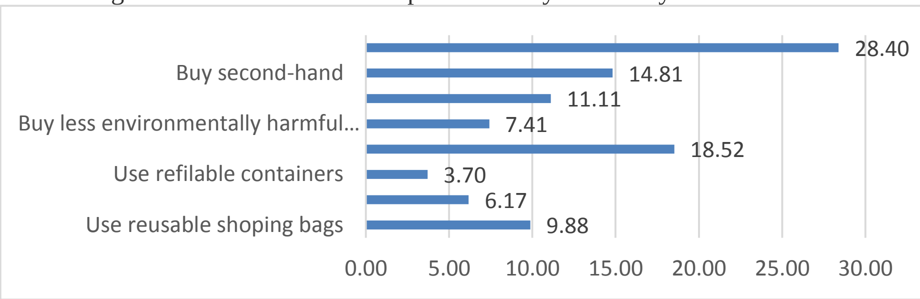
The analysis of the results of the survey on the factors that would influence the encouragement of households to reduce energy consumption provides insight into the key factors that influence consumer decisions regarding energy efficiency. The most significant factor for respondents is the higher price of energy (35.80%), which indicates the importance that household costs can have in reducing energy consumption. Higher energy costs can encourage households to be more aware and rational in their energy use in order to reduce their energy bills. The next important factor for respondents is the decrease in the prices of energy-efficient appliances and renovations (30.86%), which indicates the need for financial incentives and incentives to enable households to invest in energy efficiency without significantly increasing costs. Practical information on how to reduce energy consumption at home is also important for respondents (18.52%), which indicates the need for education and support related to the implementation of energy-efficient practices in households. The performance of energy-efficient appliances has less influence on the respondents' decisions (14.81%), but they still represent a relevant factor in encouraging the reduction of energy consumption. This may indicate the need to improve the technology and supply of energy-efficient appliances in order to make them more attractive to consumers. Taken together, these results highlight the importance of energy prices, financial incentives and education in encouraging households to reduce energy consumption. The combination of these factors can be crucial in creating an enabling environment for the promotion of energy efficiency and the reduction of negative impacts on the environment.

Figure 6. How important would the following factors be in encouraging you to reduce your energy consumption?



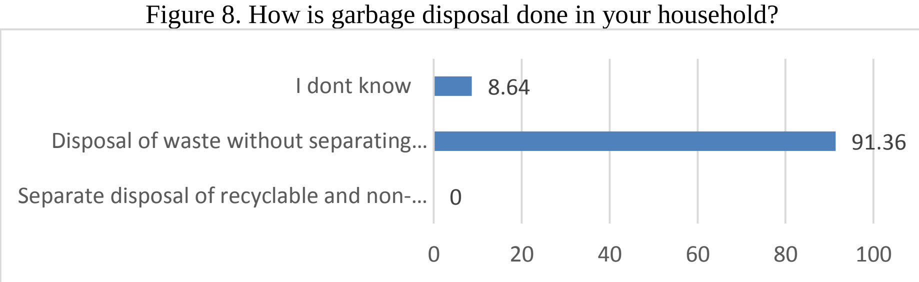
When asked which of the listed sustainable practices they use, a significant number of respondents declare that they do not use any of the listed practices (28.40%), which may indicate a lack of awareness or motivation to undertake sustainable actions in everyday life. The most prevalent practice among the respondents is the repair of damaged items (18.52%), which indicates the importance of extending the life of the product and reducing waste through repairs instead of replacement. Also, this may indicate the poor financial situation of the respondent. Another significant practice is the purchase of second-hand products (14.81%), which indicates the growing popularity of buying second-hand as a way of reducing resource consumption and supporting the circular economy as well as household financial savings. A smaller percentage of respondents declare that they use other practices such as buying products with recycled content (11.11%), using paper with recycled content (7.41%), buying products that are less harmful to the environment (7.41%), buying high-quality products (6.17%) , and the use of refillable containers (3.70%). The practice of using reusable cloth bags is less prevalent among respondents (9.88%), which may indicate the need for greater incentives and education about the harm of single-use plastic bags and the advantages of using alternatives. Overall, these results suggest the need for stronger promotion of sustainable practices and support for their adoption in everyday life in order to contribute to the preservation of the environment and the creation of a society that relies on sustainable resources.

Figure 7. Which of the above practices do you use in your household?



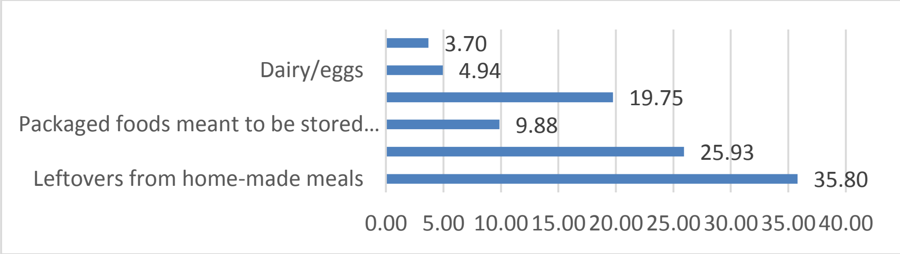
The analysis of the results of the survey on the method of waste disposal (Figure 8) in households reveals an insufficient practice of separating recyclable and non-recyclable waste. The vast majority of respondents (91.36%) declare that they dispose of waste without separating recyclable and non-recyclable waste. This practice indicates a lack of awareness of the importance of separating waste for recycling and reducing the negative impact on the environment. Also, this is also a consequence of the lack of conditions for waste separation in the environments that are the subject of research in this paper. That is why it is necessary for local competent institutions to improve this sector. A small percentage of respondents (8.64%) declare that they do not know how waste is disposed of in their household. This may indicate a lack of information or insufficiently clear guidelines on proper waste management. These results emphasize the need for stronger education and awareness raising about the importance of waste separation for recycling and reducing environmental pollution. They also emphasize the need to improve recycling infrastructure and support households in adopting more sustainable waste management practices.

Figure 8. How is garbage disposal done in your household?



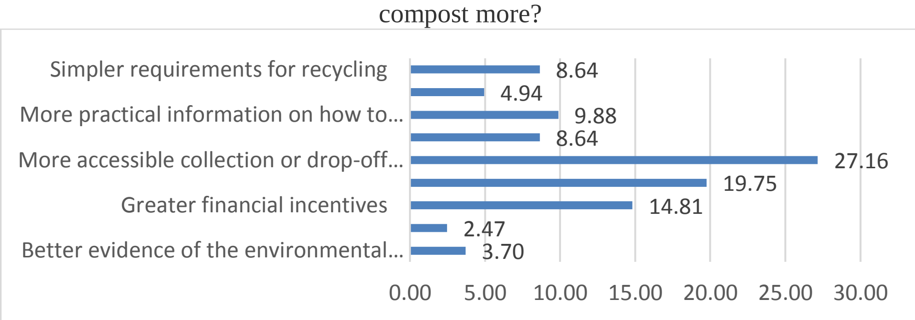
Analyzing survey results on the type of food that households typically throw away provides insight into patterns of food waste and potential areas for improving food management. The majority of respondents state that they most often throw away leftovers from meals they prepared themselves (35.80%), which indicates a tendency to throw away excess food that remains after a meal. This may be due to insufficient attention when planning meals or excessive food preparation. The second most common type of food that households usually throw away is bread (25.93%). This can be the result of quick spoilage of bread and insufficient care in storage or excessive buying of bread. A smaller percentage of respondents state that they throw away fruits/vegetables (19.75%), which indicates the need for better management of these types of food in order to reduce waste. Packaged food stored outside the refrigerator is also often thrown away by households (9.88%). This may be due to expiration dates or incomplete consumption of packaged food before it spoils. A small percentage of respondents state that they throw away dairy products/eggs (4.94%) or meat/seafood (3.70%). These results highlight the need to raise awareness to reduce food waste and promote practices such as better meal planning, proper food storage and use of leftovers. They also emphasize the need for education on the importance of preserving food and preventing the wastage of resources.

Figure 9. What type of food does your household usually throw away?



Analysis of the survey results on the factors that would most encourage households to recycle or compost more provides insight into the key motives and needs that influence consumer decisions regarding waste management. The largest number of respondents emphasized the importance of increased availability of services for the collection or disposal of recyclable or compost waste (27.16%). This indicates the need to improve infrastructure and increase the availability of waste collection services to facilitate households to actively participate in recycling and composting. A significant number of respondents also emphasize the importance of the option that recycled or composted waste can be collected from their home (19.75%). This practical option facilitates the recycling and composting process for households that have limited ability to transport waste to disposal sites. Financial incentives are also an important factor for respondents (14.81%), which indicates the need to introduce economic incentives that would motivate households to engage in recycling and composting activities. Practical information on how to do it was also highlighted as a significant factor (9.88%), indicating the need for education and support regarding the implementation of household recycling and composting practices. A smaller percentage of respondents cited other factors such as cleaner recycling/composting containers (2.47%), more frequent collection of recycled/composting items (8.64%), recycling/composting space (4.94%) and simpler recycling requirements (8.64%) as factors that would encourage them to recycle or compost more. Taken together, these results point to the importance of a combined approach that includes improving infrastructure, introducing financial incentives, providing practical information and supporting households to improve waste management and promote sustainable recycling and composting practices.

Figure 9. What are the most important factors that would encourage your household to recycle or compost more?



4. Conclusion

Based on the analysis of the results of the survey on the attitudes and preferences of households in relation to issues of sustainability, waste management, energy efficiency and environmental protection in Kosovo and Metohija, key conclusions can be drawn that indicate the necessity of comprehensive interventions and policies to improve sustainability and preserve the environment.

First, the survey results show diverse household attitudes and practices regarding sustainability issues, from energy efficiency to waste management and recycling. While some respondents show a high level of awareness and engagement in sustainable practices, such as repairing damaged items or buying used products, others are less inclined to these activities, which points to the need for education and raising awareness about sustainable lifestyles. Second, the results also highlight the challenges and barriers households face in implementing sustainable practices, including lack of financial incentives, lack of information or accessible recycling and composting services, and lack of space or resources to implement certain sustainable practices. Third, key factors that would encourage households to participate more in sustainable practices include greater availability of waste collection and disposal services, greater financial incentives, practical information on how to implement sustainable practices, and the option to collect recycled and composted household waste. Overall, these conclusions point to the need for an integrated approach in promoting sustainability in Kosovo and Metohija, which includes education, infrastructure investments, incentives and support for households in order to create a sustainable society that protects the environment and promotes a better quality of life for all residents.

Although this paper can serve as a good starting point for further research, its limitations can also be discussed. A significant limitation is the inclusion of only three municipalities (majority populated by Serbs) in the research, so it can be said that the results of the research do not necessarily represent the views of the entire population of Kosovo and Metohija. Therefore, in future works, it is necessary to include all other municipalities in order to get a complete picture. Also, in future research it is necessary to include as many questions as possible in order to get a more detailed insight into the problem of sustainability in households.

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Usaglašenost stilova rukovođenja sa informacionom bezbednošću u organizacijama

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Apstrakt: Ovaj rad istražuje značaj usaglašenosti stilova rukovođenja sa informacionom bezbednošću u organizacijama. Fokus je na analizi transakcionog i transformacionog liderstva i njihovom doprinosu implementaciji bezbednosnih politika i praksi. Transakciono liderstvo, usredsređeno na postavljanje jasnih ciljeva i nagrađivanje, pruža strukturu i odgovornost, dok transformaciono liderstvo, koje inspiriše i podstiče promene, podstiče angažovanje, prilagodljivost i inovaciju. Kroz integraciju ovih stilova rukovođenja, organizacije mogu izgraditi holistički pristup koji podržava bezbednosnu kulturu i efikasno odgovara na dinamične bezbednosne izazove. Ključno je da lideri prepoznaju značaj informacione bezbednosti i prilagode svoje stilove rukovođenja kako bi podržali integritet, poverljivost i dostupnost informacija, ključne komponente sigurne organizacije u digitalnom dobu.

Ključne reči: stilovi rukovođenja, informaciona bezbednost, transakciono liderstvo, transformaciono liderstvo, bezbednosne politike, bezbednosne prakse, organizaciona kultura, integritet informacija

Compatibility of Leadership Styles with Information Security in Organizations

Abstract in English: This paper investigates the significance of the alignment of leadership styles with information security in organizations. The focus is on the analysis of transactional and transformational leadership and their contribution to the implementation of security policies and practices. Transactional leadership, focused on setting clear goals and rewarding, provides structure and accountability, while transformational leadership, which inspires and encourages change, encourages engagement, adaptability and innovation. Through the integration of these leadership styles, organizations can build a holistic approach that supports a safety culture and effectively responds to dynamic safety challenges. It is critical that leaders recognize the importance of information security and adapt their leadership styles to support the integrity, confidentiality and availability of information, key components of a secure organization in the digital age.

Keywords: leadership styles, information security, transactional leadership, transformational leadership, security policies, security practices, organizational culture, information integrity

1. Introduction

In the era of digital transformation and the ubiquity of technological innovation, the issue of information security is becoming a key issue for every organization. While technological progress brings numerous advantages and eases in business, at the same time it creates new challenges and threats to data security. Managing this type of risk requires not only advanced technical measures, but also effective management at all levels of the organization.

Leadership styles have a significant impact on all aspects of business, including information security. As organizations develop and implement strategies to protect their data, it is essential to ensure that leadership styles support these efforts (Soloducho-Pelc et al., 2022). Alignment of these two key elements – leadership styles and information security, becomes essential for maintaining the integrity, confidentiality and availability of information in organizations.

Leadership styles have an undeniable power to shape the culture and strategies of organizations, including information security practices (Mcllwraith, 2021). In previous research, different perspectives and results have been identified on the influence of leadership styles on information security. Two significant leadership styles that have been singled out as styles of particular importance in this context are transactional and transformational leadership. Transactional leadership focuses on the exchange of resources between leaders and teams, often relying on reward and punishment systems to achieve goals (Kriger et al., 2016). In contrast, transformational leadership tends to inspire and motivate teams to overcome boundaries and achieve innovation (Kao et al., 2015). Both leadership styles can have a significant impact on information security practices in organizations, shaping the way employees perceive, approach, and implement data security measures. While some researchers argue that transformational leadership has a positive impact on the development of security awareness and adaptation to new threats, others point out that a transactional approach can create routinized security practices without a true understanding of risk (Flores & Ekstedt, 2016).

This paper aims to analyze, through a literature review, how little-mentioned leadership styles in the context of information security can contribute to the understanding of how organizations can best integrate security practices into their operations. The aim of this paper is to examine how transactional and transformational leadership styles influence information security practices, as well as to identify the most effective strategies that can help organizations improve their security capabilities.

2. Key elements of information security in a business context

Information security is a key aspect of business for any organization in the digital age. Information security includes all measures, policies and practices aimed at protecting information from various threats, such as cyber attacks, unauthorized access, data theft or any misuse of information (Srinivas et al., 2019).

The main goal of information security is to ensure that the organization's data is protected from unauthorized access, misuse or theft, which is key to preserving the confidentiality, integrity and availability of information, which are vital elements for the successful operation of the organization. This is possible through the application of encryption, that is, the process of converting data into an unreadable form, which can only be read with the correct decryption key (Iriani & Muslihudin, 2018). The use of encryption allows that even if a certain person accesses the data without authorization, they cannot read or use it. Encryption can be applied to data in motion (during transmission over the network) and data at rest (storage on disks or in databases) (Seth et al., 2022). On the other hand, authentication is the process of verifying the identity of the user or device trying to access information (Usmonov, 2021). Using strong authentication systems, such as multi-factor authentication or biometric verification, helps prevent unauthorized access to data, even if passwords or credentials are compromised.

Access management is a control process where the persons who have access to certain information in the organization are determined. This includes granting access rights based on roles or functions in the organization, the principle of "least privilege", which limits access to only the necessary data to carry out business activities, as well as regularly reviewing and updating these rights (De Capitani di Vimercati et al., 2003) . Secure networks are critical to preventing the leakage or theft of sensitive information during network communications. This implies the use of secure protocols for data transmission, such as HTTPS for web communication or VPN for secure connection of remote locations (Nyakomitta & Abeka, 2020). Also, the implementation of security firewalls, IDS and IPS can further strengthen the defensive capabilities of the network infrastructure. These are just some of the key aspects of data protection in the framework of information security. Ensuring effective data protection systems and practices are vital for organizations to ensure the integrity, confidentiality and availability of their information in an increasingly complex digital environment.

Information security policies are basic documents that define the way an organization manages its information to protect against various threats and risks. These policies cover all aspects of information use within the organization, from data access to incident response (Ahmad et al., 2020). The information security policy should start with a clear definition of the objectives of the policy and the scope of its application, which can enable all employees to understand the purpose of the policy and its scope. When it comes to data handling rules, this part of the policy should set out the rules for handling the different types of data that the organization processes. This may include defining the degree of confidentiality of data, ways of marking, storing, sharing and destroying it (Zuiderwijk & Janseen, 2014). The policy should clearly define who has the right to access certain information and under what conditions, which refers to the definition of authentication and authorization procedures, as well as the establishment of access controls. Considering the security of the use of IT resources, this part of the policy should include guidelines for the safe use of IT resources, including computers, networks, software and other technological tools (Sicari et al., 2015). This may include rules for using passwords, using anti-virus programs, updating software, and the like. The policy should also define the procedures to be followed in the event of an information security incident, such as data loss or misuse of information. The policy should clearly define the responsibilities of employees in relation to the implementation of the information security policy, where it should specify possible sanctions for policy violations, which may refer to disciplinary measures or due process. An information security policy should be regularly reviewed and updated to ensure that it reflects changes in technology, legislation and the business needs of the organization (Weber, 2010). An information security policy is an important document that helps organizations protect their information from threats and risks, ensuring that data is properly handled, information access is controlled, IT resources are used safely, and incidents are handled effectively.

Training and raising employee awareness of security procedures and practices are key elements of successful implementation of information security in an organization. It is essential that employees are aware of the different types of information security threats because understanding the threats helps employees be proactive in protecting information. Employee training has a role to teach employees to recognize suspicious situations that may indicate a potential threat to information security. As phishing attacks are one of the most common types of threats, employee training should enable them to recognize phishing e-mails and other forms of phishing attempts (Jensen et al., 2017). Employees should be thoroughly familiar with the organization's security policies, including policies on information access, data handling, use of IT resources, and incident response. Understanding and adhering to these policies is critical to maintaining information security. Information security training should be an ongoing process that includes regularly updating employees on new threats, technologies and security practices. This is especially important given that information security threats must constantly change and evolve. Periodic testing of security awareness can be useful to determine how well employees understand and apply security procedures, which may include simulating phishing attacks or testing employees' reactions to suspicious situations. Through adequate training and raising awareness, organizations can empower their employees to be the first line of defense in information protection and effectively contribute to the overall security of information systems.

Continuous monitoring and response to security incidents are key parts of any organization's information security strategy. It is imperative that organizations use advanced tools to monitor network activity and systems to detect potential threats or irregularities in real time. When a potential security incident is detected, the organization immediately has a team of experts, who are trained and equipped to analyze the situation, identify the cause of the incidents and take appropriate steps to solve the problem (Lower et al., 2018). When a potential security incident is discovered, the organization immediately has a team of experts trained and equipped to analyze the situation, identify the cause of the incident, and take appropriate steps to resolve the problem. This team usually works according to pre-defined procedures for managing incidents. Organizations must have a clearly defined security incident response plan, which details the steps to be taken in the event of incidents being discovered. These steps may include isolating compromised systems, collecting forensic evidence, notifying relevant authorities or service providers, and implementing immediate repairs to prevent further spread of the incident (Porcedda, 2018). In addition to incident response, organizations must have recovery plans that detail the steps to be taken to bring the system back to normal after an incident. These plans typically include procedures for data recovery, reestablishing systems and networks, and assessing the damage caused by an incident. Monitoring and responding to security incidents should be a continuous process, which is regularly improved based on new threats, technologies and experiences. This involves regularly testing incident management plans, training incident response personnel and updating monitoring tools and techniques. Continuous monitoring and response to security incidents are key to maintaining the security of information systems and responding quickly to potential threats. Organizations that have well-developed incident response processes and teams are more likely to minimize damage and recover more quickly from security incidents.

Leadership styles have a significant impact on the implementation of information security policies, employee training, continuous monitoring and response to security incidents in the organization. These styles reflect how leaders direct and motivate their teams, which can have a profound impact on security culture and the effectiveness of information security measures. Transactional leaders are focused on setting clear expectations and establishing a system of rewards and punishments to achieve those goals. Through this style, they could ensure that employees are aware of information security policies through clear rules and procedures. For example, by setting clear rules for the use of passwords or access to sensitive information, transactional leaders can promote the adoption of security policies among employees. Also, through a system of rewards and punishments, they can motivate employees to comply with those rules and policies. On the other hand, transformational leaders tend to inspire and motivate employees to push their limits and achieve more than expected. Through this style, they can set high standards for information security and encourage employees to develop information security awareness as part of their daily practice. Transformational leaders can also encourage innovative approaches to information security, as well as continuous learning and improvement. For example, they can encourage teams to explore new technologies or approaches for detecting and responding to security incidents.

The benefits of transactional leadership in this context lie in establishing clear expectations and controls, which can help maintain safety standards and adhere to policies. However, this style can be limiting in situations that require flexibility and creativity in solving information security problems. On the other hand, transformational leadership has advantages in fostering innovation, developing security awareness as an integral part of organizational culture, and supporting long-term information security goals. This style can contribute to the creation of an agile and proactive security culture in an organization, which is key to effectively detecting and responding to security threats.

Leadership styles have a significant impact on the implementation of safety practices and policies in an organization. Transactional leaders can provide structure and discipline, while transformational leaders can encourage innovation and the development of security awareness. The integration of both styles can contribute to the creation of a comprehensive and effective information security strategy that enables an organization to successfully deal with increasingly complex security challenges.

3. Transactional leadership in the context of information security

Transactional leadership, as a leadership style, is often used in organizations due to its focus on setting clear expectations, rewarding success and punishing failure (Algahtany & Barjoyai, 2019). In the context of information security, transactional leadership alignment can be vital for organizations striving to keep their information and systems secure.

Transactional leaders set clear expectations and goals, providing employees with structure and a foundation for their information security work (Clarke, 2013). This clarity can make information security policies and procedures easier to understand. A focus on achieving goals and rewarding success can motivate employees to be productive in implementing safety practices. Encouraging the achievement of goals can result in faster and more efficient processes in the context of information security. Transactional leaders set clear standards of success and reward or punish employees according to the results achieved (Kark et al., 2018). This encourages accountability among employees and motivates them to adhere to safety procedures and practices. This leadership style allows leaders to quickly respond to changes in the security environment and adjust priorities according to new threats or demands. This enables the organization to be agile and effectively deal with security challenges.

A focus on achieving goals can limit creativity and innovation among employees, which can be especially problematic in the field of information security, where new ideas and approaches are necessary to combat advanced threats. Transactional leaders are often focused on achieving predetermined goals, which can limit an organization's ability to flexibly respond to changes in the security environment. The focus of transactional leadership is often on achieving short-term goals, while long-term strategies and employee development may be neglected (Cote, 2017). This can be particularly debatable in the field of information security, where long-term strategies are needed to deal with complex threats.

The alignment of transactional leadership with information security is a key factor for organizations that want to effectively protect their information and systems from potential threats. Clear structure, setting expectations, and emphasizing accountability are key elements of transactional leadership, which can facilitate the implementation of information security policies. By defining clear procedures and rules, transactional leaders provide employees with guidance on how to handle sensitive information and how to behave in order to maintain security. This contributes to the creation of a structure that enables the organization to effectively implement security policies and procedures.

Rewarding or punishing employees based on compliance with security procedures can be a powerful motivating factor for maintaining information security. Transactional leaders have the power to establish a system of rewarding or punishing employees according to their information security actions. For example, employees who follow safety procedures may be rewarded, while those who ignore or violate those procedures may be punished. This creates an incentive for employees to actively engage in the preservation of information security and to recognize the importance of respecting security standards in their daily work.

However, despite the advantages, it is important that transactional leaders are aware of the need for flexibility and innovation in the field of information security. Dynamic threats and challenges arising from rapid technological changes require agile and adaptive approaches to information protection. Therefore, transactional leaders should be open to new ideas and approaches in the field of information security, as well as foster a culture of continuous learning and improvement. Integrating flexibility and innovation into a transactional leadership style enables organizations to adequately respond to increasingly complex security challenges and to maintain a high level of protection of their information and systems in times of constant change.

4. Transformational leadership for creating a culture of information security

Transformational leadership is a leadership style that focuses on inspiring, motivating and encouraging change among employees in order to achieve long-term goals of the organization (Korejan & Shahbazi, 2016). In the context of information security, transformational leadership plays a role in creating an information security culture that is resilient to threats and change. By analyzing the advantages, disadvantages and importance of this leadership style, organizations can better understand how to implement effective information security strategies.

Transformational leaders inspire employees to push their boundaries and engage in information security. By encouraging a visionary approach to information security, they motivate employees to recognize the importance of security and to actively engage in its improvement. Transformational leaders encourage the development of safety awareness as an integral part of organizational culture (Khan et al., 2018). Through education, awareness raising and promotion of security values, they empower employees to become active participants in information protection. Transformational leaders encourage innovative approaches and adaptation to changes in information security. They encourage teams to explore new technologies, approaches and strategies to adequately respond to new threats and challenges.

Implementing transformational leadership can be a complex process that requires time and resources. Changes in organizational culture and practices can cause resistance and require patience and commitment from leaders. A focus on vision and long-term goals can lead to a lack of clear expectations among employees. Lack of specific guidelines can make it difficult to implement security procedures and practices.

The alignment of transformational leadership with information security is a key factor for organizations striving to preserve the security of their information and systems. Clear structure, setting expectations, and emphasizing accountability are essential elements of transactional leadership, which facilitate the implementation of information security policies.

Transformational leaders provide a clear structure within the organization that defines roles, responsibilities and procedures related to information security. Through clearly defined guidelines, employees know exactly what is expected of them in terms of information protection, how to handle sensitive data, and what steps to take in case of security incidents. This reduces insecurity among employees and contributes to the effective implementation of safety practices.

In addition, setting expectations and emphasizing accountability encourages employees to take personal responsibility for information security. Employees are motivated to follow safety procedures, knowing that they will be rewarded for following those rules or face consequences if they break them. This approach creates a culture of responsibility and awareness. The alignment of transformational leadership with information security is a key factor in building a resilient and secure organizational culture. Inspirational leaders foster the development of security awareness, employee engagement, adaptability and accountability, enabling organizations to effectively respond to dynamic security challenges. By promoting security values and encouraging innovation, transformational leaders contribute to creating an atmosphere where information protection becomes a priority. This compliance enables organizations to build a strong foundation for protecting information and systems, ensuring the integrity, confidentiality and availability of information in times of constant change and advanced threats.

5. Conclusion

Effective management of information security in organizations requires compliance of leadership styles with specific requirements for preserving the integrity, confidentiality and availability of information. Through the analysis of transactional and transformational leadership, it is revealed how each style can contribute to or limit the implementation of security policies and practices.

Transactional leadership, with its focus on setting clear goals, structure, and rewards, provides organizations with a solid foundation for implementing safety procedures and achieving short-term goals. On the other hand, transformational leadership inspires, motivates and encourages change, which can contribute to building a culture of information security, flexibility and innovation.

It is important to recognize that both leadership styles have their advantages and disadvantages in the context of information security. Transactional leadership provides clear structure and accountability, while transformational leadership encourages engagement, adaptability, and innovation. The integration of these styles, taking into account the specifics of the organization and the challenges of information security, can create a holistic approach that contributes to the effective protection of information and systems.

It is critical that leaders understand the importance of information security and adapt their leadership styles to support and strengthen the security culture in the organization. Through the alignment of leadership styles with the organization's security goals, it is possible to achieve the integrity, confidentiality and availability of information, key components of a successful and secure organization in the digital age.

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Guidelines for the Preparation of Papers for Publication in the Serbian Journal of Engineering Management

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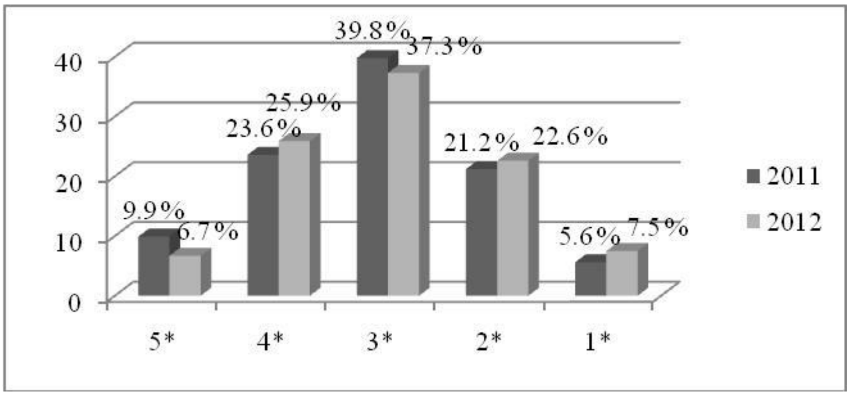
Numbered subtitles of the first level must be formatted using the font 12 pt bold, a second-level sub-titles should be 10 pt bold. The text, and a list of references should be formatted using the font 10 pt.

3. Graphs, tables and formulae

All illustrations, regardless of whether they are diagrams, photographs or charts are referred to as images. The name and number of images should be displayed as centred.

Figure 1: Accommodation units according to the structure of hotel capacities in 2011 and 2012, written in the form of percentage



Source: (The Ministry of Finance and Economy, 2013)

The title and number of the table should be presented above the table as centred

Table 1: Accommodation units according to the structure of hotel capacities in 2011 and 2012, written in the form of percentage

Category	2011	2012	Number of accommodation units (2011)	Number of accommodation units (2012)
5*	**9,9**	**6,7**	1452	990
4*	**23,6**	**25,9**	3486	3911
3*	**39,8**	**37,3**	5895	5636
2*	**21,2**	**22,6**	3102	3420
1*	**5,6**	**7,5**	1133	1132
total	100	100	15068	15089

Source: (The Ministry of Finance and Economy, 2013)

Submit your article, including tables, images, etc., as a single file. In addition, you should submit all figures and tables (which are entered in black and white) as separate files in TIFF or JPF format with a minimum resolution of 300dpi.

Formulae should be centered on the page and properly numbered, as in the following example. It is recommended that you format the rows with formulae in Microsoft Word (using MathType).

$$PVo = \frac{FVn}{(1+i)^n} \quad (1)$$

4. Conclusion

In conclusion, the authors should summarize the results they have obtained in the research.

5. Literature

When quoting the literature, the APA referencing system should be used. For more information, see the Publication Manual of the American Psychological Association (6th ed.).

When quoting within the text, as in the sentence where you mention the author and specify his words, then after the author's name you should indicate the year of publication of the quoted text in parentheses, at the end of the sentence there should be the number of page in which the text should be indicated: according to Čerović (2012) „quoted text''(p.10). When the author is not mentioned in the sentence, then his last name, the year of publication and the number of page should be indicated in parentheses at the end of a sentence, and if the quote was created by paraphrasing or summarizing, then data about the page number is not required: (Čerović, 2012). If there are two or more references by the same author, but they were published at the same time in the same year, the referencing should look like this (Harish, 2008a; Harish, 2008b). When two authors wrote the paper together, the surnames of both authors are written as follows (Petković and Pindžo, 2012), or (Tew & Barbieri, 2012). The call for references in the text requires working with more than two authors and should be stated as follows (Luque-Martinez et al., 2007). When citing a source that does not show the number of pages (such as electronic sources) use the author's name and year of publication if the author is known, and if the author is a corporation or an organization, write down the organization name and year of publication (Ministry of Finance and Economy, 2013).

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Papers in a journal with two authors:
If the article to which you refer has a DOI number, references need to be added.

Example: Tew, C. Barbieri, C. (2012). The perceived benefits of agritourism: The provider's perspective. *Tourism Management*, 33 (6), 215-224. doi: 10.1016 / j.tourman.2011.02.005

Papers in a journal with more than two authors:
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Serbian Journal of Engineering Management**

Naslov rada na srpskom jeziku

Ime Prezime[1]*, Ime Prezime[2], Ime Prezime[3] [ostavite u ovoj verziji prazno za potrebe recenzije]

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Ključne reči: 3-5 ključnih reči za indeksiranje i pretraživanje

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Abstract: This document presents a template for preparing the print-ready papers that will be included in the Serbian Journal of Engineering Managment. The abstract briefly summarizes the article and gives the reader the opportunity to assess it's relevancy. The authors should elaborate the goals of the research or state their reason (reasons) for writing the paper. It is additionally required for them to describe the methods used during the research and give a brief description of the results and conclusions of the research. The abstract should be between 100 and 250 words in lenght.

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1. Uvod

Rad pisati koristeći MS Word za Windows (tastatura za srpsku ćirilicu, latinicu ili engleski jezik - UK). Dužina rada treba da bude najviše 10 strana uključujući tekst, slike, tabele, literaturu i ostale priloge. Format stranice je **A4.** Koristite **2 cm** za donju i gornju marginu, a **2,5 cm** za levu i desnu marginu. Razmak između redova u okviru jednog pasusa je jedan, dok je razmak između paragrafa dvostruki. Za formatiranje teksta preporučuje se korišćenje fonta **Times New Roman.**

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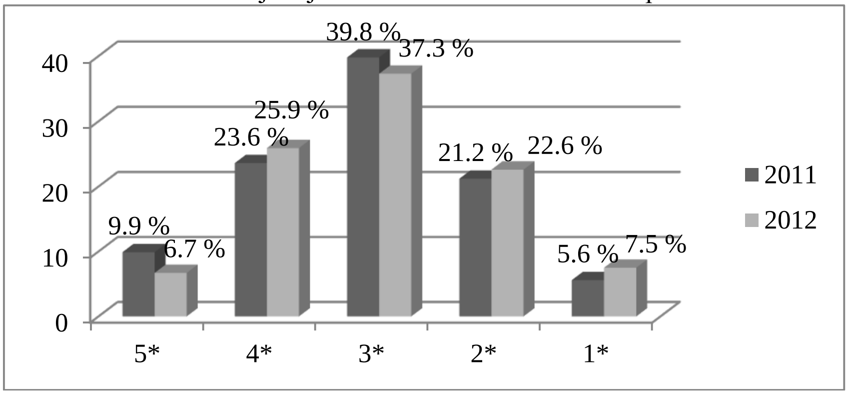
Sve ilustracije, bez obzira da li su dijagrami, fotografije, grafikoni nazivaju se slike. Naziv i broj slike treba prikazati na sredini reda iznad slike.

Slika 1: Procentualno učešće smeštajnih jedinica u strukturi hotelskih kapaciteta u 2011. i 2012. godini



Izvor: (Ministarstvo finansija i privrede, 2013)

Naziv i broj tabele treba prikazati iznad tabele na sredini reda.

Tabela 1: Procentualno učešće smeštajnih jedinica u strukturi hotelskih kapaciteta u 2011. i 2012. godini

Kategorija	**2011.**	**2012.**	**Broj smeštajnih jedinica (2011)**	**Broj smeštajnih jedinica (2012)**
5*	**9,9**	**6,7**	1452	990
4*	**23,6**	**25,9**	3486	3911
3*	**39,8**	**37,3**	5895	5636
2*	**21,2**	**22,6**	3102	3420
1*	**5,6**	**7,5**	1133	1132
ukupno	100	100	15068	15089

Izvor: (Ministarstvo finansija i privrede, 2013)

Pošaljite svoj rad, uključujući tabele, slike itd, kao jednu datoteku. Pored toga, treba dostaviti sve slike i tabele (koje se unose u crno-beloj tehnici) kao posebne fajlove u JPF ili TIFF formatu sa najmanje 300dpi rezolucije.

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$$\mathrm{PVo} = \frac{\mathrm{FVn}}{(1+\mathrm{i})^{\mathrm{n}}} \qquad (1)$$

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Rad u časopisu sa jednim autorom:
Primer: Harish, R. (2008). Brand Architecture and its Application in Strategic Marketing. *The Icfai University Journal of Brand Management,* 7(2), 39-51.

Rad u časopisu sa dva autora:
Ako članak na koji se pozivate ima DOI broj, treba ga dodati referenci.

Primer: Tew, C. & Barbieri, C. (2012). The perceived benefits of agritourism: The provider’s perspective. *Tourism Management,* 33(6), 215-224. doi:10.1016/j.tourman.2011.02.005

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