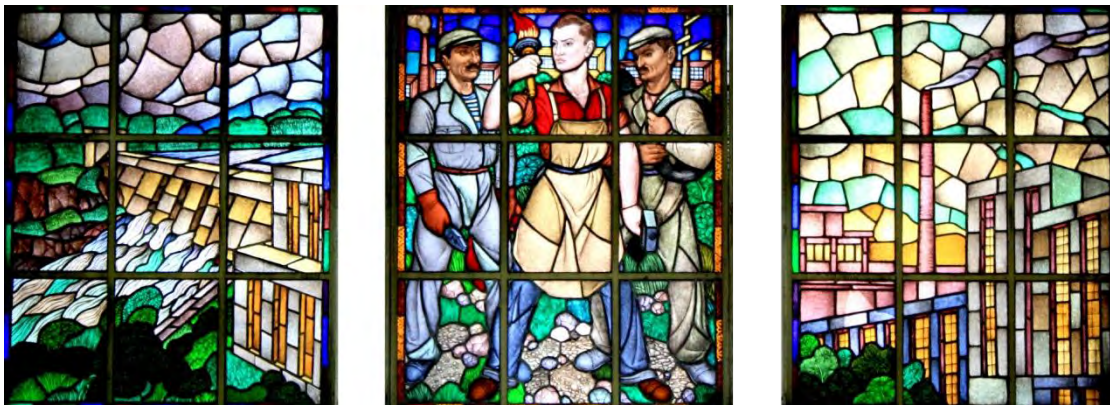


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## CONTENT/SADRŽAJ

A Message from the Editor-in-Chief/Reč urednika

**Adis Puška, Admir I. Beganović, Sead Šadić**

Impact of Subjective Judgment of Decision Makers on an Investment Decision  
Uticaj subjektivnih procjena donosioca odluka na investicionu odluku  
1-13

**Mirjana Kranjac, Srđan Tomić**

Clustering in Vojvodina (Serbia)  
Klasteri u Vojvodini  
14-19

**Dragan Nedeljković**

Managerial Decisions and Social Responsibility of Companies in International Business  
Menadžerske odluke i društvena odgovornost kompanija u internacionalnom biznisu  
20-26

**Aleksandar Petrov**

Engineering of Security Measures at Ben Gurion International Airport  
Inženjering mera bezbednosti na Međunarodnom aerodromu Ben Gurion  
27-36

**Stanko Bulajić**

Due Diligence as a Key Factor of Financial System of Companies  
Due diligence kao ključni faktor finansijskog sistema privrednih društava  
37-41

**Duško Tomić, Jelena Dinić, Tijana Kostadinović**

Phases of the Security Risk in the Decision-Making Process in the Republic of Bulgaria  
Faze bezbednosnog rizika u procesu donošenja odluka u Republici Bugarskoj  
42-47

**Ognjen Raketić, Irena Rašević**

The Comparative Analysis of Competitiveness between Samsung and Apple  
Komparativna analiza konkurentnosti između kompanija Samsung i Epl  
48-55

**Marjan Gjurovski**

Conceptual Approach in Creating Security Policy of the Republic of Macedonia  
Konceptualni pristup kreiranju bezbednosne politike Republike Makedonije  
56-61

**Nikola Ilić, Radomir Stojković**

The Development of The European Union through the Prism of a Common Foreign and Security Policy  
Razvoj Evropske unije kroz prizmu zajedničke spoljne i bezbednosne politike  
62-68

**Jelena Rajković**

Theoretical Approach to the Principles of Management – Literature Review  
Teorijski pristup principima menadžmenta – Pregled literature  
69-78

Guidelines to the Authors/Uputstvo autorima

List of Reviewers/Spisak recenzenata

## **A Message from the Editor-in-Chief**

Serbian Journal of Engineering Management is a new scientific journal, published by School of Engineering Management and Society of Engineering Management of Serbia. This international journal is dedicated to the wide scope of themes in engineering management and industrial engineering and is published semiannually. The papers are presented in English, Serbian and other former Yugoslavian languages.

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, Financial management, Information systems, High technologies management, Environmental management, Maintenance management, Creative industries management, Security management, and Marketing.

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Prof. Dr. Vladimir Tomašević, FRSA

## **Reč urednika**

Serbian Journal of Engineering Management je nov naučno-stručni časopis, koji izdaje Fakultet za inženjerski menadžment i Društvo inženjerskog menadžmenta Srbije. Ovaj međunarodni časopis je posvećen temama inženjerskog menadžmenta i industrijskog inženjerstva i izlazi dva puta godišnje (u januaru i julu). Zastupljeni jezici su engleski, srpski, kao i jezici država bivše SFRJ.

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Informacije o časopisu i poziv za autore, na srpskom i engleskom jeziku, nalaze se na web stranici časopisa: <http://fim.rs/centri-za-razvoj-i-saradnju/izdavacka-delatnost/naucno-strucni-casopis/>.

Prof. dr Vladimir Tomašević, FRSA

## Uticaj subjektivnih procjena donosioca odluka na investicionu odluku

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**Apstrakt:** Investiciono odlučivanje sa sobom povlači određenu dozu neizvjesnosti i rizika. Prema tome donošenje investicione odluke je najteža odluka koju treba menadžer, odnosno vlasnik da donese u određenoj kompaniji. Prilikom donošenja odluke donosilac odluke se suočava sa problemom kako od mogućih investicionih alternativa odabrati onu koja bi najbolje realizovala postavljene ciljeve investiranja i razvoja kompanije. Tom prilikom svaki donosilac investicione odluke može da upotrijebi nekoliko pristupa. Donošenje investicione odluke je među poslednjim koracima pripreme radnje prilikom investiranja. Prije nego što se donese ova odluka potrebno je provesti određene procedure i izraditi investicione studije. Nakon što se donese investiciona odluka kreće faza realizacije jedne investicije.

U ovom radu je korišteno 20 različitih investicionih projekata koji su analizirani pomoću 5 metoda za ocjenu efikasnosti investicija koje se najviše koriste u zemljama obuhvaćenim istraživanjem. Osim ovoga izvršeno je istraživanje na koji način kompanije iz Bosne i Hercegovine, Hrvatske, Srbije i Crne Gore donose investicionu odluku.

**Ključne reči:** donošenje investicione odluke, analiza efikasnosti investicija, višekriterijske metode, TOPSIS.

## Impact of Subjective Judgment of Decision Makers on an Investment Decision

**Abstract:** Investment decision making always bears a certain amount of risk and uncertainty. Therefore, we can say that the investment decision is the most difficult decision which a company owner or a manager has to make. During the process of investment decision making, every decision maker has to face the problems of choosing the right among several possible alternatives. The goal is to choose the alternative which is most likely to realise the company's development and investment goals. The decision maker may approach this problem in several different ways. Investment decision making is among the final steps of preparatory operations of an investment process. Before making this decision, it is necessary to follow certain procedures in order to successfully conduct the required investment studies. After the investment decision has been made, we can initiate the realisation process of a given investment.

This paper uses 20 different investment projects which were analysed through 5 methods of investment efficiency evaluation that are mostly used in countries covered by the research. Additionally, a research which focuses on the ways in which companies from Bosnia and Herzegovina, Croatia, Serbia and Montenegro approach the investment decision making process was conducted.

**Keywords:** investment decision making, investment efficiency analysis, multi-criteria methods, TOPSIS.

### 1. Uvod

Prilikom investiranja kompanija se suočava sa najtežom odlukom u poslovanju, a to je donošenje investicione odluke. Donošenje investicione odluke predstavlja jednu od najznačajnijih faza u procesu investiranja.

Donošenje pogrešne odluke o realizaciji određene investicije može da prouzrokuje dugoročne katastrofalne posljedice po kompaniju. Odabir investicije je veoma težak i potrebno je u isti uključiti mnoge metode i analize. Donošenje investicione odluke je prepušteno menadžmentu kompanije koji pokušava na sve načine da iskoristi sve mogućnosti koje pružaju investicije kako bi poboljšao poslovanje. Zato je potrebno posvetiti veliku pažnju odabiru one investicije koja će najbolje da realizuje ciljeve kompanije. Za svaku investiciju se veže nekoliko određenih karakteristika među kojima je najvažnije vrijeme. Vrijeme je osnovni razlog zbog čega postoji neizvjesnost i rizik u donošenju investicione odluke. Kada se pokreće određena investicija potrebno je uložiti određenu količinu novca koji bi se postepeno vraćao kompaniji tokom realizacije investicije. Upravo vremenska razlika između inicijalnog ulaganja i vremena povrata te investicije za sobom nosi određene rizike i neizvjesnost. Donošenje investicione odluke zbog toga je ključno za kompaniju jer ona predstavlja sredstvo za ostvarivanje ciljeva kompanije koji podstiču rast i razvoj. Kompanija teži da se razvija i da ostvaruje što veći profit, jer je profit pokretač za investiranje.

Investiciona odluka predstavlja mogućnost i plan razvoja kompanije, izbor metodologije i načina rada i sve drugo vezano za poslovanje kompanije. U svakoj investiciji postoji određeni rizik, a stepen rizičnosti zavisi od toga koliko je detaljno i dobro urađena pripremna dokumentacija i da li su na vrijeme obezbijeđeni mogući rizični scenariji i odgovori na te scenarije.

Osnovni problem kod realizacije investicije su novčana sredstva. Ponekad kompanije imaju na raspolaganju nekoliko mogućih investicionih varijanti od kojih mogu realizovati samo neke. Tada je potrebno da kompanija odluči kojoj investicionoj varijanti treba dati prednost u odnosu na druge varijante. Da bi se mogao izvršiti izbor i donijeti investiciona odluka potrebno je prethodno izvršiti plansku i analitičku projekciju investicionih varijanti, potom te varijante vrednovati pomoću određenih metoda i na kraju slijedi donošenje investicione odluke.

Razmatranje pojedinih investicionih programa se vrši pomoću metoda za ocjenu efikasnosti investicionih projekata. Ove metode se dijele u dvije grupe, i to statičke metode i dinamičke metode. Statičke metode se uglavnom koriste kod preinvesticionih studija jer ih je lako izračunati, a njihovi rezultati predstavljaju realizaciju investicije u jednoj godini koja se naziva reprezentativna godina. Dinamičke metode vrše analizu određenog projekta u cijelom investicionom periodu.

Predmet ovoga rada je komparativna analiza investicija kada se kao težine uzmu stvarni podaci prikupljeni od preduzeća iz BIH, Srbije, Crne Gore i Hrvatske. Na osnovu toga će se komparirati kako različito vrednovanje metoda za ocjenu efikasnosti investicija može uticati na konačan izbor projekata. Ova analiza se radi primjenom TOPSIS metode za višekriterijsku analizu i Spirmanovim koeficijentom korelacije.

## **2. Metode za ocjenu efikasnosti investicija**

Ocjena efikasnosti investicija je računsko-tehnički postupak koji se preduzima s namjerom da se stvori jasna i pouzdana podloga za donošenje investicionih odluka. To je instrument kojim se procjenjuje ekonomska uspješnost i prihvatljivost investicije (Rovčanin, 2006).

U praksi se ocjena opravdanosti realizacije investicionih projekata (investicionih programa i preinvesticionih studija), vrši pomoću analize i ocjene efekata koji se dobijaju realizacijom investicije, čime se izražava valjanost cjelokupnog investicionog projekta (Jovanović, 2006). Konvencionalne metode ocjene efikasnosti investicije ne daju odgovor na pitanja kada investirati u novi projekat. One tretiraju samo direktne efekte investiranja dok indirektno posljedice nisu obuhvaćene ovom ocjenom. Konvencionalne metode razmatraju samo jednu opciju tj. projekat, a druge opcije se ne uzimaju u obzir, kao što su nove poslovne prilike koje mogu nastupiti.

Pod klasičnim pristupom ocjene efikasnosti investicija podrazumijevaju se metode ocjene koje ne uzimaju u obzir oportunitetne troškove kao dio ukupnih troškova investiranja. Te metode se dijele na statičke i dinamičke metode. Statička ocjena rentabilnosti investicionog projekta obavlja se proračunom određenog broja jednostavnih tzv. statičkih kriterijuma. Ovi kriteriji se proračunavaju uzimanjem u obzir parametara samo iz jedne, normalne godine perioda eksploatacije (Jovanović, 2006). Pod normalnom godinom perioda eksploatacije, odnosno reprezentativnom godinom, Bendeković (1993) podrazumeva onu godinu gdje je:

- postignuto moguće korištenje kapaciteta projekta;
- u projektu još traje otplaćivanje kredita.

Pošto ova ocjena uzima samo jednu godinu, ona ne daje stvarnu sliku o cjelokupnom projektu. Glavna prednost ove metode je jednostavnost računanja i mogućnost upotrebe velikog broja pokazatelja. Zbog svoje jednostavnosti ove metode se koriste u preinvesticionim studijama. Pošto je moguće veliki broj kriterija stavljati u odnos, ovdje će se nabrojati samo neki od tih mogućih metoda:

- kriterijum roka vraćanja;
- kriterijum jedinične cijene koštanja;
- pokazatelj produktivnosti investicije;
- pokazatelj ekonomičnosti investicije;
- pokazatelj rentabilnosti investicije;
- devizna rentabilnost investicije;
- koeficijent tehničke opremljenosti;
- koeficijent zapošljavanja;
- koeficijent utroška energije i sl.

Statički pristup posmatranja procesa investiranja je ograničeno posmatranje investicije u samo jednom vremenskom periodu i to u godini koja se uzme za reprezentativnu godinu. Ovakvo ispitivanje investicije može dati krivu sliku jer se uzima samo jedan vremenski period, a ne cjelokupni ekonomski vijek trajanja investicije. Ovi pokazatelji ne prate dinamiku investicija. Zbog toga se upotreba njih ograničava većinom na preinvesticione studije, a isti se spominju u anglosaksonskoj literaturi kao elementi ocjene projekta.

Poseban nedostatak ovakvog načina ocjene je da ona ne pruža podatke o smanjenju efekata investicije u početnom i završnom vremenu perioda eksploatacije, pa time ni mogućnost za planiranje pravovremenih intervencija i poboljšanja (Nićin, Pušara, 2010).

Da bi se eliminisao ovaj problem statičkih pokazatelja, vrši se dinamiziranje istih. Dinamiziranje statičkih pokazatelja podrazumijeva diskontovanje pojedinačnih godišnjih troškova i efekata investicije (prihoda, troškova, ukupnih ulaganja) na sadašnju vrijednost, ili izračunavanje prosječne godišnje vrijednosti za cijeli ekonomski vijek projekta. Na osnovu navedenih prosječnih godišnjih vrijednosti pojedinih elemenata, izračunaju se pokazatelji iz grupe statičkih indikatora efektivnosti investicije (Stević, 2010).

Iako se dinamiziraju oni isto imaju nedostatke kao i obične statičke metode, potrebno je uporediti ove pokazatelje sa pokazateljima u sličnim ili istim investicionim projektima i tako odrediti da li su ovi pokazatelji veći ili manji u odnosu na slične ili iste pokazatelje u drugim investicionim projektima.

U literaturi se često ocjena efikasnosti investicije dijele na:

- metode koje ne koriste diskontovane novčane tokove (eng. NDCF techniques);
- metode koje se koriste diskontovanim novčanim tokovima (eng. DCF techniques).

Primjenom metoda koje ne koriste diskontovane novčane tokove donosioci odluka nisu u mogućnosti postići maksimiziranje bogatstva dioničara jer u pravilu te metode ne zadovoljavaju istovremeno sve tri osnovne pretpostavke za tim (Volarević, Davosir Pongrac, 2010). Nedostatak ovih metoda je što ne uključuju diskontni faktor prilikom računanja pa time ne uključuju ni rizik budućih tokova novca. Na taj način se olakšava izračunavanje ovih pokazatelja jer nije potrebno definisati trošak kapitala, odnosno stopu povrata investitora.

U metode koje ne koriste diskontne novčane tokove spadaju sljedeći pokazatelji:

- vrijeme povrata;
- računovodstvena stopa povrata;
- kumulativni novčani tokovi;
- stopa povrata.

U metode koje koriste diskontne novčane tokove spadaju sljedeće metode:

- Neto sadašnja vrijednost;
- Interna stopa rentabilnosti;
- Modificirana interna stopa rentabilnosti;
- Indeks profitabilnosti.

U nastavku teksta će biti objašnjene one metode koje će se koristiti u ovoj analizi.



**Stopa povrata** (eng. rate of return - ROR) je poznata pod nazivom povrat ulaganja (eng. ROI-return on investment), a u literaturi se može naći i pod nazivom stopa profita (eng. rate of profit) i predstavlja postotak neto profita nakon oporezivanja (eng. after-tax net profit) od investicije poduzete za ostvarivanje toga profita. Jedan je od najčešće rabljenih pokazatelja u zapadnom poslovnom okruženju za ocjenjivanje uspješnosti investicijskih pothvata. Izračunava se tako što se od prihoda oduzmu troškovi, a zatim taj iznos podijeli sa ukupnim troškovima investicija ( $\text{Prihod} - \text{trošak} / \text{Vrijednost investicija} * 100 = \text{ROI}$ ). Što je veći iznos ROR, to je veći povrat ulaganja. Kod investicionog odlučivanja korištenjem ovoga pokazatelja odabiramo onu investiciju koja ima veći povrat ulaganja.

**Vrijeme povrata** (eng. payback period - PBP) je vrijeme potrebno da se vrati inicijalni troškovi investicije. (Vernimmen, P., et.at., 2009) Ehrhardt i Brigham (2011) definišu vrijeme povrata kao broj godina koji je potreban da se nadoknade uložena sredstva u projekat koji se generiše iz njegovih novčanih tokova. Van Horne i Wachowich (2002) kažu da vrijeme povrata pokazuje broj godina koji je potreban da se vrati početna investicija novca. Drugi autori na sličan način definišu ovaj kriterij tako da on zapravo predstavlja vrijeme za koji se povrate ulaganja u projekat. Postupak računanja ovoga pokazatelja se sastoji od kumulativnog sabiranja neto novčanih tokova i određivanja perioda u kojem su kumulativni neto novčani tokovi pozitivni.

**Neto sadašnja vrijednost** (eng. Net present value – NPV) predstavlja zbir svih budućih neto novčanih tokova investicijskog projekta svedenih na sadašnju vrijednost primjenom tehnike diskontovanja umanjenu za početno ulaganje u investiciju. NPV predstavlja apsolutnu mjeru efikasnosti jer se izražava u novčanim jedinicama a ne u postocima. Projekat će biti prihvaćen ako je sadašnja vrijednost primitaka novca veća od sadašnje vrijednosti izdataka novca (Van Horne i Wachowich, 2002). Kada postoji više investicija koje stoje na raspolaganju investitoru on će usvojiti onaj investicioni projekat koji ima maksimalnu vrijednost NPV, a sve druge odbaciti.

**Interna stopa rentabilnosti** (eng. Internal rate of return – IRR) može se definisati kao „diskontna stopa kojom se neto sadašnja vrijednost svodi na nulu“ (Brigham, Ehrhardt, 2008: 382.). Dok Van Horne i Wachowich (2002) definišu IRR kao diskontnu stopu koja izjednačava sadašnju vrijednost očekivanih neto tokova novca s početnim izdatkom novca. Donošenje investicione odluke na osnovu IRR uslijediti će ukoliko su izračunata IRR ulaganja veća od planirane, odnosno minimalne stope rentabilnosti projekta. Kada su ove dvije stope jednake, onda se odluka mora zasnivati na drugim kriterijima (Krčmar, 2002). Tada se uzimaju u obzir i drugi pokazatelji da bi se kompariralo i utvrdilo koji je projekat pogodniji. Ukoliko se radi o izboru jednog od dva ili više projekata, tada se prihvata i realizuje onaj investicioni projekat koji ima veću IRR (Rovčanin, 2006).

**Indeks profitabilnosti** (eng. Profitability index – PI) je definisan kao NPV projekta podijeljena sa inicijalnom investicijom (Stanišić i Stanojević, 2005), dok ga Van Horne (2002) definiše kao odnos sadašnje vrijednosti neto tokova novca i početnog izdatka novca. PI se često naziva i benefit-cost omjerom, zato što u stvari predstavlja omjer između koristi od ulaganja u investiciju i troškova investicije (Orsag, 2002). Investicioni projekat treba prihvatiti ukoliko je PI veći od jedan. Ukoliko je PI jednako jedan, u tom slučaju možemo reći da je projekat granično prihvatljiv. Svakako, za PI manje od jedan projekat je neprihvatljiv (Rončanin, 2006).

### 3. Osnove višekriterijske analize i TOPSIS metode

Pri donošenju odluka potrebno je najprije izabrati cilj investiranja, zatim kriterije kojima se mjeri dostizanje toga cilja i iz raspoloživih investicionih alternativa odabrati projekat koji najprihvatljivije dostiže postavljeni cilj investiranja.

Donošenje odluka najčešće znači vrednovanje mogućih rješenja ili alternativa. Kada se vrednovanje vrši u odnosu na jedan kriterij, određuje se rješenje koje ekstremizira ciljnu funkciju, a postupak se označava kao jednokriterijska optimizacija ili samo optimizacija (Srđević, 2002). Međutim u praksi se najčešće susreću zadaci gdje investicione alternative treba ocijeniti po više kriterija, što čini problem znatno složenijim. Osnovne karakteristike su (Perčević, 2003):

- Prisustvo inkompatibilnosti u mnogim slučajevima. Redovno se dešava da je jedna alternativa bolja od druge u jednom kriteriju, dok je druga bolja od prve u drugom kriteriju. Stoga se ne može odrediti koja je alternativa bolja bez dodatnih informacija o preferencijama donosioca odluke;
- S obzirom na to da ne postoji alternativa bolja od drugih u svim kriterijima, kod ovakvih zadataka ne postoji optimalno rješenje u strogom matematičkom smislu;
- Rješenje problema predstavlja nalaženje kompromisnog rješenja. Posljedica ove činjenice je da u određivanje rješenja mora biti uključen subjektivni faktor (donosilac odluka). Različiti donosioci odluka imat će različite poglede na problem;
- Multidisciplinarnost kod strateških odluka.

Osnovna uloga donosioca odluke ogleda se ne samo u donošenju konačne odluke već i u definisanju višekriterijske baze – sistema kriterija za evaluaciju alternativa, izboru preferencijskih funkcija, određivanju relativnog značaja kriterija i odgovarajućih parametara, što sve predstavlja osjetljive faze u rješavanju problema poslovnog odlučivanja (Radojičić, Vesić, 2003).

Bilo da to čini indirektno ili direktno, u procesu odlučivanja formira se matrica alternativa i kriterija koja se podvrgava analizi i obradi da bi se generisao konačan rezultat. Težinske ocjene i rangovi mogu se koristiti pojedinačno ili integralno, u zavisnosti od vrste problema. Ako se traži samo najbolja alternativa, obično je dovoljno samo rangiranje. Kada se radi o alokacionim problemima, težinske ocjene mogu označavati proporcije alokacije resursa prema rangovima alternativa. Treći slučaj je da se želi postići identifikacija prvih nekoliko najboljih alternativa i stepen njihovog učešća u ukupnoj alokaciji resursa.

Kod višekriterijske analize postoji više alternativa i kriterija, od kojih neke treba maksimizirati, a neke minimizirati. Te odluke se donose u konfliktnim uslovima i za to rješavanje zadataka moraju se primijeniti instrumenti koji su fleksibilniji od strogo matematičkih tehnika čiste optimizacije.

Svaku metodu višekriterijske analize karakteriše specifičan kriterij izbora, zbog čega se primjenom različitih metoda na isti problem izbora dobijaju po pravilu različiti rezultati. To znači da konačan izbor ne određuju isključivo relevantne karakteristike alternativa već i metoda koje koristimo, odnosno kriterij na osnovu kojeg ocjenjujemo alternative i identifikujemo optimalnu (Pavličić, 2002). U nastavku teksta će se objasniti TOPSIS metoda.

Hwang i Yoon su 1981. godine razvili TOPSIS metodu. Ona se zasniva na konceptu da odabrana alternativa treba imati najkraću udaljenost od pozitivnog idealnog rješenja i najdužu udaljenost od negativnog idealnog rješenja (Lu, et.al., 2007). Osnovna logika metode je da se prvo definišu idealna rješenja i idealna negativna rješenja. Optimalna alternativa je ona koja je u geometrijskom smislu najbliža idealnom pozitivnom rješenju, odnosno najdalja od idealnog negativnog rješenja. Rangiranje alternativa se zasniva na „relativnoj sličnosti sa idealnim rješenjem“ čime se izbjegava situacija da alternativa istovremeno ima istu sličnost sa pozitivnim idealnim i sa negativnim idealnim rješenjem. Idealno rješenje se definiše pomoću najboljih rejting vrijednosti alternativa za svaki pojedinačni kriterijum; obrnuto, negativno idealno rješenje predstavljaju najgore vrijednosti rejtinga alternativa. Pojmovi „najbolji“ i „najgori“ interpretiraju se za svaki kriterijum posebno, prema tome da li je u pitanju maksimizacija ili minimizacija kriterijuma (Srđević, et.al., 2002).

Postupak računanja TOPSIS metode započinje formiranjem matrice odlučivanja:

$$R = \begin{matrix} & C_1 & C_2 & \cdots & C_m \\ & w_1 & w_2 & \cdots & w_m \\ A_1 & \left[ \begin{matrix} x_{11} & x_{12} & \cdots & x_{1m} \end{matrix} \right] \\ A_2 & \left[ \begin{matrix} x_{21} & x_{22} & \cdots & x_{2m} \end{matrix} \right] \\ \vdots & \left[ \begin{matrix} \vdots & \vdots & \vdots & \vdots \end{matrix} \right] \\ A_n & \left[ \begin{matrix} x_{n1} & x_{n2} & \cdots & x_{nm} \end{matrix} \right] \end{matrix} \quad (1)$$

**Korak 1.** Normalizovanje matrice.

U matrici brojne vrijednosti  $r_{ij}$  u opštem slučaju imaju različitu metriku. Zato se prvo vrši normalizacija elemenata iz matrice (3), prema izabranoj relaciji za normalizaciju da bi se dobila matrica u kojoj su svi elementi bezdimenzionalne veličine, na taj način se podaci transformišu tako da se za sve kriterije maksimizira ciljna funkcija.

**Korak 2.** Množenje normalizovane matrice težinskim koeficijentima.

U ovome koraku se normalizovana matrica množi sa jediničnom matricom težinskih koeficijenata, da bi se dobili „otežani“ podaci potrebni za dalju analizu.

$$V = \begin{matrix} \left[ \begin{matrix} r_{11} & r_{12} & \cdots & r_{1m} \\ r_{21} & r_{22} & \cdots & r_{2m} \\ \vdots & \vdots & \vdots & \vdots \\ r_{n1} & r_{n2} & \cdots & r_{nm} \end{matrix} \right] \cdot \left[ \begin{matrix} w_1 & 0 & \cdots & 0 \\ 0 & w_2 & \cdots & 0 \\ \vdots & \vdots & \vdots & \vdots \\ 0 & 0 & \cdots & w_m \end{matrix} \right] = \left[ \begin{matrix} n_{11} & n_{12} & \cdots & n_{1m} \\ n_{21} & n_{22} & \cdots & n_{2m} \\ \vdots & \vdots & \vdots & \vdots \\ n_{n1} & n_{n2} & \cdots & n_{nm} \end{matrix} \right] \end{matrix} \quad (2)$$

**Korak 3.** Određivanje idealnih rješenja.

Pozitivno idealno rješenje predstavlja onu vrijednost koja maksimizira željenu funkciju, a negativno idealno rješenje je ona vrijednost koja minimizira željenu funkciju. Pozitivno idealno rješenje ( $A^*$ ) i negativno idealno rješenje ( $A^-$ ) određuju se pomoću relacija:

$$A^* = (\max n_{ij} \text{ } \forall j \in V), (\min n_{ij} \text{ } \forall j \in V')$$

$$A^- = (\min n_{ij} \text{ } \forall j \in V), (\max n_{ij} \text{ } \forall j \in V')$$

gdje je:

$V = \{j = 1, 2, \dots, m \text{ } \forall j \text{ pripada kriterijima koji se maksimiziraju}\}$

$V' = \{j = 1, 2, \dots, m \text{ } \forall j \text{ pripada kriterijima koji se minimiziraju}\}.$

Najbolje su alternative koje imaju najveće  $n_{ij}$  u odnosu na kriterije koji se maksimiziraju i najmanje  $n_{ij}$  u odnosu na kriterije koji se minimiziraju.  $A^*$  ukazuje na najbolju alternativu idealnog pozitivnog rješenja, a  $A^-$  ukazuje na idealno negativno rješenje.

**Korak 4.** Određivanje rastojanja alternativa od idealnih rješenja.

U ovom koraku se pomoću relacija izračunavaju  $n$ -dimenziona Euklidska rastojanja svih alternativa, idealno pozitivnog i idealno negativnog rješenja.

$$S_i^* = \sqrt{\sum_{j=1}^m (n_{ij} - n_j^*)^2} \tag{3}$$

$$S_i^- = \sqrt{\sum_{j=1}^m (n_{ij} - n_j^-)^2} \tag{4}$$

Ovdje se određuje odstupanje koje ima pojedina alternativa od idealnih pozitivnih i negativnih rješenja. Poželjno je da vrijednost  $n_{ij}$  bude što bliža idealnom pozitivnom rješenju a dalja od idealnog negativnog rješenja. Najbolje bi bilo da pojedina alternativa ima sve iste vrijednosti kao idealno pozitivno rješenje.

**Korak 5.** Određivanje relativne blizine alternativa idealnom rješenju.

Za svaku alternativu određuje se relativno rastojanje na osnovu sljedeće formule:

$$Q_i^* = \frac{S_i^-}{S_i^* + S_i^-} \tag{5}$$

Rezultat na osnovu ove formule je:  $0 \leq Q_i^* \leq 1$ . Kada je alternativa  $A_i$  bliža idealnom rješenju onda je vrijednost  $Q_i^*$  bliža jedinici. Alternativa  $A_j$  će poprimiti vrijednost 1 ako su njene vrijednosti identične sa pozitivnim idealnim rješenjem, a vrijednost 0 ako su vrijednosti ove alternative identične sa negativnim idealnim rješenjem.

**Korak 6.** Rangiranje alternativa.

Alternative se rangiraju po opadajućim vrijednostima  $Q_i^*$ . Najbolja alternativa je ona koja je najbliže ili čak zauzima vrijednost jedan, a ostale alternative rangiraju se po opadajućim vrijednostima (Triantaphyllou, 2000). Smatra se da je nedostatak originalne TOPSIS metode u određivanju idealne i antiidealne tačke, jer se za njihove koordinate uzimaju vrijednosti atributa koje su maksimalne i minimalne po svakom kriteriju. U praksi je čest slučaj da te vrijednosti nisu uvijek idealne/antiidealne za dati kriterij. Posebno su interesantni kvalitativni kriteriji kada se daju ocjene u nekoj skali vrijednosti. Tada je potrebno postići konsenzus oko toga da li je idealna tačka ona koja je najbolja od ponuđenih ili je to tačka koju neki atribut može dostići bez obzira da li se nalazi među ponuđenim alternativama (Bukumirović, Čupić, 2005). Ovo se rješava modifikacijom općeg oblika metode koja se odnosi na uvođenje idealne i antiidealne tačke.

**4. Model za donošenje odluka**

Istraživanje za potrebe ove rada je prvenstveno izvršeno na području BiH, Hrvatske, Srbije i Crne Gore. Cilj ovog istraživanja je pokazati kako subjektivna ocjena pojedinih metoda utiče na donošenje investicione odluke. Prilikom istraživanja primjenjeno je ispitivanje kompanija putem anketnog upitnika koji je distribuiran e-

mailom. U Republici Hrvatskoj je obuhvaćeno 35 kompanija, u Republici Srbiji 32 kompanije, u Crnoj Gori 21 kompanija, a i iz Bosne i Hercegovine 56. Njih je pitano koje metode najviše koriste pri donošenju investicione odluke te su dobiveni sljedeći rezultati.

Tabela1. Metode za ocjenu efikasnosti investicionih ulaganja

	<b>BiH</b>	<b>Hrvatska</b>	<b>Srbija</b>	<b>Crna Gora</b>
NPV	10%	15%	14%	5%
IRR	13%	17%	14%	8%
Vrijeme povrata	32%	25%	40%	22%
PI	19%	11%	11%	24%
ROR	26%	31%	20%	41%

Iz ove tabele se jasno vidi da se dvije metode za ocjenu efikasnosti investicionih ulaganja više upotrebljavaju od drugih a to su metode za određivanja vremena povrata ulaganja i metoda stope povrata od ulaganja (ROR). Samo u Crnoj Gori se među ove dvije metode ubacila i metoda indeksa profitabilnosti (PI). Na osnovu ovih vrijednosti vidi se da preduzeća pri donošenju investicione odluke pridaju različiti značaj pojedinom pokazatelju. Pomoću ovih vrijednosti biti će izvršeno rangiranje 20 investicionih projekata primjenom TOPSIS metode te će se komparirati dobiveni rezultati. Investicioni projekti su veoma slični te su i vrijednosti dobiveni metodama za ocjenu efikasnosti investicionih projekata veoma slične. Razlog tome je što ove metode uzimaju drugačije pokazatelje. Tako npr. NPV uzima zbirnu vrijednost investicije, IRR procenata povrata, VP vrijeme povrata i slično. Zbog te različitosti između korištenih ocjena pokušano je bilo pronaći projekte koje su veoma slični da bi se na njima vidjelo upravo kako subjektivne procjene investitora utiču na investicionu odluku. Rezultati vrijednosti metoda za ocjenu efikasnosti investicionih projekata su prikazani na tabeli 2.

Tabela 2. Rezultati analize ocjene efikasnosti investicionih projekata

	<b>NPV</b>	<b>IRR</b>	<b>VP</b>	<b>PI</b>	<b>ROR</b>
<b>IP1</b>	10333,76	15,96	3,45	1,17	157,76
<b>IP2</b>	10998,06	17,42	3,22	1,20	158,98
<b>IP3</b>	10822,80	14,94	3,40	1,13	148,21
<b>IP4</b>	10564,98	15,33	3,33	1,14	150,46
<b>IP5</b>	10842,60	13,99	3,42	1,10	145,32
<b>IP6</b>	10353,43	14,31	3,44	1,11	147,59
<b>IP7</b>	10625,55	17,70	3,03	1,19	155,33
<b>IP8</b>	10718,26	13,56	3,51	1,09	144,91
<b>IP9</b>	10667,47	19,62	3,14	1,27	169,91
<b>IP10</b>	10441,61	14,11	3,39	1,11	145,47
<b>IP11</b>	10549,52	14,68	3,34	1,12	147,27
<b>IP12</b>	10664,86	13,33	3,49	1,09	143,30
<b>IP13</b>	10718,25	19,32	3,00	1,25	164,00
<b>IP14</b>	10253,85	16,17	3,24	1,16	152,79
<b>IP15</b>	10081,70	17,33	3,13	1,19	156,26
<b>IP16</b>	10839,09	13,75	3,40	1,10	143,84
<b>IP17</b>	10232,74	14,49	3,35	1,12	147,32
<b>IP18</b>	10521,82	14,63	3,40	1,12	148,05
<b>IP19</b>	10704,58	15,49	3,30	1,14	150,70
<b>IP20</b>	10140,27	13,85	3,43	1,10	145,67

Na osnovu ovih rezultata moguće je izračunati povezanost istih odnosno odstupanje pojedinih metoda. Da bi se to uradilo, potrebno je izračunati Pirsonov (Pearson) koeficijent korelacije. Pirsonov koeficijent korelacije upoređuje podatke iz kolona te gleda njihovu povezanost. Vrijednost Pirsonovog koeficijenta korelacije se kreće od 1 do -1. Kada je rezultat bliži jedinici to je povezanost posmatranih pojava veća i obrnuto što je bliže nuli povezanost je slabija. Ukoliko je rezultat negativan to predstavlja obrnutu korelaciju tj. s porastom jednog parametra opada drugi parametar i obrnuto. Znači porast jednog parametra uzrokuje pad drugog. Sada će se izvršiti izračunavanje Pirsonovog koeficijenta korelacije i utvrditi će se povezanost između metoda za ocjenu efikasnosti projekta.

Tabela 3. Pirsonov koeficijent korelacije za početnu matricu odlučivanja

	<b>NPV</b>	<b>IRR</b>	<b>VP</b>	<b>PI</b>	<b>ROR</b>
<b>NPV</b>	1,000	0,080	0,031	0,082	0,060
<b>IRR</b>	0,080	1,000	0,901	0,993	0,968
<b>VP</b>	0,031	0,901	1,000	0,856	0,769
<b>PI</b>	0,082	0,993	0,856	1,000	0,986
<b>ROR</b>	0,060	0,968	0,769	0,986	1,000

Dobijeni rezultati pokazuju da najviše odstupanja od drugih metoda za ocjenu efikasnosti investicionih projekata ima metoda NPV i ona ne pokazuje nikakvu povezanost sa drugim metodama tj. rezultati Pirsonovog koeficijenta korelacije su blizu nule i oni se kreću od 0,082 do 0,031. Kada bi se ovoj metodi dala veća prednost u odnosu na druge metode, to bi dovelo do donošenja investicione odluke koja nije u skladu sa stvarnim podacima. Ukoliko bi se čak investiciona odluka donijela samo na osnovu ove metode, onda bi izbor investicionog projekta bio pogrešan. Znači, nije važno koliko imamo povrata na neki projekat, jer nije isto ako imamo na uloženi iznos od 10.000 novčanih jedinica neto povrata 1.500 novčanih ili ako imamo na 100.000 novčanih jedinica neto povrata 1.500 novčanih jedinica, jer smo u prvom slučaju 10 puta manje uložili a imamo isti povrat. Moguće je onda imati takvih 10 investicija i ukupan njihov prinos bi bio 15.000 novčanih jedinica što je 10 puta veće nego kod druge investicije. Ovo navedeno je najveći nedostatak ove metode pošto ona ne uzima u obzir početno ulaganje nego samo zbir neto povrata.

Veliku povezanost imaju metode IRR i PI te njihov rezultat za Pirsonov koeficijent korelacije iznosi 0,993 što je veoma blizu jedinici i može se reći da ova dva metoda imaju veoma visok stepen korelacije. Metoda IRR visoko korelira i sa ostalim metodama. Metoda VP ima nešto manji stepen korelacije u odnosu na druge metode a najmanji stepen korelacije ima sa metodom ROR, izuzimajući metodu NPV iz ove analize.

Pomoću ove analize može se vidjeti kako se može doći do pogrešnih konačnih odluka ako se donošenje investicione odluke bazira samo na jednoj metodi jer tada investiciona odluka bazirana na jednoj metodi samo pokušava da odabere onaj investicioni projekat koji ima najbolji pokazatelj u toj metodi ignorirajući pri tome druge metode. Zbog toga je neophodno u donošenju investicione odluke uključiti sve relevantne metode i donijeti odluku koja predstavlja kompromis. Tako se u ovom radu predstavlja investiciono odlučivanje koje se bazira na pet najviše korištenih u praksi metoda za ocjenu efikasnosti investicionih projekata. Samo odlučivanje se vrši na osnovu rangiranja investicionih projekata pomoću metode TOPSIS.

Da bi se izvršilo rangiranje ovih projekata potrebno je da se koriste određeni koraci. Ovdje će biti korišteni sljedeći koraci:

- Prvi korak – izračunavaju se pokazatelji investicionih projekata i na osnovu tih rezultata formira se matrica odlučivanja;
- Drugi korak – normalizacija podataka da bi se dobili jednoobrazni podaci;
- Treći korak – utvrđivanje težinskih koeficijenta za navedene pokazatelje;
- Četvrti korak – formiranje rang liste na osnovu dobivenih rezultata korištenih metoda višekriterijske analize.

Prvi korak ove metodologije je već urađen i predstavljena je u tabeli 2 početna matrica odlučivanja.

Drugi korak je normalizacija podataka, a to je prvi korak kod korištenja metoda višekriterijske analize. Normalizacija se vrši ukoliko mjerne skale za kriterije nisu iste ili usporedive, te se izračunava udaljenost pojedine alternative od idealnog rješenja. Iako normalizacija predstavlja prvi korak pri rangiranju projekata ona nije bezazlena jer upotrebom različitih tipova normalizacije dobijamo drugačiji rang poretka projekata. U našem primjeru imamo slučaj da se 4 parametra maksimiziraju, tj. poželjno je da njihove vrijednosti budu što veće (NPV, IRR, IP i ROR), a jedan parametar se minimizira, tj. poželjno je da njegove vrijednosti budu što manje i to je parametar vremena povrata ulaganja (VP).

Nakon što se odredilo koji parametar treba maksimizirati a koji minimizirati, potrebno je odrediti i tip normalizacije koji će se koristiti. Radovi Pavličić (2002), Puška (2013) i ostali radovi na ovu temu su pokazali da normalizacija igra veliku ulogu u konačnom rang poretku posmatranih jedinica. Pri tome je potrebno detaljno analizirati početnu matricu odlučivanja i datom kriteriju dodijeliti odgovarajuću normalizaciju koja će u najboljem svjetlu reprezentirati kriterij jer je smisao težinskih koeficijenata upravo preferencija kriterija i normalizacija da se u što boljem svjetlu izvrši korigovanje podataka radi bolje analize istih. U ovom istraživanju je korištena prosta linearna normalizacija. Prosta linearna normalizacija se računa pomoću sljedeće formule:

$$r_{ij} = \frac{x_{ij}}{\max_k x_{kj}}, \quad (6)$$

gdje je:  $\max x_{kj}$  – maksimalna vrijednost toga kriterija.

Treći korak u rangiranju investicionih projekata je odabir težinskih koeficijenata. Težinski koeficijenti su najčešće brojevi koji se subjektivno biraju, a njihov zbir je jednak jedinici. Težinski koeficijenti su subjektivne preferencije donosioca odluka na osnovu relativnog znanja o međusobnom značenju kriterija. Zbog te činjenice u ovom radu će se koristiti procenat korištenja određene metode u različitim zemljama kao težinski koeficijent što je predstavljeno u tabeli 1. Da bi bila što potpunija analiza ovih modela, istovremeno će se posmatrati rang poredak prema specifičnostima koje su dali rezultati istraživanja u ovim državama. Tako će se raditi rang poredak za svaku zemlju ponaosob. Konkretno, težinski koeficijenti dobiveni istraživanjem u BiH glase ovako: NPV – 0,10; IRR – 0,13; VP – 32; PI – 0,19; ROR – 0,26. Na isti način su formirani i težinski koeficijenti koji reprezentuju i druge zemlje obuhvaćene istraživanjem u okviru ovoga rada.

Nakon što su odrađena prethodna tri koraka, četvrti korak je izračunavanje rang poretka projekata korištenjem odgovarajuće metode višekriterijske analize. Za izračunavanje TOPSIS metode je korišteno gotovo programsko rješenje pod imenom Sanna od autora Josef Jablonsky. Ovaj program je dodatak Excelu koji koristi različite metode višekriterijske analize. Normalizovana matrica odlučivanja predstajena je na tabeli 4.

Tabela 4. Normalizovana matrica odlučivanja

	NPV	IRR	VP	PI	ROR
	max	max	max	max	max
IP1	0,9396	0,8135	0,8679	0,9206	0,9285
IP2	1,0000	0,8882	0,9311	0,9438	0,9357
IP3	0,9841	0,7619	0,8810	0,8867	0,8723
IP4	0,9606	0,7817	0,8997	0,8967	0,8856
IP5	0,9859	0,7130	0,8747	0,8677	0,8553
IP6	0,9414	0,7294	0,8698	0,8764	0,8687
IP7	0,9661	0,9025	0,9898	0,9385	0,9142
IP8	0,9746	0,6912	0,8522	0,8605	0,8529
IP9	0,9699	1,0000	0,9550	1,0000	1,0000
IP10	0,9494	0,7194	0,8847	0,8699	0,8562
IP11	0,9592	0,7483	0,8977	0,8813	0,8668
IP12	0,9697	0,6793	0,8585	0,8544	0,8434
IP13	0,9746	0,9851	1,0000	0,9803	0,9652
IP14	0,9323	0,8244	0,9256	0,9131	0,8993
IP15	0,9167	0,8833	0,9567	0,9361	0,9197
IP16	0,9855	0,7012	0,8814	0,8619	0,8466
IP17	0,9304	0,7385	0,8928	0,8787	0,8671
IP18	0,9567	0,7458	0,8814	0,8820	0,8714
IP19	0,9733	0,7896	0,9063	0,8994	0,8869
IP20	0,9220	0,7060	0,8736	0,8663	0,8573

Ova matrica predstavlja osnov za rangiranje projekata jer, kao što se vidi iz iste, svi podaci su jednoznačni i sve je potrebno maksimizirati. Na osnovu normalizovane matrice odlučivanja i težinskih koeficijenata izračunao se rang poredak investicionih projekata za pojedine zemlje pomoću TOPSIS metode i taj poredak je prezentiran u sljedećoj tabeli.

Tabela 5. Zbirna tabela rang poretka projekta prema zemljama istraživanja

Rang poredak	BIH	Hrvatska	Srbija	Crna Gora
1	IP13	IP9	IP13	IP9
2	IP9	IP13	IP9	IP13
3	IP7	IP7	IP7	IP2
4	IP15	IP2	IP15	IP7
5	IP2	IP15	IP2	IP15
6	IP14	IP14	IP14	IP1
7	IP1	IP1	IP19	IP14
8	IP19	IP19	IP4	IP19
9	IP4	IP4	IP1	IP4
10	IP11	IP3	IP11	IP3
11	IP3	IP11	IP3	IP11
12	IP17	IP18	IP17	IP18
13	IP18	IP17	IP18	IP17
14	IP10	IP6	IP10	IP6
15	IP6	IP5	IP16	IP10
16	IP16	IP10	IP5	IP5
17	IP5	IP16	IP6	IP20
18	IP20	IP20	IP20	IP16
19	IP8	IP8	IP8	IP8
20	IP12	IP12	IP12	IP12

Kao što se može vidjeti iz ovih rezultata, naizmjenično se smjenjuju na prvom mjestu investicioni projekti I13 i I19. Da bi se izračunala povezanost između pojedinih zemalja u pogledu rang liste projekata izvršiti će se korekcija tabele 5, odnosno izvršiti će se rangiranje projekata prema rang poretku koje oni imaju. Na taj način će se kreirati modifikovana zbirna tabela prema rang poretku projekata prema posmatranim subjektivnim težinama (tabela 6). Pomoću te tabele će se izračunati koeficijenta korelacije konkretno Spirmanovog (Spearman) koeficijenta korelacija, te izvršiti poređenje dobivenih rezultata, te dati odgovor na pitanje kakav je uticaj subjektivnih težina na rang poredak projekata.

Koeficijentom korelacije ranga Spirman mjeri se stupanj i smjer asocijacije dviju pojava predočenih parovima rang-varijabli. Kod ovoga koeficijenta korelacije ukoliko su varijable numeričke, potrebno ih je transformirati u varijable oblika ranga. Osnove ovoga koeficijenta su parovi modaliteta rang varijable i pomoću njih se računa korelacija. Vrijednost rezultata ovog koeficijenta može da varira između teorijskih vrijednosti -1 i 1. Kada se približava 1, indikacija je da su rangovi slični ili isti, kada je vrijednost manja od nule i približava se -1, rangovi su obrnuti, odnosno negativno korelisani. Pomoću Spirmanovog koeficijenta korelacije izračunati će se stepen povezanosti rang lista investicionih projekata za različite zemlje.

Tabela 6. Modifikovana zbirna tabela rang poretka projekta prema zemljama istraživanja

Investicioni projekat	Rang poredak projekata			
	BIH	Hrvatska	Srbija	Crna Gora
IP1	7	7	9	6
IP2	5	4	5	3
IP3	11	10	11	10
IP4	9	9	8	9
IP5	17	15	16	16
IP6	15	14	17	14
IP7	3	3	3	4
IP8	19	19	19	19
IP9	2	1	2	1
IP10	14	16	14	15
IP11	10	11	10	11
IP12	20	20	20	20
IP13	1	2	1	2
IP14	6	6	6	7
IP15	4	5	4	5
IP16	16	17	15	18
IP17	12	13	12	13
IP18	13	12	13	12
IP19	8	8	7	8
IP20	18	18	18	17

Iz ove tabele se može vidjeti i bez detaljnije analize da su rang liste projekata iz različitih zemalja približno iste, ali će detaljna analiza pomoću Spirmanovog koeficijenta korelacije pokazati koje su rang liste približno iste, odnosno identične.

Tabela 7. Spirmanov koeficijent korelacije za zbirne podatke

	BIH	Hrvatska	Srbija	Crna Gora
BIH	1,000	0,986	0,991	0,983
Hrvatska	0,986	1,000	0,976	0,994
Srbija	0,991	0,976	1,000	0,967
Crna Gora	0,983	0,994	0,967	1,000

Razlog zbog čega nema prevelikih odstupanja u rang poretku investicionih projekata treba tražiti u samim težinskim koeficijentima za pojedine metode za ocjenu efikasnosti investicionih projekata. Kao što je ranije naglašeno, kada se uradila Pirsonova analiza korelacije za same metode rečeno je kako metoda NPV najviše odstupa od drugih metoda. Ali na osnovu dobivenih težinskih koeficijenta pomoću istraživanja kompanija u odabranim zemljama najmanje se pridavalo značaja ovoj metodi, a pošto su ostale metode veoma povezane, to se odražava i na konačan rang poredak projekata.

Još jedan od razloga zbog čega je velika povezanost ovih rezultata treba tražiti i u činjenici da je korištena prosta linearna normalizacija, a pri tome se oslikava stvarno stanje koje imaju metode za ocjenu efikasnosti investicionih projekata. Pošto se iznosi NPV kreću od 10.000 do 11.000 novčanih jedinica, tako su se vrijednosti ovog parametra poslije normalizacije kretale u iznosu od 0,9167 do 1, čime je smanjena važnost ovoga metoda za ocjenu efikasnosti investicionih projekata, a istovremeno je i smanjena važnost svih drugih metoda. Korištenjem neke druge normalizacije, npr. složene linearne normalizacije, vrijednosti normalizovanih metoda bi se kretale u iznosu od 0 do 1, čime bi se dala velika prednost onim projektima koji imaju najveće vrijednosti dobivene određenim metodama za ocjenu efikasnosti investicionih projekata.

Kao što se vidi na osnovu rezultata dobivenih Spirmanovim koeficijentom korelacije, najveću povezanost imaju rang liste projekata dobivenih na osnovu rezultata pristiglih od kompanija iz Hrvatske i Crne Gore gdje Spirmanov koeficijent korelacije iznosi 0,994 što predstavlja jaku povezanost ovih rang poredaka, pa se može reći da je rang poredak projekata skoro isti. Zatim slijedi povezanost na osnovu rezultata pristiglih od kompanija iz BiH i Republike Srbije gdje Spirmanov koeficijent korelacije iznosi 0,991. Najlošija povezanost rang lista je kod onih koje su kreirane na osnovu rezultata pristiglih od kompanija iz Crne Gore i Republike Srbije, gdje Spirmanov koeficijent iznosi 0,967. Za njega se takođe može reći da predstavlja rezultat veoma velike povezanosti rang poretka investicionih projekata.



Na osnovu dobivenih rezultata može se izvući zaključak da su rang liste investicionih projekata korištene u ovom radu kreirane pomoću težinskih koeficijenta pristiglih od kompanija posmatranih zemalja veoma povezane. To je zbog razloga korištenja sličnih investicionih projekata, ali ipak postoji razlike u rang poretku.

## 5. Zaključak

U ovome radu je prezentirano kako se vrši investiciono odlučivanje sintezom između metoda za ocjenu efikasnosti investicionih projekata i metoda višekriterijske analize. Ovakav pristup predstavlja novi pristup u razmatranju investicionog odlučivanja jer se vrši kombinacija više pristupa, te se postavlja problem oko izbora investicionog projekta koji daje najbolje rezultate u odnosu na druge investicione projekte. Tom prilikom je izvršena detaljna analiza kako kompanije koje svakodnevno donose investicione odluke tako i načina na koji bi se mogle te odluke donositi.

Prilikom donošenja investicione odluke potrebno je napraviti izbor između nekoliko mogućnosti te izabrati onu koja bi za kompaniju bila najpoželjnija, tj. koja ostvaruje najbolje rezultate. Da bi se ublažili negativni efekti investiranja potrebno je praviti investicione studije. Svaka metoda za ocjenu efikasnosti investicija ima svoje prednosti i nedostatke. Svaka od metoda posmatra jednu investiciju kroz samo jedan parametar dok druge parametre zanemaruje.

Na konkretnom primjeru se moglo vidjeti kako subjektivno vrednovanje težina određenih ocjena za efikasnost investicionih projekata utiče na donošenje odluka. Tako koristeći težine dobivenih od preduzeća iz BiH i Srbije, najbolji je projekat I13, dok je kod podataka dobivenih od preduzeća iz Hrvatske i Srbije najbolji projekat I9. Međutim, u ovom radu su obrađeni slični projekti te nije bilo previše razlike između njih. Da su se uzeli različiti projekti, i sam rang poredak bi više varirao. Međutim, smisao ovoga rada je bio sa se ukaže na to kako subjektivne ocjene utiču na investicionu odluku, što je pokazano ovim modelom odlučivanja.

Da bi se eliminisali nedostaci ovoga modela i da bi prezentirani model investiranja dao konačnu odluku, potrebno je prilikom donošenja investicione odluke da svi investicioni projekti budu realni i da se svima njima posveti velika pažnja, jer ukoliko neki od projekata pokazuje bolje projekcije u budućnosti koje nisu utemeljene u skladu sa stanjem na tržištu, investiciona odluka će biti takva da se realizuje najbolji projekat koji u suštini nije najbolji, jer se odluka donosi u skladu sa budućim projekcijama novčanih tokova. Zbog toga je potrebno izvršiti detaljnu tržišnu analizu, te izraditi investicione projekte u skladu sa njom prije nego što se koriste prezentovani modeli da bi se dobila što efikasnija i bolja investiciona odluka.

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## Klasteri u Vojvodini

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**Apstrakt:** Klastering je zahtev savremene ekonomije da se oblikuje po trajno promenjenim spoljnim i unutrašnjim uslovima. Zemlje u tranziciji, poput Srbije, su u poziciji da deluju na stranim tržištima sa objedinjenom ponudom proizvoda. Vladina podrška procesu grupisanja je neizbežna i takva podrška je najvažnija u početku mapiranja tržišta i oblikovanja u klaster. Vlada Vojvodine je prepoznala značaj klastera i počela da daje finansijsku pomoć i političku podršku za prve klaster u Vojvodini u 2007. godini. Posle 9 godina rada i dalje postoje problemi i potrebe za promenama i poboljšanjima. U radu su prikazane vladine aktivnosti i postignuti rezultati tokom ovog perioda. Autori diskutuju o slabostima u procesu podrške i predlažu nove pravce vladinih aktivnosti.

**Ključne reči:** Klasteri, regionalna konkurentnost, podrška države, nauka u klasterizaciji

## Clustering in Vojvodina (Serbia)

**Abstract:** Clustering is a request of modern economy to shape itself due to permanently changing external and internal conditions. Transition countries, like Serbia, are in position to act in foreign markets with united offer of products. Governmental support to clustering process is inevitable and such support is the most important in the beginning of market mapping and shaping it into clusters. Government of Vojvodina has recognized the importance of clusters and started to give financial aid and political support to first clusters in Vojvodina in 2007. After 9 years of activities, there are still problems and need for changes and improvements. The paper presents governmental activities and results achieved during this period. The authors discuss weaknesses of the support process and suggest new directions of governmental activities.

**Keywords:** Clusters, regional competitiveness, governmental support, science in clustering

### 1. Introduction

As a result of cooperation with University of Novi Sad, Faculty of Technical Sciences, development agencies and public subjects on the territory of Vojvodina region, Government of Vojvodina, i.e. Provincial Secretary for Economics activated Development program of clusters in Vojvodina. As the first task, in partnership with Faculty of Technical Sciences (FTN), the Government has established Center for the development of clusters. During 2008, Government of Vojvodina was a partner in the cross border project Croatia-Serbia APLE.NET and realized some activities with a goal: through networking to economic development. In the years that followed, Government assisted in setting up and promotion of a few clusters like: Cluster of health tourism of Vojvodina, Touristic Danube cluster-Istar 21, Touristic cluster Srem, as well as industrial clusters like: Metal cluster MEMOS, Cluster of plastic industry JATO, and Cluster of fruit producers. The cluster of creative industry of Vojvodina, Vojvodina cluster of transport and logistics and some other clusters from food production sector were established. In 2010, a very important Vojvodina ICT cluster started working. At the beginning of 2011, European commission supported establishment of Vojvodina metal cluster with 800.000 EUR through RSEDP program together with Provincial Secretary which added 15% of cofinancing. In June 2011, Centre for the development of clusters together with FTN organized the first conference about clusters in Vojvodina. During 2011, Provincial Secretary for Economics, for the first time, supported financially 16 clusters with about 60.000 EUR.

In 2014, 15 clusters received support of about 60.000 EUR, and in 2015, 19 clusters received about 130.000 EUR in total. The question is: how efficient is the state aid given to clusters and do we have indicators to measure it?

In this paper the authors present the beginning of development process in Vojvodina, kinds of support given to clusters, the most important clusters and mistakes and problems interfering with more intensive clustering and better results of it.

### **Structure of business support in Vojvodina**

Business infrastructure is underdeveloped and at an early stage of development. The following types of structures are available in the region:

- Business incubators for SMEs (Novi Sad, Subotica, Zrenjanin, and Senta);
- Technology parks (Novi Sad);
- Industrial Parks (Subotica, Apatin, and Sombor);
- Logistics centers (Novi Sad, Subotica-Senta, Odžaci Apatin-Bogojevo-Sombor, Vrbas, Indjija-Stara Pazova-Sremska Mitrovica-Ruma, Kikinda, and Zrenjanin-Vrsac).

All structures have been established through the financial support of the Government of AP Vojvodina and EU funds, as the results of projects. These structures have been less than 7 years present and require a lot of support in terms of development, knowledge exchange and increased awareness of their own importance. Financially, they have insufficient resources for sustainable development and therefore future investors will have to implement the indicators by which to measure their achievements, which are not the clearest.

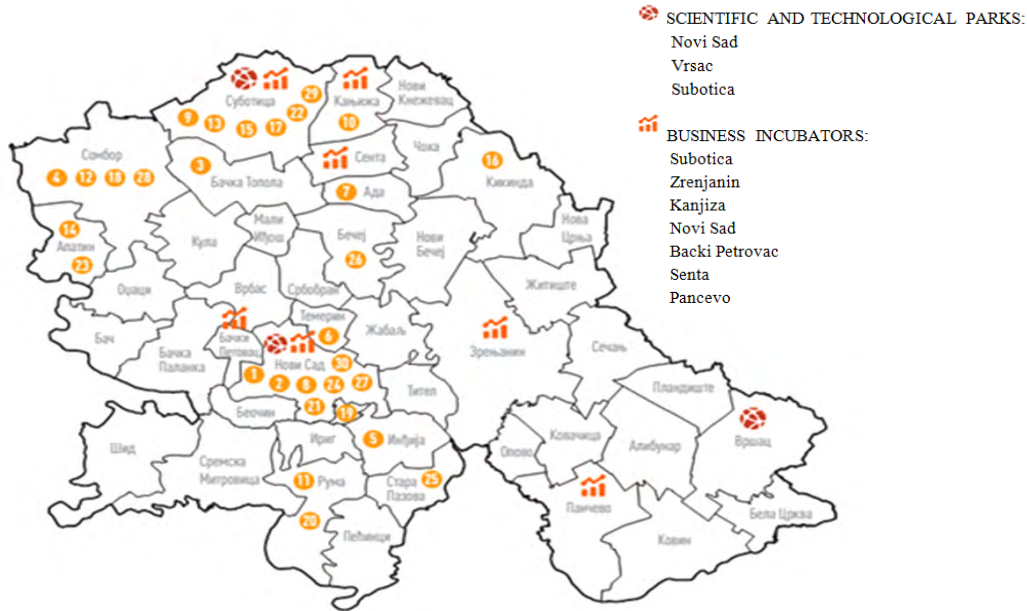
In general, the types of services offered vary depending on the type of infrastructure and include: project management knowledge, renting room, access to utilities, consulting services, promotional services, marketing research services etc. Company's customers can benefit from the services offered (AP Vojvodina, 2014).

In the region, there are about 30 clusters that receive financial support from the Provincial Government (Figure 1).

## **2. Examples of successful clusters in Vojvodina**

### **Vojvodina ICT cluster**

Vojvodina ICT Cluster provides the ability to access the best companies in the sector of information and communication technologies (ICT) in Serbia through a single platform. The cluster brings together companies with about 1,700 experienced professionals. This association enjoys strong community support through institutions in the field of education, regional development and civil society organizations which are also active members of the association. Established at the initiative of companies from the sector in 2010, today this cluster is the strongest in its sector, with companies that have a number of reference codes recognizable by global clients. Cluster offers nearshoring, outsourcing and JV business opportunities with highly professional, reliable and experienced teams. Vojvodina ICT Cluster is a recognized partner in the development and implementation of new ICT products and services with a high potential for profit, as well as in the development of individuals, businesses and regional operations. The mission of the Vojvodina ICT Cluster includes coordination of its own efforts and its partners in order to achieve a strong positive impact on the social and business environment. Cluster serves as a platform for cooperation for its members and provides a portfolio of services, such as building capacity and competitiveness through training at Cluster Academy, building ties with the education system, promotion of innovation, creating new business opportunities, access to new markets and lobbying. The cluster has an important role in creating closer ties within the partnership of: Business, Education and State administration.



**CLUSTERS:**

1. Cluster green table / Novi Sad
2. Cluster for ecological energy and ecological culture-Ekopanonia/ Novi Sad
3. E.C.E. cluster-Energy in Serbia and ecological cluster/Backa Topola
4. Association of Associations "Ridicki cluster"/Sombor

**METAL INDUSTRY:**

5. Cluster MEMOC-Association for improving the competitiveness of metal producers/Indija
6. Business association for improving the competitiveness of the metal sector of Vojvodina-VOJVODINA METAL cluster/Temarin
7. Cluster of agricultural machinery manufacturers/Ada

**TOURISM:**

8. Istar 21-Association for the Promotion of Cooperation and Tourism Development in the Danube Region/Novi Sad
9. Fund tourist cluster of Microregion Subotica-Palic/Subotica
10. Cluster Health tourism of Vojvodina/Kanjiza
11. Tourist cluster Srem/Ruma
12. Cluster Sombor Salas/Sombor
13. Cluster Charms of Nature/Subotica
14. Tourism cluster of the micro-region Apatin/Apatin

**AGRICULTURAL INDUSTRY:**

15. Cluster Agroindustry/Subotica
16. Cluster of food producers of Serbia-POLUCS/Kikinda

17. Association Fruit Land/Subotica
18. Vegetable cluster/Sombor
19. Fruška Gora Cluster win growers and winemakers "Adma Mons"/Sremski Karlovci
20. Cluster Voganj 2011/Ruma

**IT TECHNOLOGIES:**

21. Vojvodina ICT cluster/Novi Sad

**BIO-DEVELOPMENT MATERIALS:**

22. Cluster VOJPLAST/Subotica

**TRANSPORT AND LOGISTICS:**

23. Cluster of transport and logistics of Vojvodina/Apatin

**OTHER SERVICES:**

24. Creative Industries Cluster of Vojvodina/Novi Sad
25. Association of Entrepreneurs-BISTRICA/Stara Pazova
26. General Association of Entrepreneurs/Becej
27. Cluster green vision/Novi Sad
28. Cluster of art crafts/Sombor
29. Bio-scientific cluster/Subotica
30. Association of Citizens of Medical Practitioners and Institutions of Educational Institutions from the South Bačka District PEKOS/Novi Sad
31. Pannonian bee/Novi Sad
32. Cluster panonia/Novi Sad
33. Cluster for energy efficiency/Novi Sad

**Figure 1.** Clusters in Vojvodina

**Vojvodina Metal Cluster – VMC**

Vojvodina Metal Cluster - VMC was created at the initiative of companies of metal sector in Vojvodina. The project "Vojvodina Metal Cluster - VMC" is founded with technical assistance from the European Union, as the regional project for the socio-economic program RDEPR2. University of Novi Sad - Faculty of Technical

Sciences was one of the partners and founders of this cluster. The guarantee for achieving the VMK objectives is provided by the Government of AP Vojvodina, the Serbian Government through the Ministry of Economy and Regional Development, Chamber of Commerce, VIP Fund - Fund for Investment Promotion in Vojvodina and regional centers for standardization and certification. Companies in the metal sector are members of VMK because of a personal interest. By joining, all members are entitled to vote, and they have certain rights and obligations in accordance with the Statute of the cluster. In VMK today there are more than 60 companies as its members.

All of the existing clusters are not active. Figure 2 shows 13 clusters which are active at the moment in Vojvodina.

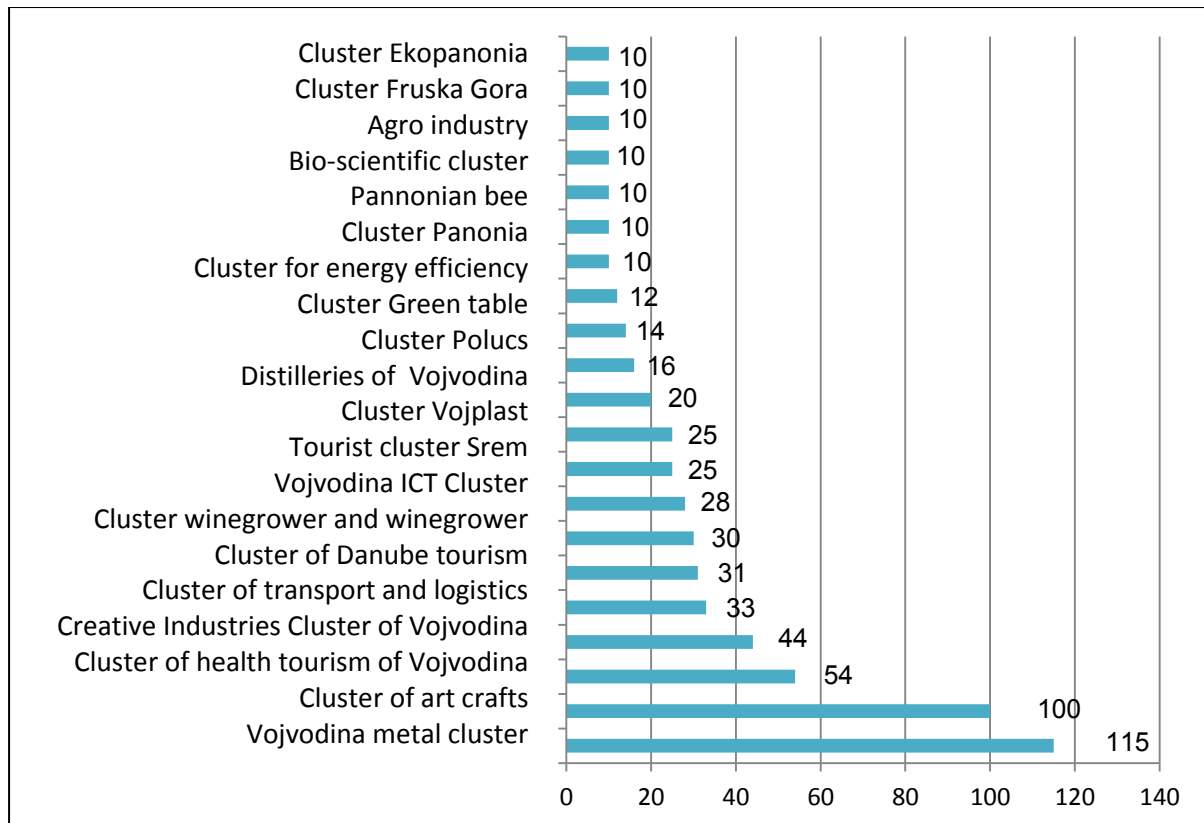


Figure 2. Active clusters in Vojvodina

### Vojvodina cluster of creative industries (VKKI)

Vojvodina cluster of creative industries (VKKI) was founded in 2010 as a business model to develop creative economy. VKKI will act as a generator of economic improvement of small and medium enterprises in the field of creative industry by documenting the economic impact and the contribution of these enterprises in Vojvodina and Serbia. The second area of operation includes business services for small and medium-sized businesses and events. The cluster offers a business review and other strategic development services. The review means complete diagnostics of business in terms of human resources, marketing, finance and strategy. Checks are carried out by specialists with extensive experience in business management and creative industry. VKKI provides business support operations of all sizes. In cooperation with its partners, the cluster is a central point for creative enterprises. It allows them to access opportunities for business development, information, events and resources relating to: the commercialization and finance, education and training, research and technology and industry knowledge and networks. VKKI is dedicated to supporting the creative potential of Serbian business. Creative industry cluster of Vojvodina is supported by the University of Novi Sad and the Center for competitiveness and cluster development, which as a part of its goal has the task to support the creative industry in Vojvodina. So Creative Industries Cluster of Vojvodina aims to improve networking and innovation in the cultural and creative industries sector in Vojvodina, and to improve the image and profile of creative industries at the regional and international markets. Its mission is to establish a regional framework for the creation of new products and services with high profit potential and to become a regional coordinator of business initiatives and policies of creative industries.

### **Transport and Logistics Cluster of Vojvodina**

Association of Transport and Logistics Cluster of Vojvodina (KTLV) is an organization established for an indefinite period of time to achieve the objectives in the field of transport and logistics. It was formed in 2011 by 28 founders, including companies in the field of transport and logistics, several river ports, large systems such as the "Serbian Railways", local government and supporting institutions in the sphere of education and the international cooperation, technology transfer, innovation and EU projects.

The purpose of establishing a business association of all forms of transport and logistics entities is the introduction of modern technology through the development of intermodal transport technologies, which would create the conditions for rational and cost-effective transport.

Scope: Transport and Logistics, associate entities whose activities are transport (all kinds), logistics, development of intermodal technologies. The headquarters of the Cluster is in Apatin, with an operational office in Novi Sad.

#### **Vision**

Transport and logistics industry of Vojvodina should become developed as a unique and promising part of Europe's future global transport and logistics network.

- Compliance with the general development policy of the Republic of Serbia and AP Vojvodina, in the spirit of strategic documents at this level
- Developing and strengthening awareness of the importance of transport and logistics, and in particular the possibility that transport and logistics companies become industry.

#### **Mission**

- Development of business networks and partnerships between business and other institutions
- Networking, exchange of experiences and transfer of scientific knowledge in the field of transport and logistics
- Operation of the regional and local level.

### **Cluster for Ecological Culture and Ecological Energy ECOPANONIA**

It is a cluster of green energy use, affirmation and dissemination of knowledge about the availability, benefits and social, environmental and corporate benefits of adequate exploitation of renewable energy sources. It connects members, supporting organizations and other actors at the local, interregional, national and European level. Inspiration and financial support are in national and international institutions and EU funds. It was established in 2011 with headquarters in Novi Sad, the administrative center of Vojvodina, the most developed part of Serbia.

The mission is to assist its members in an organized way and continuously:

- upgrade their technological, financial, commercial and other skills
- learn about successful domestic and international business experience,
- apply environmental standards and business practices,
- increase the level of competitiveness of products/services and business efficiency,
- effectively promote and successfully place products/services,
- develop business capacities and ensure their business sustainability.

The vision is that the operation of the Cluster members, supporting organizations and target actors in the Pannonian Basin and beyond include:

- optimal use of renewable energy sources,
- saving the environment as a common good,
- strengthening of the competitiveness of interregional economy,
- increasing the quality of life in local, national and European community (Grubisic-Nesic, 2016).

### 3. Conclusion

Clusters have some results but not as accepted. Financial support is maybe not enough, but results should be more visible. It is necessary to group clusters due to the phase of development:

- starting phase;
- development phase;
- maturity phase

and define different classes of support due to the stage of maturity. There are different needs for beginners and the developed. Beginners need premises, equipment, salaries for staff and those that are many years at the market need labs, support in testing, standardization and certification processes, development of new products, knowledge transfer, etc (Kranjac, 2013).

Education and R&D institution must be obliged to be actively involved in clusters.

Due to low national funds, EU funds should be used more, especially those devoted to clusters. Cluster management should be supported to apply for such funds.

The first condition for all supports to each cluster is that it has development strategy for the action plan and realization of action plan must be analysed.

The Republic of Serbia should have Development strategy of clustering with clearly defined indicators of development which should be grouped due to goals (Kranjac).

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## Menadžerske odluke i društvena odgovornost kompanija u internacionalnom biznisu

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**Apstrakt:** Proces u međunarodnim poslovnim operacijama odlučivanja podrazumeva upotrebu daleko složenije procedure koja uključuje uticaje brojnih faktora, kao što su: politika zemlje domaćina, procene rasta tržišta, strukture kapitala i izvora, kulture, zakona. Pravljenje multinacionalne kompanije se suočava sa pravljenjem složene odluke o raznim međunarodnim aktivnostima svojih kompanija. Različiti uticaji interne i eksterne tačke životne sredine na scenario budućih promena u međunarodnom poslovanju postavljaju nove izazove pred upravljanje kompanijom u procesu donošenja odluka. Sve više izražena homogenizacija menadžmenta u svetu ima uticaj na uspostavljanje novih kriterijuma, pristupa i metoda u procesu donošenja odluka.

**Ključne reči:** Odlučivanje, međunarodni biznis, menadžment, operacije multinacionalnih kompanija

## Managerial Decisions and Social Responsibility of Companies in International Business

**Abstract:** The decision-making process in the international business operations implies the use of far more complex procedures which involve the influences of numerous factors such as: host country politics, market growth evaluation, capital structure and sources, culture, laws, etc. Management of multinational companies is faced with making complex decisions about various international activities of their companies. Different influences of internal and external environment point at the scenario of future changes in the international business which sets new challenges before company management in the decision-making process. An increasingly conspicuous homogenization of management in the world has an impact on establishing new criteria, approaches and methods in the decision-making process.

**Key words:** Decision making, international business, management, multinational companies operation

### 1. Introduction

The decision-making and managing process in International Business Operations implies the application of very complex procedures. The decision-making and managing process in multinational companies includes: goal setting; data collecting, informing and interpreting; option-formulating; planning and programming; decision-making; politics-expressing and politics- applying; decision-observing; decision-validating; decision-modifying; data-saving and data-using.

Figure 1 shows the decision-making phases along with goals and potential obstacles that have been identified for each phase (Nedeljković, 2014).

ASSIGNMENTS	GOALS	OBSTACLES
1. GOAL SETTING	Identification of interests	To agree
2. DATA COLLECTING, INFORMING AND INTERPRETING	Obtaining the correct information, based on which decisions can be made and understood. Transmitting information.	Incomplete, incorrect information; information delay; incorrect information interpretation; too much information
3. OPINION FORMULATING	Choice making	Limiting options; options giving based on favouritism.
4. PLANNING AND PROGRAMMING	Identifying and estimating consequences and using every option.	Favouritism, group opinion.
5. DECISION MAKING	Decision making and choosing the suitable option.	Favouritism, time limit.
6. DECISION EXPRESSING	Effective policy expression	Contraindications; misconceptions; preoccupation for personal image; media distortion
7. DECISION APPLICATION	Clear command and action control.	Expressing the problems; blurry authority lines; changes of situations.
8. DECISION OBSERVING	Informed about the policy and its effect when it is applied.	Lack of feedback; ambiguous relations between cause and effect.
9. DECISION VALIDATING	Validating the intended decision's effects.	Favouritism, group opinion.
10. DECISION MODIFYING	Policy modification in order to achieve the goal.	Insufficient resources, bureaucratic structure.
11. DATA SAVING AND USING	Learning from previous experience to improve subsequent decisions.	Saving data partially or unreliably.

Figure 1. Decision-making process in multinational companies

Multinational companies have one clearly defined goal: *profit*. Hence, the first phase in decision-making process in multinational companies, the goal setting, has been clearly set. However, from this point on, the decision-making process in multinational companies is special in every way.

In order to obtain the profit, the multinational company's management should make more efficient decisions, regarding the elections of business practice and strategy that should be followed; and it is the same, regarding the elections of markets and countries suitable for establishing business operations. This requires correct and up to date information. Therefore, it's not surprising that the multinational companies' management dedicates a lot of time, talents and resources to collecting, reporting and interpreting data regarding great number of different factors: market size; consumer preferences; abilities and strategies of real and potential competition; attitudes of host countries' governments and their political orientations towards foreign companies concerning current and future risk; labour costs; capital costs; quality and reliability of a host country's infrastructure and corporative culture. After the collection and analysis of these data, and their preparation for use, the corporation managers can develop different decision options. This means that managers of multinational companies are able to form numerous sets of options for their future business activities.

Management of multinational companies has to make complex decisions about their companies' different international activities. After presenting the options to their companies in different countries or regions, where the business is taken, the decision-makers of multinational companies determine the way to "measure" and predict the factors that are out of their control, but that can significantly influence the decision-making process. These factors can include: host country policies; estimation of the market growth; capital structure; labour laws, and other.

After the decision of applying certain business strategy has been made, the management of multinational company explains and elaborates their decision to owners, shareholders and to other participants (lower levels of managers, employees, and the host country government).

Managers of multinational companies may also find certain obstacles in their decision-directing. Very often, management of multinational companies needs to ask first for the approval from government or from other legal authorities of the host country, in order to conduct their decisions or company's operations. Depending on government's policy of a state, management of multinational companies can find some obstacles in conducting their operations. As opposed to that, multinational companies may have strong economic influence on government's decision-making, and sometimes that gives them power to influence their policy as well.

Management of multinational companies supervises administration, evaluation and modification of their decisions. The purpose of these procedures is to increase the effect of the final results through changes and corrections that have been made.

Saving and using data is essentially important for management of multinational companies, especially in the area of planning and predicting the future business policies and strategies. Inadequate saving and data using may affect the company's profitability. With different data banks within those multinational companies, the "institutional memory" of managers, the source of saving and using data can be significant.

## **2. The Influence of Social Responsibility on Decision-Making Process in International Business**

Social responsibility could be formally explained as responsibility of a company's management in optimal choice of decision that should contribute to the welfare and interests of society and of the very organization.

Even though this definition may seem simple, social responsibility can be a difficult concept to understand, because different people have different beliefs when it comes to realization of actions that promote welfare of society. Social responsibility covers great number of issues, and many of them are ambiguous regarding the concepts of what is right and what is wrong. For example, if a bank deposits money, from some fund that has been entrusted to the management, in the account with low interest rate on 90-day, and makes profit out of it, could that be considered unethical? Also, is it socially responsible that a smaller corporation goes bankrupt because of a bigger one? Or let us think about companies like *Manville Corporation*, *Eastern Airlines*, or *Texaco*, all of which are oil companies that went bankrupt, which is completely legal, in order to avoid rising financial obligations towards the suppliers, the labour unions, or the competition. All of these examples contain moral, legal and economical preoccupations, which is why it is not easy to define socially responsible behaviour. One of the reasons why it is complicated to understand the concept of social responsibility is that managers have to answer the question: *Towards whom are they really responsible in their decision-making process?*

Any group, inside and outside an organization, can have interest within that organization. Figure 2 shows the groups with interest in some organization that deals with automobile production (Mercado, Welford, Prescott, 2010). Investors and stakeholders, employees, buyers and suppliers are considered to have the main interest in some organization, and they are essential for its survival. These types of interests are satisfied by management's efficiency, that is, by the use of resources to make profit. The employees expect to be paid, and the consumers are interested in decisions that consider quality, safety and availability of the goods. When a group with main interests in organization becomes seriously unsatisfied, the organization's capability and its development are threatened.

Other important groups, with interests within some organization, are government and social community. Most of the corporations exist only under legal founding acts and with permissions for foundation; and they function within security laws and within demands considering the conservation of environment and other laws and regulations inside a government sector. Social community also includes local government, natural and physical surroundings and quality of life. Special interest groups, within an organization, can include trade associations, committees for political activities, professional societies and members of consumer movements. Socially responsible organizations take into consideration the effects of their activities on all interest groups within organization.

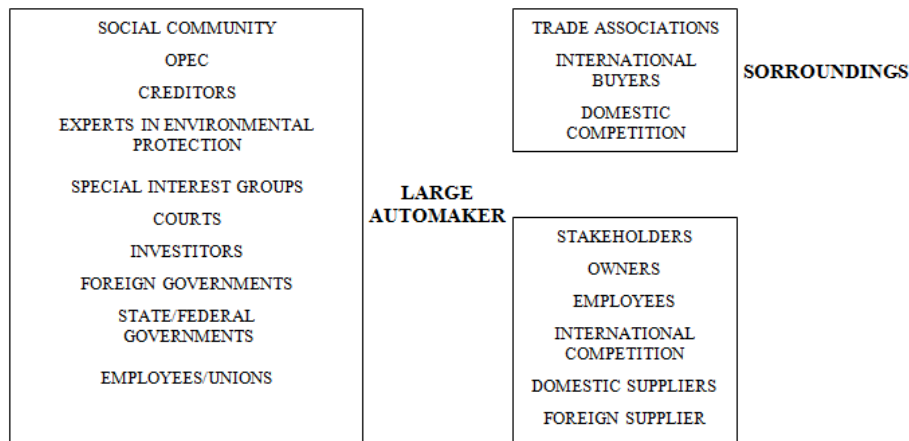


Figure 2. Groups with interest in car manufacturing company

Sometimes, the management of companies may confront and deal with those that also have some kind of interest in the company; but the management can also make decisions that would help in solving these conflicts. For example, the company *Fina Inc.* was founded as an oil refinery in Port Arthur, the state of Texas, in 1937. During the years, grounds with attractive ranch-style houses were sprouting in the shadow of this factory. Because of the noise and the unpleasant smell, the owners of the houses became unsatisfied with the fact that the factory is located in the middle of their zone. The residents expected from the company to buy their houses at the highest price of the market. In several occasions, *Fina Inc.* tried to demonstrate its good will, trying to resolve these issues; and in the end the company agreed to buy the houses because the owners had the legitimate right of ownership. The management of companies, such as *Fina Inc.*, act in socially responsible manner, by helping those with interest in their companies.

### Criteria for Ethical Decision-Making

Most ethical dilemmas include conflicts between needs of a part and a whole; between an individual versus organization or organization versus society as a whole. For example, should a company introduce a mandatory drug and alcohol testing of its employees? This can actually contribute to a company, but reduce employees' individual freedom. Or, should a company export the products which do not satisfy the standards of the Ministry of Agriculture and Health into other countries that have lower standards? (It will bring profit to that particular company, but it could also potentially harm numerous citizens around the world.) Sometimes ethical decisions involve conflicts between two groups. For example, should the potential local health issues, provoked by corporate waste material, be more important than jobs provided by that corporation, as the biggest employer in the city?

Managers deal with these kinds of difficult ethical choices, and in order to make the optimal decision, they tend to use normative approaches based on norms and values. Four of these approaches are relevant for managers, and they are: *utilitarian approach*, *individualism approach*, *moral-rights approach*, *justice approach* (Weiss, 2012)

### Utilitarian Approach

According to *utilitarian approach*, supported by Jeremy Bentham and John Stuart Mill, the moral decision is the one that produces the greatest good for the greatest number of people. In line with this approach, it is expected that the one who makes decisions, should think over the effect of each alternative decision for all that are interested and to choose the one that causes the most positive effect on the greatest number of people. Considering the fact that the real calculation of these problems can be very complex, their simplification is allowed. For example, a simple economical equation could be used for cost and profit calculations in dollars. Therefore, company management can make a decision that concerns only those that are directly affected by it, and not those that are indirectly affected. When *General Motors* chose to continue the operations in its factory in Arlington, in the state of Texas, and to close the one in the state of Michigan, the management justified this decision with claim that the one in Texas, generally, is more profitable for the corporation. Utilitarian ethics is cited as the basis for the recent trend among companies to monitor personal habits of their employees regarding alcohol and tobacco consumption at work during the working time; and in some cases, after the working time, as well, because that kind of behaviour affects the entire workplace.

### **Individualism Approach**

The individualism approach contends a decision to be moral when it enhances the individual's best long-term interests. The most important is the individualistic self-management, and the exterior influences that limit self-orientation which should be strictly monitored. Individuals see the long-term possibilities that are the best for them, as criteria of a decision quality.

Considering the fact that individualism is sometimes misinterpreted to support immediate self-gain, it is not popular in the highly organized and group oriented society of today.

### **Moral-Rights Approach**

The moral-rights approach states that human beings have fundamental rights and liberties that cannot be taken away by an individual's decision. Therefore, an ethically correct decision is the one that best maintains the rights of those affected by it.

The moral rights that should be taken into consideration in decision-making process are:

1. The right of free consent: individuals should be treated only how they themselves consent to be treated;
2. The right to privacy: individuals can choose how to behave outside their working place and working hours; and they monitor the information from their private lives;
3. The right to free conscience: individuals may refuse order that violates their moral and religious norms;
4. The right to freedom of speech: individuals may criticise constructively other people's ethics and legality of actions;
5. The right to life and security: individuals have right to life without threatening or damaging their health and security.

To make an ethical decision, managers need to avoid interfering with the fundamental rights of others. Therefore, a decision to eavesdrop employees violates the right to privacy. The right of free speech would support "whistle-blowers" who call attention to illegal or inappropriate actions within a company.

### **Justice Approach**

The justice approach affirms that ethical decision must be based on standards of equity, fairness and impartiality. Three types of "justice" are significant for manager's decisions:

- Distributive justice requires that different treatment of individuals should not be based on arbitrary characteristics. Individuals that are similar regarding what is relevant for some decision should be treated similarly. Therefore, men and women should not receive different salaries if their work is the same. However, those who differ essentially, such are the differences between work qualifications or the responsibilities of a work position could be treated differently and proportionally to differences in qualifications and responsibilities. This difference should be clear towards organizational goals and assignments;
- Procedural justice states that regulations should be applied "fairly". Also, regulations should be clearly stated and consistently and impartially enforced;
- Compensatory justice considers that individuals should be compensated for the cost of their injuries by the party responsible. Furthermore, individuals should not be held responsible for matters over which they have no control.

The justice approach is the closest to opinion that is basically in the domain of law, because according to it, the justice is applied through rules and regulations. This theory does not require complicated "calculations", as it is the case with the utilitarian approach; nor does it justify personal interest, like the individualism approach does. The managers are expected to define the attributes by which unequal treatment of the employees is acceptable. It is very difficult to answer the questions like: How to compensate discrimination from the past towards employees, members of minorities? However, this approach actually justifies what ethical behavior tends to correct; which is, honest behavior towards rules and insisting on differences that are relevant for different working places, and which would be the basis for different salaries and promotion possibilities. Most of the laws in domain of the management personnel are based on the justice approach.

The challenge of applying these ethical approaches is illustrated in decisions that should be made by the companies in tobacco industry.

### Types of Management's Decisions as Response to Specific Social Demands

How should a corporation, confronted with specific social request, act? If someone, for example local government, has interest within a company, and they present some kind of request to a company, what corporate actions can be possibly taken? Management experts have developed action-answer scale and it is used by management of companies when there is a decision to be made, regarding some significant social issue. These obstructive, defensive, adapting and proactive actions are illustrated in Figure 3 (Calori de Woot, 2003).

*Obstructive Actions:* Companies that accept these actions reject any responsibility for decision that has been made, claiming that the evidence about their wrong doing lead to wrong conclusions and set up different kinds of obstacles in order to delay the investigation. During the years of discovering the *Watergate scandal*, that kind of obstruction was called *stonewalling*.

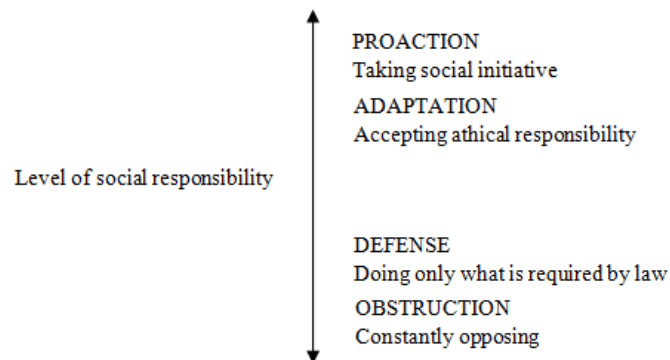


Figure 3. Types of Management Decisions

*Defensive Actions:* It means that a company is willing to take responsibility for decisions that have been made, which may also include some mistakes and carrying out some actions. A company cuts its losses by defending itself, but it doesn't act obstructively. It is general belief, among defensive mangers, that "these things happen and they are nobody's fault". For example, the *Goodyear* accepted the defensive strategy by deciding to continue working in their factories in South Africa.

*Adapting Actions:* It means that a company accepts social responsibility for its decisions and actions, even though it may only act that way because of the external pressure. Companies that accept this kind of agreement normally try to take economic, legal and ethical responsibilities. If some external forces make the pressure, the managers agree to suspend the suspicious activities. For example, the decision of the *Exxon Company* to clean the oil spill that was released in Prince William Sound was made in order to adapt the company to ethical standards, which was mostly urged by public protests.

*Proactive Actions:* This means that companies take the lead in social issues. They seek to recognize social interests and to respond to them without any persuasion or external pressure of those that have some kind of interest in their companies. The example for proactive actions is given by the *Potlatch Corporation*. This company produces cardboard milk cartons and the company management came up with idea to print it with photos of missing children. The company reported that a few days later, the *Alta-Dena Dairy* from Los Angeles put the cardboard milk cartons in food stores and one of the missing little boys was brought back home. One more example of the proactive response is the corporate philanthropy. Many companies, including Miller Brewing, Coca-Cola and Westinghouse give great donations to universities, to the organization *United Way* and to other charities in order to improve the welfare of society. Obstruction usually occurs in companies that have actions based only on economic considerations. Therefore, defensive organizations are willing to work in legal frames; while, adapting organizations respond to ethical pressures; and proactive organizations use discreet responsibilities to improve the welfare of society.

According to the words of an expert on the topic of ethics in business "Management is responsible for creating and sustaining the conditions in which people will behave correctly". Therefore, there are more methods that could be applied in managing and improving the ethics of a company: ethical leadership, code of ethics and ethical structures.

## Ethical Leadership

The Business Roundtable, the association of top managers from 250 big American corporations, edited the report about the consequences of decisions that have been made, ethical policy and practices in companies like *Boeing*, *Chemical Bank*, *General Mills*, *GTE*, *Xerox*, *Johnson & Johnson* and *Hewlett-Packard*. The report concluded that top management has the crucial role. General Director and Board of directors should base their decisions on ethical principles. They constantly need to demonstrate leadership in renewing organization's ethical values (by highlighting those principles in speeches, directives, company's publications and especially by demonstrating it with their actions). Therefore, top managers use their own behaviour to regulate the behaviour and working atmosphere inside the organization.

## Code of Ethics

A code of ethics is a formal statement of the company's values concerning ethics and social issues; hence, it informs the employees what the company stands for. Codes of ethics tend to exist in two types: *principle-based statements* and *policy-based statements*.

*Principle-based statements* are designed to affect corporate culture. They define fundamental values and contain general language of company's responsibilities, quality of products and the way of treating the employees. General statements of principle are often called *corporate credos*. The examples of corporate credo are GTE's *Vision and Values*, Johnson & Johnson's *The Credo* and Hewlett-Packard's *The HP Way*.

*Policy-based statements* usually outline the procedures that are used in decision-making process in specific ethical situations. These situations include solving conflict problems; solving conflict of interests; observance of laws; giving information and giving equal job opportunities. The examples of these statements are Boeing's *Business Conduct Guidelines*, Chemical Bank's *Code of Ethics*, GTE's *Code of Business Ethics* and *Anti-Trust and Conflict of Interest Guidelines* and Norton's *Norton Policy on Business Ethics*.

## Ethical Structures

Ethical Structures represent the various systems, positions and programs that a company can undertake to implement ethical behaviour in decision-making. There is an ethics committee that contains a group of executives appointed to oversee company ethics. This committee arbitrates in cases of questionable ethical issues. Ethical committee assumes responsibility for disciplining those who made some mistake, which is important when an organization needs to affect behaviour of the employees directly. For example, Motorola has *Ethics Compliance Committee* for interpreting, clarifying and communicating the company's code of ethics and for solving the cases suspected to contain code violations.

Many of currently best companies realize that their success can be measured in various ways, many of which do not appear in financial reports. However, the relationship between the ethics and corporate social responsibility towards its financial performance is management's and management students' concern, which provokes a harsh debate. Many studies deal with issue whether the emphasized ethics and social responsibility increase or reduce the financial performance. For example, James Burke made a list of companies that are known for their high ethical standard. The list included companies like: *J & J*, *Xerox* and *Eastman Kodak*. From 1950 to 1990, Burke discovered that the market values of the companies from his list were growing at a rate of 11,3 % a year. The ethics and social responsibility, and their joint influence on decision-making process are very popular topics and increasing number of research papers deals with them.

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# Inženjering mera bezbednosti na Međunarodnom aerodromu Ben Gurion

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**Apstrakt:** Međunarodni aerodromi decenijama unazad predstavljaju mete napada terorističkih organizacija. Da bi se takvi napadi sprečili, neophodno je da pored povišenog stepena bezbednosti na aerodromima budu razvijani i novi metodi i mere zaštite. Cilj ovog rada jeste da se prikažu mere bezbednosti kao i inovativna bezbednosna tehnološka rešenja koja se primenjuju na aerodromu Ben Gurion u Izraelu. Njihovom uspešnom primenom ovaj aerodrom je poneo nezvaničnu titulu najbezbednijeg na svetu. Pored primene savremene tehnologije, nazaobilazne su i mere bezbednosti koje se oslanjaju na "ljudski faktor", a naročito bihevioralno profilisanje putnika, metod razvijen upravo na aerodromu Ben Gurion. Suština ove mere bezbednosti je otkrivanje prikrivenog lica koje priprema napad, a ne oružja kojim će napad biti izvršen. Primenom ove mere, kao i celokupnim sistemom obezbeđenja, izraelski aerodrom privukao je pažnju vodećih svetskih aerodroma koji žele unaprediti svoju bezbednost upravo kombinujući sistem bihevioralnog profilisanja sa složenim tehničkim merama zaštite, modelom koji se na aerodromu Ben Gurion, iako kritikovan i osporavan u javnosti zbog narušavanja ljudskih prava, dokazao u borbi protiv terorizma.

**Ključne reči:** aerodrom, bezbednost, anti-terorizam, Izrael

## Engineering of Security Measures at Ben Gurion International Airport

**Abstract:** International airports have been targets for terrorist attacks for decades. In order to prevent these attacks, apart from increased security level at airports, it is necessary to develop new security methods and measures, too. The aim of this paper is to present security measures as well as innovative technological security solutions which are used at Ben Gurion Airport in Israel. Due to their successful application, this airport has an unofficial title of the world's safest airport. Apart from the latest technology, security measures relying on "human factor" are inevitable and in particular behavioral profiling of passengers - the method developed at Ben Gurion Airport. The purpose of this measure is discovering a hidden person who is preparing an attack, not the weapon to be used in the attack. Owing to this measure, as well as the entire security system, Israel's airport attracted attention of the leading airports which wish to improve their security by combining the system of behavioral profiling with the complex technical protection measures, the model which proved to be successful in fighting terrorism at Ben Gurion Airport although it is criticized and disputed in public for civil rights violations.

**Key words:** airport, security, anti-terrorism, Israel

### 1. Uvod

Međunarodni aerodrom Ben Gurion (oznaka Međunarodne asocijacije za vazdušni saobraćaj: TLV) je glavni i najveći aerodrom u Izraelu. Nazvan je po Davidu Ben Gurionu (1886-1973), ocu domovine i prvom premijeru Izraela. Aerodrom je strateški značajan za Izrael, budući da je glavna vazdušna luka koja državu Izrael povezuje sa svetom. Lociran u središnjem delu Izraela, od glavnog grada Tel Aviva udaljen je oko 19 km. Usluge aerodroma koristi više od 80 aviokompanija iz celog sveta. Matična je baza nacionalne izraelske aviokompanije EL AL, kao i domaćih čarter avio-prevoznika Israir i Arkia. Infrastruktura aerodroma sastoji se od dva putnička terminala, tri piste, rulnih staza, aprona i parkirališta za avione, kargo centra, biznis centra i ostalih logističkih objekata. Terminal 1 koriste avioprevoznici koji opslužuju linije u domaćem saobraćaju, kao i pojedini niskobudžetni (*Low-cost*) prevoznici, dok Terminal 3 služi jedino za prihvat i otpremu putnika u međunarodnom saobraćaju. (Israel Airports Authority, 2017)

U 2016. godini Aerodrom je opslužio 17,3 miliona putnika u međunarodnom, i nešto više od pola miliona putnika u unutrašnjem saobraćaju. (Israel Airports Authority, 2017). Proteklih godina na aerodromu nije



zabeležen niti jedan ozbiljniji bezbednosni incident. Pokušaja je bilo, ali su svi na vreme otkriveni i sprečeni zahvaljujući jedinstvenim merama bezbednosti.

Te mere predstavljaju kompleksan sistem i obuhvataju kontra-diverzione, anti-terorističke, kriminalističke, obaveštajne i psihološke metode kombinovane sa savremenom tehnologijom. Zahvaljujući njima, oblici ugrožavanja bezbednosti, poput terorističkog napada ili otmice aviona, nisu zabeleženi na ovom aerodromu duže od 40 godina i pored učestalih pretnji i pokušaja. Značaj ove činjenice posmatramo imajući u vidu okruženje, kao i bezbednosne i političke prilike koje vladaju tim tlom, što je doprinelo da Izrael danas bude oslonac u kreiranju preventivnih mera u borbi protiv terorizma i očuvanja bezbednosti.

## 2. Organizaciona struktura Aerodroma i upravljanje bezbednošću

Organizacionu strukturu aerodroma Ben Gurion čine četiri centralna odeljenja: Odeljenje zemaljskog opsluživanja (*Ground Operations Division*), Odeljenje održavanja (*Maintenance Division*), Odeljenje putničkih usluga (*Passenger Service Division*) i Odeljenje bezbednosti (*Security Division*).

Odeljenje bezbednosti odgovorno je za sva pitanja u vezi sa bezbednošću putnika i avio saobraćaja na aerodromu. Odeljenje je podeljeno na jedinice koje su odgovorne za određene probleme i koje obuhvataju čitavo polje bezbednosnih mera na aerodromu, uključujući bezbednosne provere ručnog prtljaga, obezbeđenja putničkih terminala i prostora aerodroma van terminala (Israel Airports Authority, 2017).

Slika 1: Organizaciona struktura aerodroma Ben Gurion



Izvor: (Israel Airports Authority, 2017)

Važna činjenica u vezi sa Odeljenjem bezbednosti aerodroma Ben Gurion jeste da poslovi obezbeđenja nisu povereni privatnim bezbednosnim kompanijama, već se o bezbednosti na aerodromu brinu Odeljenje za bezbednost i bezbednost saobraćaja izraelskog Ministarstva saobraćaja (*Department of Security and Transportation Security, Israel Transport Ministry*), izraelska policija (*Israel Police*), Generalna služba bezbednosti (*General Security Service*) poznatija pod imenom Šin Bet (*Shin Bet*) i Komanda civilne zaštite Izraelskih odbrambenih snaga (*IDF's Home Front Command*) (Wiseman & Yahel, 2016).

Na čelu Odeljenja uvek se nalazi profesionalac sa dugogodišnjim iskustvom u vojsci i službama bezbednosti. Odeljenje bezbednosti je najbrojnije u aerodromskoj strukturi zaposlenih, i sastoji se od oko 2.500 mahom naoružanih lica u civilnim odelima, ali i uniformisanih službenika. Zahvaljujući složenom sistemu bezbednosti na ovom aerodromu, poslednji teroristički akt dogodio se davne 1972. godine, kada su tri pripadnika Japanske crvene armije, levičarske terorističke grupacije, u bombaškom napadu i upotrebom automatskog vatrenog oružja usmrtila 24 putnika unutar zgrade terminala (Rose, 2010). Nijedan avion koji je poleteo sa Ben Guriona nikada nije bio otet. Veliki doprinos tome daje i izraelska nacionalna aviokompanija EL AL, na čijem se svakom međunarodnom letu, sa aerodroma i ka aerodromu Ben Gurion, među putnicima u avionu nalazi agent u civilu, posebno obučan za sprečavanje otmica i savladavanje potencijalnih terorista u avionu.

Ukoliko bi teroristi naneli snažan udar na međunarodni aerodrom ili flotu nacionalnog prevoznika, država Izrael bi ostala odsečena od ostatka sveta, budući da se najveći deo protoka ljudi i robe obavlja upravo vazдушnim putem. Time bi strane kompanije otkazale svoje letove iz razloga bezbednosti, putnici iz straha izbegavali da putuju avionom, promet robe, naročito izvoz izraelskih proizvoda bi naglo opao, što bi sve zajedno dovelo do nesagledivih posledica po izraelsku ekonomiju. Odgovor Izraela na stalne terorističke pretnje koje ugrožavaju vazdušni saobraćaj je u višeslojnom sistemu bezbednosnih mera aerodroma Ben Gurion.

Od trenutka prilaska aerodromu do ukrcavanja u avion, putnici prolaze kroz 12 slojeva obezbeđenja, popularno nazvanih Gvozdeni prstenovi (*Iron Rings*). Bezbednosne provere putnika počinju daleko od zgrade terminala, već na autoputu ka aerodromu, a ključne provere sprovode se u redu za čekiranje, gde svakog od putnika intervjuišu službenici aerodromskog obezbeđenja, nakon čega se ustanovljava njihov stepen pretnje. Putnici sa niskim stepenom pretnje nastavljaju svoj put dalje bez velikog zadržavanja, dok oni sa višim stepenom bivaju zadržani na detaljnija ispitivanja i provere. I pored složenog sistema obezbeđenja na aerodromu nema većeg zadržavanja. Preporuka je da se putnici, upravo iz razloga bezbednosnih provera, na let prijave 4 sata ranije. Samo putnici sa visokim stepenom pretnje će biti opterećeni dodatnim i opsežnim proverama, a takvih putnika je uvek manje od 1%.

U daljem radu prikazaćemo sve posebne mere i procedure bezbednosti, kao i jedinice Odeljenja bezbednosti koje primenjuju najsavremenija tehnološka bezbednosna dostignuća po kojima je Ben Gurion postao poznat kao jedan od najbezbednijih aerodroma na svetu.

### **3. Mere bezbednosti i bezbednosne provere i procedure**

#### **3.1. Vazduhoplovno-bezbednosni operativni centar**

Prva proceduralna mera bezbednosti sprovodi se i pre zvaničnog ulaska vazduhoplova u vazdušni prostor Izraela. Nedaleko od aerodroma Ben Gurion nalazi se sedište Vazduhoplovno-bezbednosnog operativnog centra - ASOC (*Aviation Security Operation Center*) gde se 24 časa dnevno, sedam dana u nedelji, prati svaki let u vazдушnom prostoru Izraela, uključujući i tranzitne letove, kao i letove koji se odvijaju neposredno uz izraelski vazdušni prostor. Svaki let, svaki putnik i svaki član posade se proveravaju pre nego što avion uđe u izraelski vazdušni prostor. Vazduhoplov bez odgovarajućeg bezbednosnog odobrenja se momentalno označava i posebno prati, nadgleda i proverava (Liebermann, 2016).

Vazduhoplovno-bezbednosni operativni centar nalazi se pod ingerencijom izraelskog Ministarstva saobraćaja, i nezavisna je institucija od kontrole leta. ASOC je izdao bezbednosne direktive avio-kompanijama koje lete za Izrael (*Israel Airspace Security Arrival Procedures for General Aviation Aircrafts*). Direktive su obavezujuće i podrazumevaju bezbednosne provere svakog leta. Nepoštovanje odnosno odbijanje procedura donosi zabranu ulaska u izraelski vazdušni prostor (Aviation Security Operations Center, 2017).

#### **3.2. Kontrolni punkt (Checkpoint) na prilazu aerodromu**

Aerodrom se nalazi u neposrednoj blizini glavnog autoputa u Izraelu koji povezuje Tel Aviv i Jerusalim. Od isključenja sa autoputa ka aerodromu vodi jedini putni pravac na kojem se, na oko kilometar i po udaljenosti od terminala, nalazi kontrolni punkt sa obaveznim zaustavljanjem vozila i kontrolom putnika i prtljaga. Službenici naoružani automatskim puškama proveravaju svakog putnika u vozilu proverom identiteta i dokumenata i obaveznim postavljanjem pitanja o razlozima puta, odredištu, posedovanju oružja i sl. Svako vozilo ujedno prolazi kroz skener dok prolazi kroz punkt. Takođe, vozila proveravaju i dresirani psi za otkrivanje eksploziva (*EDD – Explosive Detection Dogs*). Ukoliko kroz proveru dokumenata i razgovor službenici obezbeđenja posumnjaju da određena osoba predstavlja potencijalu pretnju, ona se izdvaja i sprovodi na detaljnije ispitivanje i dalje provere, a da pritom nije ni kročila u unutrašnjost terminala. Iz razloga bezbednosti, parking mesta za vozila koja se ostavljaju na duži vremenski period izgrađena su na udaljenosti od nekoliko kilometara od terminala, za čije putnike je obezbeđen aerodromski autobus za prevoz do terminala.

#### **3.3. Kontrola prtljaga**

Na aerodromu Ben Gurion funkcioniše bezbednosni sistem kontrole prtljaga putnika pod nazivom HBS (*Hold Baggage Screening*). Sistem je razvila Izraelska aerodromska administracija (*IAA*) i funkcioniše u dve varijante: automatski sistemi integrisani u sistem za sortiranja prtljaga i nezavisni ne-automatski sistemi.

Nakon što bude obeležen na *check-in* šalteru aviokompanije, prtljag se šalje sistemu za sortiranje koji obuhvata niz tehnoloških bezbednosnih provera u skladu sa međunarodnim standardima. Svaki komad prtljaga prolazi kroz bezbednosne skener uređaje, kao i komoru pod pritiskom za aktiviranje eventualne eksplozivne naprave. Ukoliko automatski sistem identifikuje sumnjiv predmet u prtljagu, automatski se izdvaja i šalje u posebno odvojen prostor gde se vrši ručna provera prtljaga.

Aerodrom Ben Gurion usvojio je primenu brava za zaključavanje prtljaga odobrenih od strane Američke administracije za bezbednost saobraćaja (*TSA Locks*). Samo prtljag zaključan TSA bravama može biti poslat na svoje odredište (Israel Airports Authority, 2017).

### 3.4. Kontra-diverziona kontrola

Kontra-diverziona (KD) kontrola na aerodromu Ben Gurion namenjena je otkrivanju i sprečavanju unošenja nedozvoljenih predmeta i supstanci. Kontra-diverziona oprema sastoji se od brojnih rendgen uređaja, detektora metala i skenera raspoređenih na ulazu u zgradu terminala, na ulazu u tranzitnu zonu, na ulazu u gejtove, kao i unutar tranzit zone. Pored standardnih skenera za putnike i skenera za ručni prtljag, na Ben Gurionu koriste se i posebni skeneri za obuću. Posebna pažnja službenika KD kontrole usmerena je na otkrivanju čestica eksploziva. Putnici sa ugrađenim pejsmejerima, veštačkim kukovima i protezama moraju sa sobom imati odgovarajuću medicinsku dokumentaciju izdatu od medicinske ustanove u kojoj je ugrađen implant. Putnici u invalidskim kolicima i trudnice podležu kontroli uz pomoć ručnog metal detektora (Israel Airports Authority, 2017).

### 3.5. Sistem kompjuterske provere podataka

Pored uobičajenih provera identifikacionih podataka o putnicima, na Ben Gurionu implementiran je i napredni softver koji je omogućio direktnu vezu u realnom vremenu sa centralama i bazama podataka kako izraelskih službi bezbednosti, tako i američkim FBI, britanskim Skotland Jardom, kanadskom službom bezbednosti, Interpolom i Europolom. Softver upoređuje podatke o putniku sa bazama podataka navedenih agencija o pripadnicima terorističkih grupa, kao i poternicama Interpola i Europola. Sistem je razvijen za potrebe Izraelske aerodromske administracije, a po ugledu na američki sistem elektronske provere podataka CAPPS (*Computer Assisted Passenger Pre-Screening System*). Ovaj sistem, pre izdavanja bording karte, kompjuterskom proverom dostupnih baza podataka i on-line informacija o putniku, vrši proveru potvrđivanjem identiteta, proverom krivičnih dosijea, kreditnog zaduženja, adrese prebivališta, vlasništva nad nekretninama, ličnih prihoda i zaposlenja, kupovina, putovanja, aktivnostima na internetu i društvenim mrežama. Provera ovih podataka koristi se za utvrđivanje stepena potencijalne pretnje (Persico & Todd, 2005).

### 3.6. Bihejvioristički pristup kontroli putnika

Specifična metoda kontrole putnika koja je razvijena upravo na aerodromu Ben Gurion jeste psihološko profilisanje svakog putnika. Službenici bezbednosti na aerodromu koji sprovode ovu vrstu kontrole, obučeni za psihološko profilisanje, posmatranjem ponašanja i držanja tela putnika, kao i postavljanjem ciljnih pitanja analiziraju ličnost svakog putnika i na osnovu toga određuju stepen pretnje. Bihejvioralno profilisanje predstavlja novi metod u radu aerodromskog obezbeđenja. Metod je razvijen u studiji facijalnih izraza na Univerzitetu Kalifornije u San Francisku sredinom 60-ih godina prošlog veka od strane profesora psihologije Pola Ekmana (*Paul Ekman*). Baveći se istraživanjem facijalnih mišića na ljudske emocije, Ekman je sastavio sistematsku listu nekoliko hiljada facijalnih mišićnih kombinacija koje je sve zajedno pretočio u sistem FACS (*Facial Action Coding System*) čime je detaljno objasnio značenje facijalnih izraza (Harcourt, 2006).

Na Ben Gurionu, pre čekiranja, putnik na dolasku i u odlasku, podleže kratkom intervjuisanju. Pitanja postavljaju službenici obezbeđenja poznati pod nazivom *selektori*, pošto je njihov zadatak da izvrše selekciju i odrede stepen bezbednosne pretnje putnika kojeg intervjuišu posmatranjem reakcije na postavljena pitanja. Najčešće postavljena pitanja odnose se na to koliko dana je putnik proveo ili namerava da provede u Izraelu, sa kim putuje, gde namerava da odsedne i kod koga, šta je po zanimanju i slično. Ukoliko putnik odgovori da je posetio mesta i u Palestini, tada ispitivanje dobija ozbiljniju formu. Slede pitanja zašto je putnik posetio Palestinu, koja mesta je sve obišao, da li poznaje nekoga tamo. Sledeći korak, ukoliko postoji sumnja, je obično zamena službenika obezbeđenja, gde se putnik ostavlja nakratko sam i za to vreme se posmatra njegovo ponašanje putem kamera ili prikrivenog službenika u civilu. Dolaskom novog službenika obezbeđenja, putniku se ponovo postavljaju identična pitanja. Cilj ovakve dinamike je izazvati reakciju kod putnika koji imaju skrivene namere. Tada se putniku mogu postaviti i pitanja da li je sam pakovao svoj prtljag, da li ima bilo kakvo oružje u prtljagu, a često i direktno otvoreno pitanje da li je terorista! Selektori pomno prate i analiziraju ponašanje putnika, izraz lica, govor tela, znojenje, glas, pogled i na osnovu toga određuju stepen pretnje, izuzimajući pritom putnike koji su nervozni zbog kašnjenja, straha od letenja ili nečeg sličnog.

Ovaj metod opravdao je svoju namenu i dokazao se vrlo efikasnim u borbi protiv terorizma. Poznato je da teroristi samoubice, na primer, ne strahuju za svoj život, već je njihov najveći strah da ne budu otkriveni. Posmatranjem izraza lica i ponašanja, kao i postavljenjem odgovarajućih pitanja koja imaju za cilj da izazovu reakcije kod putnika sa očiglednim terorističkim namerama, potencijalni teroristi će biti preduhitreni u svojoj nameri. Poučeni iskustvima sa aerodroma Ben Gurion, metod analize izraza lica i ponašanja implementiran je i u sistem bezbednosti američkih aerodroma. Ministarstvo domovinske bezbednosti SAD-a (*Department of Homeland Security*) razvilo je identičan profajling program pod nazivom SPOT (*Screening Passengers by Observation Technique*) kako bi sprečili, pre svega, potencijalne otmičare aviona. (Florence & Friedman, 2010)

### 3.7. Bezbednosna klasifikacija putnika

Na osnovu prethodno postavljenih pitanja i psihološkog profilisanja, sledi klasifikacija putnika putem numeričkog sistema. Faktori koji dodatno utiču na odluku o bezbednosnoj klasifikaciji jesu godine života, rasa, religija, kao i krajnje odredište. Svaki putnik dobija svoju "oznaku" putem žute nalepnice (*security sticker*) koja se lepi na poledinu pasoša i na prtljag. Nalepnica je u obliku bar koda gde je za dalje bezbednosne provere presudna prva cifra. Broj 1 rezervisan je za državljane Izraela, mahom jevrejske nacije i vere gde gotovo da ne postoji bezbednosni rizik, broj 2 obično dobijaju Jevreji iz dijaspore i strane diplomate koji takođe nisu bezbednosno rizični, broj 3 rezervisan je za strance koji ne predstavljaju opasnost, odnosno nisu bezbednosno interesantni, broj 4 dobijaju osobe koje predstavljaju potencijalnu opasnost, broj 5 dobija osoba u vezi sa kojom postoji jaka sumnja da može predstavljati opasnost, i to su uglavnom putnici muslimanske veroispovesti ili arapskog porekla, broj 6 rezervisan je za putnike visokog rizika u koje se takođe najvećim delom ubrajaju muslimani, dok oznaku 6T dobija putnik koji predstavlja otvorenu pretnju za državu Izrael.

U zavisnosti od ove klasifikacije zavisi i brzina kojom će putnik nastaviti dalje kroz terminal aerodroma sve do ukrcajanja. Putnici sa oznakama 1, 2 i 3 će relativno brzo nastaviti dalje, dok će putnici (i njihov prtljag) sa oznakama 4, 5 i 6 biti i dalje dodatno kontrolisani i ispitivani, naročito putnici sa oznakom 6 koji će morati da skinu kaiš i obuću, isprazne džepove, predaju lične uređaje poput mobilnog telefona ili laptop računara koji će biti posebno pregledani. U ovom slučaju službenici obezbeđenja putniku mogu zatražiti i ličnu lozinku za pristup elektronskoj pošti, pregledati primljene i poslate mejlove ili čitati sms prepisku. Putnika sa oznakom 6T posebno ispituje izraelska služba bezbednosti Šin Bet i to ispitivanje može trajati i nekoliko časova.

Slika 2: Nalepnica (*security sticker*) na pasošu. Prva cifra označava stepen pretnje



Izvor: (Business Insider, 2015)

### 3.8. Automatsko poligrafsko testiranje putnika

Ukoliko selektori prilikom intervjuisanja putnika iskažu sumnju u tačnost dobijenih odgovora, takav putnik može biti podvrgnut ispitivanju na automatskom poligraf uređaju koji se nalazi neposredno uz check-in šaltere, čime se ne troši vreme na odlazak u zasebne prostorije i ne angažuje lice koje upravlja uređajem, već putnik sam obavlja proces.

Uređaj je razvila izraelska kompanija *Suspect Detection Systems (SDS)*. Sastoji se od kabine u kojoj putnik sedi. Ispred lica nalazi se *touch screen* monitor sa mikrofonom. Desnom rukom putnik bira ponuđene jezike i opcije, dok je leva ruka postavljena u posebno kućište sa senzorima. Pitanja koja se pojavljuju na monitoru prenose se i glasom na odabranom jeziku preko slušalica. Senzori, poput klasičnih poligrafa, beleže podatke na osnovu

električne provodljivosti kože čime se procenjuje da li organizam ostaje miran i stalozhen ili postoji reakcija na izgovorenu laž (Rose, 2010).

Ovim putem otkloniće se ili opravdati sumnja u putnika koji je selektorima davao neuverljive i neargumentovane odgovore na postavljena usmena pitanja.

Slika 3: Automat za poligrafsko testiranje putnika



Izvor: (Daily Mail Online, 2010)

### 3.9. Bezbednosni servis za strance (Mokdan)

Kako bi se stranim poslovnim ljudima koji po pozivu izraelskih kompanija borave u Izraelu omogućio brži i lakši put, Odeljenje bezbednosti aerodroma Ben Gurion razvilo je poseban bezbednosni servis: *Security Center Passenger Service*, na hebrejskom *Mokdan*. Ukoliko izraelska kompanija želi da koristi ovu uslugu, neophodno je da među svojim zaposlenim licima imenuje poverenika za bezbednost koji će biti osoba za kontakt sa Odeljenjem bezbednosti aerodroma Ben Gurion.

Poverenik za bezbednost je odgovoran za prikupljanje svih informacija u vezi sa gostom koji dolazi u Izrael, u skladu sa bezbednosnim procedurama aerodroma. Mokdan, kao servis aerodromskog obezbeđenja odnosi se na strance koji napuštaju Izrael, dok je ulazak u zemlju pod jurisdikcijom izraelskog Ministarstva unutrašnjih poslova. Međutim, ukoliko gosti izraelskih kompanija u Izrael dolaze nacionalnom aviokompanijom El Al, procedure Mokdan servisa je tada moguće primeniti, čime će im biti omogućene pojednostavljene i brže bezbednosne provere prilikom ulaska u avion El Al-a.

Da bi stranac mogao biti uključen u Mokdan servis neophodno je da budu ispunjeni određeni uslovi i to: poseta mora biti u poslovne ili naučne svrhe, putnik mora biti gost jedino kompanije koja je aplicirala za njega, nije moguće da tokom svoje posete bude gost i drugih organizacija, mora minimum 50% svog vremena provesti u kompaniji po čijem pozivu boravi u Izraelu, tokom svog boravka putnik mora biti u pratnji zaposlenog u kompaniji čiji je gost. Mokdan procedura podrazumeva popunjavanje bezbednosnog formulara i zahteva sa opsežnim podacima o putniku koje poverenik za bezbednost kompanije prosleđuje Odeljenju za bezbednost aerodroma Ben Gurion, nakon čega dobija odobrenje ili se zahtev odbija (Israel Airports Authority, Mokdan, 2017).

### 3.10. Bezbednosni servis za domaće državljane (Trusted Traveler Program)

Kao odgovor na stvaranje hronično dugih redova na aerodromu Ben Gurion, počev od 1996. godine razvijen je sistem Pouzdanog putničkog programa (*Trusted Traveler Program*). Svaki izraelski državljanin može aplicirati za članstvo u programu koje uključuje bezbednosne provere i lični intervju, sa godišnjom članarinom od 20-25 dolara. Članovi programa imaju svoje kodirane elektronske identifikacione kartice sa snimljenim geometrijskim merama šake ruke. Po dolasku na aerodrom, na raspolaganju imaju više od 20 samouslužnih kioska sa skenerima šake gde će verifikovati svoj identitet. To im omogućava da svoj put učine bržim i bez komplikovanih bezbednosnih provera. Prema podacima kompanije koja je za potrebe aerodroma Ben Gurion razvila ovaj sistem, prosečno vreme za čekiranje putnika korisnika programa iznosi 15 minuta naspram 2 sata koliko je u proseku potrebno za ostale putnike. Prema istim podacima, do kraja 2001. godine, oko 15% putnika na aerodromu Ben Gurion bili su članovi Pouzdanog putničkog programa (Poole & Passantino, 2003:8).

### 3.11. Perimetarska zaštita aerodroma

Pored sigurnosnih ograda i instaliranog sistema video nadzora, za perimetarsku zaštitu aerodroma Ben Gurion koriste se i specijalna patrolna vozila bez posade (*UGV – Unmanned Ground Vehicle*). Vozilo Gvardijum (*The Gvardium*) razvijeno je kao zajednički projekat pod nazivom *G-NIUS* od strane Izraelske aerokosmičke industrije (*Israel Aerospace Industries*) i kompanije Elbit sistemi (*Elbit Systems*).

Vozilo, kojim se upravlja iz komandnog centra (*MCC – Main Control Center*), služi za rutinske kontrole i brza reagovanja na hitne slučajeve. Odlika mu je velika mobilnost i pokretljivost, može razviti brzinu veću od 80 km/h. Gvardijum može poneti više od 300 kg opreme i uređaja i prekriveno je oklopom koji štiti vitalne sisteme vozila. Može biti opremljeno širokim spektrom senzora i uređaja, uključujući video i termalne kamere, osetljive mikrofone i moćne zvučnike. Takođe, može biti opremljeno i određenim vrstama vatrenog oružja kojim se upravlja iz komandnog centra. Od 2008. godine Gvardijum se nalazi u sastavu Izraelskih odbrambenih snaga (*IDF*) i služi za kontrolu granica, dok je iste godine odabrano od strane Izraelske aerodromske administracije (*IAA*) i za kontrolu i zaštitu perimetra aerodroma Ben Gurion (Defense Update, 2009).

Slika 4: Patrolno vozilo bez posade na aerodromu Ben Gurion



Izvor: (Defense Update, 2009)

### 3.12. Anti-raketni štit u zoni aerodroma

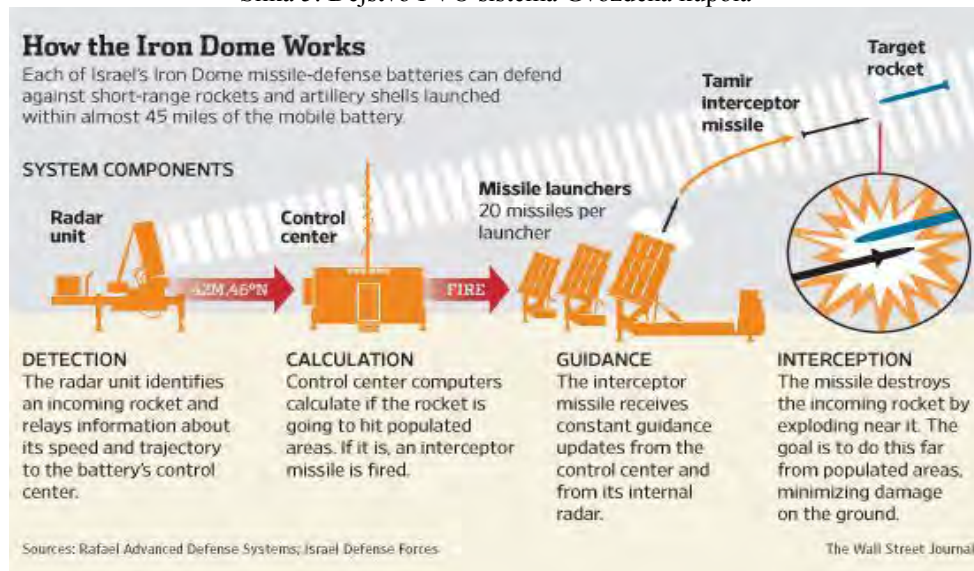
Država Izrael nalazi se pod čestim udarima terorističkih organizacija Hamas, Hezbollah i palestinski Islamski džihad. Navedene terorističke organizacije kao sredstvo za napad često koriste rakete srednjeg dometa koje se na Izrael lansiraju uglavnom sa područja Gaze i južnog Libana. Ciljevi ka kojima su rakete obično usmerene jesu gradovi Tel Aviv i Haifa, nuklearno postrojenje Dimona u pustinji Negev, ali i aerodrom Ben Gurion.

Kako bi zaštitili objekte kritične infrastrukture od čestih raketnih napada, Izraelci su razvili savremeni sistem protivvazdušne odbrane nazvan *Gvozdena kupola (Iron Dome)* koji je raspoređen oko najbitnijih objekata u koje spada i aerodrom Ben Gurion. Ovakva zaštita aerodroma je neophodna imajući u vidu da se Ben Gurion nalazi u neposrednoj blizini izraelsko-palestinske granice i da avioni koji sleću i uzleću sa njega mogu postati laka meta terorista, čime su posebne mere bezbednosti preduzete radi obezbeđenja vazdušnih puteva koji vode ka aerodromu i sa njega (Dekel, 2010:74).

Izraelski proizvođač naoružanja "Rafael" razvio je ovaj savremeni prenosni sistem protivvazdušne odbrane za potrebe ratnog vazduhoplovstva Izraela (*IAF*) čija je osnovna namena da otkriva i uništava projektele i granate ispaljene na izraelske vojne baze i aerodrome, ali i gradove i naselja duž pojasa sa palestinskom granicom gde teritoriju kontroliše Hamas i palestinski Islamski džihad.

Sistem Gvozdena kupola, koji obezbeđuje i aerodrom Ben Gurion, sastoji se od radara, komandnog vozila i lansera raketa (*Tamir*). Nakon što otkrije projektil, radar podatke o letu projektila prosleđuje komandnom vozilu gde se kompjuterski prati trajektorija projektila (u slučaju da će projektil pasti na nenaseljeno područje sistem neće dejstvovati), nakon čega se na cilj dejstvuje sa jednom ili više raketa Tamir.

Slika 5: Dejstvo PVO sistema Gvozdena kupola



Izvor: (The Wall Street Journal, 2014)

2014. godine, u jeku sukoba u pojasu Gaze, Hamas je iz osвете na aerodrom Ben Gurion lansirao 4 rakete, od kojih su 3 presretnute i u vazduhu uništene sistemom Gvozdena kupola, čime je ovaj anti-raketni sistem i u praksi dokazao svoju svrhu. (Israel National News, 2014)

Bezbednost aerodroma i vazdušnog saobraćaja u Izraelu svrstano je u prioritete nacionalne bezbednosti. Anti-raketni sistem Gvozdena kupola biće samo jedan vid zaštite od neprijateljskih projektila. U toku su završna testiranja novog odbrambenog sistema pod nazivom *C-MUSIC (Commercial Multi-Spectral Infrared Countermeasure)*. Reč je o tehnološki najsavremenijem sistemu zaštite kojim se štite mlazni putnički i kargo avioni od napada raketnim sistemima sa zemlje. Sistem je projektovan da štiti avione u vazduhu prilikom poletanja i sletanja. Prvobitno razvijen za potrebe izraelskog ratnog vazduhoplovstva, a nakon učestalih terorističkih pretnji i saznanja izraelskih službi bezbednosti da će izraelski civilni avioni i dalje biti napadani lakim prenosnim raketnim PVO sistemima sa infracrvenim navođenjem (posle neuspešnog napada Al-Kaide na izraelski putnički avion u Keniji 2002. godine), sistem je komercijalizovan i adaptiran za potrebe civilne avijacije. Uređaj, koji se montira na avion, opremljen je radarom koji detektuje lansiranje projektila ka avionu, a zatim potpuno automatski i bez učešća pilota aviona šalje laserske zrake koji ometaju sistem za navođenje projektila koji leti ka cilju. Svrha ovog sistema ogleda se u sprečavanju terorističkih napada na izraelske avione raketnim sistemima zemlja-vazduh, onesposobljavajući lansirani projektil da pogodi cilj. Ovim sistemom biće opremljeni avioni iz flote nacionalnog avio-prevoznika EL AL čija je matična baza aerodrom Ben Gurion. (Agmon, 2014)

#### 4. Kontroverze u primeni mera bezbednosti

Mere bezbednosti na aerodromu Ben Gurion naišle su na otpor organizacija za zaštitu ljudskih prava u Izraelu. Naime, označavanje putnika muslimanske veroispovesti kao potencijalnih terorista samo prema njihovoj verskoj pripadnosti i bez čvrstih dokaza ili sumnji, diskriminirajuća kontrola izraelskih državljana arapskog porekla u odnosu na putnike jevrejskog porekla, posebna kontrola putnika koji su posetili Palestinu ili boravili u bilo kojoj drugoj arapskoj zemlji, naređenja službenika obezbeđenja da sumnjivi putnik arapskog porekla, plesač po zanimanju, dokaže pred njima svoj identitet tako što će odigrati plesnu tačku (Simpson, 2008) ili zahtev za uvid u privatne mejlove ili sms poruke, predstavljaju gruba kršenja ljudskih prava i sloboda. Od pojedinih mera, poput označavanja prtljaga ne-jevrejskih putnika nalepicom druge boje, aerodrom je morao da odustane upravo iz razloga diskriminacije. I pored velikog broja pritužbi građana, kao i pokretanja postupka pred Vrhovnim sudom Izraela, odgovor vlasti i najviših sudskih instanci je da diskriminacije na aerodromu Ben Gurion nema i da borba protiv terorizma mora podrazumevati striktno mere zaštite.

## 5. Zaključak

Nestabilni region u kome se nalazi Izrael imao je kao posledicu pojavu terorizma kao sredstva za ostvarenje političkih, nacionalnih i verskih ciljeva. Učestali sukobi sa terorističkim organizacijama poput Hamasa i Hezbolaha uticali su na to da je Izrael danas država najizloženija terorističkim pretnjama i napadima. Poslednjih godina teroristi za mete biraju aerodrome kao mesta na kojima je koncentracija ljudi najveća i gde bi broj eventualnih ljudskih žrtava bio ogroman, što je dovelo do toga da se i nivo bezbednosti na aerodromima znatno unapredi.

Aerodrom Ben Gurion u Tel Avivu, kao glavna međunarodna kapija Izraela, razvio je jedinstven sistem bezbednosti sa mnogobrojnim efikasnim tehnikama i merama zaštite od terorizma. Zahvaljujući tim merama, na najvećem izraelskom aerodromu poslednji teroristički akt izveden je pre više od četiri decenije. Suština ovih mera ogleda se u tome da lica zadužena za bezbednost na aerodromu Ben Gurion ne tragaju za oružjem, već je njihov primarni i glavni zadatak da otkriju lice koje ima prikrivenu nameru da izvrši teroristički akt. To postižu primenom specifične metode bihevioralnog profilisanja putnika koje za cilj ima izazivanje reakcija kod sumnjivih putnika čime će se razotkriti njihov plan. Ujedno kao ostala sredstva zaštite koriste se najsavremenija tehnička i tehnološka dostignuća u bezbednosti.

I pored pitanja vezanih za pravičnost ovih mera i da li se njihovom primenom direktno krše ljudska prava, činjenica je da su mere bezbednosti aerodroma Ben Gurion dokazale svoju namenu i da mogu poslužiti kao podsticaj i drugim svetskim aerodromima, naročito onim u kriznim područjima, kako bi znatno unapredili i podigli svoj nivo opšte bezbednosti. Na primeru aerodroma Ben Gurion dokazano je da je i pored najsavremenijih tehnoloških i informacionih bezbednosnih rešenja ljudski faktor i dalje nezaobilazan i da će u budućnosti borba protiv terorizma na aerodromima imati sve mehanizme zaštite koji se trenutno primenjuju na izraelskom aerodromu.

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## Due diligence kao ključni faktor finansijskog sistema privrednih društava

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**Apstrakt:** *Due diligence* je pojam koji označava detaljno upoznavanje svih aspekata poslovanja poslovnog partnera kao i procenu koristi, obaveza i odgovornosti vezanih za moguću kupovinu nekog preduzeća. On podrazumeva mnogo detaljniju analizu nego zvanična revizija, na primer godišnjih finansijskih izveštaja ili poslovnih knjiga. Finansijski *due diligence* ima najveću specifičnu težinu, jer se njime iskazuju svi faktori poslovanja privrednog društva. Finansijski izveštaji služe kao osnovna podloga za istraživanje i analizu finansijske situacije, kao i sagladavanje poslovnih rezultata privrednog društva. Osnovni zadaci finansijskog izveštavanja su pružanje relevantnih informacija o finansijskom položaju, uspešnosti, posebno tokovima gotovine koje stvara preduzeće, a koje će razuđenoj strukturi različitih korisnika biti od koristi prilikom usaglašavanja ekonomskih odluka. Ono na šta se stavlja akcenat jesu ključne vrste *due diligence*-a, finansijska, tržišna i pravna, koje daju objektivne i nepristrasne informacije, i poslovanje privrednih društava.

**Ključne reči:** Due diligence, privredna društva, finansijski sistem, finansijsko izveštavanje

## Due Diligence as a Key Factor of Financial System of Companies

**Abstract:** Due diligence is a term that means a detailed knowledge of all aspects of business partners as well as the estimate of benefits, obligations and responsibilities related to the potential purchase of a company. It involves much more detailed analysis than the official audit, for example of annual financial statements or business records. Financially, due diligence has the highest specific value, because it has to show all the factors of business of the company. Financial statements serve as a basis for research and analysis of the financial situation, as well as an overview of business results of the company. The main tasks of financial reporting are providing relevant information about the financial position, performance, particularly cash flows generated by the company, which will be useful for diversified users structure to make economic decisions. What we placed the emphasis on are the key types of due diligence, financial, commercial and legal, which provide objective and unbiased information, and business of companies.

**Key words:** Due diligence, companies, financial systems, financial reporting

### 1. Introduction

Looking at the value of financial reporting through time, we can clearly conclude that financial reporting was not given particular importance and significance. Extremely modest data representing the essence of management decision-making were used and analyzed by business entities that were put together for the purpose of making the most important decisions of the company's business.

The generic term 'financial reporting' is used to refer to the financial statements (balance sheet, profit and loss - income statement, balance own capital and the balance of cash flows), as well as to financial discovery or explanation of these reports, the report on operations and, for the users of financial statements particularly important, the report of the independent auditor on the reality and objectivity of the balance.

International Financial Reporting Standards IFRS 1, which officially came into operation on 1/1/2004, provide a very clear mission, because the system of unified standards precisely defines the way the financial statements become satisfactory and displays comprehensible interpretations, evaluates and presents each economic category, as well as all economic categories that find their place in elementary financial statements.

The necessity of high-quality financial reporting becomes all the more important because of the increasing number of financial reports, users and institutions for quality control of the financial statements. Hence is the need to establish the concept of quality and quality control. The modern concept of quality control includes the introduction of quality standards of financial reporting, based on the principles of total quality management (TQM). Implementation of quality financial reporting, as well as total quality management reporting imply the review and evaluation of accounting profession education, so it is necessary to pay attention to the concept of quality management control of financial reporting, and to raise the educational level of the accounting profession with respect to international professional accounting regulations from this area and their mutual influence.

## 2. Financial Situation as a Key Base of Financial Due Diligence

Due diligence is the English word for which there is no adequate translation. Similarly, some of the terms such as broker, dealer, stock market, or software are used in its original form. Due diligence should be defined as the care with which a reasonable person performs a certain action in order to avoid doing harm to other people or their property; it is also the research and analysis of the company or organization to save the business transaction (e.g. business merging or purchase of securities), and the process in which a buyer or investor in a particular company or a particular business, examines the record of the item of knowing whether there are "hidden skeletons in the closet" (Vidaković, S., 2007). Due diligence is a term that means a detailed knowledge of all aspects of operating a business as well as the assessment of the benefits, obligations and responsibilities related to the possible purchase of a company. Due diligence is applied in order to check the current status and a potential business partner or a company. Due diligence is carried out as a security process to avoid intentional or unintentional misinforming of investors. For this reason, the investor independently investigates and confirms the information.

If the due diligence doesn't take place, the risk of the very acquisitions is increased, i.e. of buying a business without collecting the required information, which may result in significant financial losses for investors. For this reason, today almost every business transaction requires due diligence, regardless of how you assess the tangible and intangible property (Ekonomaska enciklopedija II, 1986).

Both international and domestic capital markets require transparency of all business activities. Reporting on the business of the company is a good source of objective and unbiased information about the company. There are several types of due diligence (Vidaković, 2007):

- Financial;
- Market (commercial);
- Legal.

The most common link between these three types is between financial and market due diligence.

Financial due diligence has covered a major part of market due diligence, and similarly both of them correspond to a number of the same issues, although these are obviously two different areas of due diligence. What makes these two types different is the fact that for financial due diligence, we use financial statements of the target company, whereas for market due diligence, we provide mainly external information of the target company.

Legal due diligence comprises two prior aspects' regulatory framework. It gradually deals with property relations and ownership structure of the capital of the target company, the possible intellectual property rights, contracts with specific partners, employees' rights (Vidaković, 2007).

The subject of due diligence may be other important aspects:

- Human environment;
- Information technology;
- Human Resources.

Management of companies and the accounting profession should accept the OECD Principles of Corporate Governance, as that is to the welfare of our companies which are and intend to be the part of national and international financial markets. The responsibility of the company and their management that should be a generator of development, is not only directed towards their shareholders and creditors, but it is much broader and refers to the development of the country and society as a whole.

Due diligence of the private enterprises must be done with special care, because the joint stock companies that are not quoted on the stock exchange are not obliged to publish their financial statements, as they do not have to submit to the Commission for Securities and the Stock Exchange, but also are not obliged to obtain the opinion of the independent external auditor of their financial statements.

### **3. Financial Due Diligence as the Quality Assessment of Business and Financial Credibility of Companies**

The purpose of the financial due diligence is to provide comprehensive and clear overview of the financial position of the company which will help in its assessment. The intention of the financial statement by due diligence is to understand a business, make an assessment of the financial position of the company and provide the basis for the assessment of the business. It is conducted in order to assess the recent operations of a company, the one which is purchased or to be merged with, as well as to make overall projections of the newly formed entity. Financial due diligence has the highest specific weight because it has to show all the factors of business of the company (Vidaković, 2007).

Financial statements serve as the primary basis for research and analysis of the financial situation, as well as the diagnosis of the health of the company. It is extremely important to know and analyze financial statements because of potential concealing of shortcomings of a company. The biggest threat to the quality of due diligence is the administration of financial fraud and deception which, in the professional literature, is defined as intentionally unrealistic presentation of the basic elements of financial reporting of companies, which range from harmless to very dangerous exaggeration in presenting false profits.

Howard Schilit emphasizes seven basic forms of manipulation of accounting, which are referred to as "the seven deadly sins in accounting" on which special attention must be paid in the process of financial due diligence (Vidaković, 2001):

1. Revenues of dubious quality - income credited and service has not yet been made; income credited, the customer has not confirmed the receipt of the goods; income credited, the buyer has no obligation to pay; sales of goods and invoicing to a subsidiary (subsidiary company); compensate some value to customers and posting of compensation as income.
2. Posting false arrival - Cash received from loans, credited as income, return on investment has been posted as revenue, vendor rebates related to future purchases credited as income.
3. Increase by one-time sales - to increase profits by selling undervalued assets, the inclusion of sales or earnings from investments as part of income, showing sales or profits from investments by reducing their own costs.
4. Displaying the running costs in future or previous business period - very slow amortization costs, delineation of normal operating costs.
5. Avoiding recording of costs or their adequate reduction - failure to record the expenses and obligations that must be covered or settled, reducing the burden of change in accounting assumptions, showing suspicious reserves as income.
6. Display of current revenues in the next business period - the creation of reserves and their display as income in the next business period.
7. Displaying the future costs in the current business period as special charges -Increasing amount of specific costs, inadequate presentation of research costs in connection with the structuring of the company.

### **4. Summary of Task and Financial Reporting**

The basic purpose of financial reporting is to present the economic substance of transactions and events in a way that they really take place, but also to show the consequences of such events in the accounting aspect. For this reason, the conditions that reflect actual transactions and other events indirectly using the standard, express interest in giving a true and fair final account of how transactions and events affect the entire business enterprise. This way of presenting the situation, in which the value of any economic system is measured, is of paramount importance and interest to all those who depend on the realized economic performances of the company subject to reporting (Tpa-Group, 2016).

For our economic systems, this represents a challenge if you take into account the fact that IFRS represents the most prestigious and most reputable reporting system adopted and practiced by global companies. With its

conception, IFRS is primarily directed to disclose to the public its framework for the preparation and presentation of financial statements. As such, it is intended for general public which is interested in reliable market information, and should ensure a balance between two fundamental categories that form the basis of reporting, and these are its users, on the one hand, and the other content of the information to be presented on the other (LehmanBrown, 2016).

The main task of financial reporting is to provide relevant information about the financial position, performance, particularly cash flows generated by the company, which will serve to a diversified structure of various users to make economic decisions. To achieve this objective, it is necessary that financial reports provide information about (Ekonomaska enciklopedija II, 1986):

- property;
- obligations;
- equity;
- income and expenses, including gains and losses;
- cash flows.

This information, along with other information, set forth in the notes to the financial statements, helps users to predict future cash flows of the company, especially the dynamics of creation and certainty of cash and cash equivalents.

If we analyze the requirements for information to be provided by the financial statements, we can conclude that the true and fair presentation of the property and financial status forms the image and success of the company positions itself as a kind of imperative strategic decision making. On these premises the basic utility of reporting for the needs of users of financial statements compiles, where the real picture of the activities of the company considers the current formula, rather than past economic relations and the expected benefits. It's about giving priority to the present and future property and financial conditions and performance, not past, which are comments on the statistical value (Vidaković, 2001).

Expression of balance sheet items at fair value is primarily based on the fact that the accounting value of assets with the use of assumptions in IFRS represent the values that correspond to the planning which defined the expected economic benefits from their further economic use in the company.

In order to prepare financial statements in accordance with International Accounting Standards and International Financial Reporting Standards, Audit Committee, the responsible subject, has at least three members who are independent from business and interest of the company, but are professionals in the field of accounting and finance. Their task is to supervise the preparation and submission of financial statements to the regulator of the capital market or stock exchange, as well as to control segments of the risk management of the company LehmanBrown (2016).

## 5. Conclusion

In conclusion, there is the fact that modern accounting is in accordance with the new standards that place professional accountants in a new position. They have to worry about accounting terms to include only the amounts of assets, liabilities and equity, income and expenses which respect the principle of fair value. In fact, the basic question is who is responsible for determining the fair value measurement and its postulates. For a true and fair picture of the economy of a company, the most responsible is the company management, on the basis of internally developed systems to monitor and control resulting business changes and events. This means that the company must have adopted accounting policies (decisions on the adopted accounting policies), governing the method for determining the current value of assets and liabilities of the company.

To successfully operate a company in the long run, it is necessary to take into account the degree of utilization of all its resources, regularly monitor and analyze the level of their use and find ways to use them more optimally.

The reason for the proper implementation of international standards with additional disclosure (when they become necessary) ensures the realization of a unique interest in almost all cases - and this is a fair value for the fair presentation of the financial statements.

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## Faze bezbednosnog rizika u procesu donošenja odluka u Republici Bugarskoj

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**Apstrakt:** Bezbednost države i društva se analizira i posmatra kao najvažniji segment opstanka naroda i njihovih tvorevina, kao što su postojeći kapacitet, razvoj i kvalitet života. U tom smislu posebno je indikativno bezbednosno okruženje koje predstavlja "neizbežnu" temu istraživanja u različitim naukama. Pretnje su neposredni oblik ugrožavanja bezbednosti i mogu ugroziti postojanje i opstanak države. Pretnje treba shvatiti ozbiljno i realno ih definisati, i sa navedenim pristupom, Bugarska može da reši pretnje ili čak da preduzme mere za smanjenje štete koja se ne može u potpunosti sprečiti.

**Ključne reči:** rizici, bezbednost, moć, Bugarska;

## Phases of the Security Risk in the Decision-Making Process in the Republic of Bulgaria

**Abstract:** Security of the state and society in general can be analyzed and observed as the most important and evolving segment for the survival of the people and their creations, such as reached capacity, development and quality of life. Security environment is particularly indicative as an "inevitable" subject of research in various sciences. The threats are real and can jeopardize the existence and survival of the state in short or long term perspective. Threats should be taken seriously and realistically defined, and with this approach, Bulgaria could resolve threats or even take measures to reduce the damage that cannot be entirely prevented.

**Key words:** risks, security, power, Bulgaria;

### 1. Introduction

Contemporary national and international political arenas are a kind of unstructured complexities, with many actors that are crucial for the process of policy formulation. Dispersion of state authority and activities of key stakeholders at different spatial levels are the most visible changes in a globalized world. The challenges that undermine the state as a sovereign territorial unit are economic, technological and demographic processes. A particular challenge is the change of identity that is happening in real time (Mijalkovski and Tomic, 2013). The growing interdependence of countries in the world and the pressures of globalization are pushing the nation-state from the bottom up, in addition to modern conditions that reveal a new identity and a nation-state is no longer the only option of loyalty and primary base identity. The results of globalization are new, non-spatial identities, which don't derive from the state nations (Friedman, 2000). Bulgaria takes threats seriously, taking a multidisciplinary approach to every security issue (Yordanov, 2013).

### 2. National security of Bulgaria - theory and practice

The functioning of national security of Bulgaria (*in further text NSB*) is based on norms and the theory which was later implemented in practice and can be seen from left to right norms - theory – practice. Implementation of any functions, preventive or reactive, should be considered in all phases of the normative, theoretical and practical, not only in the practical stage, because of potential lack of inadequate normative and theoretical

determination of preventive and reactive functions of NSB that could restrict its practical effectiveness in protecting national values (Yordanov, 2013). In optimal conditions, normative and theoretical determination of preventive and reactive functions of NSB, inconsistent recognition or inability of NSB to successfully apply to the jurisdiction and powers, will adequately protect national values.

Each country brings as many laws as necessary, and they can be grouped in the case of the NSB according to the structural elements. As much as it is normatively regulated by the functions of the NSB, it is not enough to provide the "total" and optimal engagement. Such versatility and comprehensiveness is possible to achieve high-quality theoretical "support", which is why it is often in circulation phrase - normative and theoretical arrangement of NSBs. Normative and theoretical determination of the functions NSBs assumed a valid answer to the questions: who should protect national values and how they should be protected? The theoretical determination of threatening activities give adequate significance to individuals as their holder, however, is principally focused on structured carriers, regardless of their social status - sovereign or non-sovereign. The Republic of Bulgaria has gone through a thorny path to the moment of the adoption of the current national security strategy (Yordanov, 2013). This policy is directly oriented towards the management of security risks. Bulgaria has not developed so far such a policy of national security in the sense of conscious idea, and targeted reduced risks remained in the shadow of a reactive situation. Government relies on the "natural flow of things," in the context of potential catastrophic events, social collapse and anarchy (Friedman, 2000). Modern national security policy must have conceptual basis in order to provide a framework for each specific strategy and its related policies. This concept has never been developed in Bulgaria, and has never been open to public debate. Depending on the holders of the dangers of threatening activities undertaken or their intentions, their carriers were sorted into two groups in those documents: the actual and potential, which in spatial terms can be inside and outside the country's borders. Bulgaria takes seriously security threats and defines them realistically as what they are.

It should be noted that the realization of the functions of NSB is its most important integral part. This is because it includes physical disabling of threat sources with the aim of causing malicious changes. Therefore, NSB practically functions consistently, creatively and effectively through competencies and powers, and its reliable evidence of such engagement is the state of national security in a given moment.

### **3. Republic Bulgaria and regional security**

Bulgaria is a country in South Eastern Europe, it shares southern borders with Greece and Turkey, western borders with Serbia and Macedonia, and northern borders with Romania. Bulgaria is located on an important traffic route, which connects the valley of the river Marica with Central Europe, Asia and the Middle East. Threats in the case of Bulgaria cannot be from NATO member countries, because Bulgaria is a member of it itself, which automatically excludes Greece and Turkey, which could be the source of threat if they were not members of Alliance. The only subject of the dangers could be Serbia because it is the only country that is non-aligned. Countries of the region have common interest to confront security challenges, and those challenges have become regional problems and legitimate questions for NATO because NATO is dealing with any issue that a given country considers important for its safety. Member countries have security guarantees, as endangering the security of any of them was considered as a security issue for the entire Alliance. Bulgaria's accession to NATO was a key priority of the foreign policy of this country in the last decade of the 20th century. Active participation in the Partnership for Peace program contributed significantly to the readiness of the Bulgarian armed forces and facilities for NATO membership. This strategic objective is achieved on 29 March in 2004 (Barany, 2004).

The implementation of the related obligations arising from membership in NATO is a key element of the defense policy of the country. NATO remains a crucial guarantor of security of Bulgaria and streamlines the successful response to possible threats to the country. In return, Bulgaria is an active and predictable member of the Alliance and aims to contribute to the maximum its successful activities in various fields. Bulgarian contribution to NATO's activities has many aspects. Bulgaria is actively working to strengthen political dialogue, consultation and coordination within the Alliance; it is contributing to NATO operations and missions in crisis situations and the development of military capabilities. Bulgaria consistently promotes an open door policy of NATO, shares the opinion that the European and Euro-Atlantic perspectives are the most stable guarantee for the establishment of lasting security and prosperity. Deciding on the subject of security threat has characteristics of decision-making processes in complex organizational systems. Such systems operate on the basis of decisions taken by the person who is the head of a number of qualified people, and they all indicate different things - the team, the staff, committee and so on. Responsible people practice their voting rights by respecting certain technology decision-making, which includes the processing and use of information to achieve a particular objective. Every level of the organizational management system brings a new decision as an act of competent people defining



organizational units, arising from the decision of a higher assumed level, based on whose implementation they aim to achieve the set goal. Decision-making at any level of danger of the subject and the subject of security, irrespective of the manner of its adoption, must be meaningful, timely enforceable. The absence of supreme authority in the international community and the limited ability of supreme power in many countries of the modern world to ensure a harmonious internal political climate, among other things, have the effect that human collectives (national, non-governmental, transnational) individually create and undertake a variety of measures and activities in order to enhance their vital values and increase their security. The absence of response and increasing their security, results in the formation of numerous new and diverse challenges and threats to national security (Friedman, 2000).

The competent authorities and institutions of particular human collectivity, regardless of the strategy for defending and strengthening their own vital values, recorded current challenges and threats and, in accordance with their powers, decided on the manner of their treatment, in fact, knowingly exposing the dangers or overlooking the possible risk. The competent authorities in Bulgaria are the State Agency for National Security - SANS, the State Commission on Information Security - SCIS as one of the most important factors on which security of Bulgaria is based, accompanied by the navy, air force, army and other security services, whose main task is the preservation of order in the state of Bulgaria. Bulgaria is an advocate of cooperation - including military cooperation - between NATO and Russia, seeing it as the basic element of security in the Euro-Atlantic region. Such cooperation should include political dialogue and practical cooperation based on mutual benefits. According to the Bulgarian government, the main areas of cooperation of the Alliance and Russia are: the fight against terrorism and piracy, transit of inventories in Afghanistan and the fight against drug trafficking, the future of the Treaty on Conventional Forces in Europe (CFE), issues of non-proliferation of weapons of mass destruction, disarmament and energy security. When considering developing partnership with countries that are not NATO members, Bulgaria is of the opinion that such a partnership should be based on the principles of balance, pragmatism and flexibility, and take in the geographical and functional approach. Bulgaria strongly supported the inclusion of Serbia, Montenegro and Bosnia and Herzegovina in the Partnership for Peace. Furthermore, this country advocated the launch of an intensive dialogue with the latter two countries. It also supports the development of the Mediterranean Dialogue and the Istanbul Cooperation Initiative as an important contribution to building a regional security and stability as a response to the new challenges faced by the Alliance in the area between the Adriatic Sea and the Caspian Sea - a region of strategic importance to Bulgaria. At the end, Bulgaria will seek to maintain an integrated approach to regional security within the framework of international organizations that play an important role in this area - NATO, EU and OSCE.

Conscious risk is being exposed when an entity consciously ignores actual or potential threat to the security of its own vital values, due to subjective reasons (lack of self-criticism, incompetence, corruption, etc.) (Hoffman, 1995). For example, government institutions of certain state have reliable information on a very unfavorable state of the national economy, whose improvement is uncertain, unless radical changes are made. The subject of security is exposed to the unconscious risk due to insufficient knowledge of the intentions and plans of the holders of the security challenges and threats. Hidden risks may have unforeseen adverse consequences to the subject of security and to the threatened subject. In the registration phase, larger number of security challenges and threats can be recorded, facing the problem if all equally pose a threat to the security of vital values. If something poses a threat, there is a problem of ranking a threat. First, the real danger is being solved, which at that time largely endangers the safety of operation of the object perceived, until the problem regarding the potential dangers is being resolved afterwards. Bulgaria has stayed at the phase of identification of threats and challenges. Refugee wave through Balkan countries has been identified as the greatest threat to the security of Bulgaria. Former Bulgarian Prime minister Plevneliev was convinced that a clear signal of unity and support was sent to security sector institutions. According to him, the threat of asymmetrical transnational character has risen, with the spread of terrorism based on religious and ethnic extremism, which was the result of the failure of the state in the Middle East, North Africa and elsewhere. Plevneliev has identified that terrorist fighters have negative long-term effect on the security environment. According to him, mass flows of refugees and migrants caused by armed conflicts and imbalances in socio-economic development threaten to turn into a humanitarian crisis. He added that the influx of refugees and illegal migration have become a major risk factor for the EU and its member States. Problems with migration, human trafficking and terrorism will continue to pose serious threats to the national security of Bulgaria. Plevneliev noted that the weak states and the record number of conflicts in Afghanistan, the Middle East and North Africa, as well as the rise of an Islamic state (IS) in Syria and Iraq have led to an unprecedented movable pressure on Europe. Bulgaria was also affected by these trends, due to the country's external border of the EU. This development put to the test some of the major common policies of the EU, such as Dublin system and the Schengen Agreement.

The risk of terrorist attacks in Europe is growing as a result of increasing radicalization of certain groups in society, particularly in Western Europe. Members of the Council also noted the growing trend of global political opposition between the EU and NATO on one side and Russia on the other. Other threats are ongoing crisis in Ukraine, as well as the continuation of the so-called frozen conflicts near the Bulgarian border (Hoffman, 1995). Plevneliev pointed out the lack of effective measures to ensure the energy security of the country, with Bulgaria remaining largely dependent on one dominant supplier of natural gas. The Prime Minister concluded that there is a need to invest in security and defense, with the guidance issued by some of the following recommendations. He urged the government to propose measures aimed at optimizing the functioning structure of the security sector and improve their ability to cope with the changed security environment. Participants at the meeting recommended to the Security Council in the Council of Ministers to adopt an action plan on the treatment of refugees and potential mass migratory waves. They also urged the government to develop a draft law on combating terrorism. The Council also advised the Bulgarian institutions and politicians to actively work on establishing a common European position on dealing with refugee wave and lasting solution to the conflict in the Middle East and North Africa.

Bulgaria has also identified human trafficking as one of the major security threats. National Security Council consultation is concluded that human trafficking is a major threat to the national security of Bulgaria. Speaking after the forum, former Prime Minister Rosen Plevneliev pointed out that the issues of migration, human trafficking and terrorism continue to be a serious threat. Wave of refugees has caused a burden on social systems and the security of the state, causing serious saving of financial resources. The state does not have enough money to cope with the strengthening of cyber threats, for example - institutional websites hacked in recent local elections, the president said. This country cannot cope with these challenges together with its partners in the EU and NATO, the head of state said in conclusion.

Ethnic groups are one of the serious problems of Bulgaria. Religious violence tends to be focused on Muslim and Christian missionary group. According to some sources, Bulgarian Roms are targets of ethnic violence (US 11 Feb. 2015; 6 Mar. 2014, the Council of Europe on 16 September 2014, 9). According to Deutsche Welle (DW), German "international broadcaster", Roms are most often attacked ethnic group in Bulgaria (Ibid. 6 Mar. 2014). In addition to many other hazards and challenges in this group, there is the Black Sea issue. Bulgaria has a vital interest in strengthening security in the Black Sea region. Possible destabilization of some parts of it may significantly slow down the progress of democracy, the rule of law and free market economy, and, finally, the Euro-Atlantic integration of the countries that are listed on this intention. This would put an obstacle in the fight against organized crime and various kinds of traffic derived from it and in the end will turn the Black Sea into security "black hole". In this negative scenario, the precious resources of the EU will be diverted away from the economic development of the region. This would lead to further division between the unification of Europe and some parts of the region. Bulgaria has been very active in promoting regional efforts in the fight against new and emerging threats to international security. This country is engaged in intensive cooperation within the SECI, Interpol and Europol. Trilateral agreements to combat organized crime, drug trafficking, human trafficking and terrorism have been signed with Greece, Turkey and Romania. Bulgaria is engaged in extensive exchange with Macedonia and neighboring countries in the field of justice and home affairs. Commission for the control of the common borders has been established with Greece, Turkey and Romania. Bulgaria is particularly keen to help improve further harmonization of regulations in the areas of border control, organized crime and drug trafficking, creating a common platform for addressing these important new challenges. In addition, the Bulgarian politicians and decision-makers are dedicated to the fight against new and emerging threats. "Soft security" issues on the political and legal plan provide ample space for further cooperation and contribution to the policy of expanding NATO. Bulgaria has been able to complete its transition to democracy and a market economy, ensuring sustainable basis for development. Ethnic relations are comfortably accommodated in the democratic social and political frameworks. Bulgaria regains its place in the international community and its respect for European values has been recognized many times. There is much evidence of Bulgaria as a stable democracy that upholds human rights and the rule of law, as well as its sustainable current effective cooperation with NATO. Bulgaria is a country that realizes a balanced and successful regional policy in an unstable region that will increasingly play a role in the new century, facing new threats to international security. The story of Bulgaria in the post-1989 period is one of the achievements through hard work and perseverance. These are not only local legends - they have repeatedly been recognized and supported by the Euro-Atlantic partners in Bulgaria (National risks of Bulgaria 2020-2025).

#### **4. Classification of Risks and Threats in the Republic of Bulgaria**

Phases of ranking security challenges and threats are related to the risks that are registered as threats to the state of national security. The eventual oversight inevitably causes harmful effects in subsequent stages of decision-

making. The risk related with only external security challenges and threats is multifaceted. It consists of the possibility to underestimate or overestimate the key security challenge or threat to the security facility or real, actual, qualified threat to the security challenge. This is why Bulgaria has prepared a document of national security risks 2020-2025, where all the possible scenarios that directly or indirectly threaten or may threaten Bulgaria are carefully combined. Unfortunately, Bulgaria has been underestimating its capacities and preparedness when it comes to emergency situations for years. This issue should be hopefully resolved in the coming years (National risks of Bulgaria 2020-2025).

Notification process is complex, risky and very specific to each entity individually. Of course, within the comprehensiveness there is highlighted focus, which, if wrongly chosen, can cause failure. The commitment of intelligence activities holder on the basis of the application of only one method (espionage, observer, reconnaissance, operational, technical) of data collection, regarding system to protect the security of the security object, represents a major risk for the entity's risk, because there is a real possibility of relevant facts absence. A similar risk to security objects are limited intelligence options that use only one method for gathering information about the system of protection of the operation object. Holders of intelligence activities' inability to verify the information collected about the system of protection of the facility operation, situation or problem that is frequently encountered - is the risk with unforeseeable consequences. The lowest risk for the entity represents a hazard situation where holders of its intelligence activities have the option of using more than one method of collecting data on the system to protect the operation objects. Such opportunities include the rapid detection of possible wrong choice of focus and change the center of gravity, and then allow a permanent flow of information, timely and efficient evaluation of the collected information, and therefore, the removal of possibility of deception by the operator's safety. The subject of security is making efforts to optimally inform holders of security challenges and threats. Such a request is achieved through the engagement of all its resources, especially the part thereof that is professionally responsible for the safety and security of vital intelligence value. Main task is, among other things, to obtain relevant information about the holders of real and potential threats to the security of the security object (Milošević, Ničić, 2004).

The usual procedure involves knowing or timely notification of own security-intelligence system, while unusual procedure involves knowing the public effects of it (e.g. there was a spectacular terrorist attack, armed rebellion began in which one did not have enough relevant information, suddenly external military aggression broke out, etc.). Risks in analytical and forecasting process of deciding what the entity's risk is and for the safety of the subject, to a large extent depend on the risks incurred or things that are not done in previous (Intelligence) stage of decision-making. The aforementioned entities at this stage, based on the available intelligence (quantity and quality of verifiability) on the other side (the opponents, potential enemies) analyze and evaluate all the circumstances (factors, facts and circumstances) that have an impact on the achievement of set goals and predict what will happen in the future, at a desired moment.

Regarding subject that was superior in intelligence phase, it is logical to keep that advantage in analytical and prognostic stage of decision-making, because collected (verified) information on the other side allows them to undergo through formal logical analysis, which is based on giving answers to the questions in the formal manner. The main line consists of questions when - what - where / what, and subsidiary why - what - how. Other routes complement the two mentioned and between the three questions, a triangle is centrally formed. Analyses are carried out in terms of clockwise. By replying to these questions path leads to the proposal from the decision maker and decision-making, if the proposals are accepted by decision-makers. For each response other methods of analysis can be used (subject-phase, consultative, group evaluation methods, statistical and mathematical methods).

## 5. Conclusion

When considering the potential risks for the security objects, in the analytical-prognostic stage of decision-making the assessment of goals, assessment of human factors, the identification and assessment of organizational forms to achieve the objectives, evaluation and assessment of space weather should be borne in mind. Risk is the possibility that instead of respecting the necessary reality indicated by verified data (necessary correction total change or cancel the ultimate goal), decision is to remain at the previous definition of the objective - an unrealistic goal.

Incorrect or unrealistic assessments of the area where the object is located can pose a major risk for the entity. Also, time estimation is quite risky and, ultimately, consists of two parts. The first involves the estimation of time available for the preparation and execution of the task forces that will be engaged in the realization of the planned changes at being the object of action, and the other includes an assessment of the current time from the

point of view and perspective of the political situation in the security environment. In both cases, the entity is exposed to conscious risk. Bulgaria does not underestimate the threat of a new type, in particular cyber-terrorism and phenomena that affect energy security. It draws attention to the need to guarantee uninterrupted supply of energy in cooperation with the EU and NATO partners. The former government, headed by Prime Minister Sergei Stanishev, aware of the relationship between energy and national security, attached secondary importance to NATO's role in ensuring energy security. It appreciated the "added value" to contribution of the Alliance through intelligence-based threat analysis. On the other hand, the importance of security threats that may arise from climate change, especially in developing countries, as well as terrorist attacks on energy infrastructure, was highlighted as well. Therefore, NATO's responsibilities in relation to energy security were limited to physical protection of energy infrastructure. Diversification of supply is seen as the responsibility of the EU. It seems that this position has not changed significantly. It is important to note that former President Parvanov saw a special role for NATO in the sphere of energy security. As a coastal state, Bulgaria attaches great importance to participation in such programs as the protection of NATO port and development of maritime control and management system. It also supports the development of infrastructure on the territory of the Allied members. Absolute priority for Bulgaria is to increase interoperability and compatibility of the armed forces of the Allies. Barriers to this include problems with the modernization of the Bulgarian armed forces, which could lead to undermining the credibility of Bulgaria as an ally.

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## Компаративна анализа конкурентности између компанија Самсунг и Епл

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**Апстракт:** Рад има за циљ да објасни кроз компаративну анализу конкурентност између компанија Самсунг и Епл. Такође, чланак указује на утицај конкуренције на убрзање развоја нових технологија. Осим тога, рад даје увид у пословање компанија Самсунг и Епл за период од 2012. до 2016. године. Након уводног поглавља у ком су представљене компаније Самсунг и Епл, њихове визије, мисије, циљеви и стратегије и пословне филозофије, овај рад пружа опширну упоредну анализу ове две компаније, од графичких приказа броја запослених, улагања у иновације, удела у тржишту, профитабилности до упоредног приказа њихових производа. На крају овог рада је упоређен менаџмент управљања квалитетом, SWOT анализа, као и закључне премисе и литература. Сврха и значај овог рада јесте приказивање битности конкуренције у развоју сопствених потенцијала. Такође, овај рад је примењив како за студенте, тако и за маркетинг стручњаке који желе да употпуне своја лична истраживања.

**Кључне речи:** Квалитет, иновације, профитабилност, технологија, учешће у тржишту.

## The Comparative Analysis of Competitiveness Between Samsung and Apple

**Abstract:** The paper aims to explain the comparative analysis of competitiveness between Samsung and Apple. Also, the paper shows the impact of competition on accelerating the development of new technologies. In addition, the article provides insight into the operations of Samsung and Apple for period between 2012 and 2016. After an introduction in which Samsung and Apple are presented by their vision, mission, goals and strategies, and business philosophies, this article will provide a detailed comparative analysis of the two companies, from the graphic displays of number of employees, investment in innovation, market share, profitability to a comparative review of their products. At the end of this work TQM philosophy, SWOT analysis, and final premise and literature will be compared. The purpose and significance of this paper is to show the importance of competition in the development of their own potential. Also, this paper is applicable both for students and for marketing professionals who want to complement their personal research.

**Key words:** Quality, inovations, profit, technology, market share.

### 1. Увод

Компаније Самсунг и Епл су гиганти у области нових технологија и велики конкуренти. Занимљива чињеница је да иако су ове две компаније конкуренти, заправо помажу једна другој да буду боље. Пример овакве сарадње јесте да Епл користи Самсунгове делове, попут матичне плоче и сл. Ове две компаније представљају два различита приступа. Компанија Самсунг покушава да буде што иновативнија и да свој асортиман диверсификује, а самим тим и допре до одређеног броја купаца, док је Епл фокусиран на једно поље истраживања и тиме се намеће купцима.

Конкурентност представља константну тежњу конкурената да буду бољи од оног што се тренутно налази на тржишту, а самим тим они испитују своје лимите. Конкурентност доприноси већем квалитету производа или услуга, али и већем избору. Компаније Самсунг и Епл показују како утиче конкурентност на развој производа и у наредним странама ће бити приказана детаљна анализа конкурентности између те две компаније.

## 1. Визија, мисија, циљеви и пословна филозофија компанија

### 1.1. Самсунг

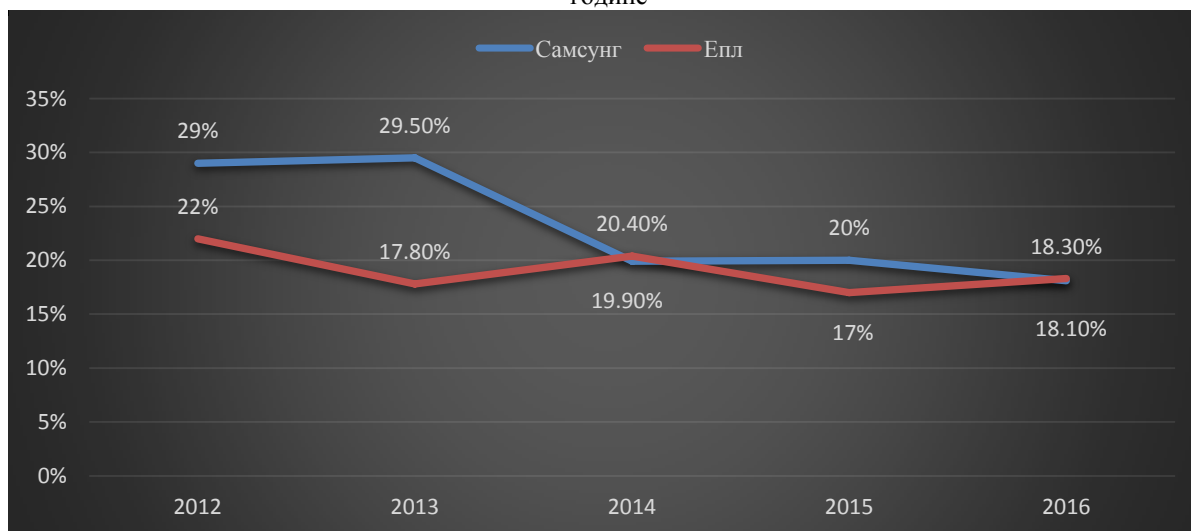
Компанија Самсунг основана је у граду Сувон у Кореји 1969. године и данас је један од лидера у области ИКТ-а са својих 200 филијала широм света. Самсунг броји 392.305 запослених према подацима из 2016. године. Визија компаније гласи: „Инспириши свет, стварај будућност“. Мисија компаније је да надахну свет новим технологијама, производима и креативним решењима које ће обогатити животе људи, такође и допринети друштвеној одговорности и одрживој будућности. Стратегија предузећа јесте подстицање креативности, партнерства и изванредности код људи. Циљ Самсунга јесте да до 2020. године достигне годишњу продају од 400 милијарди америчких долара, као и да буду у топ 5 светских брендова по вредности компаније, као и континуирани раст и развој. Пословна филозофија компаније Самсунг је оријентисаност ка развоју и сталним иновацијама, такође, компанија сматра да су запослени, њихова креативност, таленат и посвећеност кључ њиховог успеха.

### 1.2. Епл

Компанија Епл основана је у граду Купертино, САД, 1976. године и један је од главних конкурената компаније Самсунг у области ИКТ-а. Епл компанија броји 116.000 запослених према подацима из 2016. године. Визија компаније гласи: „Постати једна од највреднијих светских компанија и симбол иновативности и елегантности у дизајну“. Мисија компаније Епл јесте мењање пословног окружења, заједно са утицајем и могућностима које му пружа компанија Епл. Стратегија предузећа јесте диференцирање од конкуренције. Циљ Епла јесте стварање нових производа и услуга као што су јачи персонални рачунар, унапређена подршка, свестрани музички плејери и сл. Пословна филозофија компаније Епл гласи: јединственост у приступу дизајнирања рачунара, паметних телефона, софтвера и оригинална маркетиншка кампања.

## 2. Удео компанија Самсунг и Епл на глобалном тржишту паметних телефона у периоду од 2012. до 2016. године

Слика 1: Присутност компанија на глобалном тржишту паметних телефона у периоду од 2012. до 2016. године



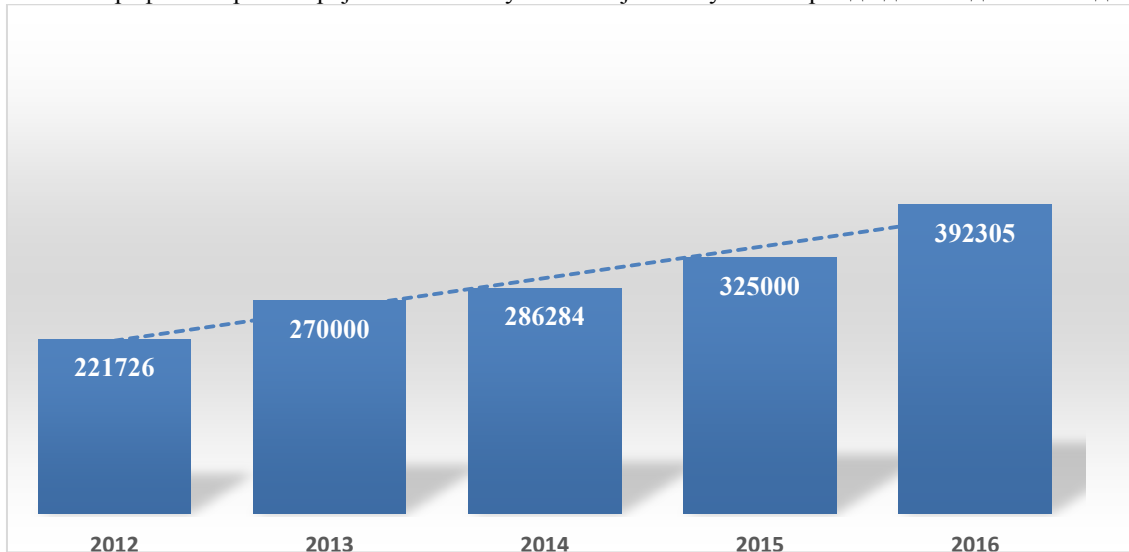
Извор: <http://panmore.com/>. Анализа: Аутори.

На графикону изнад приказана је присутност компанија на глобалном тржишту паметних телефона у периоду од 2012. до 2016. године. Компанија Самсунг је у 2012. и 2013. имала око 30% удела на глобалном тржишту паметних телефона, док је након глобалне кризе 2014. године тај проценат пао за око 10% и сада износи око 18%. Насупрот компанији Самсунг, компанија Епл је достигла свој врхунац и у последњих 5 година удео у тржишту је између 17.80% и 22%.

### 3. Компаративна анализа броја запослених за период од 2012. до 2016. године

#### 3.1. Самсунг

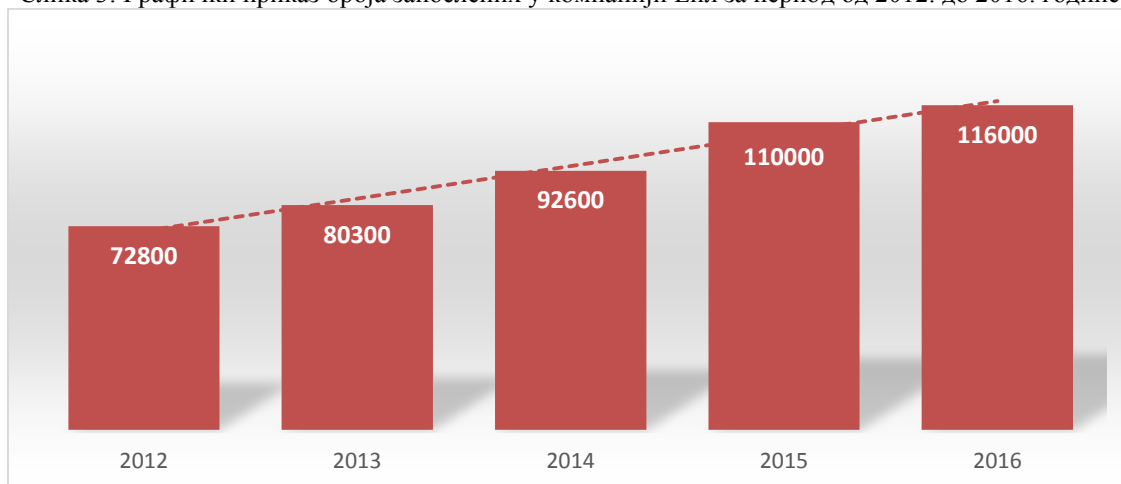
Слика 2: Графички приказ броја запослених у компанији Самсунг за период од 2012. до 2016. године



Извор: <http://www.samsung.com/rs/>.

#### 3.2. Епл

Слика 3: Графички приказ броја запослених у компанији Епл за период од 2012. до 2016. године

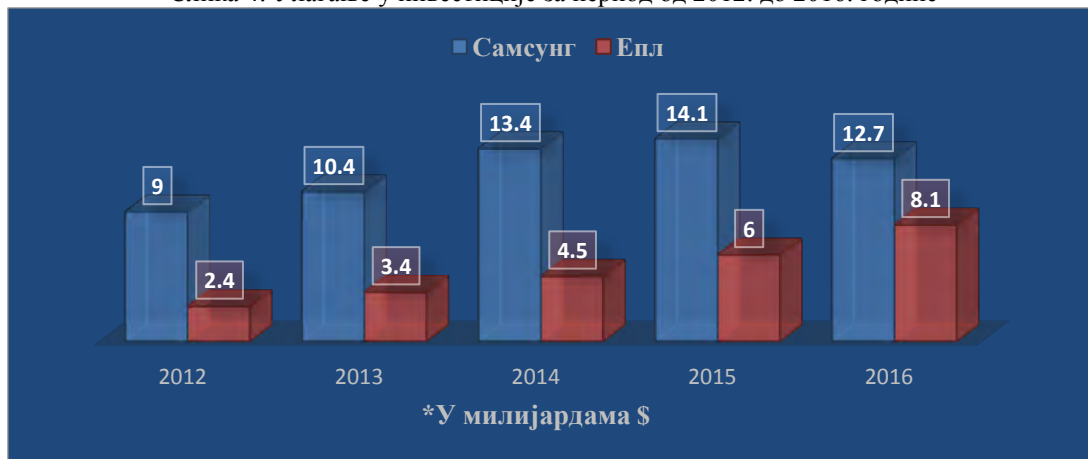


Извор: [www.apple.com](http://www.apple.com).

Упоредна анализа броја запослених јасно показује да Самсунг има већи раст броја запослених у протеклих пет година.

#### 4. Упоредна анализа улагања у инвестиције за период од 2012. до 2016.

Слика 4: Улагање у инвестиције за период од 2012. до 2016. године

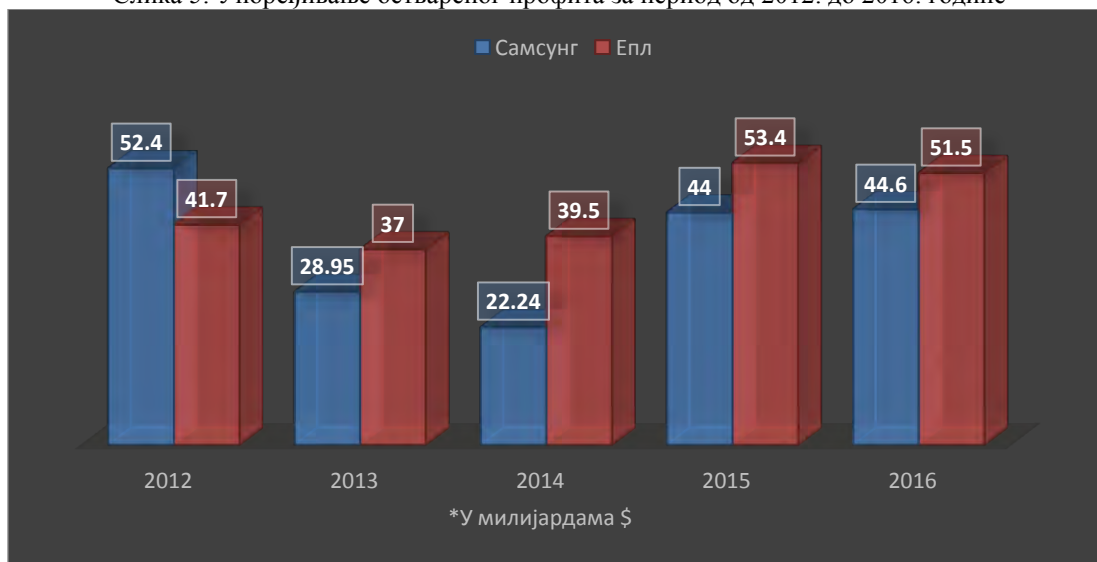


Извор: <https://www.strategyand.pwc.com/innovation1000>, приступљено 20. 03. 2017. Анализа: Аутори

На овом графикону је приказано улагање у инвестиције за период од 2012. до 2016. године. Компанија Самсунг је на пољу ИТ-а и високе технологије на првом месту по улагању у инвестиције и оне се у претходних 5 година крећу од 9 до 14.1 милијарду долара, док компанија Епл улаже знатно мања средства у иновације и тај износ се креће од 2.4 до 8.1 милијарди долара. Упркос већим улагањима у инвестиције, компанија Самсунг варира између 3. и 6. места по иновативности у претходних 5 година, док је компанија Епл од 2012. на првом месту по иновативности.

Упоредна анализа оствареног профита за период од 2012. до 2016. године

Слика 5: Упоредивање оствареног профита за период од 2012. до 2016. године



Извор: <http://panmore.com>. Анализа

Графикон изнад показује укупан профит у претходних 5 година обе компаније. Компанија Самсунг од 2013. године остварује мањи профит од компаније Епл због тога што значајно улаже у иновације и излази на нова тржишта. Дугорочно гледано, компанија Самсунг има већи финансијски потенцијал од компаније Епл.



## 5. Асортиман производа

### 5.1. Самсунг

Компанија Самсунг располаже великим бројем разноврсних производа из домена мобилне телефоније, ИТ-а, кућних апарата, аудио-видео опреме, као и ТВ уређаја. У наредној табели дат је преглед свих важнијих Самсунгових артикала.

Табела 1: Приказ Самсунгових артикала

Мобилни уређаји	ТВ уређаји	AV опрема	Кућни апарати	ИТ
-Паметни телефони	-Q LED	-Soundbar звучник	-Фрижидери	-Монитори
-Носиви уређаји	-SUHDTV	-Систем за кућну забаву	-Апарати за кување	-Штамачи
-Таблети	-UHDTV	-Дигитална компонента	-Клима уређаји	- Мултифункционални уређаји
	-FULL HD/HDTV	-Blu-ray и DVD плејер	-Машине за веш и усушивачи	-Потрошни материјал

Извор: <http://www.samsung.com/rs/>

### 5.2. Епл

Компанија Епл располаже знатно мањим бројем производа у свом асортиману и углавном је фокусирана на мобилну телефонију, ИТ и паметне уређаје. У оквиру својих брендова Епл развија по неколико различитих уређаја, на пример iPod садржи неколико верзија попут *classic*, *nano*, итд. У наредној табели дат је приказ Еплових производа.

Табела 2: Приказ Еплових артикала

Мобилни уређаји	Паметни уређаји	ТВ уређаји	Аудио уређаји	PC уређаји
iPhone и iPad	iWatch	iTV	iPod	Mac

Извор: [www.apple.com](http://www.apple.com)

## 6. Упоредна анализа менаџмента квалитетом

У данашњем пословном окружењу управљање квалитетом је изазов са којим се суочава свака компанија. Управљање тоталним квалитетом представља филозофију, сет алата и процеса чија примена доноси конитнуирано унапређивање и потрошачку сатисфакцију. Принципи тоталног квалитета имају за циљ да унапреде пословање кроз партиципацију свих запослених у решавању проблема у свим деловима организације.

TQM концепт се залаже за победничко понашање, односно „win-win attitude“, обезбеђујући додатну вредност производима и услугама. Овакав приступ обједињава концепт квалитета производа, процесну контролу, обезбеђење квалитета и унапређење квалитета. TQM покрива све функције у организацији, почевши од маркетинга и продаје, кроз дизајн, производњу и услуге. За успешну имплементацију неопходна су три фактора: ефективан тренинг, ефективна имплементација и потпуна посвећеност топ менаџмента. Основни концепти ове филозофије су континуирано унапређење процеса, усредсређеност на корисника, превенција дефеката и универзална одговорност (Томић 2013).

Самсунг и Епл примењују TQM у руковођењу квалитетом, с тим што је Самсунг фокусиран на управљање изврсношћу и резултатима који афектују на потрошаче. Епл је фокусиран на класични TQM и своје производе је усмерио на оно што сматрају да потрошачи желе.

### Компаративна SWOT анализа

Компанија Самсунг важи за компанију која је међу најбрже растућим светским компанијама, и предвиђања су да ће до 2020. године премашити 400 милијарди долара у продаји својих производа. SWOT анализа компаније Самсунг представља додатак компаративној анализи конкурентности, али пружа и потпуније разумевање компаративне анализе.

Слика 6: Приказ SWOT анализе компаније Самсунг



Компанија Епл важи за једну од најиновативнијих компанија на пољу ИТ-а и упркос мањем буџету за иновације успева да опстане на водећем месту по иновативности. Епл важи за највреднији светски бренд са процењеном вредношћу од 178.12 милијарди долара према подацима из 2016. године. SWOT анализа компаније Епл доприноси дубљем разумевању ове анализе.

Слика 7: SWOT анализа компаније Епл



## 7. Закључак

Компаративна анализа компанија Самсунг и Епл показује како конкурентност позитивно утиче на убрзани развој нових технологија и производа. Такође, компаративна анализа ове две компаније приказује да постојање конкуренције заправо помаже постављању нових циљева и тестирања сопствених могућности.

Глобално тржиште је постало окупирано новим брендovima, али упркос томе компаније Самсунг и Епл и даље имају висок проценат удела у тржишту који у претходних 5 година варира између 36% и 51% на глобалном нивоу. Такође компаније Самсунг и Епл имају значајна средства у буџету који је намењен за иновације и који такође варира између 9 и 14.1 милијарди долара за компанију Самсунг и између 2.4 и 8.1 милијарди долара за компанију Епл. Ово истраживање је показало да буџет за иновације не значи нужно и прво место по иновативности, у последњих пет година, компанија Епл константно држи примат по питању иновативности, док компанија Самсунг варира између трећег и седмог места.

Од 2012. године компанија Самсунг има бржи раст по питању броја запослених те је у претходних пет година порасла од 221.726 запослених на 392.305 запослених, док је у истом периоду компанија Епл порасла са 72.800 запослених на 116.000 запослених. Осим што су једни од највреднијих светских брендова, компаније Самсунг и Епл спадају и у најпрофитабилније компаније са годишњим профитом између 22.4 и 53.4 милијарде долара.

Контрола квалитета у обе компаније је на високом нивоу и константно се улаже у тренинг запослених, како би квалитет производа био на задовољавајућем нивоу и како би одговорио потребама купаца. Компанија Епл, иако има мањи асортиман производа у односу на компанију Самсунг, показује да фокусираност у једној сфери пословања, конкретно ИТ, може бити веома профитабилна. Ипак,

компанија Самсунг, дугорочније гледано, има веће шансе за унапређење и ширење свог бренда на нова тржишта, па самим тим се може очекивати и раст вредности бренда, као и раст профита.

SWOT анализе обе компаније приказују да обе компаније, упркос томе што су међу највећим светским брендovima, имају своје недостатке и опасности које им прете од све веће конкуренције.

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## Konceptualni pristup kreiranju bezbednosne politike Republike Makedonije Marjan Gjurovski<sup>1</sup>

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**Apstrakt:** Politika bezbednosti je veoma složena aktivnost i teško je utvrditi koja je od njih uspešna. Od mnogobrojnih faktora koji utiču na uspešno razvijanje politike bezbednosti, na prvom mestu treba da budu oni koji se tiču nepristrasnog identifikovanja bezbednosnih pojava, zajedničke saradnje i kordinacije između službi bezbednosti. Osobe koje su odgovorne, kompetentne i u obavezi da razviju politiku bezbednosti, na raspolaganju treba da imaju pravovremene i objektivne informacije o bezbednosti. One im omogućavaju da izvrše realnu procenu bezbednosne situacije i predvide buduće bezbednosne događaje.

Uspešna, odnosno dobra politika bezbednosti je ona koja je u mogućnosti da reši bezbednosne probleme uz minimalne resurse i minimalnu štetu. Savremene ekonomske, političke, zakonske i kulturne prilike u svetu diktiraju potrebu za zajedničkom politikom bezbednosti na globalnom nivou, zatim na nivou ujedinjenih država ili regiona, kao i na nivou nacionalne države.

Sadržaj politike bezbednosti je „proizvod“ realnih situacija i realnog života u određenoj državi, regionu i svetu. On bi trebalo da bude u službi društva, države i građana tako što će omogućiti bezbedan napredak ukupnih odnosa unutar zajednice.

## Conceptual Approach in Creating Security Policy of the Republic of Macedonia

**Abstract:** Security policy is a very complex activity and it is difficult to determine which policy is successful and which one is not. From the multitude of factors which influence the success of developing the security policy, those relating to the objective detection of security-related phenomena, mutual cooperation and coordination between the security institutions should be put on the first place. Those responsible, competent and obliged to develop security policies should have timely and objective security information at their disposal. It would enable them to make real security assessment, to determine the security situation and to predict future security events.

A successful or good security policy is the one that is able to resolve the security issues with minimal resources and minimal damage. The contemporary economic, political, legal and cultural conditions in the world determine the need for concerted security policy at world level, and also at the levels of states or regions, as well as the national state.

The content of the security policy is determined by or is a “product” of the real situations and the real life in the particular state, region or in the world. It should be in the function of the society, the state and the citizens, so as to provide for safe improvement of the overall community relations.

**Keywords:** *security policy, risks, threats, security system, security, concepts, theories*

By declaring its independence and sovereignty on September 8, 1991, the Republic of Macedonia began gradually to build its security policy. During the first years of the independence, an independent system of national security was discussed, the institutions of the state were built, but there was no one to work on preparation of the basic documents or the construction of the security policy. Moreover, there wasn't any strategic document that treated security conditions. The security policy was an expected concept in the following period which was moving in parallel with the process of building the security system of the Republic of Macedonia. The country began building its own autonomous modern system of security based on the new challenges and threats toward the new independent country. They opened many processes of profound and fundamental changes in all areas of life: economics, politics, health, education, culture, foreign policy, defense,

security and so on. Given that the Republic of Macedonia has a very short 'career' as an independent country and that it hasn't worked previously on building its own security policy, and if we take into account the relative lack of experience and professional knowledge in state institutions, bodies and individuals engaged in the domain of security, it was initially a potential source of problems and a factor indirectly jeopardizing the interests of the country.

After its independence in 1991, Republic of Macedonia didn't own any specific model or plan for creating a strategic-doctrine framework. The strategic documents in that period were not created according to a basic plan but every document was created as a result of specific reasons and needs for its creating, because of which very often there was a reaction from the environment. But during the 1990s and early 2000s, there was always a consensus of the general public about the need to develop and adopt such strategic - doctrinal framework and about the implementation of reforms and policy execution, so these years are called decade of strategies.

The adoption of the first strategic documents started proclaiming the need of a common position for addressing the security issues with one comprehensive document that would summarize the joint action of all stakeholders for achieving the security of the country.

The first strategic documents adopted in the Republic of Macedonia were the White Book for defense, adopted in 1998, and the Strategy for defense, adopted in 1999. Initially it appeared that the hierarchy of adopting strategic documents by importance hadn't been preserved because the comprehensive strategies that would lead the whole security system as the Ohrid Framework Agreement and the National Concept for Security and Defense were passed in 2001 and 2003, followed by the adoption of the Strategic Defense Review and strategies for police and border management, surpassing the gap caused by the absence of comprehensive strategies which in turn would be a guide for the other sectors. Another comprehensive document that was adopted was the National security strategy. Given that the first developed documents were the White book for defense and the Strategy for defense, which should actually have emerged from the National Concept for security and defense and the National security strategy, their defining and adoption opened the need for updating virtually all strategic - doctrinal framework of the state.

The process of developing a strategic-doctrinal framework in the country can be divided into two periods. The first period is the decade of the 1990s, characterized by taking inadequate procedures for initiating the creation of a strategic-doctrinal framework. The second period is the period just before the end of this decade and the first years of the 21st century, attesting the favorable domestic and regional environment to pursue development and creating it.

In the 1990s, the country was faced with inefficiencies in the functioning of decision-making on security, the inadequacy of the human factor and the conceptual and managerial incompetence to deal with problems of internal social, economic and political changes, which seriously affected the development of strategic - doctrinal framework that resulted in failure for its establishment.

At the end of the 20th century, however, the political and security environment in which the frame was developed was transformed. The crisis in the former Yugoslavia was over, the security vacuum in the 1990s no longer existed and the country began to build aspirations for Euro-Atlantic integration. These changes forced the country to invest effort and resources in developing the strategic-doctrinal framework. The emergence of a stable, reformist oriented majority that came to power in the late 1990s and early 2000s, allowed implementation of programs for creation of strategic - doctrinal framework. In addition, a public support for this process was obtained, which is also very important.

The sources on which the process of preparation of the strategies was based include: the Constitution, laws and regulations; similar strategies to "benchmark" countries (such as NATO and EU member states) and international organizations; documents on defense and security policy at the national level; personal knowledge and experience of the creators; Internal estimates about national values, interests and requirements; conclusions and recommendations of research reports; theoretical national and international literature; similar documents published in other institutions of international, regional and national; advice and recommendations from international and bilateral experts and others.

When Macedonia began with the first generation of reforms in the security area, just after its independence in 1991 which included the establishment of new institutions, structures and chains of accountability in the security sector and appropriate structures for democratic control over it, there were no security strategies. The country set the basic principles and structures for oversight of the security sector, authorizing the parliament to control

and approve the budgets of the security system. All this happened as a result of the overall democratization of all processes in the country. However, with the later changes in the environment it became obvious that more reforms were needed and they were called second generation of reforms in the security area. The second generation of reforms referred to further consolidation of the democratic control of the armed forces, strengthening the procedures of transparency and accountability, improving the structures and institutions in terms of implementing policy and improving the efficiency and effectiveness of work of the security system, a wider involvement civil society and the creation of a strong civil defense and security, to improve the ability for effective border protection, reform of intelligence agencies, disarmament, demilitarization and reintegration, maintaining judicial reform and judicial reform and the fight against corruption and organized crime in the security system.

The key feature of the security strategies was to provide political basis for reforming and professionalization of the security system. This involved defining the missions, tasks and structures of the actors in the security system in accordance with the new environment, new challenges and priorities.

What is important to be emphasized is that the security strategies, besides the way in which they were initiated and the objectives they achieved, had their merit having on mind the difficult period, the period of transition during which the Macedonian society and the security institutions were developing. The real question that Macedonia was faced with was whether the Government will be guided by the logic for specific security reforms in developing strategies or logic assessment of current circumstances. Security strategies guided by the overall security reforms will greatly serve the overall security reforms and will form a solid basis for the continuation of reforms in this area. The very concept of reform of the security system recognized the need of strategies as a further guide for the reforms. The changes that had to be taken in the security system couldn't be introduced overnight. Not only changes of the procedures and legislation were needed, but also changes of the attitude and the mentality of the people were needed. This meant that the changes should take place slowly, including all levels of the security sector reform agenda<sup>1</sup>.

## **Strategic documents**

The strategic-doctrinal framework of the Republic of Macedonia currently includes the following national documents: National Concept for security and defense; Strategic Defense Review; Defense Strategy; White Paper on Defense Reform Strategy in the police and the National Strategy for Integrated Border Management and the Ohrid Framework Agreement. There is significant progress in the development of this framework in the country based on the placement of the new hierarchy of decision strategies with the adoption of the National Concept for Security and Defense in June 2003 and the National Security Strategy in January 2008. Significant progress was made with the Ohrid Framework Agreement as a political document - a guide to the overall design of strategic - doctrinal framework of the country.

In the creation of the National Concept for security and defense, the Cabinet of the Prime Minister had the key role. The Ohrid Framework Agreement was prepared by the domestic leaders, including the Cabinets of the President and the Prime Minister, the leaders of the political parties and their counselors, as well as the international representatives (EU, USA) and their staff for support. The strategic defense review was created by the Ministry of defense with the help of the Council Team of NATO and the team of Booz Allen Hamilton, present as counselor's teams in the country. The process of defining and adopting the Review allowed incorporation of political and intellectual basis for the role and the goals of the armed forces. That was the means for determining the type of the armed forces that Republic of Macedonia can allow and at the same time it was the means for finding resources through the taxpayers and a fundament for transforming the army from 'national army' to modern, efficient, sustainable and professional army. Prior to the preparation of the review, there were two alternatives to do the same. The first was to do the same inside the Ministry of Defense, where the existing defense capabilities would be reviewed, assessed and developed, accessible resources spent and defensive plans continuously upgraded. This should have been done through the established working groups that were to implement the NATO program Partnership for Peace. This process showed that 90% of the defense budget was spent on salaries, and therefore a fresh approach was needed for the conception of future reforms. The second alternative was to start with a politically driven review, which would be the foundation for the defense sector in the country and include elements from the first approach discussed. The second alternative was chosen, and that was the preparation of the Strategic Defense Review. This led to a political process because government and

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<sup>1</sup> Стратегиски одбранбен преглед, Министерство за одбрана на РМ, 2004.

presidential support and their commitment were necessary. The review began on the basis of relevant and updated strategic analysis given in the National Concept for Security and Defense<sup>1</sup>.

The Defense strategy and the White book for defense were also prepared by the Ministry of Defense with the support of Advisory Teams, and the National Security Strategy was developed by the Government. The strategy for reforms in the police and the National Strategy for Integrated Border Management were prepared by the staff of the Ministry of Interior, who used expertise through projects for reforms in the police funded by the EU and managed by the European Agency for Reconstruction.

A wider public debate was also included in the development of the strategies. The process of 2002 was the starting point. For example, in the autumn of 2003, before the adoption of the Political framework of the Strategic defense Review, there was a debate at which all the former ministers of defense and the former chiefs of staff of the Macedonian Army were invited. This trend of organizing public debates with prominent experts in the field of defense and security before making key documents is still maintained. Another example is the established practice of the Ministry of Defense for organizing public debates and exchange of views on strategic documents. Some of them are organized public debates on the White Paper of Defense 2012, the Defense Diplomacy Strategy 2012 and the Strategy for smart defense 2012.

In terms of strategy which defines the national security policy of the state, the Law of Defense stipulates that two documents that regulate this matter should be adopted. Those are the *National Concept for security and defense* (adopted by the Parliament) and *The Strategy for defense* (adopted by the President, the Government gives an opinion about it and it is prepared by the Ministry of Defense). According to the National Concept for security and defense **the Macedonian policy for national security** is a *complex and interdependent set of measures, activities, plans and programs, undertaken by the country in order to protect, sustain and improve its security and the security of its citizens, in accordance with the available resources and with active collaboration with the international community*. It includes *the political, economic, defensive, inter-defensive, social and ecological component*<sup>2</sup>.

The basic and long-term goal of the national security policy is to *protect, maintain and improve the security situation of the country, by creating an environment for realization of the national interests of Republic of Macedonia*. For achieving this goal it is necessary to undertake, maintain and improve the following **measures and activities**: *maintaining and improving the effectiveness and objectivity of the means and methods of collecting data and information of importance to safety; quality and continuous expert analysis of the security environment, for active participation in its creation and prevention of risks and dangers; maintaining and improving the security capacities and capabilities for prevention, minimization and elimination of security risks and threats, and resolution of conflict and crisis situations; maintaining and improving the level of preparedness of the state authorities and harmonization of regulations, rules and procedures for timely coordination management, as well as for efficient, timely and adequate response to the security risks and hazards; Development of the border service which is effective to control the border and the border zone outside the legal border crossings, which will prevent all types of illegal trade, which will build capacity and unique procedures for cooperation and mutual assistance with its neighbors, the region and international community. Border Service should ensure constant improvement of relations of trust and cooperation with the local population, and to take account of the representation of ethnic communities in its composition and direction of the safety system to achieve interoperability with others, similar systems in the democratic countries Europe*.

The policy of the National security of Republic of Macedonia according to the Concept is based and it should be guided according to the following **directions**: *active and real participation in the international efforts to create and enhance peace and security, given that security is inseparable and does not depend only on one country; sovereign right to defend and guarantee their safety with the right to make its own decision to join the unions; right on rejection of certain obligations and contracts for which it is assessed that can endanger the safety of the Republic and / or adversely affect the security of other states; compatibility of a nationwide security in accordance with the constitutional and legal solutions as well as international standards and ratified international agreements; incorporation into national law and diplomatic activity to do all the neighbors - the generally accepted norms and standards in all areas of international law and their proper implementation in practice; individual institutions responsible for security, although still a key place and role in the contemporary understanding of security, is no longer solely responsible for the care, maintenance and construction of the*

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<sup>1</sup> Лазаревски П, Атанасов П „Поставеност и остварување на политика на национална безбедност на Република Македонија,, ИСПИИ-Скопје 2002

<sup>2</sup> Националната концепција за безбедност и одбрана („Службен весник на РМ", бр.40/2003).



*security environment and condition. Therefore the assessment, measures and activities for protection, maintenance and improvement should be seen as a system of complex and interdependent factors, such as political, economic, defense and interior - safety, social, environmental and others; ongoing democratic and civilian control and oversight institutions and forces whose business is security and national defense; prevention, ie measures and activities that provide prevention of risks, dangers and crises, their timely identification and removal; coordination of measures, activities and security capabilities by applying timely and full use of skills and resources to tackle the crisis and the possibility of giving or receiving assistance and cooperation; permanent responsibility of the departments of the state government, local government, political parties and other legal and economic entities, NGOs and other associations, like all citizens, to participate in the implementation of the policy of a nationwide security<sup>1</sup>.*

In the Concept of National security and defense the policy views are grouped in the following areas: **foreign, economic, defense, internal security policy and the policy of environmental protection**. Instruments are all normative-legal, organizational, procedural, human and other resources and the other possibilities and capabilities that are available to holders and participants in achieving security policy, as well as relationships, communication and cooperation with all government and non-governmental, national and international organizations, bodies, associations and other forms of cooperation<sup>2</sup>.

## Conclusion

The security policy of Republic of Macedonia isn't a mechanic set of few mutually isolated policies, but a special quality that consists of organically unified aspects of all the policies which reflect or may reflect (directly or indirectly) on the security of the country, internal stability and its international position in the broadest sense, said Pande Lazarevski. According to him, the conduct of the security policy of the Republic of Macedonia implies a shared system of values among certain key issues of its survival and prosperity, and sufficient knowledge about the complexities of national security, the process of creating a security policy and the positioning and interdependence of the various actors the context of the creation and implementation of that policy.

The implementation of the security strategies and concepts in Republic of Macedonia should be a system of measures and activities for applying of the strategic thought, undertaking activities, and it is analytically followed by the effective security operations and the general strategic access in whole. The way this will be implemented is determined by the security and political constellation, security and political trend - action performance of the entity in the security system of the country<sup>3</sup>.

Depending on the stage and the circumstances that characterize the political conflict as desirable in terms of achieving the set goals, it is necessary to combine different strategic approaches. The basic premise is that the choice will help the security entity to achieve the goals it has set. Similarly, it is assumed that the selected operational and functional security strategies and concepts will help in realizing certain segmental milestones as part of a global strategic target framework and in accordance with the general strategic concept.

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<sup>1</sup> Националната концепција за безбедност и одбрана („Службен весник на РМ", бр.40/2003).

<sup>2</sup> Лазаревски П, Атанасов П „Поставеност и остварување на политика на национална безбедност на Република Македонија,, ИСППИ-Скопје 2002

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## Razvoj Evropske unije kroz prizmu zajedničke spoljne i bezbednosne politike

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**Apstrakt:** Evropsko ekonomsko-političko partnerstvo zasniva se na postojanju Evropske ekonomske zajednice i Ugovora iz Rimu, čija je primena počela od 1958. godine. Početak razvoja EEZ, kasnije Evropske zajednice i danas Evropske unije zasnovan je na Zajednici za ugalj i čelik i Euroatom. Termin Evropska zajednica vezuje se za rezoluciju Evropskog parlamenta iz 1975. godine. Naime, tom rezolucijom je odlučeno da se iz termina izbaci odrednica „ekonomska“, jer je bilo očigledno da se od zajednice očekivao veći stepen integracije u različitim oblastima, a ne samo u čisto ekonomskoj sferi. Kasnijim, Ugovorom iz Mاستrihta, ova zajednica je ojačana sa još dva stuba i tako je nastala tvorevina, koja je danas poznata pod nazivom Evropska unija. Drugi od tri stuba je zajednička spoljna i bezbednosna politika EU.

## The Development of The European Union through the Prism of a Common Foreign and Security Policy

**Abstract:** The European Economic and Political Partnership is based on the European Economic Community and the Treaty of Rome, the implementation of which began in 1958. The beginning of the development of the EEC, later the European Union and today the European Union is based on the Coal and Steel Community and Euroatom. The term European Community refers to the European Parliament resolution of 1975. Namely, this resolution decided to remove the term "economic" from the term, because it is obvious that the community expected a higher degree of integration in different areas, and not only in the purely economic sphere. Later, the Maastricht Treaty, this community has been strengthened with two more pillars, and that is how the creation, which is now known as the European Union, was created. The second of three pillars is a common foreign and security policy.

**Key words:** *European Union, common foreign and security policy, contracts*

### Uvod

Evropska unija, na osnovu Ugovora iz Mاستrihta počivala je na tri stuba. Prvi stub činila je Evropska zajednica i imao je nadnacionalni karakter. Drugi i treći stub činile su Zajednička spoljna i bezbednosna politika i Saradnja u oblasti pravosuđa i unutrašnjih poslova, a pravni odnosi njima definisani imaju međuvladin karakter.

Ustav, konkretnije Predlog Ustava Evropske unije predviđao je spajanje tri stuba EU, s tim što se u određenim delovima zajedničke spoljne i bezbednosne politike zadržava međuvladin karakter, a posebno u oblasti bezbednosne politike. Ovo obeležje i karakteristika Zajedničke spoljne i bezbednosne politike zadržano je u Lisabonskom ugovoru – ugovorom koji je na snazi.

Jedinstveno tržište, carinska unija, monetarna unija, ekonomska i druga zajednička politika EU činili su osnov prvog stuba EU koja je funkcionisala na osnovu Ugovora iz Mاستrihta. Zajedničke politike država članica EU u okviru Evropske zajednice imale su za cilj da omoguće:

- ekonomski razvoj;
- visok nivo zapošljavanja;

- socijalnu zaštitu;
- jednakost muškaraca i žena;
- konkurentnost;
- zaštitu životne sredine;
- podizanje nivoa i kvaliteta života;
- ekonomsku i socijalnu saradnju.

Zajednička spoljna i bezbednosna politika (*Common Foreign and Security Policy – CFSP*), kao nekadašnji drugi stub EU, ima međuvladin karakter pregovaračkih procesa i donošenja odluka. Ona je uvedena Ugovorom o EU i ima za cilj da uskladi spoljnu i bezbednosnu politiku država članica, kako bi EU mogla jedinstveno da deluje na spoljnopolitičkom planu. U Ugovoru o EU navodi se pet glavnih ciljeva zajedničke spoljne i bezbednosne politike, a to su:

1. da čuva zajedničke vrednosti i osnovne interese Unije;
  2. da obezbedi sigurnost Unije;
  3. da sačuva mir i doprinese međunarodnoj bezbednosti;
  4. da promoviše međunarodnu saradnju i
  5. da razvija demokratiju i vladavinu prava, uključujući i ljudska prava.
- ([http://eeas.europa.eu/cfsp/index\\_en.htm](http://eeas.europa.eu/cfsp/index_en.htm))

Evropska unija u okviru zajedničke spoljne i bezbednosne politike usvaja zajedničke strategije za odnose sa državama i međunarodnim organizacijama, rezolucije, deklaracije i druga dokumenta o spoljnopolitičkim i bezbednosnim pitanjima unutar Unije i na globalnom planu. Odluke se mogu doneti jedino konsenzusom, odnosno jednoglasno. Svaka država članica EU ima pravo veta u okviru ZSBP. Ono što je karakteristično za ovu politiku Unije jeste da dokumenta i odluke ne spadaju u komunitarno pravo, kao i to da Sud pravde nema nadležnost da odlučuje o njima.

Ugovor iz Amsterdama (<http://eur-lex.europa.eu/en/treaties/dat/11997D/htm/11997D.html>) je dokument koji je odigrao ključnu ulogu za zajedničku spoljnu i bezbednosnu politiku. Naime, ovim ugovorom značajno je unapređeno institucionalno organizovanje ove politike uvođenjem funkcije Visokog predstavnika Unije za spoljnu politiku koji je ujedno i generalni sekretar Saveta. Visoki predstavnik učestvuje u kreiranju, pripremi i sprovođenju odluka Saveta, u ime Saveta može da pregovara sa drugim zemljama i međunarodnim organizacijama. Neusvojeni predlog Ustava EU predviđao je uvođenje ministra spoljnih poslova Unije koji bi objedinio funkciju visokog predstavnika za spoljnu politiku i komesara za spoljne odnose. Ministar je po ovom neusvojenom dokumentu trebalo da ima mandat da deluje samo u slučaju jednoglasnosti država članica. Ovaj predlog je imao za cilj da osnaži ulogu EU kao globalnog faktora.

Treći stub Evropske unije podrazumevao je saradnju u oblasti pravosuđa i unutrašnjih poslova. Treći stub uveden je Ugovorom o Evropskoj uniji. Prema ovom, maastrichtskom ugovoru ova politika obuhvata sudsku saradnju između država članica EU u civilnim i krivičnim predmetima i carinsku i policijsku saradnju. Do momenta stupanja na snagu amsterdamskog ugovora<sup>1</sup> u sastav ovog stuba ulazile su i politika azila, imigracije i vizna politika. Međutim, Ugovorom iz Amsterdama ove politike su komunitarizovane i svrstane pod prvi stub EU. Osnovni ciljevi saradnje u okviru trećeg stuba EU bili su uspostavljanje bezbednosti na teritoriji EU i borba protiv ksenofobije, terorizma, trgovine ljudima, krivičnih dela protiv dece, trgovine drogama i oružjem, korupcije i prevare.

Najpre je predlogom Ustava Evropske unije, a kasnije i Lisabonskim ugovorom načinjen veliki korak ka još većoj „dubinskoj“ integraciji EU. Reformskim ugovorom izvršena je komunitarizacija trećeg stuba, čime obuhvaćeni pravni propisi dobijaju nadnacionalni karakter.

## 1. Zajednička spoljna i bezbednosna politika

Zajednička spoljna i bezbednosna politika ustanovljena je i uređena Glavom 5 Ugovora o Evropskoj uniji. Ona je zamenila Evropsku političku saradnju (*European Political Cooperation – OPC*). Koncept zajedničke spoljne i bezbednosne politike predviđa konačno oblikovanje zajedničke odbrambene politike Unije koja bi vremenom

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<sup>1</sup> Amsterdamskim ugovorom, koji je na snagu stupio 1. maja 1999. godine, stvoreni su političko-institucionalni preduslovi s ciljem suočavanja EU sa izazovima koji se tiču globalizacija ekonomije, nezaposlenosti, borbe protiv terorizma, međunarodnog kriminala i trgovine drogama, zatim izazovima vezanim za životnu sredinu, kao i izazovima priključenja nekadašnjim socijalističkih država Evrope Uniji.

trebalo da preraste u zajednički odbrambeni sistem. Na taj način bi se zaokružila politička sfera evropskog integrisanja.

Ciljevi zajedničke spoljne i bezbednosne politike utvrđeni su članom 11 Ugovora o Evropskoj uniji (<http://eur-lex.europa.eu/legal-content/HR/TXT/?uri=CELEX:12007L/TXT>). Oni se ostvaruju posebnim pravnim instrumentima koje Savet usvaja konsenzusom. Stupanjem na snagu Ugovora iz Amsterdama Evropska unija na raspolaganju ima novi instrument, a to je zajednička strategija. Amsterdamskim ugovorom je predviđeno i odlučivanje kvalifikovanom većinom u određenim uslovima. Od momenta potpisivanja amsterdamskog ugovora zajednička spoljna i bezbednosna politika se razvija u praksi na svakom zasedanju Evropskog saveta.

Mogućnost da se pod određenim uslovima uspostavi povećana saradnja na području zajedničke spoljne i bezbednosne politike, a sve u svrhu sprovođenja zajedničkog delovanja i formulisanja zajedničkih stavova predviđeno je Ugovorom iz Nice. Međutim, ova povećana saradnja ne može da se koristi za pitanja vojne ili odbrambene prirode.

## 2. Spoljna politika EU

Demokratija, vladavina prava, poštovanje ljudskih prava i osnovnih sloboda, jednakost i solidarnost, ali i poštovanje Povelje Ujedinjenih nacija i međunarodnog prava principi su i načela na kojima Unija zasniva svoje postojanje, razvoj i proširenje. Kroz spoljnu politiku Unija nastoji da izgradi i razvije partnerske odnose sa trećim zemljama, međunarodnim regionalnim i globalnim organizacijama sa kojima ima kompatibilne ciljeve i načela funkcionisanja. Insistiranje na funkcionalnom multilateralizmu, posebno kroz saradnju sa UN, prioritet je spoljne politike.

Unija utvrđuje i sprovodi zajedničke politike i delovanja i nastoji da ostvari visok stepen saradnje u svim područjima međunarodnih odnosa radi:

- zaštite svojih vrednosti, temeljnih interesa, sigurnosti, nezavisnosti i celovitosti;
- učvršćivanja i podrške demokratiji, vladavini prava, ljudskim pravima i načelima međunarodnog prava;
- očuvanja mira, sprečavanja sukoba i jačanja međunarodne sigurnosti u skladu s ciljevima i načelima Povelje Ujedinjenih nacija, načelima Helsinškog završnog akta i ciljevima Pariske povelje, uključujući i one koji se odnose na spoljne granice;
- podupiranja održivog privrednog i socijalnog razvoja, zatim razvoja zaštite životne sredine u zemljama u razvoju, prvenstveno radi iskorenjivanja siromaštva;
- podsticanja integracije svih zemalja u svetsku privredu, uključujući i postupna ukidanja ograničenja u međunarodnoj trgovini;
- pružanja pomoći razvoju međunarodnih mera za očuvanje i poboljšanje kvaliteta životne sredine i održivog upravljanja svetskim prirodnim bogatstvima, kako bi osigurala održivi razvoj;
- pružanja pomoći stanovništvu, zemljama i regijama pogođenima prirodnim nepogodama ili nesrećama izazvanima ljudskim delovanjem; i
- promivisanju međunarodnog sistema utemeljenog na snažnijoj multilateralnoj saradnji i dobrom globalnom upravljanju.<sup>1</sup>

## 3. OD EVROPSKE POLITIČKE SARADNJE DO ZAJEDNIČKE SPOLJNE I BEZBEDNOSNE POLITIKE EVROPSKE UNIJE

Kao pokretački elementi procesa evropskih integracija preovladavaju mir i pomirenje u regionu, na celom kontinentu. U periodu nakon Drugog svetskog rata najrazvijenije i politički najuticajnije države Evrope, bez obzira na kojoj strani su u toku rata bile, nastojale su da ostatku sveta posluže kao primer kako se mirnim putem rešavaju problemi. Nagli rast ekonomske i trgovinske vrednosti, od saveza je tražio da igra ulogu posrednika i sile koja će imati stabilizacionu ulogu u svetu u ekonomskom kontekstu. Zbog toga je i nakon Rimskog ugovora iz 1957. godine, evropska integraciona težnja bila usredsređena isključivo na privredna dešavanja i ekonomske oblike, tj. na stvaranje zajedničkog tržišta, bez obzira na to što je ideja za saradnju u okviru međunarodne politike već postojala. Bilo je potrebno četrdesetogodišnje iskustvo postojanja integracionog procesa da bi se ideja o spoljnoj politici institucionalizovala i dobila mesto u obavezujućim ugovorima za članstvo u EU.

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<sup>1</sup> Član 21, Poglavlje 1. Pete glave – Opšte odredbe o spoljnom delovanju Unije i posebne odredbe o Zajedničkoj spoljnoj i bezbednosnoj politici, Ugovor o Evropskoj uniji i Ugovor o funkcionisanju Evropske unije.

Sa propašću ideje o osnivanju Evropske odbrambene zajednice, Savezna Republika Nemačka i Italija pristupile su Zapadnoevropskoj uniji (*Western European Union – WEU* <http://www.weu.int>) 30. avgusta 1954. godine. Temelj Zapadnoevropske unije je Pakt o kolektivnoj odbrani i političkom savetovanju koji su 1948. godine osnovale Francuska, Velika Britanija, Belgija, Holandija i Luksemburg. Važno je napomenuti da predmet ovog ugovora pored sfere politike i odbrane obuhvata i ekonomsku, društvenu i kulturnu saradnju. I pored formalizacije saradnje u vidu Zapadnoevropske unije, primarni osnov sigurnosti na ovoj teritoriji bio je Severnoatlanski savez (*NATO*).

Ideja o formiranju zajedničke spoljne i bezbednosne politike ima svoje korene i u Fuševom planu. Ovaj plan razvio je pomenuti francuski diplomata, a obuhvatao je saradnju u oblasti spoljne politike, odbrane i nauke. Fušev plan nije formalizovan jer ga manje države članice Evropske ekonomske zajednice nisu podržale, ali je kasnije poslužio kao dobra osnova za razradu članova u mastrihtskom ugovoru u delu vezanom za zajedničku spoljnu i bezbednosnu politiku.

Evropska politička saradnja nastala je na osnovu izveštaja belgijskog ministra inostranih poslova, Davinjonu o prioritetima političke saradnje u okviru evropskog integracionog procesa. Značaj Davinjonovog izveštaja ogleda se u direktnom podsticanju spoljnopolitičke saradnje država članica Zajednice. Prvi sastanak Evropske političke saradnje na ministarskom nivou održan je novembra 1970. godine u Minhenu, kada su države članice razmatrale bliskoistočnu krizu i projekat KEBS-a (Konferencija o evropskoj bezbednosnoj saradnji). Naredni susreti u okviru Evropske političke saradnje širili su krug tekućih problema međunarodne politike i rezultirali su razmenom relevantnih spoljnopolitičkih stavova država članica, odnosno evropskom političkom saradnjom među vladama država.

Društvene promene<sup>1</sup> s kraja 80-tih i početkom 90-tih godina prošloga veka dovele su do značajnih geopolitičkih promena, ali i do toga da EZ preduzme značajnije korake na polju političke saradnje. Za vreme Međuvladine konferencije 1991. godine reforma Evropske političke saradnje težila je daljem jačanju uloge EU na globalnom planu. Zato je kompletna zajednička spoljna i bezbednosna politika osmišljena kao kvalitativan pomak napred u području saradnje u spoljnoj politici.

U formuliranju zajedničke spoljne i bezbednosne politike države članice su pokušale da odgovore na dve najveće kritike funkcionisanja Evropske političke saradnje, i to (Smiht M. 2004. str. 115.):

- Evropska politička saradnja je uglavnom reagovala naknadno na događaje, ne učestvujući u njihovom nastanku i oblikovanju.
- očigledan nedostatak delotvornih mehanizama evropske politike da se primeni koordinisana akcija nakon opštih političkih izjava i smernica.

Aspekti ZSBP koji su od posebnog značaja za Evropsku uniju su:

- razvijanje aktivne politike u cilju ispunjenja interesa EU, jedinstvenost i konzistentnost u spoljnom delovanju, uključivanje o pitanja sigurnosti unutar Unije;
- donošenje odluka Unije koje su obavezujuće za države članice, jedinstvenost prezentacije politike Unije spoljnom okruženju i vidljivost Evropske unije kao subjekta na međunarodnoj sceni i
- efikasnost u procesu donošenja odluka.

#### **4. Finansiranje zajedničke spoljne i bezbednosne politike Evropske unije**

Francuski predsednik Miteran (*Mitterand*) i nemački kancelar Kol (*Kohl*) su 1990. godine izneli predlog o održavanju međuvladine konferencije za formiranje političke unije u okviru tada Evropske zajednice. Neformalni dogovor najavio je formiranje političkog saveza konkretnije unije. Miteranova i Kolova ideja je bila i formiranje zajedničke i bezbednosne politike u okviru evropske integracije čime bi se ojačala politička pozicija Evrope nakon Hladnog rata. Potpisivanjem mastrihtskog ugovora ova politika je institucionalizovana, a cilj je bio približavanje stavova zemalja članica, sad već Evropske Unije, u sferi spoljne, bezbednosne i odbrambene politike.

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<sup>1</sup> Ovde se pre svega misli na raspad Sovjetskog saveza i Varšavskog pakta, zatim na raspad ostalih socijalističkih država Centralne i Istočne Evrope, građanski rad na teritoriji SFR Jugoslavije, ali i na ujedinjenje Nemačke.

Na osnovu ovoga slobodno se može reći da je formiranje Evropske unije ideja političkog karaktera, a ne samo ekonomskog kako je većina građanstva vidi. Ugovorom iz Mاستrihta predviđeni su politički ciljevi koje treba ostvariti, pre svega preko zajedničke spoljne i bezbednosne politike. Pored ostvarenja predviđenih ciljeva ova politika ima funkciju afirmisanja Evropske unije na međunarodnoj sceni.

Ostvarivanje ugovornih ciljeva<sup>1</sup> nije moguće ispuniti bez izdvajanje značajnih finansijskih sredstava. Finansiranje zajedničke spoljne i bezbednosne politike utvrđeno je ugovornim odredbama koje su se menjale u skladu sa praksom. Pravne osnove vezane za ovu oblast mogu se naći u članu J. 11 Ugovora iz Mاستrihta, koji je razlikovao tzv. administrativne i operativne troškove. Predviđeno je da administrativni troškovi institucija, koji nastaju na osnovu odluka koje se odnose na zajedničku spoljnu i bezbednosnu politiku, padaju na teret budžeta Evropskih zajednica. Što se tiče operativnih troškova, razlikovale su se dve mogućnosti, odnosno Savet ministara mogao je jednoglasno da donese odluku da ovi troškovi:

- padaju na teret budžeta Evropskih zajednica, ili
- na teret budžeta država članica, prema određenom ključu podele koji je trebalo da se odredi.

Ukoliko se analiziraju ove odredbe dolazi se do nekoliko kritičnih primedbi. Najpre, odredbe ugovora ne utvrđuju budžetsku proceduru, već ostavljaju Savetu brigu da ustanovi način finansiranja zajedničke spoljne i bezbednosne politike, tj. operativnih troškova. Zatim, odredbe člana J.11 ne preciziraju modalitete koje treba primeniti pri finansiranju koje ide na teret država članica. Naredna kritika odnosi se na to što ugovor ne daje precizan odgovor na to šta su administrativni i operativni troškovi. Pored ovih, kritika članu J. 11 je upućena i zbog toga što ne odbacuje mogućnost mešovitog rešenja, što podrazumeva finansiranje i iz nacionalnog i iz komunitarnog budžeta. Realno postojanje mešovitog finansiranja potvrđeno je iz praktičnog iskustva na finansiranju Misije u Mostaru 1994. godine. Naime, ova misija koštala je 32 miliona ekihja. Od ukupne sume 17 miliona je palo na teret budžeta država članica. Zbog određenih nedostataka, u smislu kašnjenja finansiranja država članica, dogovoreno je da za budući period od dve godine sredstva budu obezbeđena iz komunitarnog budžeta. Kako su se operativni troškovi sve više pripisivali zajedničkom budžetu Evropskih zajednica, bila je potrebna institucionalna promena pravila finansiranja.

Ovaj problem je rešen potpisivanjem Amsterdamskog ugovora između Parlamenta, Saveta i Komisije i njime je predviđeno da operativni troškovi budu finansirani iz budžeta Evropskih zajednica, osim ako Savet ne utvrdi drugačije. Ugovor iz Amsterdama preuzeo je odredbe ovog ugovora i uneo ih u član 28 Ugovora o EU. Na osnovu člana 28 Ugovora o Evropskoj uniji operativni troškovi biće pokriveni iz budžeta Evropskih zajednica, osim ako Savet drugačije ne odluči. Troškovi koji se odnose na aktivnosti koje su vezane za vojsku i odbranu pokrivaju se iz nacionalnih budžeta (Concolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union, 2010.).

Brojni kritičari su stava da je evropska spoljna politika „skretanje sa pravog puta“, da ona više potkopava, nego što jača evropsko nastojanje da igra značajnu ulogu kao globalna vojna sila. S druge strane, proevropski nastrojeni teoretičari naglašavaju da je koncept evropske spoljne i bezbednosne politike, politički projekat bez presedana i da predstavlja vojnu revoluciju kojoj je Evropska unija utrla put ka autonomiji u sektoru bezbednosti (Grevi G., Helly D. & Koehane D. 2009, str. 159).

## 5. Društveno-bezbednosni izazovi i ciljevi Unije

Iako opasnost od izbijanja velikih ratova na tlu Evropske unije realno ne postoji i nije verovatna na ovom nivou organizacije Unije, to ne znači da se EU ne suočava sa određenim pretnjama i oblicima narušavanja bezbednosti. Rizik rata na tlu Evropsku unije je u velikoj meri sveden na minimum, ali su zato opasnosti koje prete da poremete bezbednost, u generalnom smislu, postale sve nepredvidljivije i raznovrsnije. Tako se kao savremeni oblici pretnji po EU mogu prepoznati (prilagođeno prema: <http://www.consilium.europa.eu/uedocs/cmsuplaod/78367.pdf>):

- terorizam;
- proliferacija oružja za masovno uništenje;
- regionalni sukobi;
- neuspele države i
- organizovani kriminal.

<sup>1</sup> Ugovor iz Mاستrihta i na Lisabonski ugovor koji je reformisao koncept spoljne i bezbednosne politike.

Svi navedeni faktori su međusobno povezani i uslovljeni. 'Neuspela država' je termin koji se koristi za države koje su svoju samostalnost stekle u periodu nakon završetka Hladnog rata i raspada velikih socijalističkih država. U teoriji javne uprave početkom 80-tih godina prošloga veka javlja se novi koncept pod nazivom Novi javni menadžment. Deregulacija, profesionalizacija, racionalizacija, efikasnost i delotvornost, javnost, odgovornost, nova etika činovništva, konkurencija i tržišna načela, ali i reafirmacija uloge znanja, učešće, zadovoljenje potreba građana, razvoj i primena novih informacionih tehnologija, tehnološke inovacije, decentralizacija i novo javno budžetiranje na osnovu postignutih rezultata osnovni su ciljevi ovog koncepta (detaljnije o teoriji novog javnog menadžmenta u: Ristić Ž. & Vukša S., 2010). Nepostojanje većine ili skoro svih ovih elemenata karakteriše neuspele države. Korupcija, zloupotreba vlasti, slabe institucije i nedostatak odgovornosti karakterišu neuspele države. Sve to još dublje vodi u sistemsku krizu i urušavanje države kao institucije. Somalija, Liberija, Avganistan, samoproklamovana (tzv.) država Kosovo primeri su neuspeh država. Međutim, neuspeha u državnom vođstvu ima svuda u svetu. Razlika je u tome što je u savremenim i organizovanim državama narušen samo jedan element ili maksimalno dva elementa koncepta novog javnog menadžmenta. U takvim situacijama stvara se plodno podneblje za razvoj organizovanog kriminala čije aktivnosti sve više dobijaju transnacionalni karakter.

Sve prethodno nabrojano može uticati na normalno funkcionisanje država, poništava vladavinu prava, samim tim i ceo društveni poredak. Najgori scenario je dominacija organizovanog kriminala državom. Iako terorizam proizvodi najveće nasilje i ima najdestruktivnije posledice, organizovani kriminal je sistemski problem koji ugrožava temelje i ideju savremene države.

U zaštiti svoje, ali i globalne bezbednosti, Evropska unija je postavila tri strateška cilja, i to: konstantno bavljenje pretnjama; izgradnja bezbednosti u EU susedstvu i međunarodni poredak zasnovan na delotvornom multilateralizmu (A secure Europe in a better world, European security strategy, Brussels, 2003. dostupno na: <http://www.consilium.europa.eu/uedocs/cmsUpload/78367.pdf>).

Iako poslednji, a ništa manje značajan od prethodna dva, međunarodni multilateralni poredak ima strateški veoma važnu ulogu u kreiranju bezbednosne sfere. Najvažnije institucije međunarodnog sistema, kao što su Svetska trgovinska organizacija i međunarodne finansijske i monetarne institucije, uvećale su svoje članstvo. Kina kao najmnogoljudnija država i privreda sa konstantnim privrednim rastom u poslednjih 10-tak godina i Rusija kao najveća država sveta postale su članice STO i nameću kooperativnost među akterima globalne društveno-političke scene. Pored globalnih institucija, ne treba zanemariti ni ostale regionalne organizacije i institucije. Ovde pre svega treba pomenuti Afričku uniju, *ASEAN* i *MERCOSUR*.

Kvalitet kompletnog međunarodnog društva zavisi i od kvaliteta samih nacionalnih vlada. Kao najadekvatniji model državnog uređenja prepoznata je demokratija. Koncept dobrog upravljanja, na kome se zasniva demokratija, uz podršku društvenim i političkim reformama, trgovinske i generalno ekonomske saradnje, borbe protiv korupcije, uspostavljanje vladavine prava najbolji je način za jačanje međunarodnog multilateralnog poretka.

## Zaključak

Zajednička spoljna i bezbednosna politika je vrhunac društveno-političke saradnje u okviru evropskog integracionog procesa. Okončanjem Hladnog rata, ali i raspadom socijalističkih država stvoreni su novi uslovi, ne samo u Evropi, već i na čitavoj Planeti. Ekonomska moć Evropske zajednice rezultirala je i institucionalizacijom u oblasti spoljno-političke sfere. Konceptu zajedničke spoljne i bezbednosne politike prethodili su različiti pokušaji institucionalizacije iste, u vidu višedimenzionalnih planova, izveštaja i inicijativa. Danas se kroz praksu ove EU politike ostvaruje najveći stepen multilateralizma na evropskom kontinentu.

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## Teorijski pristup principima menadžmenta – Pregled literature

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**Apstrkat:** U novijem dobu menadžment je termin koji se često koristi, i poistovećuje sa drugim sličnim terminima drugačijeg značenja, kao što su neki vid upravljanja ili rukovođenje. Jedna od najstarijih definicija menadžmenta je umetnost ostvarivanja određenih ciljeva posredstvom drugih ljudi, rada i sistema kako bi se dobili definisani ciljevi. Menadžment je čitava nauka i veština upravljanja ljudima. Glavni fokus je na ljudima, tj. ljudskim resursima, koji su veoma bitni, pošto od njih zavise svi drugi resursi. Ljudi koji se bave menadžmentom nazivaju se menadžeri. Na svim univerzitetima Zapada, nauka o menadžerstvu zauzima vidno mesto, jer priprema kadrove za menadžerske funkcije. . Oni su eksperti profesionalci za menadžment, ljudi koji su u organizaciji angažovani da obavljaju tu funkciju i koji su odgovorni za rezultate poslovanja organizacije, kao i za njen razvoj i rast. Za svoj rad oni kao i drugi zaposleni u organizaciji primaju odgovarajuću nagradu, zaradu. Henri Fejol (Henry Fayol) u svom glavnom delu ističe potrebu za definisanje principa koji treba da omoguće sprovođenje osnovne koncepcije i definiše 14 principa menadžmenta.

**Ključne reci:** menadžment, principi, profit

## Theoretical Approach to Principles of Management – Literature Review

**Abstract:** In the modern era, management is a term that is often used, and it is often identified with other similar terms, but of a different meaning, such as some kind of managing or controlling. One of the oldest definitions of management says that management is the realization of certain goals through other people, work and systems, in order to achieve set goals. Management is the whole science and the skill of managing people. The main focus is on people, i.e. human resources, which are very important, as all other resources depend on them. People who deal with management are called managers. At all Western universities, the science of management takes a prominent place because it prepares personnel for managerial functions. These people are experts in management, who are engaged in the organization to carry out this function and who are responsible for the results of the organization's operations, as well as for its development and growth. They, like other employees in the organization, receive the appropriate reward, i.e. earnings for their work. In his capital work, Henry Fayol emphasizes the need to define principles which should enable the implementation of the basic concept and defines 14 management principles.

**Key words:** Management, principles, profit

### Introduction

The word manager is present not only in everyday life, but also in professional parlance. The term exists in many countries, but even in the United States where it was created, people use the term "manager" for different things (Zerfass & Radojković, 2011).

For someone who is less involved in this issue, the manager represents the boss, the owner of the organization or the company. He is the one who founded the company and who leads and directs it in the desired direction.

On the other hand, the word "manager" means professional managers, hired professionals from one field of work, authorized to run a company's business and tasked to do so in a more efficient and effective way. These experts are not the owners and founders of the organization, or "bosses". They are experts in management, people who are engaged in the organization to carry out this function and who are responsible for the results of the organization's operations, as well as for its development and growth. For their work, they, like other employees in the organization, receive the appropriate reward, earnings (Mayer, R. C., & Gavin, M. B. 2005).

For the third, the word "manager" refers to all those who deal with managerial work, who lead the organization's business and who are responsible for the results of the work in it, where it does not matter whether they are the owners of the organization or not (Sikavica, P., & Bahtiarević-Šiber, F. 2004). It is important that they are engaged in the organization in the above mentioned business and that they have the necessary powers for doing so and to do so with professional responsibility, and this latter refers to the owners or co-owners of the organization.

There is another understanding of managers that is often cited in the literature, which is characteristic of the first development of management, and according to that understanding, the manager is defined as someone who is "responsible for the work of other people" (Mratinić 2013).

### **Concept and development of management**

In industrialized countries, primarily in the United States and Western Europe, there is a well-processed theory, known as scientific management. At all Western universities, the science of management takes a prominent place because it prepares personnel for managerial functions. The basic assumptions of this theory are based on the acquisition of power, without ownership. This is the birth of a new class of managers, not only in enterprises, but also in government services, and for governing the country. Management is a discipline that can be applied to different organizations (Erić, D., & Stošić, I. 2013). Management applied to a company is enterprise management or business management. Business management should enable survival and prosperity of enterprises as organizations with specific goals. Enterprise management uses the organization to combine human and material resources more effectively, adapting to the conditions in the company environment. Organizing as an element of management is expressed through the organizational structure and organizational form (Dragnić, A., Lazić, J. M., & Cvijanović, J. M. 2003).

Transformation in the industrial enterprise begins with input resources (people, energy, materials, machines, etc.) (Topić, R., Božović, M., & Topić, G. 2017). It enables getting products that meet the needs of the users. It is precisely the saturation of demand that is the main reason for the emergence of planning in the fifties in developed industrial countries, primarily in the United States. In this regard, there may be distinguished:

- 1) The age of mass industrial production
- 2) The age of a mass marketing
- 3) Postindustrial age

Each of these ages puts the enterprise under special conditions, which the company must respond to with adequate behavior and management system. Thus, the era of mass industrial production (1900 - 1930) is characterized by the orientation of the manager to the efficiency of the production mechanism and the operating mode of behavior that becomes dominant, avoiding the risk of entering into new ventures, and it is positively more successful to realize the existing ones. During this period, the companies that offered the standard product at the lowest price were predestined to win. The age of massive marketing occurred in the early 1930s when consumers began to look far more than meeting basic needs (Đekić, I., & Marković, Z. 2004). This is a period when companies initiate switching from production to market orientation, which means that promotion, advertising, sales and other forms of consumer impact have become of the highest importance to management. Moving towards "marketing orientation" is characterized by the development of new products more than the production process. The post-industrial era is a period since the mid-fifties of the 20th century in which companies face new and unexpected challenges, which have nothing to do with the past (Marinković, D. 2009). Organizations are forced to turn around their environment and accept the change from the famous world of marketing and production to an unknown world of new technologies, new competitors, new consumer attitudes, new dimensions of condo, and re-examining their role in society. This period is characterized by four specific areas of social responsibility concern of the organization:

- 1) Consumer care

- 2) Care for employees
- 3) Care for the environment
- 4) Care for society in the widest sense

The rapid development of infrastructures, and above all communication and transport, allow for wider access to the products concerned, and market environment has been created.

The business environment of the organization becomes more dynamic, different from the past, and this contributes to the creation of an effective and efficient planning management system, which is a much more difficult task than the previous situation (Petrović, P. B. 2003). Consequently, an organization as an institution is instrumentalized as a management tool for the prompt realization of relationships, roles and activities. Operational strategic management as a concept of change management is of a relatively recent date (Janićijević, N. 2006). In accordance with different levels of turbulence and complexity of the environment, that is, the environment of the organization, different management systems have been developed, which are increasingly detailed and complex. Thus, two types of management systems have been developed (Cuzovic, S., & Cuzovic, Đ. 2012):

- 1) Positioned systems
- 2) Timely systems

Positioned systems correspond to conditions and organizations whose environment and future can be predicted, and the representatives of such systems are (Kotler, P., & Keller, K. L., 2008):

- Long-term planning
- Strategic planning
- Strategic management

Timely systems (multivariate planning, surprise management, etc.) were created as a need for a quick response to challenges and discontinuities in conditions in which many significant changes develop extremely quickly. In this regard, strategic management is a systematic approach to strategic change management, which consists of (Lončar, D. 2011):

- 1) Positioning the company through strategy and planning opportunities
- 2) Timely strategic response through management decisions
- 3) Systematic management of resistance during strategy implementation

Strategic management is one side of the medal, i.e. responsibilities that belong to general management. The other side of the medal-responsibility is operational management. While strategic management deals with the creation of a strategic position that ensures the future life span of an organization, operational management is engaged in exploiting the current strategic position to achieve the operational goals of the organization. In business enterprises, the strategic manager takes care of the profit potentials, and the operational worry is to turn the potential into real profits. Activities of a strategic and operational character are often in conflict, but, on the other hand, if strategic management is effective, then the preconditions for the effectiveness of operational management are created (Janićijević, N. 2013).

### **Managers - characteristics**

Managers are people who have skills and knowledge to do business with the help and through other people (Williams, C., & McWilliams, A. 2010). Manager is nowadays an increasingly popular expression and is often used in the media, especially in specialized journals. The word 'manager' has several meanings in the literature, and four seem to be the main ones: the manager, the controller, the entrepreneur and the director (Nikolic, M., Mihajlovic, L. S., Stanojevic, D., & Stefanovic, S. 2014). It was very easy to define a manager before. Managers were members of organizations who were telling others what to do and how to work. It was easy to distinguish managers from employees who were not managers, i.e. from those members of the organization who were

directly involved in the work and did not have their subordinates. A manager is someone who works with people and with their help coordinates their work in order to achieve organizational goals. As managers, people perform managerial functions of planning, organizing, staffing, guiding and controlling. The aim of all managers is the same (Garača, N., & Kadlec, Z. 2011): to create a surplus. A manager is a person whose primary tasks derive from the management process, he plans and makes decisions, organizes work and business, employs and manages people and controls resources. He is also a person who achieves the goals by engaging others in performing tasks. The word manager is the term used to designate the managers in all organizations (profit or non-profit type) (Ajduković, M. (2016). Considering that this is a specific American expression that does not have an adequate synonym, this term is most often used in the original form. Basically, the term manager refers to a person who performs a managerial function in a particular organization. In practice, the very definition of managers refers to:

- the specialists who are the owners of capital or companies engaged in the task of performing managerial functions in accordance with the defined powers and responsibilities,
- the owners of the company when they, as individuals or members of the management team, perform (in accordance with the relevant authorizations and responsibilities) managerial functions (i.e. jobs and tasks) and receive the appropriate remuneration for performing the tasks (functions) (Mihajlović, M. 2016).

According to the foregoing, for conceptual determination, as well as for the practical identification of managers, it is completely irrelevant whether one is the owner of the company (or its part) or not. However, what is especially emphasized, or what is essential, is that the managers:

- possess managerial skills which verify them, i.e. qualify as potential or actual bearers of management.

Managers are in charge and authorized to perform managerial tasks (functions or tasks) in given organizations (profit or non-profit character) and are responsible for the work and results of the organization's operations (in whole or in part) in which they perform managerial functions (Petković, M., Mirić, AA, & Božinović, I. 2011).

## **Principles of Management**

Management guru Henry Fayol emphasizes in his main work the need to define a principle which should enable the implementation of the basic concept. In doing so, it is necessary to emphasize the variability of the conditions in which the business takes place. Fayol formulates fourteen principles that are significant in contemporary conditions (Cole, GA 2004):

1) **The division of labor** - with the increase in volume and complexity of all types of jobs at all levels, especially the professional one, there is a more diversified division of labor. A clear definition of the division of labor as a means of achieving the effect would be: "The division of labor is the best means for both individual as well as collective power in production". The division of labor lies in the possibilities for specialization of individuals, executors of work tasks. Specialization is a consequence of the division of labor that determines the experience regarding the spirit of work, and these boundaries do not need to be crossed. Regardless of relative inconsistency, Fayol's sense of measure is very characteristic, and especially this is of particular significance considering the exaggerations that subsequently followed and led to serious difficulties in the implementation of chain production (Djukic, R., Jovanović, J.).

2) **The authority** is defined as "the right to command, that is the power that makes all that is necessary to be done, and to listen to and execute the task". In this simplified interpretation of authority, there are predominant elements of authority, which are the subject of numerous later considerations. Thus, Fayol links power and authority to a unified whole, while in recent times there is a debate over the power of authority that says "authority is the power of the power". In relation to this, Fayol points out the necessity of matching the so-called "position authority and real authority, which stems from the moral and other quality of the personality of the bearer of the authority". It is particularly emphasized that the transfer of authority to power should not occur. According to Fayol, the authority of managers among the working masses is decreasing when it is based on the understanding that the position is gaining power, that is, that the authority is aligned with the notion of power, that authority is placed on the basis of capitalism and exploitative intentions (Biličić, M. 1999).

3) **Discipline** is defined as "the respect of conventions", with obedience, care, activity, and external signs of appreciation as objects. In explaining discipline, which is considered as necessary, there is a phenomenon: it is not only a set of imposed restrictions for a subordinate, but primarily a part of the behavior of bosses. Fayol particularly emphasizes the need for the consensual determination of conventions and rules, between employers and workers, on which discipline rests (Ivanišević, S. 2012). There he sees the guarantee of real acceptance and a certain free submission, which means that he is not the agent of blind obedience, characteristic of the military organization of his time, on which he is criticizing, but he creates his own views on discipline.

4) **The unity of command** - as an antithesis to duality in the command, Fayol especially emphasizes this fundamental principle. "Every single person in the staff can have only one boss". By elaborating the thesis, it specifies that an individual "receives orders from only one boss", i.e. that one commanding officer has one executor. As support of the unsustainability of the duality in the command, there are only additional elements through the emergence of disorder, indiscipline, inefficiency, etc. It is understood that multiple command, such as the principles of a hierarchical military organization, is not taken into account at all, which is also the cause for the general qualifying of his unity of management (planning) like "only one boss and one program for a certain set of operations that have the same goal". This principle is necessary for the convergence of all factors and a unique action. Fayol points out that the unsustainable existence of duality is in control, just as it is, in biological systems, the monster with two heads. At the same time, it points to the necessary conditionality, i.e. that unity in command cannot exist without unity in the management, that is, planning. It is understood that a unique plan of group activities has a common goal. Unquestionable unity in management has so far represented an unprecedented principle in the classic theory of organization.

6) **Subordination of individual interests to the general interests of the company** is emphasized as a condition for the entire survival of the whole at all levels. Various individual weaknesses such as ignorance, egoism, laziness, etc. are cited as the causes of the denial of the need of subordination to individual general interests (Jasko, O., Čudanov, M., Jevtic, M., Krivokapic, J. 2013.). This principle is so clear for Fayol that he does not think it needs to be specifically elaborated and explained. However, a very important question remains open: on which basis have the general interests been built, and it diminishes the inconsistency of the principle.

7) **Awarding staff**, i.e. "salaries or staff rewards, that is the price of the service, which they perform" (Nastasić, A., Lazić, J., & Cvijanović, J. M. 2007). In considering these issues, Fayol points out that this is a very complex problem, which is very different in practice, but that none of the solutions has been absolutely satisfactory so far. With a relaxed absolutism, the above conclusion would be acceptable. Fayol's rewarding ideas could be interpreted through the following two basic characteristics:

- differentiation of staff to workers and lower, that is, senior staff
- participation of all levels in profit of companies is classified as impossible.

In considering some isolated aspects of the issue of rewarding, especially weaknesses and advantages of paying by time and piece, the current remarks are observed. However, the basic attitude is determined by the socio-economic order in which Fayol does not find an adequate solution and does not see the real causes of the position in which it is located.

8) **Centralization of control functions** is treated as a natural phenomenon in analogy with living beings, where all the impressions and information are acquired by the brain, that is, the board of directors of the enterprise, and from there come the orders and instructions for the operation of parts of the organism of the human or enterprise. In further elaboration, Fayol analyzes the capabilities of the bosses from the aspect of achieving the best results of the whole through the greater activation of associates at the head of the organism, i.e. the enterprise, and concludes that through decentralization and giving up some of the powers, it gets better. In this regard, he concludes that "the question of centralization and decanalisation is simply a question of measure, one just has to find convenient boundaries for that in the enterprise itself." Centralization of control functions is necessary due to the efficiency of decision making, Fayol concludes. In a slightly modified form, this problem has remained permanently current.

9) **The hierarchy**, or the pyramidal structure of management, (Šofranac, R., Tonić, N., & Đurđević, S.) is a way that transfers orders and instructions from senior to lower bosses, which ensures the security of the organizational structure. At the same time, the hierarchy determines the way by which subordinates inform their superiors of events and their actions. By accepting the hierarchical order as inevitable for achieving security, Fayol notices the weaknesses and inefficiencies of that order, when a rapid response is required in order to

achieve better results. And with this principle, as elsewhere, the results are primary. To that end, Fayol foresees the establishment of a horizontal link between bosses at the same level with the notification of their immediate superior bosses and the issuance of their consent. Fayol believes that in this way a rigid, inelastic structure is repaired.

10) **Order** - "there must be material and social order". The explanation of both orders is reduced to two simply formulated positions:

A) for the material order - "one place for everything and everything in its place". In doing so, the essence of the real, thoughtful order against the formal order, which is not based on adequate internal relations, is emphasized.

B) for the social order - "one place for every person, every person in his place". This setting is especially emphasized by Fayol because its implementation is a prerequisite for the functioning of each organization. As a formal expression of adequate application, these settings are indicated by organs and grams, and their place and role in the organization of the company are emphasized. With these attitudes, Fayol defines a formal organization, giving it a great and almost exclusive significance, although in the part of the definition that every person is in his place, has elements that reflect the need for respecting specific characteristics of individuals, but this is underdeveloped (Arsić, P.).

11) **Justice** - comes as a result of combining understanding, good will and affection in all specific conditions of action of individuals, on the one hand, and justice on the other. Thus understood and applied, justice greatly encourages all staff to work, which is the purpose of establishing justice. Fayol continuously presents justice in the form of bosses, as bearers of justice, which somewhat diminishes the human character of this attitude (Biličić, M. 1999).

12) **Staffing** - introducing new staff into the job demands extra time, so frequent change is cited as a cause of inadequate results. This is particularly the case with more responsible managerial positions. Recognizing that physiological and other natural factors cause the forced staff change, Fayol ignores the need to change personnel, due to possible requests, which can be very harmful. He corrects it partially by saying: "The principle of staff stability is also a matter of measure".

13) **The initiative of all employees** is the ability to make something meaningful and engage in self-confidence. The initiative at all levels is a very desirable and important component in the work, but within the predicted discipline and under the control of managers. It is up to the bosses to give up vanity, to create an atmosphere that reminds and develops an individual's initiative.

14) **Unity of staff** - "unification makes power", Fayol points out. Pointing out that this principle is very important for the success of the whole, it undoubtedly shows that it has an understanding of relations between people. At the same time, he points to two major dangers for achieving staff unity, such as:

A) misinterpretation of the motto 'divide and rule',

B) the excessive use of written announcements shows the depth of Fayol's analysis of characteristic phenomena that undermine modern management.

Management in your own company on the basis of "share and rule" is short-term and can cause a lot of serious problems, undermining the fundamentals of mutual trust and cooperation of members of an organization.

According to Fayol's conclusion, the number of these principles and their composition is not final, thus opening the door to changes with the goal of alignment with the changed conditions. What is characteristic for the aforementioned Fayol's understanding of the principles is the following:

- unity in a range of aspects such as management, command and staff,
- human factor has a relatively prominent place and role, as well as appropriate interpersonal relations.

### **New principles of management**

Managing changes in the time when there are the same goals for a changed paradigm enterprise requires new management principles. In the conditions of the industrial economy, the main consequence is the functional hierarchy of management, which modern managers usually use as a rule.

The ultimate goal of the enterprise in the industrial era is profit based on mass production and sales. In order to achieve this goal, the management team has to focus on reducing costs. In the meantime, there has been an expansion of focus in the direction of work, materials, energy and savings products. There are at least three important consequences of this evolution. First, concentration within the branch is relatively high, which means that only a limited number of competitors manage to overcome a barrier of size that guarantees minimal efficiency. Secondly, entering or leaving the branch is not a common occurrence due to large capital investments. Third, the factors within a company are clearly separated from outside factors (customers, suppliers, partners).

According to R. Nolan and D. Croson, there are thirteen principles (Nolan R. and D. Crosson 1995). First, the principle of hierarchical structure. Usually there are three hierarchical levels. The managerial top is above the middle level management, and this is above the manager of the first line that controls the direct executors. Second, a functional principle. Jobs are organized within strictly defined functions. Processes are analytically broken down into jobs. Analytical breakdown of the process to jobs is possible as there is already a connection between them. There are line tasks such as procurement, production, sales, and staff tasks that support liner activities. Third, the principle of decentralization. According to this principle, centralization is not a fate although it is preferred. Applying this principle ensures the transition of a functional organization into a divisional organization (or M-form). M-Form means dividing the company into a corporate top and corporate base. Activities of importance for the whole enterprise are centralized within the corporate top, while other activities are decentralized by divisions. Fourth, the principle of leadership. The task of the managerial top is to formulate the strategy and explicitly formulate the organizational structure and control system for the implementation of this strategy. Anderson, J. L., Adams, C. D., Antman, E. M., Bridges, C. R., Califf, R. M., Casey, D. E., ... & Lincoff, A. M. (2007).

Fifth, the principle of strategic orientation. According to this principle, the company is organized to produce certain products and services that ensure fulfillment of its goals. Sixth, the principle of activities or jobs. All activities are performed within functions. Acts are independent and have minimal communication costs between themselves and with the functions. Seventh, the principle of the time period. Time horizon decisions regarding resource allocation are fiscal years. This affects the definition of a business plan and a profit distribution plan. Eighth, the principle of the type of worker. According to this principle, all workers are divided into administrative workers, or the so-called white collar, who determine the goals and the way in which certain activities will be carried out, and the production workers, or the so-called blue collar, who perform these activities. Ninth, information approach. According to this principle, the information flow follows the command line. The command line is a consequence of the distribution of responsibilities between different hierarchical levels. Tenth, the principle of communication. According to this principle, communication is strictly formalized and done on the basis of written documents. Eleven, the principle of control. According to this principle, control is based on direct monitoring of subordinates' work. Twelfth, the principle of compression. According to this principle, the reward is a consequence of the position in hierarchy, responsibility and loyalty. Thirteen, the principle of the breadth of managerial competence. According to this principle, the manager is limited to 6 to 10 in the number of subordinates that they control.

In enterprises of industrial economy, the principles of functional hierarchy and bureaucratic management are the basis of the system of planning and system of monitoring results. The basic problem is the rhythm of functioning. Namely, the rhythm is determined by the duration of the fiscal year, arbitrarily assumed by the laws on accounting and taxes. Metaphorically speaking, the heart of the industrial economy has only one beat a year. In the information economy in which the market is looks for real-time functioning, and the technology provides it, such slow rhythm of functioning cannot be positively assessed.

There is no doubt that information and knowledge are in a different mode than conventionally defined rare resources, such as raw materials, financial resources, etc. First of all, information is not consumed by using, but it even becomes more valuable the more it is used. For example, the value of information on an efficient method of creating a business plan is much greater for a diversified enterprise due to greater application capability. Also, information on cheap sources of long-term financing is more important for a company with significant development opportunities, than for a stagnant enterprise. The fact that money information has become more valuable than money itself speaks for itself. What this suggests is the fact that knowledge where to invest money is more important than the amount of money. Instead of high investments, the main barrier to entering the IT era is speed. Modern businesses are fast cycle companies. The existence of this barrier means that competitor handicaps have slow, and not as before, small businesses.



The principles of management in the informatics economy lead to the transition of a functional hierarchy into network organization and bureaucratic management into adhocratic management. Transition from the industrial economy to the informatics economy cannot be achieved by replacing one principle with another and thus, say, thirteen times. Transition from the industrial economy to the informatics economy is a holistic process, moving from one set of principles to another. A number of conventional principles do not apply to the information economy. A number of conventional principles are valid with certain adjustments due to changes in the character of the business process. Finally, a number of completely new principles have been immanent to the informatics economy. The new conditions do not match the principles of hierarchy and functional organization. Namely, the company that channels information only through hierarchical structure and functional communication channels, is not able to compete in the global market using databases of customers, suppliers, partners and other participants.

According to R. Nolan and D. Croson, there are 20 principles of enterprise management in the information economy. First, the leadership principle. Under this principle, management manages and coordinates enterprise vision, playing an important role in defining projects through which this vision is realized. Second, the principle of the scope of managerial competence. According to this principle, the scope of managerial competence is not limited by the capabilities of the controller, but by the available information. Third, the principle of control. According to this principle, control has an indirect character, that is, control is performed through monitoring the results instead of monitoring the immediate execution of the work norm. Fourth, the principle of compaction. According to this principle, employees' rewards are primarily influenced by results rather than positions in the hierarchy. Fifth, the principle of the type of worker. According to this principle, all employees are treated as a unique group of so-called thinking workers. Sixth, the principle of value creation. Namely, all activities of the company must be focused on creating value for buyers and owners. The seventh, informational principle. According to this principle, all employees have access to most of the relative information. Eighth, the principle of coordination. Namely, the information enables all employees the discretion regarding the examination and anticipation of the problem, as well as the harmonization of opinions regarding the choice of how to solve them. Ninth, the principle of dynamic equilibrium. According to this principle, the created value is monitored in real time and distributed to owners based on current information. Tenth, the principle of project organization of the business. Namely, all activities are grouped into projects with precisely defined objectives, time of execution and resource allocation. Projects are a temporary organizational category that is created by meeting the goal. Eleventh, the principle of organizing the organization. According to this principle, the management top forms the organization of the company as an infrastructure for self-organization of project teams. Twelfth, the principle of strategic orientation. According to this principle, the company is at the service of customers, not in the capacity of users of certain capacities. Thirteenth, team principle. According to this principle, the jobs are done in a team. At the head of the teams are team leaders tasked with finding suitable experts in order to achieve the goals of the projects. Fourteenth, the principle of communication. Namely, communication is fast, spontaneous and has to include everything from start to finish. Fifteenth, the principle of jurisdiction. According to this principle, the authority over the use and allocation of resources changes depending on the performance of the tasks. Sixteenth, the principle of the time period. According to this principle, decisions on allocation of resources are made in real time, instead, in fiscal years or in any other arbitrary fixed period. Seventeenth, the principle of feedback. According to this principle, feedback is the basis for controlling and compensating employees. Eighteenth, the principle of conflict resolution. Specifically, conflicts between interest groups are solved by the top management of companies. Use of a third party for conflict resolution is an exception. Nineteenth, the principle of opportunity. According to this principle, the company's activities are oriented to the use of opportunities, rather than solving the problems of organizational inertia. Twentieth, the border principle. According to this principle, the boundaries between businesses and the environment are organic, that is, they are exposed to expansion and narrowing. Variable boundaries are the basis for network relations.

## Conclusion

The manager is an increasingly popular term and nowadays it is often used in the media, especially in magazines and professional literature. The word manager in literature has a lot of meanings, and the main ones are: manager, entrepreneur and director. Since this is a word originating from the American domain, there is no adequate synonym (in our country it is only transcribed), this term is most often used in its original form. Basically, this term means a person who performs a managerial function in a particular organization. The goal of the enterprise in the industrial era is profit based on mass production and sales. In order to achieve this goal, the management team has to reduce costs. In the meantime, there has been an expansion of focus with work, materials, and energy. There are at least three important consequences of this evolution. First, concentration within the branch is relatively high, which means that only a limited number of competitors manage to overcome a barrier of size that guarantees minimal efficiency. Secondly, entering or leaving the branch is not a common

occurrence due to large capital investments. Third, the factors within a company are clearly separated from outside factors (customers, suppliers, partners).

In countries that are highly developed in the industrial sphere, first of all in the United States and the countries of Western Europe, there is a well-processed theory, more commonly known as scientific management. At all Western universities, the science of management takes a prominent place, as it prepares personnel for managerial functions. Management is a discipline that can be applied in different organizations. Management applied to a company is enterprise management or business management. Business management should enable survival and prosperity of enterprises as organizations with specific goals. Enterprise management uses the organization to combine human and material resources more effectively, adapting to the conditions in the company environment. Organizing as an element of management is expressed through the organizational structure and organizational form.

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31. Ansgar Zerfar & Mirosljub Radojković (2011), menadžment političke komunikacije; Konrad Adenauer Stiftung, Beograd.

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

### Title of Paper in Serbian

Authors' Name and Surname<sup>1\*</sup>, Name and Surname<sup>2</sup>, Name and Surname<sup>3</sup> [in this stage leave it empty for the peer review purpose]

<sup>1</sup> Institution and E-mail address [in this stage leave it empty for the peer review purpose]

<sup>2</sup> Institution and E-mail address [in this stage leave it empty for the peer review purpose]

<sup>3</sup> Institution and E-mail address [in this stage leave it empty for the peer review purpose]

**Summary in Serbian:** This document is a template for formatting the papers in order to prepare them for printing. This summary provides briefly the information related to the content of the article so that the reader can rapidly and accurately assess its relevance. Authors should explain the goals of research or state the reason (reasons) why they have written the article. Then, it is necessary to describe the methods used in the study and briefly describe the results they have obtained in the research. The abstract should be between 100 and 250 words long.

**Keywords:** 3-5 keywords for indexing and search purposes

### Title of Paper in English

**Abstract in English:** This document presents a template for preparing the print-ready papers that will be included in the Serbian Journal of Engineering Management. The abstract briefly summarizes the article and gives the reader the opportunity to assess its relevance. 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 long.

**Keywords:** 3-5 keywords for indexing and search purposes

#### 1. Introduction

The paper should be written using MS Word for Windows (on Serbian Cyrillic, Latin or English – UK keyboard). The length of work should not be more than 10 pages including text, diagrams, tables, references, and appendices.

The format is A4. Use **2 cm** for the lower and upper margin and **2.5 cm** for the left and right margin. The spacing within one paragraph should be one (single), while the spacing between paragraphs is double. To format the text, it is recommended to use font Times New Roman.

#### 2. Structure of the paper

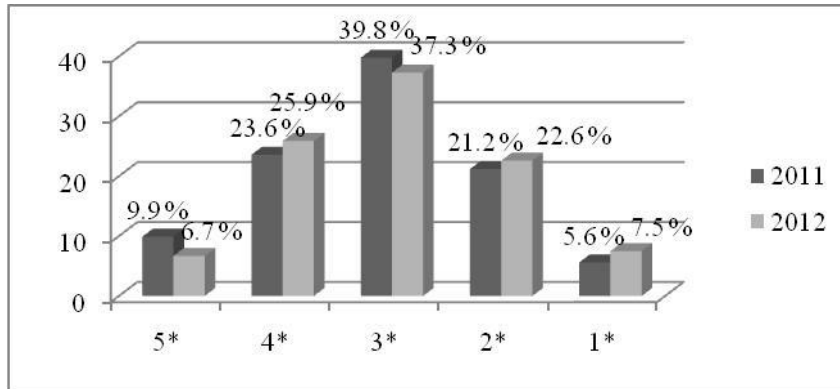
In the first line of the first page the title should be written in Serbian language (16 pt). Under the title of the paper the spaces for name(s) of the author and the names of the author's institutions should be indicated as specified and aforementioned in this Guideline. After the space for the institution of the last author, leave one blank line and write the short summary (10 pt) in Serbian. After the summary, provide an overview of key words. After the paper title you indicated, include the summary and key words in the Serbian language, whereas they should be indicated in English like above.

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).

$$PV_0 = \frac{FV_n}{(1+i)^n} \quad (1)$$

#### 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).

**References should be given at the end of the main text in alphabetical order**, following the last name of the author. Below are shown examples of using APA style for citations appearing in various forms (books, journal articles, proceedings, electronic resources, etc.).

**A book with one author:**

Example: Hrabovski, Tomić, E. (2009). *Health tourism destinations*. Novi Sad: Prometheus.

**A book with several authors:**

When you have multiple authors, all of them are supposed to be mentioned, but as soon as the last surnames are added and if there are more than seven authors, mention the first six and then write ... at the end of the last author.

Example: Barrows, C. & W. Powers, T. (2009). *Introduction to the Hospitality Industry*. 7th edition. Hoboken, New Jersey: John Wiley & Sons, Inc.

**A book which was translated from a foreign language:**

Example: Spic, E. H. (2011). *Art and psyche: a study of psychoanalysis and aesthetics*. (A. Niksic, prev.). Belgrade: Clío.

**A book with an editor for a collection of papers; proceedings:**

If the book is a collection of papers on the appropriate topic, the authors should mention the editor of their work with the surname and first initial in parentheses as they add "edit" if the person is editor, or "Ed." as editor if the book is written in a foreign language.

Example: Đurković, M. (ed.) (2007). *Serbia 2000-2006: state, society, economy, Belgrade*: Institute for European Studies.

**Papers in the proceedings:**

Example: Cerovic, S. (2012). *Modern concepts of strategic tourism destination management*. Scientific conference with international participation "Tourism: Challenges and Opportunities", Trebinje.

**Papers published in the journal by one author:**

Example: Harish, R. (2008). Brand Architecture and its Application in Strategic Marketing. *The Icfai University Journal of Brand Management*, 7 (2), 39-51.

**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:**

Example: Luque-Martinez, T. Castaneda-Garcia, A. J., Frias-Jamilena, D. M., Munoz-Leiva, F. & Rodriguez-

Molina, M. A. (2007). Determinants of the Use of the Internet as a Tourist Information Source. *The Service Industries Journal*, 27 (7), 881 to 891. doi: 10.1080 / 02642060701570586

**Newspaper article with the aforementioned author:**

Example: Muscile, M. (days 1 February 2012). US Steel has reduced its losses. *Politika*, p. 11

**Newspaper article with no author specified:**

Example: Straževica ready in two months. (Days 1 February 2012). *Politika*, p. 10

**Thesis in the printed version:**

Example: Dewstow, R. A. (2006). *Using the Internet to enhance teaching at the University of Waikato* (Unpublished master's thesis). University of Waikato, Hamilton, New Zealand.

**Document or database from the Internet, the private or official web page for which we know the database author:**

Example: Kraizer, S. (2012). Safe child. Retrieved on 29 October 2012, from <http://www.safechild.org/>

**Document or databases from the Internet, the official web page for which we do not know the author:**

Example: Penn State Myths. (2006). Retrieved December 6, 2011, from <http://www.psu.edu/ur/about/myths.html>

**Document or databases from the Internet, private or official web page where the author is a corporation or organization:**

For example, the Ministry of Finance and Economy. (2013). Information on tourist traffic in Serbia. Retrieved on 06 February 2013 from <http://www.turizam.mfp.gov.rs/index.php/sr/2010-02-11-17-24-30>

The sources which were not used in the paper should not be included in the list of references. References should be cited in the language in which they are published without translating them into the language of paper.

**Obrazac za pripremu radova za objavljivanje u časopisu  
Serbian Journal of Engineering Management**

**Naslov rada na srpskom jeziku**

**Ime Prezime<sup>1\*</sup>, Ime Prezime<sup>2</sup>, Ime Prezime<sup>3</sup>** [ostavite u ovoj verziji prazno za potrebe recenzije]

<sup>1</sup> Institucija i i-mejl adresa [ostavite u ovoj verziji prazno za potrebe recenzije]

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**Apstrakt:** Ovaj dokument predstavlja obrazac za formatiranje radova tako da izgledaju kao da su već spremni za štampu. Sažetak predstavlja kratak informativni prikaz sadržaja članka koju čitaocu treba da omogući brzu i tačnu ocenu njegove relevantnosti. Autori treba da obrazlože ciljeve istraživanja ili navedu razlog (razloge) zbog koga pišu članak. Zatim, potrebno je da opišu metode korišćene u istraživanju i ukratko opišu rezultate do kojih su došli u istraživanju. Sažetak treba da sadrži od 100 do 250 reči.

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

**Title of Paper in English**

**Abstract:** This document presents a template for preparing the print-ready papers that will be included in the Serbian Journal of Engineering Management. The abstract briefly summarizes the article and gives the reader the opportunity to assess its 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 length.

**Keywords:** 3-5 keywords

**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**.

**2. Struktura rada**

U prvom redu na prvoj strani treba napisati naslov rada na srpskom jeziku (16 pt). Ispod naslova rada treba ostaviti mesto za navođenje ime(na) autora, nazive institucija autora onako kako je naznačeno u ovom Obrascu. Nakon institucije poslednjeg autora, ostaviti jedan prazan red i u sledećem napisati kratak sažetak (10 pt). Nakon sažetka sledi pregled ključnih reči. Nakon prikazanog naslova rada, sažetka i ključnih reči na srpskom jeziku, potrebno je i na engleskom jeziku naznačiti prethodno navedeno.

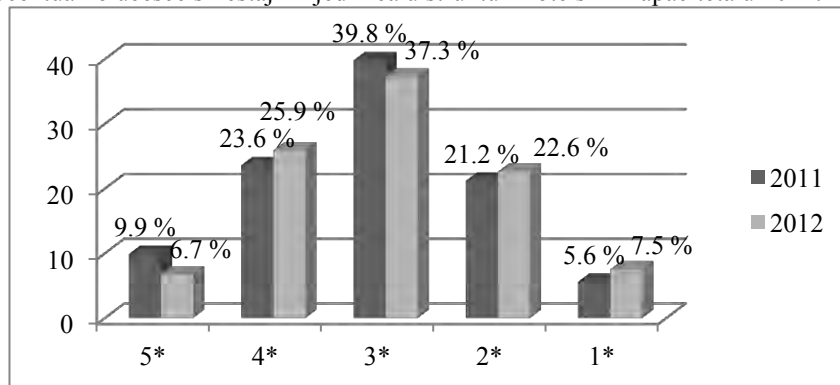
Numerisane podnaslove prvog nivoa treba formatirati korišćenjem fonta 12 pt boldovano, a podnaslove drugog nivoa 10 pt boldovano. Tekst, kao i spisak literature treba formatirati korišćenjem fonta 10 pt.



### 3. Grafički i tabelarni prikazi i formule

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.

Formule treba centrirati na stranici sa numeracijom, kao u narednom primeru. Preporučuje se formatiranje redova sa formulama u Microsoft Word-u (MathType).

$$PV_0 = \frac{FV_n}{(1+i)^n} \quad (1)$$

### 4. Zaključak

U zaključku autori treba da sumiraju rezultate do kojih su došli u istraživanju.

### Literatura

Prilikom navođenja literature, treba se pridržavati uputstva APA sistema navođenja literature. Za više informacija pogledajte *Publication Manual of the American Psychological Association* (6th ed.).

**Prilikom citiranja unutar teksta**, kada u rečenici spominjete autora i navodite njegove reči, onda posle imena autora treba navesti godinu izdanja citiranog teksta u zagradi, a na kraju rečenice potrebno je navesti broj strane na kojoj se nalazi rečenica u tekstu iz koga navodite: prema Čeroviću (2012), „citirani tekst“ (str.10). Kada se autor ne spominje u rečenici onda njegovo prezime, godinu izdanja rada i broj strane u radu navesti u zagradi i na kraj rečenice, a ako je citat nastao parafraziranjem ili rezimiranjem, onda podatak o broju strane nije

neophodan: (Čerović, 2012). Ukoliko se navodi dve ili više referenci istog autora, a pri tom su objavljene u istoj godini, poziv na reference treba navesti na sledeći način (Harish, 2008a; Harish, 2008b). Kada su dva autora rada, navode se prezimena oba autora na sledeći način (Petković i Pindžo, 2012), odnosno (Tew & Barbieri, 2012). Poziv na reference u tekstu za radove sa više od dva autora treba navesti na sledeći način (Luque-Martinez i sar., 2007). Kada citirate izvor koji ne prikazuje broj strana (kao što su elektronski izvori) koristite prezime autora i godinu objavljivanja, ukoliko je autor poznat, a ukoliko je autor korporacija ili organizacija, naziv organizacije i godinu objavljivanja (Ministarstvo finansija i privrede, 2013).

**Reference** treba navesti zajedno na kraju glavnog teksta azbučnim redom po prezimenu autora. U nastavku su prikazani primeri korišćenja APA stila za citiranje u raznim oblicima pojavljivanja (knjiga, rad u časopisu, zbornik, elektronski izvori itd.).

**Knjiga sa jednim autorom:**

Primer: Hrabovski, Tomić, E. (2009). *Destinacije zdravstvenog turizma*. Novi Sad: Prometej.

**Knjiga sa više autora:**

Kada imamo više autora navodimo ih sve, s tim što pre poslednjeg prezimena dodajemo i, odnosno &, ako imamo više od sedam autora, navodimo prvih šest, zatim pišemo pišemo tri tačke, i na kraju poslednjeg autora.

Primer: Barrows, C. W. & Powers, T. (2009). *Introduction to the Hospitality Industry*. 7th edition. Hoboken, New Jersey: John Wiley&Sons, Inc.

**Knjiga, prevod dela:**

Primer: Spic, E. H. (2011). *Umetnost i psiha: studija o psihoanalizi i estetici*. (A. Nikšić, prev.). Beograd: Clio.

**Knjiga sa urednikom ili priređivačem, zbornik radova:**

Ako je knjiga zbornik radova na neku odgovarajuću temu, kao autora navodimo priređivača tog dela i uz njegovo prezime i inicijal imena u zagradi dodajemo "ured." ako je urednik, ili "prir." ako je priređivač, ili pak "Ed." kao editor ako je knjiga pisana na stranom jeziku.

Primer: Đurković, M. (ured.) (2007). *Srbija 2000-2006: država, društvo, privreda*, Beograd: Institut za evropske studije.

**Rad u zborniku radova:**

Primer: Čerović, S. (2012). *Savremeni koncepti strategijskog upravljanja turističkom destinacijom*. Naučni skup sa međunarodnim učešćem "Turizam: izazovi i mogućnosti", Trebinje.

**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

**Rad u časopisu sa više od dva autora:**

Primer: Luque-Martinez, T., Castaneda-Garcia, J. A., Frias-Jamilena, D. M., Munoz-Leiva, F. & Rodriguez-Molina, M. A. (2007). Determinants of the Use of the Internet as a Tourist Information Source. *The Service Industries Journal*, 27(7), 881-891. doi: 10.1080/02642060701570586

**Članak iz novina sa navedenim autorom:**

Primer: Mišić, M. (1. feb. 2012). Ju-es stil smanjio gubitke. *Politika*, str. 11.

**Članak iz novina bez navedenog autora:**

Primer: Straževica gotova za dva meseca. (1. feb. 2012). *Politika*, str. 10.

**Teza-štampana verzija:**

Primer: Dewstow, R. A. (2006). *Using the Internet to enhance teaching at the University of Waikato* (Unpublished master's thesis). University of Waikato, Hamilton, New Zealand.

**Dokumenta ili baze podataka sa interneta, privatne ili zvanične internet stranice kojima se zna autor:**

Primer: Kraizer, S. (2012). *Safe child*. preuzeto 29. oktobra 2012, sa <http://www.safechild.org/>

**Dokumenta ili baze podataka sa interneta, zvanične internet stranice kojima se ne zna autor:**

Primer: *Penn State Myths*. (2006). Preuzeto 6. decembra 2011, sa <http://www.psu.edu/ur/about/myths.html>

**Dokumenta ili baze podataka sa interneta, privatne ili zvanične internet stranice kojima je autor korporacija ili organizacija:**

Primer: Ministarstvo finansija i privrede. (2013). *Informacije o turističkom prometu u Srbiji*. preuzeto 06. februara 2013. sa <http://www.turizam.mfp.gov.rs/index.php/sr/2010-02-11-17-24-30>

Izvori koji nisu korišćeni u radu ne treba da se nalaze u popisu literature. Reference treba navoditi na jeziku na kome su objavljene bez prevođenja na jezik rada.

## Instructions for Authors

The Journal Committee strives to maintain the highest academic standards. The submitted papers should be original and unpublished until now. Also, it is forbidden that papers are in the process of reviewing in some other publication.

The papers would be subjected to check. The paper should fit the outlined academic and technical requirements.

### Paper Types

Original unpublished scientific paper:

- Original scientific paper;
- Plenary lecture and paper presented at the conference;
- Review;
- Scientific review; discussion.

Original unpublished professional paper:

- Original paper;
- Contribution
- Book review.

Papers may be written in Serbian and English for authors from Serbia and the region or English for authors from other countries.

Submitted papers must be in alignment with guidelines for authors. In case they have not followed these guidelines, they would be reviewed for correction.

All manuscripts are subject to *double blind review*, i.e. the process of double “blind” anonymous reviewing. The papers must not contain any references which may indicate the author(s).

### Paper Submission

Authors should send their papers via email [casopis@fim.rs](mailto:casopis@fim.rs) in .doc or .docx format.

The application consists of two separate attachments:

- Attachment 1, which contains the following data: the title of paper, author’s name (without professional title), institution and address (email, postal address, phone number), as well as the asterisk next to the author in charge of correspondence;
- Attachment 2, which contains the paper with the following elements: paper title, abstracts, key words, the middle part of the paper, tables, graphs, references and attachments.

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