INTERNET TRANSPARENTNOST U FINANSIJSKOM SEKTORU BOSNE I HERCEGOVINE

INTERNET TRANSPARENCY IN FINANCIAL SECTOR IN BOSNIA AND HERZEGOVINA

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REZIME

Podizanjem kvaliteta korporativnog upravljanja povećava se vrijednost preduzeća na tržištu, omogućuje korištenje svih oblika finansiranja: domaćeg i međunarodnog, javnog i privatnog, a samim tim jača i njihov dugoročni prosperitet. Svrha ovog rada je istraživanje internet transparentnosti u bankama i osiguravajućim društvima Bosne i Hercegovine i uočavanje razlika između sektora banaka i sektora osiguravajućih društava u pogledu stepena transparentnosti pojedinih oblasti iz domena korporativnog upravljanja. Podaci potrebni za istraživanje su dobijeni pregledanjem internet stranica posmatranih subjekata. Rezultati diskriminacione analize su pokazali da postoji razlika u internet transparentnosti između banaka i osiguravajućih društava.

Ključne riječi: korporativno upravljanje, transparentnost, diskriminaciona analiza.

ABSTRACT

Raising the quality of corporate governance has a direct positive impact on company's market value, allowing the use of variety of forms of financing: national and international, public and private, which strengthen their long-term development. The purpose of this paper is to explore the Internet transparency in banks and insurance companies in Bosnia and Herzegovina and detect the differences between the banking and insurance sectors in terms of transparency in certain areas of corporate governance. The necessary data for the study were obtained by reviewing corporate websites. The results of discrimination analysis show that there is a difference in the internet transparency between banking and insurance sectors in Bosnia and Herzegovina.

Keywords: Corporate Governance, Transparency, Discrimination Analysis.

UVOD

Korporativno upravljanje treba osigurati podsticaj rukovodećoj strukturi u ostvarivanju ciljeva koji su u interesu samog preduzeća ili institucije kao i njihovih akcionara, a takođe i omogućiti efikasnu kontrolu i praćenje, čime se podiže stepen povjerenja i stvaraju preduslovi za efikasnije funkcioniranje tržišne ekonomije. Rezultati dobrog korporativnog upravljanja su niži troškovi kapitala, efikasnije korištenje resursa i rast preduzeća. Podizanjem kvaliteta korporativnog upravljanja promoviše se pravičnost, odgovornost i transparentnost i konkretizira-

INTRODUCTION

Corporate governance should provide incentives for management structure in order to achieve the objects, which is in the interest of the company or institution as well as their shareholders. In addition, it has to provide effective control and monitoring, which increases the level of trust and creates conditions for efficient functioning of the market economy. The results of a good corporate governance practice are lower cost of capital, efficient use of resources and the company growth. A high level of corporate governance quality promotes fairness, liability and transparency, and

ju prava i odgovornost članova odbora, uprave i akcionara.

U ovom radu je izvršeno istraživanje internet transparentnosti u finansijskom sektoru Bosne i Hercegovine (BiH), na uzorku od 26 banaka i 21 osiguravajućeg društva. U istraživanju se polazi od hipoteze:

H1: Nivo internet transparentnosti u sektorima banaka i osiguravajućih društava u Bosni i Hercegovine nije zadovoljavajući. Pri tom je nivo internet transparentnosti u svim posmatranim oblastima korporativnog upravljanja viši u sektoru banaka nego u sektoru osiguravajućih društava.

Nivo internet transparentnosti u pojedinim oblastima korporativnog upravljanja se određuju na osnovu prisutnosti određenih informacija na internet stranicama posmatranih subjekata. U pripremi i analizi dobijenih podataka za ovo istraživanje imaju se u vidu prethodna istraživanja i propisani način mjerenja primjene principa korporativnog upravljanja u domaćim preduzećima i institucijama (Scorecard upitnik Banjalučke berze).

Radi prikupljanja podataka analizirani su sadržaji internet stranica posmatranih subjekata. Potrebne analize su urađene pomoću statističkog programa SPSS.

TRANSPARENTNOST I INTERNET TRANSPARENTNOST KAO PRINCIP KVALITETNOG KORPORATIVNOG UPRAVLJANJA

Kvalitetno korporativno upravljanje se bazira na usvajanju i stvarnom sprovođenju dobrih principa i praksi, što obuhvata: transparentnost, integritet i odgovornost. Pri tom je važan faktor dobrovoljnosti u implementaciji ovih osnovnih principa. Postojanje i funkcionisanje sistema korporativnog upravljanja ima snažan uticaj kako na performanse preduzeća tako i na ekonomiju države i njenu konkurentnost (Feleaga, Feleaga, Dragomir i Bigioi, 2011).

Peti princip korporativnog upravljanja kaže da okvir korporativnog upravljanja treba da obez-

determines rights and responsibilities of board members, management and shareholders.

This paper presents research in internet transparency in the financial sector in Bosnia and Herzegovina (B&H), on the sample of 26 banks and 21 insurance companies. The research is based on the following hypothesis:

H1: The level of internet transparency in the sectors of banking and insurance in Bosnia and Herzegovina is not satisfactory. Furthermore, the level of internet transparency in all examined areas of corporate governance is higher in the banking sector than in the insurance sector.

The level of internet transparency in the examined areas of corporate governance is determined based on presence of some information on the websites of the observed subjects. The previous research studies were taken into account in preparation and analysis of data for the current research work. Some limitations to the research include business and social environment of domestic and foreign companies as well as the established measurement method for the application of corporate governance principles (Banja Luka Stock Exchange Scorecard Questionnaire).

The content analysis of the sample websites was performed in order to collect all disclosure information. The necessary results were obtained using the SPSS statistical software.

TRANSPARENCY AND WEB DISCLOSURE OF INFORMATION AS A PRINCIPLE OF QUALITY CORPORATE GOVERNANCE

Quality corporate governance is based on the adoption and implementation of good principles and practices, including transparency, integrity and responsibility. The voluntary factor plays an important role in the implementation of these basic principles. The existence and implementation of the corporate system has a strong impact on the company performance, the country's economy and its competitiveness (Feleaga, Feleaga, Dragomir & Bigioi, 2011).

The fifth principle of corporate governance says that corporate governance framework

bijedi da se pravovremeno i tačno objelodanjuju sve materijalne činjenice vezane za kompanije, uključujući finansijsku situaciju, rezultate, vlasništvo i upravljanje kompanijom.

Neka istraživanja pokazuju da većina preduzeća objavljuju samo osnovne informacije iz oblasti korporativnog upravljanja, u skladu sa zakonskom regulativom, izbjegavajući da objave ono što ne moraju (Jiang, Raghupathi i Raghupathi, 2009). Objavljivanje finansijskih informacija ima značajan uticaj na performanse preduzeća (Durnev i Kim, 2005; Henry, 2008). Iatridis tvrdi da objavljivanje informacija u godišnjim izvještajima uvijek dovodi do visoke profitabilnosti i levridža (Iatridis, 2008). Mnoga empirijska istraživanja su pokazala uticaj objavljivanja na performanse preduzeća (Patel, Balic i Bwakira, 2002; Akhtaruddin, 2005).

Razvoj primjene principa korporativnog upravljanja u BiH kao i u ostalim zemljama u okruženju prati se od strane berzanskih institucija. Hrvatska i Srbija su ostvarile značajan napredak u broju preduzeća koja imaju internet stranice i objavljuju svoje informacije na njima dok u BiH dolazi do laganog napretka.

Značaj primjene principa transparentnosti u finansijskom sektoru

Korporativno upravljanje je posebno značajno u finansijskom sektoru, naročito u bankama, s obzirom na njihovu ulogu u cjelokupnom ekonomskom sistemu neke zemlje. Takođe, treba imati u vidu da one u svom poslovanju u mnogo većoj mjeri od drugih društava koriste novac drugih subjekata. Zbog toga je veoma izražena potreba za nadzorom njihovog rada. Najčešći pokazatelji nekvalitetnog upravljanja u ovim društvima su: neadekvatna kreditna politika i politika upravljanja rizicima, neefikasno odlučivanje upravnih odbora, veoma izraženo kreditiranje insajdera i sl.

Kvalitetno korporativno upravljanje u finansijskom sektoru treba da omogući definisanje

should ensure a timely and accurate disclosure of all material facts relating to companies, including financial situation, results, ownership and managing of the company.

Some studies suggest that the majority of companies, in accordance with legislation, publish only the basic information in the field of corporate governance, avoiding disclosing more information than they are obliged to (Jiang, Raghupathi & Raghupathi, 2009). Disclosure of financial information has a significant impact on the business performance (Durnev & Kim, 2005; Henry, 2008). Iatridis claims that information disclosure in the annual reports always leads to high profitability and leverage (Iatridis, 2008). Many empirical studies have shown the existence of impact of the information disclosure on the company's performance (Patel, Balic & Bwakira, 2002; Akhtaruddin, 2005).

The development of implementation of corporate governance principles in Bosnia and Herzegovina, as well as in other countries in the region, is monitored by the stock exchange institutions. Croatia and Serbia have made significant progress in the number of companies that have websites and publish their information on them in contrast to B&H, which has only shown a slight progress.

The importance of transparency principle implementation in the finacial sector

Corporate governance is particularly important in the financial sector, especially for banks, because of their contribution to the overall economic system of a country. It should be noted that banks in their business use other entities' money much more than other companies do. Therefore, there is a strong need to control their work. Historically, poor corporate governance in developing countries usually led to banking crises. The most common indicators of poor quality control in these societies are inadequate credit policy and risk management policies, inefficient decision-making boards, very strong lending to insiders etc.

High quality corporate governance in the banking sector should establish a framework, in

okvira u kome će menadžment na adekvatan način postavljati poslovne ciljeve, ispunjavati svoje obaveze prema stejkholderima a sve to u funkciji usklađivanja poslovanja sa važećim obavezujućim regulativama. Da bi se obezbijedila primjena kvalitetnog korporativnog upravljanja u finansijskom sektoru, Bazelski komitet je objavio preporuke za unapređenje prakse korporativnog upravljanja u bankama, 2006. godine. Ove preporuke govore o četiri značajne forme nadzora koje treba da budu uključene u organizacionu strukturu društava kako bi se omogućila primjena dobrih praksi korporativnog upravljanja, kao što su: nadzor koji vrši upravni ili nadzorni odbor, nadzor koji vrše pojedinci koji ne učestvuju u redovnim poslovnim aktivnostima društva, neposredni nadzor različitih poslovnih oblasti i nezavisne funkcije upravljanja rizicima, komplajensa i revizije.

which the management of banks will, in an appropriate way, set business goals and fulfill their obligations to the stakeholders in order to harmonize their business with the mandatory regulations. To ensure the implementation of corporate governance quality in the banking sector, which is extremely important for the domestic and international financial system, in 2006 the Basel Committee published recommendations for improving corporate governance practices. These recommendations mostly refer to the following four important forms of supervision that should be included in the bank's organizational structure in order to enable the implementation of good corporate governance practices: surveillance of the executive or supervisory board, supervision performed by individuals who do not participate in regular business activities, direct supervision of different business areas and independent risk management function, compliance and audit.

Dvojaki efekat unapređivanja transparentnosti

Double effect of enhancing transparency

Princip transparetnosti i objavljivanja informacija je usmjeren ka jačanju tržišnih mehanizama kontrole koji smanjuju finansijsku fragilnost društava. Međutim, unapređivanje transparentnosti finansijskog poslovanja može imati dvojak efekat. Sa jedne strane, pretjerana finansijska sigurnost može poništiti disciplinujući efekat transparentnosti dok sa druge strane postizanje transparentnosti poslovanja je skupo za društva, jer razvodnjava njihovu instrističnu (pravu) vrijednosti, te dovodi do smanjenje privatnih troškova preuzimanja rizika.

Mnogobrojne međunarodne institucije poput Bazelskog komiteta za superviziju banaka, Međunarodnog monetarnog fonda, Svjetske banke i sl. zagovaraju unapređenje računovodstvenih praksi i prakse transparentosti i objavljivanja informacija. Mnogi autori ukazuju na važnost poboljšanja transparetnosti finansijskog sektora, a naročito u svjetlu nedavne bankarske krize (Rosengren, 1998; Mayes, Halme i Liuksila, 2001). Ukoliko ex post transparentnost (Calomiris i Kahn, 1991; Chen, 1999), dakle nakon investiranja, uka-

The principle of transparency and disclosure of information aims to strengthen market mechanisms of control that reduce the financial fragility of companies. However, improving the transparency of financial operations can have a double effect. On one hand, extensive financial safety can cancel disciplinary effect of transparency while, on the other hand, achieving transparency of operations is costly, because it dilutes their intrinsic value and leads to reduction in the cost of private risk-taking.

Numerous international institutions such as the Basel Committee on Banking Supervision, the International Monetary Fund, the World Bank, etc. advocated for improved accounting practices and transparency and disclosure practices. Many authors emphasize the importance of improving the transparency of the financial sector, especially in the light of the recent banking crisis (Rosengren, 1998; Mayes, Halme & Liuksila, 2001). If ex post transparency (Calomiris & Kahn, 1991; Chen, 1999) after the investment indicates

zuje da je niska vrijednost imovine banke, tada kreditori i depozitari mogu povući svoja sredstva iz banaka te takva prijetnja disciplinuje politiku upravljanja rizicima banaka. Na osnovu ex ante transparentnosti potencijalni kreditori i depozitari mogu bolje procijeniti finansijsku poziciju banke što vodi jačanju tržišnih mehanizama kontrole.

Kako bi društva osigurala transparentnost treba da objavljuju opsežne informacije o finansijskim performansama i solventnosti, politici upravljanja rizikom, računovodstvenoj politici i korporativnoj strategiji. Objavljivanje ovih informacija je skupo jer zahtijeva odlično funkcionisanje sistema čuvanja i objavljivanja informacija, angažovanje dodatnih računovođa, eksternih revizora i vezivanje rijetkih resoursa društva.

REZULTATI ISTRAŽIVANJA I DISKUSIJA

Uzorak i metode istraživanja

Finansijski sektor BiH obuhvata ukupno 27 banaka i 24 osiguravajuća društva. S obzirom na to da su jedna banka, prema podacima Centralne banke BiH, i tri osiguravajuća društva, prema podacima Agencije za osiguranje u BiH, u postupku likvidacije, uzorak na kome se vrši istraživanje sastoji se 26 banaka i 21 osiguravajućeg društva. Svi posmatrani subjekti raspolažu internet stranicama. Podaci potrebni za istraživanje dobijeni su detaljnim pregledom internet stranice svakog subjekta. Svrstani su u četiri grupe (Prilog 1): profil preduzeća, upravljačka struktura, vlasnička struktura i objavljivanje finansijskih podataka i informacija za akcionare.

U svakoj grupi se nalazi određeni broj stavki koje predstavljaju dihotomne varijable. Ovim varijablama se dodjeljuje vrijednost 1 u slučaju postojanja određene stavke na internet stranici ili 0 u suprotnom slučaju. Za svaku grupu se izračunava prosječna vrijednost radi ocjenjivanja nivoa internet transparentnosti u pojedinim oblastima korporativnog upravljanja. Kriterij za ocjenjivanje nivoa i transparentnosti je baziran na scorecard upitniku

that there is a low value of the bank's assets, then creditors and depositories can withdraw their funds from banks, whereby such kind of threat disciplines the banks' risk management policy. Based on ex ante transparency, potential creditors and depositories can better assess the financial position of banks, which strengthens the market discipline.

To ensure transparency, companies should publish extensive information on financial performance and solvency, risk management policy, accounting policy and corporate strategy. Disclosure of this information is expensive because it requires a good functioning of the information accounting system, additional accounting staff, external auditors and binding of companies' scarce resources.

RESEARCH RESULTS AND DISCUSSION

Sample and methods of research

The financial sector consists of 27 banks and 24 insurance companies. Given the fact that, according to the data of the Central Bank of B&H and the Insurance Agency of B&H, one respective bank and three insurance companies are in the liquidation process, the observed sample was selected from 26 banks and 21 insurance companies. All the observed companies have websites. Required information were collected through a detailed overview of each subject's website. They were divided into four groups (Appendix 1): Company profile, Governance structure, Ownership structure and Disclosure of financial data and information for shareholders.

In each group, there are a certain number of items presented as dichotomous variables. These variables are assigned value "1" in case of their existence on the website and value "0" if otherwise. For each group, the average value was calculated to evaluate the level of internet transparency in each area of corporate governance. The reference value to evaluate the obtained transparency level as satisfactory was a level exceeding 65% of the total

Banjalučke berze, prema kome se rezultat smatra zadovoljavajućim ukoliko prelazi 65% od ukupne vrijednosti.

Nakon toga se vrši diskriminaciona analiza uzorka pomoću statističkog programa SPSS. Cilj analize je utvrđivanja razlika između banaka i osiguravajućih društava u pogledu nivoa internet transparentnosti u pojedinim oblastima korporativnog upravljanja. Na osnovu dobijenih rezultata provjerava se postavljena hipoteza.

Rezultati pregleda internet stranica

Prosječni nivoi internet transparentnosti u pojedinim oblastima korporativnog upravljanja za posmatrane subjekte su prikazani u Prilogu 2. Banke su označene sa B1 do B26 a osiguravajuća društva sa OD1 do OD21. Redosljed navođenja banaka i osiguravajućih društava je usklađen sa njihovim redosljedima na internet stranicama Centralne banke B&H i Agencije za osiguranje u B&H.

Profil preduzeća samo u dva slučaja ima vrijednost veću od referentne - 80% (Procredit bank d.d. i Sparkase bank d.d.); Upravljačka struktura ima zadovoljavajuće vrijednosti kod pet banaka, i to: MF banka a.d. – 88%, Raiffeisen bank d.d. - 75%, Sberbank a.d. - 75%, Sparkase bank d.d. - 75% i Unicredit bank a.d. - 100%; Vlasnička struktura ima vrijednost iznad referentne – 67% u tri slučaja, i to kod banaka: Bor banka d.d, Investiciono-komercijalna banka d.d. i Nova banka a.d. Transparentnost finansijskih podataka i objavljivanje informacija za akcionare ni kod jedne posmatrane institucije nije dostigla zadovoljavajuću vrijednost ali se u 6 slučajeva približila referentnoj vrijednosti (Hypo Alpe-Adria bank a.d, Intesa Sanpaolo banka d.d, Unicredit bank a.d, Union banka d.d., Vakufska banka d.d. i Croatia osiguranje d.d.).

Dobijeni rezultati potvrđuju prvi dio postavljene hipoteze.

Diskriminaciona analiza

U narednom dijelu ćemo ispitati dikriminacionu moć nezavisnih varijabli: podaci o

value. This reference value of transparency level was determined through the Banja Luka Stock Exchange Scorecard questionnaire.

Furthermore, the sample discrimination analysis was performed using the SPSS statistical software. The aim was to determine the difference between banks and insurance companies considering specific terms of the level of internet transparency in the examined areas of corporate governance. The hypothesis was tested according to the results obtained.

The research results

The average level of internet transparency level in particular areas of corporate governance for the observed companies is presented in Appendix 2. Banks are marked with B1 to B26 and insurance companies with IC1 to IC21. Order of the banks and insurance companies is harmonized with their order on the website of the Central Bank of B&H and Insurance Agency in B&H.

Company Profile has a value higher than the reference – 80% in only two cases (Procredit Bank d.d. and Sparkasse Bank d.d.); Governance Structure has a satisfactory value in five banks: MF Banka a.d. - 88%, Raiffeisen Bank d.d. - 75%, Sberbank - 75%, Sparkasse Bank a.d. - 75% and Unicredit Bank d.d. - 100%; Ownership Structure has the value above the reference in three cases - 67% (Bor Banka d.d., Investiciono-komercijalna banka d.d. and Nova Banka a.d.). The transparency of financial data and disclosure of information to shareholders did not reach a satisfactory value in any of the observed units. However, in six cases it was close to the reference value (Hypo Alpe-Adria Bank a.d., Intesa Sanpaolo d.d., Unicredit Bank a.d., Union Bank d.d., Vakufska Banka d.d. and Croatia osiguranje d.d.).

The obtained results confirm the first part of the hypothesis.

Discrimination analysis

In the next section, we examined the discriminatory power of the following independ-

preduzeću, struktura vlasništva, upravljačka struktura i transparentnost finansijskih podataka i objavljivanja informacija.. Cilj je da odredimo intenzitet uticaja ovih varijabli na podvajanje finansijskog sektora na dvije subpopulacije: banke i osiguravajuća društva. Na osnovu rezultata testiranja nezavisnosti uzoraka primjenom t testa (Tabela 1.), odnosno rezultata t testa jednakosti prosječnih vrijednosti varijabli, slijedi da su prosječne vrijednosti svake varijable statistički značajno razlikuju unutar populacije finansijski sector B&H (p<0.05). Takođe, na osnovu podataka u koloni Mean Difference se može vidjeti iznos razlike u sredinama svake varijable u dvije posmatrane subpopulacije – banke i osiguravajuća društva. Dakle, opravdano je vršiti dalju analizu u smjeru utvrđivanja pojedinačnih varijabli u razdvajanju populacije finansijski sektor na dvije subpopulacije.

ent variables: information about the company, ownership structure, management structure and transparency of financial information and disclosure of information to shareholders. The objective was to determine the impact of these variables on the division of the financial sector into two subpopulations – banks and insurance companies. Based on the results of the independent sample t-test (Table 1), it follows that the mean values of each independent variable differ significantly within the population financial sector in B&H (p<0.05). In addition, the mean difference for each observed variable in these subpopulations – banks and insurance companies – is presented in the Mean Difference column. Therefore, it is reasonable to carry out further analysis in order to determine how strong the discriminatory power is of the individual independent variables in the division of the financial sector into two subpopulations.

Tabela 1
t test nezavisnosti uzoraka

Table 1
Independent Sample t-Test

	Levenov test jednakosti var. [Levane's test for Equality for Var.]		t test jednakosti sredina [t-test for Equality of Means]					95% interval povjerenja razlike [95% Conf. Interval of difference]	
	F test	Signifik.	t test	df	Signifik. (dvost. t) [(2-talied)]	Razlika sredina [Mean Difference]	Stand. greška razlike [Std. Error Difference]	Niže	Više
Profil p. Jednake var.			2.480	45.000	.017	.11868	.04777	.02247	.21490
Nejednake var.									
[Prof Eq. var. assu.	.325	.570	2.466	41.566	.018	.11868	.04813	.02152	.21585
Eq. var. not assu.]									
Upr.str. Jednake var.			2.725	45.000	.009	.16247	.05963	.04237	.28257
Nejednake var.			2.659	37.758	.011	.16247	.06111	.03874	.28621
[GovST Eq. var. assu.	.235	.630							
Eq. var. not assu.]									
Vl.str. Jednake var.			8.923	45.000	.000	.31773	.03561	.24601	.38945
Nejednake var.									
[OwnSt Eq. var. assu.	.041	.840	8.899	42.484	.000	.31773	.03570	.24570	.38976
Eq. var. not assu.]									
Int.f.i. Jednake var.			5.377	45.000	.000	.25974	.04831	.16244	.35704
Nejednake var.			5.366	42.619	.000	.25974	.04840	.16211	.35738
[Ifr Eq. var. assu.	.096	.758							
Eq. var. not assu.]									

Budući da su ispunjene pretpostavke o odsustvu multikolinearnosti i normalnoj distribuciji varijabli, izvršene su sve procedure diksriminacione analize radi određivanja diksriminacione funkcije i odgovarajućih diksriminacionih skorova.

Koeficijent Wilks λ predstavlja proporciju varijabiliteta unutar grupe u odnosu na ukupan varijabilitet te se na osnovu njegove vrijednosti, odnosno vrijednosti F testa zaključuje da postoji statistički značajna razlika sredina varijabli između banaka i osiguravajućih društava. Takođe, vršeno je testiranje statističke značajnosti nezavisnih varijabli u objašnjavaju razlike između dvije subpopulacije - banaka i osiguravajućih društava. Ustanovljena je statistička značajnost svih varijabli u diskriminaciji jedinica posmatranja i njihovom svrstavanju u posmatrane grupe. Prethodni zaključci su izvedeni na osnovu analize rezultata datih u Tabeli 2. Vrijednost Wilks λ ukazuje da su sve varijable statistički značajne u predviđanju ishoda modela, odnosno da je riječ o modelu sa izraženom moći predviđanja.

After determining that the necessary assumptions for discrimination analysis, such as multicollinearity and normal distribution of independent variables, were not violated, all procedures for discrimination analysis were carried out.

Wilk's λ coefficient presents the proportion of variability within the group in relation to the total variability. Based on its value or the value of F test, there are no statistically significant differences in means of variables between banks and insurance companies. It was also tested whether independent variables could explain differences between two subpopulations – banks and insurance companies. It was evaluated that all independent variables were statistically significant as discrimination variables for all observed units and hence they could be used for their classification into subpopulations. The previous conclusions were drawn from the analysis of the results given in Table 2. The value of Wilk's λ coefficient indicates that all independent variables are statistically significant in predicting the model outcome. This model has a strong prediction power.

Tabela 2
Test jednakosti sredina grupa i statističke značajnosti nezavisnih varijabli

Table 2
Test equality of group means and statistical significance of independent variables

a) Testiranje jednakosti sredina grupa

a) Tests of Equality of Group Means

	Vilksovo Lambda [Wilks' Lambda]	F test	df1	df2	Signifik.
Profil p. **[Prof]**	.879	6.172	1	45	.017
Upr.str. **[GovST]**	.858	7.424	1	45	.009
Vl.str. **[OwnSt]**	.361	79.619	1	45	.000
Int.f.i. [Ifr]	.609	28.909	1	45	.000

b) Vilksovo lambda

b) Wilks' Lambda

Test. f-je [Test of Function(s)]	Vilksovo Lambda [Wilks' Lambda]	Hi-kvadrat test [Chi-square]	df	Signifik.
1	.301	51.690	4	.000

Karakteristična vrijednost pokazuje relativnu efiikasnost svake ocjenjenje diskriminacione funkcije. Budući da se u radu vrši razdvajanje populacije finansijskog sektora BiH na dvije subpopulacije, predmet interesovanja je vrijednost koeficijenta kanoničke korelacije. Saznaje se na osnovu njegove vrijednosti da je 69.89% varijanse zavisne varijable (pripadnost posmatrane jedinice posmatranja subpopulaciji banke/osiguravajuća društva) objašnjeno modelom.

The Eigenvalue indicates the relative efficiency of each assessed discrimination function. In this case, the population financial sector in B&H is divided into two subpopulations, so it is interesting to interpret the canonical correlation coefficient. According to its value, 69.89% of dependent variable variance (whether the unit belongs to observed subpopulation) is explained by this model.

Tabela 3
Relativna efikasnost diskriminacionih funkcija - svojstvena vrijednost

Table 3
The relative efficiency of the discrimination function - Eigenvalues

Funkcija [Function]	Svojstvena vrijednost [Eigenvalue]	% varijanse [% of Variance]	Kumulativno % [Cumulative %]	Kanonička korelacija [Canonical Correlation]
1	2.327[a]	100.0	100.0	.836

a. Prva 1 kanonička diksriminaciona funkcija je korištena u analizi

a. First 1 canonical discriminant functions were used in the analysis

Koeficijenti diskriminacionih varijabli, prikazani u Tabeli 4, pružaju uvid u intenzitet uticaja svake pojedinačne varijable na podvajanje populacije finansijskog sektora BiH i svrstavanje svake jedinice pomatranja u odgovarajuću subpopulaciju – banke ili osiguravajuća društva. Takođe, na osnovu prikazanih koeficijenata mogu se dobiti dikriminacione funkcije za svaku subpopulaciju. Nadalje, slijede diskriminacione funkcije za banke, osiguravajuća društva i ukupan finansijski sektor BiH, respektivno.

Discrimination coefficients presented in Table 4 give insight into the impact that each independent discrimination variable has on dividing population financial sector in B&H and classifying each observed unit into appropriate subpopulation – bank or insurance companies. According to these discrimination coefficients, discrimination functions can be defined for each subpopulation. Furthermore, it follows discrimination functions for banks, insurance companies and overall financial sector in B&H, respectively.

Diskriminaciona funkcija za banke glasi:

Discrimination function for banks is:

$$Z=-14.557+26.676*OwnSt+13.314*Prof+11.217*Ifr+8.837*GovSt$$

Diskriminaciona funkcija za osiguravajuća društva glasi:

Discrimination function for insurance companies is:

$$Z=-4.873+6.073*OwnSt+10.253*Prof+3.996*Ifr+7.423*GovSt$$

Diskriminaciona funkcija za ukupan finansijski sektor BiH glasi:

Discrimination function for the financial sector in B&H is:

$$Z=-9.684+20.603*OwnSt+3.061*Prof+7.221*Ifr+1.414*GovSt$$

Tabela 4

Ocjena koeficijenata dikriminacione funkcije, koeficijenti klasifikacione funkcije

Table 4

Evaluated discrimination function coefficients, Classification function coefficients

	Grupa [Group]	
	Osiguravajuća društva [Insurance companies]	Banke [Banks]
Profil p. [Prof]	10.253	13.314
Upr. str. [GovST]	7.423	8.837
Vl. str. OwnSt	6.073	26.676
Int.f.i. [Ifr]	3.996	11.217
(Konstanta) [(Constant)]	-4.873	-14.557

Dakle, ukoliko se struktura vlasništva poveća za 1% tada će se Z skor banaka povećati za 26.676 jedinica a Z skor osiguravajućih društava za 6.073 jedinica. U slučaju posmatranja finansijskog sektora BiH, povećanje varijable Struktura vlasništva za 1% će dovesti po povećanja Z skora finansjiskog sektora BiH za 20.603 jedinica.

Na osnovu Tabele 5. se može vidjeti da je posmatrani model sa preciznošću od 96.2 %, odnosno 85.7% izvršio klasifikovanje jedinica posmatranja u subpopulaciju banaka i osiguravajućih društava, respektivno. Takođe, ovaj diskriminacioni model ima veću moć u slučaju klasifikovanja jedinica posmatranja u grupu banaka. Ukupna preciznost posmatranog modela iznosi 91.5%.

Therefore, if the structure of ownership increases by 1%, then the banks' Z score will increase by 26.676 units and the insurance companies' Z score by 6.073 units, while other variables are constant. As for the financial sector in B&H, increase in the variable structure of ownership by 1% will lead to increase in the financial sector Z score by 20.603 units, while other variables are constant.

The data in Table 5 show the accuracy of developed discrimination model. This model classifies units into subpopulations of banks and insurance companies with the accuracy of 96.2% and 85.7%, respectively. In addition, this model has a stronger discrimination power in classifying units into the 'banks' subpopulation. The total accuracy of discrimination model is 91.5%.

Tabela 5

Rezultati klasifikacije

Table 5

Classification results

		Grupa [Group]	Predviđeno pripadništvo grupi [Predicted Group Membership]		Ukupno [Total]
			Osiguravajuća društva [Insurance companies]	Banke [Banks]	
Original	**Broj [Count]**	**Osiguravajuća društva [Insurance companies]**	18	3	21
		Banke [Banks]	1	25	26
	%	**Osiguravajuća društva [Insurance companies]**	85.7	14.3	100.0
		Banke [Banks]	3.8	96.2	100.0

Unakrsno ocjenjivanje [Cross validated]	Broj [Count]	Osiguravajuća društva [Insurance companies]	18	3	21
		Banke [Banks]	1	25	26
	%	Osiguravajuća društva [Insurance companies]	85.7	14.3	100.0
		Banke [Banks]	3.8	96.2	100.0

Sprovedena analiza pokazuje da je diskriminaciona moć varijabli internet transparentnosti principa korporativnog upravljanja statistički značajna za razvrstavanje posmatranih jedinica u dvije subpopulacije. Rezultati takođe pokazuju da varijable internet transparentnosti imaju uglavnom veći uticaj na Z skor banaka čime se potvrđuje drugi dio hipoteze.

The conducted discrimination analysis shows that the internet transparency of corporate governance principles is statistically significant for classifying the observed units into two subpopulations. The results also indicate that the internet transparency variables mostly have a greater impact on banks Z score, which indicates that the second part of hypothesis has been proved.

ZAKLJUČAK

Ističe se značaj objavljivanja informacija i transparentnosti sa stanovišta povećanja tržišne vrijednosti akcija, smanjenja cijene kapitala i privlačenja investitora. Pri tom se ne misli isključivo na zakonsku obavezu nego i na dobrovoljno objavljivanje informacija koje stvara pozitivan utisak kod javnosti.

Istraživanje internet transparentnosti u finansijskom sektoru BiH pokazuje nizak nivo objavljivanja informacija iz oblasti korporativnog upravljanja. Diskriminaciona analiza ukazuje na lošiju situaciju u osiguravajućim društvim u odnosu na banke. Nivo transparentnosti niži od 65% znači da se ne poštuju ni propisane zakonske norme iz oblasti korporativnog upravljanja.

Sve ovo upućuje na neophodnost ozbiljnijeg pristupa upravljačke strukture u sprovođenju principa korporativnog upravljanja. Treba se raditi transparentnije i pravovremeno i tačno objelodanjivati sve materijalne činjenice vezane za preduzeće, uključujući finansijsku situaciju, rezultate, vlasništvo i upravljanje preduzećem. U suprotnom, nizak nivo transparentnosti i nedovoljno objelodanjivanje podataka mogu doprinijeti neetičnom ponašanju i gubitku tržišnog integriteta, što je vrlo štetno ne samo za preduzeće i njegove akcionare već i za privredu u cjelini.

CONCLUSION

Disclosure of information and transparency are very important due to increase in market value of shares, reduction of the cost of capital and attraction of investors. In addition, this remark relates not only to mandatory obligation but also to the voluntary disclosure of information that creates a positive public image.

The Internet transparency research in the financial sector of B&H shows a low level of disclosure of information regarding corporate governance principles. Discrimination analysis shows the situation is worse in the insurance sector than in the banking sector. The level of transparency is less than 65%, which means that mandatory principles of corporate governance are not applied.

All this indicates the need for a serious managerial approach in implementing the principles of corporate governance. Business should be more transparent and able to timely and accurately disclose all material facts relating to the company, including financial situation, results, ownership and management of the company. Otherwise, a low level of transparency and insufficient disclosure of information may contribute to non-ethical behaviour and loss of market integrity, which is very harmful not only for the company and its shareholders but for the economy as a whole.

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Prilog 1

Varijable internet transparentnosti

Appendix 1

Elements of Internet transparency

	Profil preduzeća [Company Profile]	Upravljačka struktura [Governance Structure]	Struktura vlasništva [Ownership Structure]	Transparentnost finansijskih podataka i objavljivanje informacija za akcionare [The Transparency of Financial Data and Publishing Information for Shareholders]
1	Istorija [History of company]	Sastav rukovodeće strukture [Executive board members]	Postoji li prikaz koncentracije vlasništva (top 5)? [Concentration of ownership (Top five)]	Godišnji finansijski izvještaj [Annual financial report]
2	Vizija, misija, politika [The vision, mission, policies of company]	Biografije članova rukovodeće strukture [Biographies of the executive board members]	Da li generalni direktor posjeduje akcije pravnog lica? [Does CEO own share?]	Polugodišnji finansijski izvještaj [Semiannual financial report]
3	Statut [Statute]	Članovi upravnog/ nadzornog odbora [Supervisory board members]	Da li predsjednik UO/NO posjeduje akcije pravnog lica? [Does the chairman of the supervisory board own shares?]	Izvještaj o reviziji [Audit report]
4	Etički kodeks [Codex of ethic]	Biografije članova uprav-nog/nadzornog odbora [Biographies of the supervisory board members]	Da li ostali direktori ili članovi UO/NO posjeduje akcije pravnog lica? [Do other members of the supervisory board/ executive board own shares?]	Objavljivanje događaja od posebnog značaja [Disclosure of events of great importance]
5	Kodeks KU [Codex of CG]	Razdvojenost ličnosti generalnog direktora i predsjednika UO/NO [CEO and chairman of supervisory board duality]	Da li je prikazan spoljni vlasnik bloka akcija pravnog lica? [Outside block holder]	Poslovnik o radu skupštine akcionara [Agenda of shareholders' assembly meetings]
6		Postojanje nezavisnog člana u UO/NO [The existence of an independent director in the board]	Da li je prikazana politika dividendi? [Dividend policy]	Pozivi za sjednice skupštine akcionara [Calls for shareholders' assembly meetings]
7		Naknade članova rukovodeće strukture [Compensation of the executive board members]		Materijali za sjednice skupštine akcionara [The materials for shareholders' assembly meetings]
8		Naknade članova UO/NO [Compensation of the supervisory board members]		Zapisnici sa sjednica skupštine akcionara [Records of the sessions of the shareholders' assembly meetings]

Napomena: Prilog 1 se nastavlja na sljedećoj strani

9	Računovodstvene politike [Accounting policies]
10	Naknada vanjskog revizora [Compensation for the external auditor]
11	Godišnji prikaz trgovanja [The annual presentation of share trading]

Prilog 2.

Prosječni nivoi internet transparentnosti u pojedinim oblastima korporativnog upravljanja

Appendix 2

The Average Level of Internet Transparency in Particular Areas of Corporate Governance

BANKE [BANKS]	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	B 14	B 15	B 16	B 17	B 18	B 19	B 20	B 21	B 22	B 23	B 24	B 25	B 26
Profil preduzeća [Company Profile]	0.40	0.40	0.40	0.40	0.60	0.20	0.60	0.40	0.40	0.40	0.20	0.40	0.60	0.40	0.40	0.80	0.60	0.40	0.20	0.40	0.80	0.60	0.60	0.60	0.40	0.40
Upravljačka struktura [Governance Structure]	1.00	0.30	0.50	0.63	0.50	0.50	0.50	0.50	0.88	0.50	0.50	0.50	0.63	0.25	0.50	0.50	0.75	0.50	0.75	0.50	0.75	1.00	0.63	0.50	0.50	0.50
Vlasnička struktura [Ownership Structure]	0.33	0.67	0.33	0.33	0.50	0.67	0.33	0.33	0.33	0.50	0.33	0.33	0.67	0.50	0.50	0.33	0.33	0.33	0.50	0.50	0.33	0.50	0.50	0.33	0.33	0.33
Transparentnost [Transparency]	0.00	0.45	0.45	0.64	0.64	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.27	0.55	0.33	0.45	0.18	0.55	0.18	0.55	0.64	0.55	0.64	0.64	0.45

OSIGURAVAJUĆA DRUŠTVA [INSURANCE COMPANY]	OD 1	OD 2	OD 3	OD 4	OD 5	OD 6	OD 7	OD 8	OD 9	OD 10	OD 11	OD 12	OD 13	OD 14	OD 15	OD 16	OD 17	OD 18	OD 19	OD 20	OD 21
Profil preduzeća [Company Profile]	0.20	0.20	0.20	0.60	0.40	0.60	0.20	0.20	0.40	0.40	0.60	0.40	0.60	0.20	0.40	0.40	0.20	0.20	0.40	0.40	0.00
Upravljačka struktura [Governance Structure]	0.38	0.00	0.00	0.50	0.50	0.13	0.50	0.50	0.00	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.38
Vlasnička struktura [Ownership Structure]	0.33	0.00	0.00	0.00	0.17	0.00	0.00	0.17	0.17	0.17	0.33	0.17	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.33	0.00
Transparentnost [Transparency]	0.27	0.00	0.27	0.64	0.36	0.09	0.36	0.27	0.00	0.18	0.36	0.18	0.27	0.36	0.00	0.18	0.00	0.27	0.27	0.36	0.00