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ANALIZA CRVENIH INDIKATORA

Rezime

Brojni finansijski skandali koji su se desili u nedavno vreme su obično bili praćeni i manipulacijama u finansijskim izveštajima. Ovo samo potvrđuje važnost informacija iz finansijskih izveštaja. Da one nisu važne ne bi ni bilo potrebe da se predstavljaju na pogrešan način. Državna regulativa i računovodstvena profesija u razvijenim tržišnim zemljama je reagovala pokušavajući izgraditi bolji institucionalni okvir za finansijsko izveštavanje čija je karakteristika pre svega jačanje nadzorne uloge države nad praksom finansijskog izveštavanja.

Pored standardne finansijske analize finansijski analitičari sve češće koriste i neke nestandardne metode, koje mogu biti dobri upozoravajući indikatori o postojanju kreativne računovodstvene prakse. Praktična iskustva su razvila određene benčmark vrednosti koje ukazuju na potrebu dodatnog istraživanja u slučaju da vrednosti proučavanih pokazatelja upozoravaju kako bi se izbeglo donošenje pogrešnih poslovnih odluka.

Pored kvantitativnih upozoravajućih indikatora finansijski analitičari koriste i tzv. kvalitativne upozoravajuće indikatore koji opisuju događaje i aktivnosti koje mogu ukazivati na mogućnost postojanja kreativnog finansijskog izveštavanja.

Ključne reči: finansijsko izveštavanje, računovodstvene politike, kreativno računovodstvo, bilansni rizici, kvalitet dobitka, crveni indikatori

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RED FLAGS ANALYSIS

Summary

Many financial scandals that have happened recently were usually followed by manipulations in financial reports. This only further confirms how important are the information contained in financial reports. If they were not important there would be no need to present them erroneously. State regulatory framework and the accounting profession in the developed market economy countries reacted by striving to build up a better institutional framework for financial reporting to be characterised primarily by an enhanced role of the state in supervising financial reporting practices.

In addition to standard financial analysis, financial analysts are increasingly applying some of the non-standard methods that may serve as warning indicators of the presence of creative accounting practice. Practical experiences have developed certain benchmark values that identify the need for additional research in case the values of studied indicators are sending warning signals, in order to avoid making misinformed business decisions.

Quantitative warning indicators used by financial analysts are further supported by the so-called qualitative warning indicators which are describing events and activities that may point out at the possible presence of creative financial reporting.

Key words: financial reporting, accounting policies, creative accounting, balance sheet risks, earnings quality, red flags

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Uvod

Sistem finansijskog izveštavanja predstavlja najpotpuniji kvantitativni, brojčani izvor informacija o poslovanju preduzeća. Pomoću finansijskih izveštaja preduzeće komunicira sa zainteresovanim tržišnim participantima i iz toga proizilazi njihova važna uloga u ublažavnju informacione asimetrije što je neophodan preduslov za efikasno funkcionisanje i stabilnost finansijskih tržišta. Finansijski izveštaji mogu ostvariti ovu svoju ulogu samo ako je reč o istinitim i poštenim izveštajima što u praksi nije baš uvek slučaj.

Eksterni korisnici finansijskih izveštaja moraju biti svesni da su podaci u finansijskim izveštajima pod uticajem poslovnih aktivnosti preduzeća ali i njegovog računovodstvenog sistema. Ključni aspekt analize finansijskih izveštaja obuhvata razumevanje uticaja računovodstvenog sistema na kvalitet informacija iz finansijskih izveštaja koje se koriste u analizi. Realni računovodstveni sistem omogućava menadžerima slobodu da utiču na informacije iz finansijskih izveštaja. Strategija finansijskog izveštavanja preduzeća predstavlja način na koji menadžeri koriste računovodstvenu diskreciju u pripremi i prikazivanju finansijskih izveštaja. Menadžeri mogu birati računovodstvene politike koje stavljaju eksterne korisnike u bolji ili nepovoljniji položaj u razumevanju ekonomske realnosti preduzeća. Računovodstvena pravila često obezbeđuju širok set alternativa koje menadžeri mogu birati. Pored toga menadžeri prilikom implementacije računovodstvenih politika čine subjektivna prosuđivanja. Pored toga računovodstvena regulativa propisuje minimum zahteva za obelodanjivanjima, ali ne ograničava menadžere u dodatnim obelodanjivanjima. Ako se menadžeri odluče za adekvatnu transparentnost eksterni korisnici će imati bolje šanse da pravilno ocene ekonomsku realnost preduzeća. Ovo nije uvek slučaj, pogotovo ne kod nas gde je praksa iskazivanja informacija ali i čitanja napomena veoma siromašna.

Menadžeri takođe često upotrebljavaju starategiju finansijskog izveštavanja kako bi manipulisali (koriste kreativno finansijsko izveštavanje) percepcijom korisnika svojih finansijskih izveštaja i na taj način im otežavaju da identifikuju obično loše performanse preduzeća blagovremeno. Sama priroda računovodstvenog sistema uz to još dodatno zloupotrebljena ponašanjem menadžera stvara informacione rizike tako da moguće posledice kreativnog finansijskog izveštavanja primoravaju finansijske analitičare da se ozbiljnije bave analaizom kvaliteta finansijskih izveštaja. Standardna finansijska analiza je korisno sredstvo za smanjenje informacione asimetrije, ali kompleksnost problema kreativnog finansijskog izveštavanja iziskuje jednu produbljenu analizu u koju će pored standardnih pokazatelja biti uključeni i neki nestandardni upozoravajući indikatori koji treba da budu u funkciji kako razotkrivanja postojanja kreativnog finansijskog izveštavanja, tako i u funkciji ranih nagoveštaja poslovno-finansijskih rizika.

Kreativno finansijsko izveštavanje

Selekcija i primena opšteprihvaćenih računovodstvenih principa su fleksibilni i ostavljaju mnogo slobode za prosuđivanje u izvesnim područjima. Kao rezultat, tih izbora i primena računovodstvenih politika, preduzeća u sličnim okolnostima mogu iskazati različite rezultate (Mulford, Comiskey, 2002, 20). Fleksibilnost u finansijskom izveštavanju postoji iz opravdanih razloga. Ta fleksibilnost treba da postoji jer su okolnosti i uslovi u kojima preduzeća posluju promenljivi. Međutim, postojanje fleksibilnosti u izboru i primeni računovodstvenih politika ne sme da rezultira u netačnim finansijskim izveštajima. Naprotiv, preduzeća treba da koriste tu fleksibilnost kako bi obezbedila fer prezentaciju njihove finansijske pozicije i rezultata, što je i slučaj sa većinom finansijskih izveštaja (Mulford, Comiskey, 2002, 26).

Naravno postoje i suprotni slučajevi kada preduzeća vrše izbor i primenu računovodstvenih politika na agresivan način sa namerom da pogrešno predstave svoje performanse i iz toga pokušaju da izvuku koristi. Termin agresivno računovodstvo (*aggressive accounting*) je ovde upotrebljen da prikaže izbor i primenu računovodstvenih principa sa namerom da se dostignu poželjni rezultati,

Introduction

Financial reporting system is one of the most comprehensive quantitative and numerical sources of information on the company business. By means of financial statements-reports company is communicating with the interested market participants and there derives their important role in mitigating information asymmetry as the necessary prerequisite for an efficient functioning and stability of financial markets. Financial reports may achieve the role that they are intended to play only if they are true and fair reports, which is not always the case in actual practice.

External users of financial reports may be aware that data contained in financial reports is under the influence of the company's business activities, but also of its accounting system. The key aspect of financial reports analysis contains understanding of the impact that the accounting system has on the quality of information contained in financial reports that are used in the analysis. The real accounting system allows managers freedom to impact information in financial reports. The company's financial reporting strategy is the manner in which managers are using the accounting discretion in the preparation and presentation of financial reports. Managers may chose accounting policies that place external users in a better or worse position in understanding economic realities of the company. Accounting rules are often providing for a broad spectrum of alternatives that managers may chose from. In addition, during implementation of accounting policies, managers are making subjective assessments. The accounting regulatory framework also prescribes minimum disclosure requirements, but is not limiting managers in additional disclosures. If managers are to decide in favour of an adequate transparency, external users shall have better chances of correctly evaluating economic reality of the company. This is not always the case, especially not in our circumstances where the information disclosure practices, but also reading notes to financial statements, are very modest indeed.

Managers are also often using the financial reporting strategy in order to manipulate (by using creative financial reporting) the perception of the users of their financial reports, and in this way making it harder for them to identify timely usually the poor performances of the company. The nature itself of the accounting system, and if additionally misused by managerial conduct, creates information risks, so that the possible consequences of creative financial reporting are forcing financial analysis to engage more seriously in the quality analysis of financial statements. Standard financial analysis is a useful tool for reducing information asymmetry, but the complexity of the problem of creative financial reporting demands a more profound analysis where, in addition to the standard indicators, some non-standard warning indicators would be added which are to be in the function of both discovering the presence of creative financial reporting, and in the function of early warning signals of the business-financial risk.

Creative Financial Reporting

The selection and application of the generally accepted accounting principles is flexible and leaves a lot of room for making choices in certain areas. As a result of such choices and application of accounting policies, companies in similar circumstances may present different results (Mulford, Comiskey, 2002, 20). Flexibility in financial reporting is present for justified reasons. Such flexibility should be present because circumstances and condition in which companies are operating are changeable. Presence of flexibility in choice and application of accounting policies, however, must not result in erroneous financial reports. On the contrary, companies should use this flexibility in order to secure fair presentation of their financial position and result, which is the case with the majority of financial reports (Mulford, Comiskey, 2002, 26).

There are, of course, opposite cases when companies are making a choice and application of accounting policies in an aggressive manner with the intent of erroneously presenting their performances and from that attempt to make gains. The term aggressive accounting is used here in order to present the choice and application of the accounting principles with the intent of achieving desirable results, tipično veće tekuće zarade, bez obzira da li je ta praksa u saglasnosti sa opšteprihvaćenim računovodstvenim principima ili ne. Agresivna računovodstvena praksa se označava kao prevarno finansijsko izveštavanje (*fraudulent financial reporting*) kada je prevara namerna i materijalna i došlo je do administrativnog, građanskog ili krivičnog procesuiranja (Mulford, Comiskey, 2002, 49). U nastavku ćemo predstaviti jedan primer agresivnog računovodstva. U svom godišnjem izveštaju za 1996. godinu Sunbeam Corporation opisuje restruktuiranje kompanije na sledeći način: *12. Novembra 1996. godine kompanija objavljuje detalje njenog plana restuktuiranja i budućeg razvoja. Faza smanjenja troškova u planu uključuje konsolidovanje administritativne funkcije u okviru kompanije, racionalizaciju proizvodnih i skladišnih sredstava, centralizaciju kompanijine funkcije nabavke. Kompanija takođe objavljuje plan da divestira nekoliko linija biznisa koje nisu određene kao njen suštinski biznis..... U vezi sa implementacijom plana restuktuiranja i rasta, kompanija u četvrtom kvartalu 1996. godine knjiži specijalne troškove pre oporezivanja u aproksimativnom iznosu od $337,6 miliona.*

Preduzimanje restruktuiranja kompanije može biti pozitivan događaj. U obimu u kojem se uspešno usmerava poslovanje i kontrolišu troškovi, takvo restruktuiranje može poboljšati izglede kompanije u budućnosti. Knjiženje troškova restruktuiranja nije samo po sebi označeno kao agresivna primena računovodstvenih principa. Saglasno opšteprihvaćenim računovodstvenim principima, troškovi restruktuiranja se knjiže u godini restruktuiranja i trebalo bi da inkorporiraju sve anticipirane troškove implementacije procesa restruktuiranja. Pogledajmo sad preciznije šta je učinila kompanija Sunbeam. Kompanija je namerno precenila troškove restruktuiranja, što je vodilo u potcenjivanje rezultata za 1996. godinu i precenjivanje rezultata u budućim godinama, što implicira da je Sunbeam primenio računovodstvene principe agresivno.

Knjiženjem neobično visokih troškova restruktuiranja, kompanija je efektivno troškove koji će nastati u sledećim godinama uključila u obračun rezultata za 1996. godinu. Na primer oni su u troškove restruktuiranja uključili i otpise zaliha i fiksne imovine. Ti otpisu su smanjili troškove prodatih proizvoda i troškove amortizacije u narednim godinama. Oni su takođe u troškove restruktuiranja uključili i rezervisanja za obaveze za buduće troškove parničenja i zaštite životne sredine. U obim u kojem su ovi troškovi normalni poslovni rashodi u budućim godinama oni nisu trebali biti uključeni u rashode za 1996. godinu. Knjiženje velikih troškova restruktuiranja u 1996. godini je omogućilo kompaniji da uveća zaradu za 1997 i naredne godine (Mulford, Comiskey, 2002, 26-27). Prethodni primer predstavlja praksu kreiranja latentnih rezervi što je svakako neadekvatna računovodstvena praksa ako se to radi u preteranom obimu. Akcionari ciljnog društva koje je meta preuzimanja u slučaju pristanka na cenu koja ne uključuje latentne rezerve o kojima nisu informisani će svakako biti oštećeni za razliku od ponudioca koji će ostvariti koristi. Ipak kreiranje skrivenih gubitaka ima mnogo veće negativne posledice po investitore. Skriveni gubici predstavljaju suprotnost latentnim rezervama i u najširem smislu nastaju precenjivanjem imovine i potcenjivanjem obaveza (Ranković, 2003). U sledećoj tabeli su prikazane posledice neadekvatne računovodstvene prakse na primeru nekih od najvećih korporativnih skandala sa kraja prošlog i početka ovog veka.

typically higher current earnings, regardless of whether such practice in concordant with the generally accepted accounting principles or not. The aggressive accounting practice is designated as fraudulent financial reporting, when fraud is intentional and material, and when there was administrative, civil or criminal processing (Mulford, Comiskey, 2002, 49). We shall now present in this paper a case study of such aggressive accounting. In its annual report for 1996, Sunbeam Corporation describes company restructuring in the following manner: *On 12 November 1996, the company published details of its plan for restructuring and future development. The cost reduction phase in the plan included administrative function consolidation within the company, rationalisation of production and stock assets, and centralisation of the company's supply function. The company also announced the plan to divest several business lines which were not designated as its core business…In connection with the implementation of the restructuring and growth plan, the company booked in the fourth quarter of the year 1996 special pre-tax costs in an approximate amount of $337.6 million.*

Undertaking company restructuring may be a positive event. In the scope in which business is successfully streamlined and costs controlled, such restructuring may improve company prospects for the future. Booking of restructuring costs is not designated in itself as an aggressive application of the accounting principles. Concordant with the generally accepted accounting principles, restructuring costs are booked in the year of restructuring and should incorporate all the anticipated costs of the restructuring implementation process. Let us now take a closer look at what the company Sunbeam actually did. The company intentionally overrated restructuring costs, which led to underrating result for the year 1996 and overrating of result in the future years, implicating that Sunbeam did apply aggressively the accounting principles.

Through booking of unusually high restructuring costs, the company effectively included the costs to be incurred in the forthcoming years in the calculation of result for the year 1996. For example, they included in the restructuring costs also the writing-off of stocks and fixed assets. Such writing-offs have reduced costs of products sold and costs of depreciation in the years to come. They have also included in the restructuring costs the provisioning for liabilities of future litigation costs and environment protection. In the volume in which these costs are normal business costs in the future years, they should not have been included in the expenditures for the year 1996. Booking of large restructuring costs in the year 1996 enabled the company to increase earnings for the year 1997 and the forthcoming years (Mulford, Comiskey, 2002, 26-27). The presented case is an illustration of the practice in creating latent reserves which is certainly an inadequate accounting practice if this is being done in an exaggerated volume. Shareholders of the targeted society, which is the target of a take-over in case of agreement with the price which does not include latent reserves that they have not been informed of, certainly shall be at a loss, contrary to the bidder who shall make gains. Creation of hidden losses has much greater negative consequences for the investors. Hidden losses are an opposite of the latent reserves and in the broadest sense are created by overrating assets and underrating liabilities (Rankovic, 2003). In the following table consequences of inadequate accounting practices are presented in the cases of some of the major corporate scandals from the end of the past and the beginning of this century.

Tabela 1: Posledice računovodstvenih manipulacija

Kompanija	Glavna delatnost	Manifestovanje neregularnosti	% smanjenja u tržišnoj kapitalizaciji
Enron	Gorivo i energija	Precenjena zarada, Potcenjena zaduženost	98%
WorldCom	Telekomunikacione usluge	Precenjena zarada pod uticajem nepodesnog tretmana gudvila pri akvizicijama i kapitalizacije rashoda	83%
Global Crossing	Telekomunikaciona infrastruktura	Precenjeni zarada, imovina i kapital neadekvatnim priznavanjem prihoda	91%
HealthSouth	Zdravstvo	Precenjena zarada i kapital	70%
Vivendi Universal	Mediji i telekomunikacije	Precenjena zarada	59%

Izvor: Grant, M, R, Visconti, M, (2006) „The Strategic Background to Corporate Accounting Scandals", *Long Range Planning*, pp. 369-372.

Slično agresivnom računovodstvu, upravljanje zaradom (*earnings management*) označava svesne napore u manipulisanju zaradama. Međutim, termin upravljanje zaradom se obično vezuje za korake koji su preduzeti u nameri da se iskaže zarada u skladu sa njenom prethodno određenom ciljnom vrednošću, npr. kako bi menadžment udovoljio prognozama analitičara, ili kako bi se iskazao iznos koji je konzistentan sa uravnoteženim ili održivijim tokom zarada. Takvo upravljanje zaradama može rezultirati u nižim tekućim zaradama sa namerom da se one *uskladište* za naredne godine. Uravnoteženje zarade (*income smoothing*) je forma upravljanja zaradom koja ima za cilj da odstrani velike oscilacije u zaradama u odnosu na neki njihov normalni tok jer takvo kretanje ostavlja utisak manje rizičnog toka zarade.

Termin kreativna računovodstvena praksa (*creative accounting practices*) se ovde upotrebljava u širem smislu, sa namerom da se obuhvate sve prakse koje se mogu koristiti kako bi se oblikovali iskazana dobitna ostvarenja i finansijski položaj preduzeća. Tako, agresivno računodstvo unutar i izvan opšteprihvaćenih principa se posmatra kao kreativno finansijsko izveštavanje. Takođe u kreativno finansijsko izveštavanje se uključuju i upravljanje zaradom i uravnoteženje zarade. Prevarno finansijsko izveštavanje je takođe deo kreativnog računovodstva (Mulford, Comiskey, 2002, 49). Bez obzira na ovu različitu terminologiju raznim formama kreativnog računovodstva dajemo atribut neadekvatnog računovodstva koje ima negativne posledice ne samo na pojedine različite korisnike finansijskih izveštaja već i efikasno funkcionisanje tržišta kapitala kao celine. Adekvatno (kvalitetno) finansijsko izveštavanje oslobođeno svih primesa kreativizma je neophodan preduslov za efikasno funkcionisanje tržišta kapitala.

Kreativno finansijsko izveštavanje ozbiljno derogira upotrebnu vrednost finansijskih izveštaja, bilo u smislu neposrednog korišćenja informacija koje se u njima nalaze (npr. o visini dobitka, vrednosti potraživanja, iznosu obaveza i sl.), bilo kao informacione osnove za jednu ozbiljnu analizu performansi preduzeća. Budući da ni najbolja analiza finansijskih izveštaja neće doneti mnogo koristi ako se zasniva na pogrešnim informacijama, logično je prvo preispitati kvalitet izveštavanja. Sa tim u vezi, dobro je raspolagati sa setom upozoravajućih (crvenih) indikatora čije kretanje može signalizirati prisustvo kreativizma u izveštavanju (Malinić, 2009, 157)

Proces analize crvenih indikatora

Finansijski izveštaji predstavljaju najvažniji ne i jedini izvor informacija prilikom donošenja različitih poslovnih odluka. Finansijski izveštaji se koriste između ostalog i u kreditnoj analizi, analizi hartija od vrednosti, analizi integracija i sticanja, startegijskoj analizi, opštoj poslovnoj analizi, itd. Samo menadžment preduzeća koji je ujedno i odgovoran za sastavljanje i prikazivanje finansijskih izveštaja ima *insajd* informacije. Svi ostali korisnici finansijskih izveštaja se suočavaju sa informacionim rizicima i pokušavaju da stvore *insajd* informacije analizom podataka iz

Table 1: Consequences of the accounting manipulations

Company	Main business	Manifested irregularities	% of reduction in the market capitalization
Enron	Fuel and energy	Overrated earnings, Underrated indebtedness	98%
WorldCom	Telecommunication services	Overrated earnings under the influence of unsuitable goodwill treatment in acquisitions and capitalisation of expenditures	83%
Global Crossing	Telecommunication infrastructure	Overrated earnings, assets and capital through inadequate recognition of revenues	91%
HealthSouth	Health Care	Overrated earnings and capital	70%
Vivendi Universal	Media and Telecommunications	Overrated earnings	59%

Source: Grant, M.R., Visconti, M. (2006) "The Strategic Background to Corporate Accounting Scandals", Long Range Planning, pp. 369-372.

Similar to the aggressive accounting, earnings management designates intentional efforts to manipulate earnings. The term earnings management, however, is usually associated with the steps taken with the intention of presenting earnings in accordance with its pre-determined targeted value, for example, so that the management could accommodate forecasts by analysts, or in order to present the amount which is consistent with the well balanced or sustainable earning flows. Such earnings management may result in lower current earnings with the intent of *storing them away* for the forthcoming years. Income smoothing is the form of earnings management with the aim of eliminating high oscillations in earnings in respect to their normal flow as such movement is leaving the impression of a less risky earnings flow.

The term creative accounting practice is used here in a broader sense, with the intention of covering all the practices that may be used in order to shape up presented gains and financial position of the company. Hence, aggressive accounting within and beyond the generally accepted principles is considered as creative financial reporting. Creative financial reporting also includes earnings management and income smoothing. Fraudulent financial reporting is also a part of creative accounting (Mulford, Comiskey, 2002, 49). Regardless of this different terminology, we are giving various forms of creative accounting the attribute of inadequate accounting which has negative consequences not only on certain different users of financial statements, but also on the efficient functioning of the capital market in general. An adequate (high quality) financial reporting, free of all the ingredients of creativity, is a necessary prerequisite for efficient functioning of the capital market.

Creative financial reporting may seriously undermine usability of financial reports, either in the sense of direct use of information contained therein (for example, profit level, value of receivables, amount of liabilities, etc.), or as an information base for a serious analysis of the company performances. Since even the best of analysis of financial reports will be unable to be of much use if based on erroneous information, it is logical to firstly start with the examination of the reporting quality. To that end, it is good to have available a set of warning (red) flags that will through their movement send signals identifying the presence of creative reporting (Malinic, 2009, 157).

The Process of Red Flags Analysis

Financial reports are the most important, if not the only, source of information available during the process of making various business decisions. Financial reports are being used, among others, in crediting analysis, securities analysis, mergers and acquisition analysis, strategy analysis, global business analysis, etc. The company management alone, at the same time responsible for compiling and presenting financial statements, is in possession of inside information. All the other users of financial statements are facing the information risks and are trying to arrive at the insider information finansijskih izveštaja i na taj način dobiju vredne poglede o tekućim performansama preduzeća i njegovim budućim izgledima. Palepu i ostali predlažu kako da se na efektivan način koriste finansijski izveštaji. Po njima to je potrebno sprovesti kroz proces koji se sastoji od sledećih međusobno uslovljenih faza: 1) analiza poslovne strategije; 2) računovodstvena analiza; 3) finansijska analiza i 4) prospektivna analiza ili predviđanje (Palepu i saradnici 2003). U nastavku ćemo nešto više reći o računovodstvenoj analizi imajući u vidu da je analiza crvenih indikatora (Red flags analysis) njen sastavni i nezaobilazni deo. Cilj ove analize je da evaluira stepen u kojem računovodstvo preduzeća obuhvata njegovu ekonomsku realnost. Postupak računovodstvene analize se odvija na sledeći način:

Identifikovanje ključnih računovodstvenih politika. Karakteristike privredne grane u kojoj preduzeće posluje i njegova konkurentska strategija određuju njegove ključne faktore uspeha i rizika. U računovodstvenoj analizi analitičar treba da identifikuje i evoluira politike i procene koje preduzeće koristi u merenju njegovih ključnih faktora uspeha i rizika. Ključni faktori uspeha u bankarstvu su upravljanje kamatnim i kreditnim rizikom, u maloprodaji upravljanje zalihama, u proizvodnji kvalitet proizvoda, inovacije, garancije za proizvode, itd. U svakom od ovih slučajeva analitičar mora da identifikuje mere koje su korišćene i računovodstvene politike koje određuju kako su te mere implementirane. Tako računovodstvena mera koju banka upotrebljava da obuhvati kreditni rizik je rezervisanje za gubitke u zajmovima, a računovodstvene mere koje obuhvataju kvalitet proizvoda su troškovi garancija i rezervisanja za garancije (Palepu i saradnici 2003, 89-90).

Procena računovodstvene fleksibilnosti. Nisu sva preduzeća jednako fleksibilna u izboru njihovih ključnih računovodstvenih politika. Računovodstveni izbori nekih preduzeća su ograničeni računovodstvenim standardima i konvencijama. Na primer menadžeri preduzeća koja se bave plasmanom potrošačkih dobara nemaju diskreciju da troškove marketinga. Računovodstveni standardi propisuju da su troškovi marketinga troškovi perioda. Suprotno ovome, videli smo da menadžeri banaka imaju diskreciju da procene svoj kritični faktor uspeha - kreditne plasmane. Ako menadžeri imaju manje fleksibilnosti u izboru računovodstvenih politika i procena u odnosu na njihove ključne faktore uspeha računovodstvene informacije su manje informativne za razumevanje ekonomske realnosti preduzeća. U suprotnom ako menadžeri imaju znatnu fleksibilnost u izboru i primeni računovodstvenih politika informacije iz finansijski izveštaja imaju potencijal da budu informativne zavisno od toga kako menadžeri koriste tu fleksibilnost.

Evaluacija računovodstvene strategije. Kada menadžeri imaju računovodstvenu fleksibilnost oni to mogu koristiti za pravilno predstavljanje ekonomske realnosti preduzeća, ili prikrivistinskih performansi preduzeća. Neka od strategijskih pitanja treba postaviti da se vidi kako menadžeri koriste računovodstvenu fleksibilnost: Porediti računovodstvene politike sa normama u privrednoj grani. Ako su različite potrebno je potražiti odgovor za to. Na primer ako preduzeće ima niža rezervisanja za garanacije od proseka privredne grane, jedno od objašnjenja je da preduzeće ima konkurentsku osnovu za visok kvalitet i investira znatne resurse kako bi smanjilo stopu defektnih proizvoda. Alternativno objašnjenje je da preduzeće potcenjuje svoja rezervisanja. Da li menadžment ima motiv da upotrebi računovodstvenu diskreciju? Na primer preduzeće je blizu granicama u dužničkim sporazumima. Da li preduzeće menja njegove računovodstvene politike i procene? Čime je to opravdano? Kakav je uticaj ovih promena? Na primer troškovi garancija se smanjuju. Da li je to zbog toga što je preduzeće učinilo značajne investicije u poboljšanje kvaliteta svojih proizvoda (Palepu i saradnici 2003, 89-90).

Evaluacija kvaliteta obelodanjivanja. Menadžeri mogu učiniti više ili manje lakšim analitičarima procenu kvaliteta računovodstva i upotrebu finansijskih izveštaja u razumevanju poslovne realnosti preduzeća. Dok računovodstvena pravila zahtevaju izvestan minimum obelodanjivanja, menadžeri imaju znatan izbor u toj stvari. Kvalitet obelodanjivanja je zbog toga važna dimenzija kvaliteta računovodstva. U proceni kvaliteta obelodanjivanja analitičar treba da postavi sledeća pitanja: Da li preduzeće obezbeđuje adekvatna obelodanjivanja da bi se procenila poslovna strategija i njene ekonomske through the analysis of data contained in the financial statements, thus gaining valuable views on the current company performances and its future prospects. The author Palepu and others, propose an effective way of using financial statements (reports). According to them, this should be conducted through a process which consists of the following mutually conditioned phases: 1) business strategy analysis; 2) accounting analysis; 3) financial analysis; and 4) prospective analysis or forecasts (Palepu and associates, 2003). We shall now discuss at some length the accounting analysis bearing in mind that the Red Flags Analysis is its component and essential part. The aim of this analysis is to evaluate the degree to which the company accounting is encompassing its economic reality. The procedure of the accounting analysis is taking place in the following manner:

Identification of key accounting policies: Characteristics of the industrial branch in which company is operating and its competitive strategy are determining its key success and risk factors. In the accounting analysis, analyst should identify and evolve policies and assessments that the company applies in the measurement of its key success and risk factors. The key success factors in banking are the interest rate and the credit risk management, in retail sales it is stocks management, in industrial production the key factor is the product quality, innovations, product guaranties, etc. In every one of these cases the analyst must identify those measures that have been used and the accounting policies that are determining how these measures are implemented. Hence the accounting measure that the bank applies in covering credit risk is the loan loss provisioning, while the accounting measures covering product quality are guarantees costs and guarantees provisioning (Palepu and associates, 2003, 89-90).

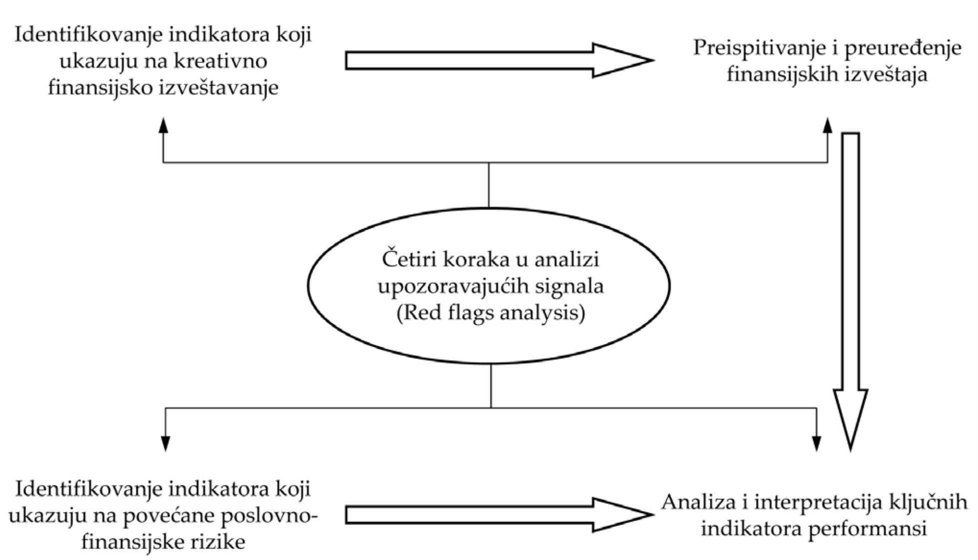
Accounting flexibility assessment: Not all the companies are equally flexible in the choice of their key accounting policies. Accounting choices of some companies are limited by the accounting standards and conventions. For example, managers of companies engaged in placement of consumer goods have no discretion for the marketing costs. Accounting standards prescribe that marketing costs are period costs. Conversely, we have seen that the bank managers have the discretion of assessing their critical success factor – credit placements. If the manages are to have less flexibility in the selection of accounting policies and assessment of their key success factors, the accounting information shall remain less informative for proper understanding of the company's economic reality. In the opposite case, however, if managers are having a substantial flexibility in the choice and application of the accounting policies, information contained in the financial statements shall have the potential for being properly informative depending on how the managers will use this flexibility.

Accounting strategy evaluation: When managers are having accounting flexibility they may use it for correct presentation of the company's economic reality, or concealment of true company performances. Some strategic questions should be raised in order to perceive how managers use the accounting flexibility: It is necessary to compare accounting policies with the norms prevailing in the given economic branch. If different, answers should be looked for. For example, if a company has lower guarantee provisioning than the average in its given economic branch, one of the explanations for this is that the company has a competitive edge for high quality and is investing substantial resources in lowering the rate of product defects. The alternative explanation is that the company is underrating its own provisioning. Does the management have motivation for using accounting discretion? For example, the company is close to the limits in borrowing agreements. Is the company changing its accounting policies and assessments? How is this justified? What is the impact of these changes? For example, guarantee costs are lower. Is it because the company has made substantial investment in the improvement of its products quality (Palepu and associates, 2003, 89-90)?

Disclosure quality evaluation: Managers can make more or less easy for the analysts the evaluation of the accounting quality and the use of financial reports in understanding the company's business reality. While the accounting rules are demanding a certain konsekvence. Na primer neka preduzeća koriste pismo akcionarima gde pojašnjavaju položaj preduzeća u privrednoj grani, konkurentsku poziciju i planove menadžmenta za budućnost (Palepu i saradnici 2003, 92). Suprotno ovome gospodin Buffett u pismu svojim akcionarima, u njemu svojstveno šaljivom duhu, govori kako bi menadžerima zabranio da objavljuju svoje planove (Buffett, 2000). On u optimističkim planovima menadžmenta vidi jedan kvalitativni crveni indikator. Da li napomene adekvatno objašnjavaju ključne računovodstvene politike i pretpostavke i njihovu logiku. Na primer ako se priznavanje prihoda i rashoda razlikuje od norme u privrednoj grani. Da li je preduzeće objasnilo njegove izbore u napomenama? Slično gde postoje značajnije promene računovodstvenih politika, napomene mogu biti upotrebljene da se obelodane razlozi (Palepu i saradnici 2003, 92). Kvalitet obelodanjivanja je najjasnije otkriven načinom kako menadžment reaguje na loše vesti. Da li adekvatno objašnjava razloge za lošije performanse.

Identifikovanje potencijalnih crvenih indikatora. Ovo je poslednja faza u procesu računovodstvene analize u kojoj se sublimiraju rezultati svih prethodnih faza. Postojanje crvenih indikatora sugeriše da analitičar treba da istraži izvesne pozicije detaljnije. Ova faza je usko grlo u poslovnoj analizi zasnovanoj na finansijskim izveštajima. Tako, na primer u fundamentalnoj analizi hartija od vrednosti ako su rezultati u ovoj fazi neodgovarajući pojaviće se alternative ili da nema ni potrebe da se radi daljna finansijska analiza i predviđanje (vrednovanje) preduzeća ili da se finansijska anliza i vrednovanje rade pomoću preoblikovanih finansijskih izveštaja koji će pravilno predstaviti finansijski položaj i rezultate preduzeća predmeta analize. To je i logično ako imamo u vidu da odluke, koje se, između ostalog, temelje i na informacijama iz finansijskih izveštaja, često podrazumevaju značajna ulaganja i prirodnu averziju investitora prema riziku, onda je razumljivo da svi korisnici nastoje da prepoznaju neke rane upozoravajuće signale, kako o kvalitetu izveštaja, tako i o kvalitetu finansijske strukture preduzeća i njegove zarađivačke sposobnosti. U te svrhe kao što smo videli se koristi analiza crvenih indikatora koja je sračunata na pravovremeno upozorenje svih onih koji na bazi finansijsko-računovodstvenih informacija odlučuju (Malinić, 2009, 153). Mogući koraci u analizi upozoravajućih signala predstavljeni su na sledećem dijagramu.

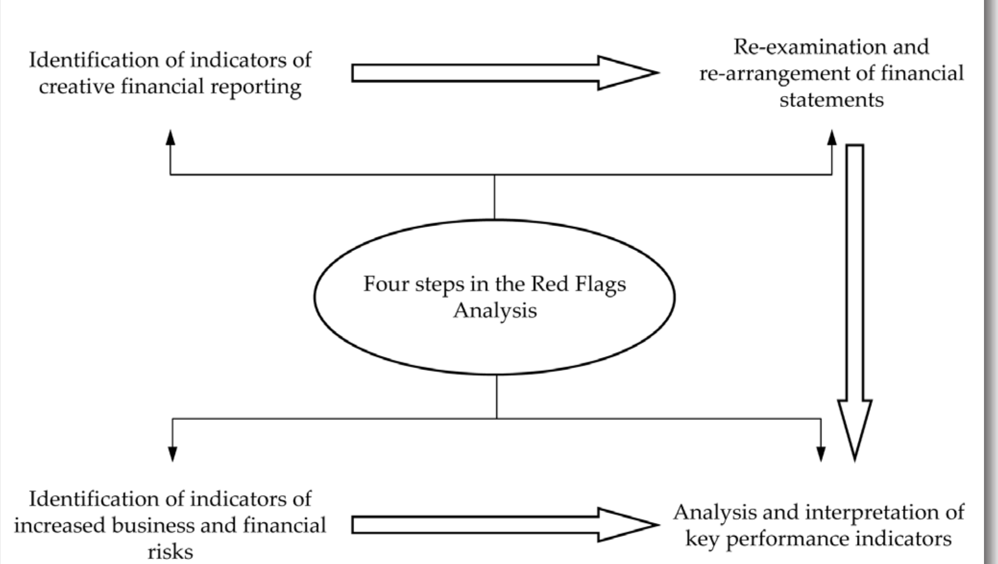
Dijagram 1: Analiza upozoravajućih signala



minimum of disclosure, managers are having a considerable choice in this matter. Hence the disclosure quality is an important dimension of the accounting quality. In the disclosure quality assessment, analysts should ask the following questions: Is the company providing adequate disclosure to assess business strategy and its economic consequences? For example, some companies are using a letter to shareholders where they are clarifying the position of the company in the economic branch, competitive position and management plans for the future (Palepu and associates, 2003, 92). Conversely, Mr. Buffett, in the letter to his shareholders, with his own particular humorous style, is saying that he would rather forbid his managers to disclose their plans (Buffett, 2000). In the optimistic plans of the management, what he perceives is one qualitative red flag. Are the notes to financial statements explaining in an adequate way the key accounting policies and assumptions, and also their logic? For example, if the recognition of revenues and expenditures is different from the norm prevailing in the economic branch. Has the company explained its choices in the note to the financial statement? Similar is the case when there are significant changes in the accounting policies, notes to financial statements may be used to disclose the rationale (Palepu and associates, 2003, 92). Disclosure quality is best and clearly discovered through the way in which management is reacting to the bad news. Is it they are offering adequate explanation and reasons for poor performances?

Identifying potential red flags: This is the last phase in the process of the accounting analysis in which the results are sublimated from all the previous phases. The presence of red flags suggests that the analyst should explore certain positions in more detail. This phase is the bottle neck in the business analysis, based on financial reports (statements). Thus, for example, in the fundamental analysis of securities, if the results in this phase are inadequate, the alternatives will appear indicating that there is either no need to made any further financial analysis and forecasts (evaluation of the company), or that the financial analysis and evaluation are being done by aid of re-shaped financial reports which will properly present financial position and result of the company subject to the analysis. This is logical if we bear in mind that the decisions, which are, inter alia, based also on the information contained in the financial reports, often are indicating substantial investments and a natural risk aversion of investors, so it is understandable that all the users are trying to recognize some early warning signs, both regarding quality of report, but also regarding the quality of the company's financial structure and its earning capabilities. To that end, as we have already seen, the red flag analysis is being used which is aimed at the timely warning of all those who are basing their decision-making on the financial and accounting information (Malinic, 2009, 153). Possible steps in the red flags analysis are presented in the following diagram.

Diagram 1: Red Flags Analysis



Kao što se može videti iz prethodnog dijagrama analiza upozoravajućih signala generalno može ići u dva pravca. Prvo, ona podrazumeva identifikovanje indikatora koji mogu ukazivati na postojanje kreativnog finansijskog izveštavanja. Pojava upozoravajućih signala pretpostavlja preuređenje postojećih izveštaja pre nego što bi oni bili korišćeni za finansijsku analizu. Radi se o veoma zahtevnim istraživačkim aktivnostima koje podrazumevaju sposobnost prepoznavanja upozoravajućih događaja, što zahteva iskustvo i široka finansijsko-računovodstvena znanja, identifikovanje kvalitetnih indikatora koji će omogućiti da se na vreme prepozna praksa kreativnog finansijskog izveštavanja i pronalaženje načina za kvantificiranje iskazanih odstupanja u odnosu na realna ostvarenja. Ovo poslednje je neophodan preduslov za preuređenje postojećih izveštaja i stvaranje korektne informacione osnove za analizu. Drugi pravac istraživanja zahteva prepoznavanje indikatora koji ukazuju na postojanje povećanih poslovno-finansijskih rizika. Naravno, korektna standardna finansijska analiza se u ovakvim situacijama podrazumeva. Međutim, ovde je pravi izazov ići korak dalje i napraviti napor da se identifikuju i nestandardni indikatori koji će imati ulogu ranih upozoravajućih signala koji treba da na vreme ukažu na moguće nadolazeće probleme. Problem je još komplikovaniji ako imamo u vidu da ne postoji univerzalna lista takvih indikatora jednako uspešno primenjiva u svim preduzećima i svim poslovnim situacijama (Malinić, 2009, 153-154).

Kvantitativna analiza crvenih indikatora

Tradicionalna analiza finansijskih izveštaja se takođe koristi u analizi crvenih indikatora i njen značaj ne sme da bude zanemaren. Ona se koristi i kao celina kada se porede neki od standardnih racia koji se u njoj koriste sa orjentacionim normalama, kao i vrednostima pojedinih racia sa konkurentskim ostvarenjima ili prosecima privredne grane u kojoj preduzeće predmet analize posluje. Ako su ove vrednosti lošije od komparabilnih možemo imati crvene indikatore, suprotno ako su ove vrednosti dobre možemo ih posmatrati kao zelene indikatore, što može voditi u bolje buduće izglede i veće vrednosti posmatranih preduzeća. Pored ovoga neki od standardnih racia koji se koriste u tradicionalnoj finansijskoj analizi su i sastavni delovi nekih od modela koji se koriste u analizi crvenih indikatora.

Grove i Basilico su primenili analizu crvenih indikatora na uzorku od 9 najvećih finansijskih prevara u 21 veku. U toj analizi su koristili i tradicionalnu analizu finansijskih izveštaja koja je dala veoma dobre rezultate. Navešćemo samo neke od njihovih rezultata. Devet preduzeća iz uzorka je imalo vrednosti stope prinosa na aktivu (return on assets-ROA) koje su predstavljale crvene indikatore, osam stopu neto dobitka i šest racio tekuće likvidnosti (Grove i Basilico, 2011) U nastavku ćemo prikazati neke od racio brojeva i metoda koje se veoma često koriste u analizi crvenih indikatora.

Kvalitet prihoda od prodaje (Quality Revenue Ratio) se računa kao odnos novčanih priliva od prodaje i prihoda od prodaje. Upozoravajući indikator za ovaj racio su vrednosti manje od 1. Procena kvaliteta prihoda od prodaje otkriva stepen odstupanja naplate prodaje u odnosu na evidentirane prihode od prodaje. Cilj je da se otkrije kvalitet politike prodaje i rizik koji prati naplatu prodaje. Naime, ponekad, naročito marketing menadžeri, mogu forsirati prodaju na kredit ne vodeći računa o mogućnostima naplate potraživanja. U takvim uslovima, rast prihoda omogućava iskazivanje povoljnijih koeficijenata obrta, a, samim tim, i stvaranja povoljnije slike o profitabilnosti i likvidnosti. Značajnije zaostajanje priliva za prihodima otkriva povećani rizik od nelikvidnosti, koja je najčešće uzrok stečaja. Ako je ovaj racio bliži jedinici, onda to znači da je rizik od nelikvidnosti zbog nemogućnosti naplate potraživanja veoma mali. Naravno važi i obrnuto. Ovo je važno i zbog toga što rizik od nelikvidnosti nije uslovljen samo visinom i izvesnošću priliva, već i njegovim vremenskim rasporedom (Stevanović i saradnici 2009 225-226).

Za preduzeće Fidelinka, a.d Subotica pre odlaska u stečaj ovaj racio je u 2008. godini iznosio 1,31 a u 2009. godini je pao na 0,65. Podsećanja radi u poslednjoj godini poslovanja Enron-a ovaj racio je pao sa 0,98 na 0,92 (Grove i Basilico, 2011).

As it is seen on the above diagram, the warning signals analysis may generally go in two directions. Firstly, it means identifying indicators that may point out at the presence of creative financial reporting. The appearance of the red flags assumes rearrangement of the existing reports before they could be used for financial analysis. It is a question here of very demanding research activities which require the ability to recognize warning events, which in turn demands experience and broad financial and accounting knowledge, identifying of qualitative indicators that will allow for a timely identification of the creative financial reporting practice and finding the way to quantify presented digressions from the real result achieved. This latter is the necessary prerequisite for the rearrangement of the existing reports and the creation of a correct information base for analysis. The second research direction demands identifying indicators which are pointing out at the presence of higher business and financial risks. Correct standard financial analysis, of course, is a must in such situations. The real challenge here, however, is to go a step further and make the effort of identifying also the non-standard indicators that will have the role of the early warning signals which should point out timely at the possible incoming problems. The problems becomes even more complicated if we bear in mind that there is no universal list of such indicators that would be equally successfully applicable in all the companies and in all the business situations (Malinic, 2009, 153-154).

Quantitative Red Flags Analysis

Traditional financial reports analysis is also used in the red flags analysis and its importance should not be ignored. It is used also as an entirety when comparing some of the standard ratios that are used in it with approximate normals, and also values of certain ratios with competition achievements or averages in a given economic branch in which the company, subject to the analysis, is operating. If these values are lower than the comparable ones, we may have red flags, and in the opposite case, if these values are higher we may consider them as the green flags, which may lead into better future prospects and higher value of the observed company. In addition, some of the standard ratios used in the traditional financial analysis are the component parts of some of the models used in the red flags analysis.

The authors Grove and Basilico applied the red flags analysis to a sample of the 9 largest financial frauds in the 21st century. In this analysis, they used also the traditional financial reports analysis which had yielded very good results. Let us quote only some of their results. Nine companies in the sample had their ROA value (return on assets) such that they were actually the red flags, eight of them the net profit rate, and six the current liquidity ratio (Grove and Basilico, 2011). We shall present here some of the ratio figures and methods that are very often used in the red flags analysis.

Quality Revenue Ratio is calculated as a ratio of sales cash flows and sales revenues. The red flag for this ratio are the values lower than 1. Evaluation of the quality revenue ratio is revealing the degree of digression of sales revenue collection in respect to the recorded sales revenues. The objective is to discover the quality of the sales policy and the risk which follows sales revenue collection. Namely, at time, and especially marketing managers, may force sales on credit without taking into account the capacity for collection of sales receivables. In such circumstances, growth of revenues is allowing for the presentation of more favorable turnover ratios, and thus creation of amore favorable picture of profitability and liquidity. Significant lagging behind of inflows after revenues is disclosing a high risk of illiquidity, which is most often the cause for bankruptcy. When this ratio is closer to 1, this means that the illiquidity risk caused by inability to collect claims is very low. The opposite case applies as well. This is important because the illiquidity risk is not caused only by the amount and certainty of inflow, but also by its timeline schedule (Stevanovic and associates, 2009, 225-226).

In case of Fidelinka a.d. Subotica Company, prior to its bankruptcy, this ratio in the year 2008 amounted to 1.31, and in 2009 it fell to 0.65. Let us recall that during the last year of its business operation, Enron Company saw this ratio fall from 0.98 to 0.92 (Grove and Basilico, 2011).

Analiza kvaliteta prihoda predstavlja dobro polazište za procenu kvaliteta dobitka o čemu ćemo nešto više reći u nastavku. Naime ako je racio kvaliteta prihoda dobar a to nije slučaj sa raciom kvaliteta dobitka onda je upozoravajuće indikatore potrebno tražiti na strani rashoda kao negativne komponente dobitnih ostvarenja i na strani neto novčanih tokova iz poslovnih aktivnosti.

Kvalitet dobitka (Quality of Earnings Ratio). Racio kvaliteta dobitka je brz i jednostavan način da se prosudi kvalitet iskazanog dobitka preduzeća. Akademičari i finansijski analitičari ovaj racio računaju na različite načine. I dok se u brojiocu uvek nalazi neto novčani tok iz poslovnih aktivnosti u imeniocu se mogu naći i poslovni dobitak i neto dobitak (alternativno obe ove pozicije se mogu prilogođavati za iznos amortizacije).

Pre razmatranja racia kvaliteta dobitka napomenimo da su negativni neto novčani tokovi iz poslovnih aktivnosti uvek upozoravajući indikator osim u slučajevima kada se preduzeće nalazi u fazi rasta.

Fidelinka, a.d Subotica ima negativne novčane tokove iz poslovnih aktivnosti u godinama pre stečaja 2008 i 2009. godini u iznosu od 297,599,000 i 6,680,000 RSD respektivno. Takođe dve kompanije iz telekomunikacijskog sektora Global Crossing i Qwest čiji slučajevi sa manipulacijama zaradama predstavlja visoko profilne korporativne skandale na početku ovog veka imale su racio kvaliteta dobitka za 2000 i 2001. godinu -6,66; 0,55 i -45,44; -1,01 respektivno. Racio kvaliteta dobitka u ovom slučaju je računat kao odnos neto novčanog toka iz poslovnih aktivnosti i neto dobitka (Grove, i Cook, 2004,131-146).

Schilit ističe kako je jedna od najboljih metoda istraživanja u godinama njegovog rada novčani tokovi iz poslovanja koji pokazuju performanse preduzeća na gotovinskoj osnovi i njihovo poređenje sa neto dobitkom koji pokazuje performanse preduzeća na akrualnoj osnovi. Obe pozicije mere u osnovi istu stvar. On dalje navodi da je benčmark crvenog indikatora u ovom slučaju vrednost manja od jedan (Schilit, 2010). Ova vrednost je široko prihvaćena i među finansijskim analitičarima. Mi se slažemo da ova vrednost bude benčmark i u slučaju kada se u obračunu racia kvaliteta dobitka u imeniocu koristi poslovni dobitak. Razlog za ovo je što su izdaci za troškove kamata pozicija koja se nalazi u delu poslovnih aktivnosti u izveštaju o novčanim tokovima i prema međunarodnim računovodstvenim standardima i US GAAP, što nije slučaj sa prilivima od kamata jer se oni po US GAAP nalaze u delu izveštaja o novčanim tokovima koji se odnosi na poslovne aktivnosti dok se po međunarodnim računovodstvenim standardima ova pozicija nalazi u delu o investicionim aktivnostima što svakako treba uzeti u obzir kao i tranzitorne pozicije prilikom uvažavanja benčmarka od 1 za alternativne obračune racia kvaliteta dobitka. Menadžment preduzeća Tyco razume da revizori i analitičari brzo vide crveni indikator kada profit preduzeća i njegovi novčani tokovi nisu u balansu. Menadžment Tyco-a će učiniti da je novčani tok uvek proporcionalan profitu. Ako bi iskazali profit od jedne milijarde i slično veliki novčani tok od npr. jedne i po milijarde. To bi se posmatralo kao konzervativno računovodstvo premda to nije tako. Tyco je naduvao novčani tok iz poslovanja sticanjem. U periodu od četiri godine Tyco je učinio oko sedamsto sticanja. Nisu obelodaljivali sticanja jer su ih smatrali nematerijalnim. Kada kupe drugo preduzeće to ne knjiže u deo o novčanim tokovima iz poslovnih aktivnosti već u deo o investicionim aktivnostima. Zbog toga se negativan uticaj kada se pojavljuje na obrtnom kapitalu ne pokazuje u novčanim tokovima iz poslovnih aktivnosti. Sledeći korak je da se kupovinom preduzeća kupuju i njegova potraživanja i knjiži (njihova naplata) u deo izveštaja o novčanim tokovima koji se odnosi na poslovne aktivnosti. Novac pritiče i od prodaje zaliha. Sve ove aktivnosti su legitimne po opšteprihvaćenim računovodstvenim principima (Schilit, 2010).

Velike fluktuacije u raciu kvaliteta dobitka tokom vremena mogu ukazivati na probleme u finansijskom izveštavanju. Enron-ov racio kvaliteta zarade je bio 4,9, 1,4 i 2,3 u poslednje tri godine poslovanja. Enron je prisiljavao potrošače električne energije da unapred plaćaju narudžbine što je dramatično povećalo njegov novčani tok iz poslovnih aktivnosti i racio kvaliteta zarade. Racio kvaliteta dobitka takođe označava meru da li je preduzeće veštački naduvalo zaradu kako bi pokrilo poslovne probleme. Ovaj racio može ukazivati

Revenue quality analysis is a good starting point for the evaluation of the quality of earnings that will be discussed in more detail further in this paper. Namely, if the quality revenue ratio is good, and this is not the case with the quality of earnings ratio, then the warning signs and red flags are to be looked for on the side of expenditures as the negative components of earnings, and on the side of the net cash flows from business activities.

Quality of Earnings Ratio: Quality of earnings ratio is a fast and simple way of assessing quality of presented earnings of the company. Academic circles and financial analysts are calculating this ratio is different ways. While in the numerator there is always a net cash flow from business activities, in the nominator there may be found business gains and net earnings (alternatively both of these positions may be adjusted for the amount of depreciation).

Before examining the quality of earnings ratio, let us mention that the negative net cash flows from business activities are always warning signs except in cases when the company is in the phase of growth.

Company Fidelinka a.d. Subotica had negative cash flows from business activities in the years before its bankruptcy in 2008 and 2009, in the amount of 297,599,000 and 6,680,000 RSD respectively. In addition, two companies from the telecommunications sector: Global Crossing and the Qwest, whose cases of earnings manipulations were highly profitable corporate scandals in the early years of this century, had the quality of earning ratio for the years 2000 and 2001 of -6.66; 0.55 and -45.44; -1.01 respectively. Quality of earnings ratio in this case was calculated as a ratio of net cash flows from business activities and the net profit (Grove and Cook, 2004, 131-146).

The author Schilit argues that one of the best research methods in all the years of his work were the cash flows from business operations which are showing company performances on the cash basis and their comparison with the net earnings which shows company performances on an accrual basis. Both positions are basically measuring the same thing. He further states that the red flag benchmark in this case is the value lower than one (Schilit, 2010). This value is broadly accepted also among financial analysts. We agree that this value should be a benchmark also in the case when, in the calculation of the quality of earnings ratio, business profit is used in the nominator. The reason for this is that the expenditures for the interest costs is the position which is found in the part of business activities in the report on cash flows, both in accordance with the international accounting standards and the US GAAP, which is not the case with the interest inflows because they are, under the US GAAP, located in the part of the report dealing with the cash flows from business activities, while according to the international accounting standards this position is located in the part dealing with the investment activities, which should certainly be taken into consideration, as well as transitional positions when adopting the benchmark of 1 for alternative quality of earning ratio calculations. Management of the Tyco Company understands that auditors and analysts are quick to see red flags when the company profit and its cash flows are not balanced. Tyco management shall make the cash flow always proportionate to the profit. If they are to present profit of one billion and a similarly large cash flow of, for example, one and a half billion, that would be deemed to be conservative accounting, although it is not so. Tyco Company inflated its cash flow from acquisition deals. During the period of four years, Tyco engaged in some seven hundred acquisition deals. They did not disclose acquisitions because they deemed them to be the intangibles. When they buy some other company, they do not enter it in the books, in the part on cash flows from business activities, but in the part on investment activities. Thus the negative impact, when it appears on the working capital, is not presented in cash flows from business activities. The next step is through the buying of companies to also buy its claims and receivables and to book (their collection) in the part of the report on cash flows, which pertains to the business activities. The money is coming also from the sale of the stocks. All of these activities are legitimate according to the generally accepted accounting principles (Schilit, 2010).

Large fluctuations in the quality of earnings ratio may point out, over time, at some problems da preduzeće ima zaradu koja se neće pretvoriti u gotovinu. Metodi za uvećanje zarade (ali ne i novčanih tokova) uključuju ranije knjiženje prihoda, priznavanje sumnjivih potraživanja ili knjiženje povremenih dobitaka od prodaje imovine (Grove i Basilico, 2011). Naravno da se zarada može uvećati i potcenjivanjem rashoda. Uzimanje veće rezidualne vrednosti prilikom lizinga ili većeg korisnog veka prilikom amortizacije stalne imovine nego što je to primereno, kao i kapitalizacija rashoda koji su po svojoj suštini rashodi perioda su samo neki od brojnih trikova koji se mogu iskoristiti za uvećanje zarade.

Opšte je mišljenje da kreativna računovodstvena praksa ima manje prostora na području iskazivanja novčanih tokova u odnosu na iskazivanje akrualnih dobitnih ostvarenja. Na tome se i zasniva premisa da novčani tokovi služe kao svojevrsna mera kvaliteta iskazanih dobitnih ostvarenja. Na toj premisi su artikulisana i ova dva prethodno razmatrana racio broja. Međutim kreativno finansijsko izveštavanje se može pronaći i prilikom izveštavanja o novčanim tokovima. Mere koje se koriste se takođe mogu podeliti na one unutar i izvan opšteprihvaćenih principa, kao i na one pre i nakon dana bilansa. Home Depot uvećava svoj novčani tok iz poslovnih aktivnosti usporavajući isplatu svojim dobavljačima (Schilit, 2010). Posebno česta kreativna praksa vezana za novčane tokove je namerno pogrešna klasifikacija novčanih tokova na poslovne, investicione i finansijske tokove. U ovom slučaju se ne menjaju ukupni novčani tokovi ali dolazi do promena u iznosima pojedinih delova izveštaja o novčanim tokovima što je za nas posebno važno jer je novčani tok iz poslovanja uvek uzet u obzir prilikom obračuna racia kvaliteta dobitka.

Na kraju 2000. godine, Helen of Troy, Ltd, iskazuje prihode od prodaje utrživih hartija u iznosu od $21,530,000 kao komponentu novčanog toka iz poslovanja. Ovo je pozicija koju je pravilnije klasifikovati u investicione aktivnosti. Posledica ovakve klasifikacije je bila da se novčani tok iz poslovnih aktivnosti u 2000. godini povećao na $28,630,000 u odnosu na 1999. godinu kada je iznosio $11,677,000. Kada se troškovi razvoja softera knjiže kao rashod perioda tada se iskazuju kao odliv u delu izveštaja o novčanim tokovima koji obuhvata poslovne aktivnosti. U slučaju da se ovi troškovi kapitalizuju novčani odlivi vezani za njih se iskazuju kao investiciona aktivnost. Zbog toga će preduzeće koje kapitalizuje troškove razvoja softvera iskazati veće novčane tokove iz poslovnih aktivnosti nego u slučaju kada se ti troškovi knjiže kao rashod perioda (Mulford i Comiskey, 2002, 38).

Procena kvaliteta dobitka upućuje na nekoliko bitnih zaključaka: Prvo, moguća značajnija odstupanja tokova priliva i odliva novca od prihoda i rashoda ukazuje da je veoma rizično zasnivati odluke, naročito one investicione prirode, samo na proceni tokova rentabiliteta zasnovanih na prihodima, rashodima i dobitku. Drugo, značajnije odstupanje novčanih tokova iz poslovanja u odnosu na poslovni dobitak (alternativno neto dobitak prim. aut.) mogu otkrivati efekte primene različitih računovodstvenih politika, koje mogu voditi potcenjivanju rezultata i stvaranju latentnih rezervi, ili precenjivanju rezultata, kada govorimo o precenjenom rezultatu i skrivenim gubicima. Treće, značajnije oscilacije upozoravaju na mogućnost manipilacije u procesu iskazivanja dobitka (Malinić, 2009, 168).

Beneish-ov model upozoravajućih indikatora. U poslednje vreme investitori i finansijski analitičari u nameri da otkriju preduzeća koja manipulišu prilikom iskazivanja svojih dobitnih ostvarenja sve češće koriste Beneish model. Profesor Beneish (1999) je u svoj model ugradio osam varijabli. U nastavku ćemo ukratko opisati varijable uključene u model, kao i njihove vrednosti koje mogu ukazivati na postojanje manipulacija prilikom iskazivanja dobitnih ostvarenja.

1. *Indeks perioda naplate potraživanja u danima*: Ovaj indeks se izračunava tako što se period naplate potraživanja u danima u godini t podeli sa periodom naplate potraživanja u godini t-1. Povećanje ovog indeksa može biti rezultat promena u kreditnoj politici koje preduzeće preduzima pod pritiskom konkurencije, ali može biti i posledica prethodno naduvanih prihoda i problema u naplati potraživanja što su činjenice koje povećavaju verovatnoću da preduzeće precenjuje svoje prihode i dobitna ostvarenja.

in the financial reporting. Enron's quality of earnings ratio was 4.9, 1.4, and 2.3 during the last three years of its work. Enron was forcing electrical power consumer to pay in advance their orders, which increased dramatically its cash flows from business activities and the quality of earnings ratio. Quality of earnings ratio also designates the measure to which the company had artificially inflated its earnings in order to conceal business problems. This ratio may indicate that the company is having such earnings that will not be turned into cash. Methods for increasing earnings (but not cash flows) include earlier booking of earnings, recognition of dubious claims, or booking of occasional earnings from the sale of assets (Grove and Basilico, 2011). Revenues can always be increased by underrating expenditures, of course. By taking higher residual value during leasing, or a longer than appropriate life-span for the depreciation of permanent assets, but also capitalization of expenditures which are in their essence period expenditures, they are only some of the multitude of tricks that may be used for inflating earnings.

General view prevails that the creative accounting practice has less leeway in the area of presenting cash flows in respect to presenting earnings accrual. This is actually the basis for the premise that cash flows serve as a particular measure of quality of the presented earnings. This premise serves as basis for articulating also these two previously examined ratio numbers. Creative financial reporting, however, may be found also in the reporting on cash flows. Measures used there may also be divided into those within and those beyond the generally accepted principles, and into those before and after the balance sheet day. Home Depot Company is increasing its cash flow from business activities by slowing down payments to its suppliers (Schilit, 2010). An especially frequently encountered creative practice connected with the cash flows is an intentionally erroneous classification of cash flows into business, investment, and financial flows. In this case, the total cash flows are not changed but there is a change that occurs in the amounts of certain parts of the report on the cash flows, which is for us especially important as the cash flow from business is always taken into consideration during the calculation of the quality of earnings ratio.

Late in 2000, Helen of Troy, Ltd. presented revenues from sales of marketable securities in the amount of $21,530,000 as the component of the cash flow from business activity. This is the position which should be more correctly classified as an investment activity. The consequence of such a classification was that the cash flow from business activity in 2000 increased to $28,630,000 in respect to 1999, when it amounted to $11,677,000. When the costs of software development are booked as period expenditure, they are then expressed as outflow in the part of report on cash flows which covers business activities. In case these expenditures are capitalized, cash outflows connected with them are expressed as investment activity. That is the reason why a company that is capitalizing the costs of its software development will express higher cash flows from business activities than in the case when these costs are booked as period expenditures (Mulford and Comiskey, 2002, 38).

Quality of earning evaluation leads to several significant conclusions. Firstly, possible significant deviations of the cash inflows and outflows from the revenues and expenditures point out at the fact that it is very risky to base decisions, especially those of investment nature, only on the evaluation of flows of profitability based on revenues, expenditures and earnings. Secondly, substantial deviations of cash flows from business in respect to the business earnings (alternative net earnings, the author) may disclose effects of application of different accounting policies, which may lead to the underrating of results and creation of latent reserves, or to the overrating of results, when we speak of an overrated result and concealed losses. Thirdly, significant oscillations are a warning sign pointing out at the possibility of manipulation in the process of presenting earnings (Malinic, 2009, 168).

Beneish model of warning indicators: Recently, both the investors and financial analysts in their intent to identify companies manipulating their presentation of earnings are more and more frequently using the Beneish Model. Professor Beneish (1999) had used in his model eight variables. We shall now briefly

2. *Indeks bruto marže*: Ovaj indeks se računa tako što se bruto marža iz perioda t-1 podeli sa bruto maržom iz perioda t. Kada je ovaj indeks veći od jedan on signalizira nepovoljne izglede preduzeća u budućnosti. Ako preduzeće ima loše izgleda u budućnosti veća je verovatnoća da će manipulisati sa svojim dobitnim ostvarenjima.

3. *Indeks kvaliteta imovine (aktive)*: Do ovog indeksa se dolazi na taj način što se podeli odnos nematerijalne imovine i ukupne imovine u godini t sa odnosom nematerijalne imovine i ukupne imovine u godini t-1. Povećanje u ovom indeksu sugeriše da preduzeće kapitalizuje troškove i na taj način ih odlaže što nas upućuje na njihovu nameru da precene dobitak.

4. *Indeks rasta prihoda*: Ovde se stavljaju u odnos prihodi u godini t sa prihodima u godini t-1. Ovaj indeks može da reflektuje manipulacije u dobitnim ostvarenjima zbog toga što su cene akcija preduzeća koja se brzo razvijaju više osetljive na vesti i iz tog razloga se takva preduzeća plaše da bi tržište negativno reagovalo na usporavanje rasta njihovih prihoda.

5. *Indeks amortizacije*: Ovaj indeks se izračunava tako što se stavlja u odnos stopa amortizacije u godini t-1 sa korespodentnom stopom u godini t. Povećanje ovog indeksa sugeriše da preduzeće čini napore da smanji troškove amortizacije i tako povećа dobitak.

6. *Indeks opštih, administrativnih i troškova prodaje*: Ovaj indeks se izračunava kao racio ovih troškova u odnosu na prihode u godini t u odnosu na korespondentnu meru u godini t-1. Povećanje u ovom indeksu sugeriše da preduzeće gubi kontrolu nad svojim troškovima što može imati negativan uticaj na njegove buduće poslovanje i da bi se to prikrilo preduzeća mogu da pribegnu precenjivanjima svojih dobitnih ostvarenja.

7. *Leveridž indeks*: Ovaj indeks je racio ukupnog duga u odnosu na ukupnu imovinu u godini t i korespodentnog odnosa u godini t-1. Povećanje ovog indeksa može motivisati menadžment da precene dobitak kako bi preduzeće prikazali manje rizičnim i na taj način smanjili svoje buduće troškove pozajmljivanja.

8. *Indeks ukupnog accrual-a i ukupne imovine*: Ukupni accrual se izračunava kao promena na računima neto obrtne imovine sem gotovine manje troškovi amortizacije. Ovaj odnos se u modelu koristi kao zamena mere obima u kojem se primljena gotovina poklapa sa iskazanim dobitkom.

U sledećoj tabeli je prikazana starija verzija Beneish model koja je uključivala pet racio brojeva. Primer se odnosi na Enron i tri kompanije iz sektora telekomunikacija. Zajedničko za sve ove kompanije je da su izazvali velike korporatvne skandle nakon otkrivanja njihove kreativne računovodstvene prakse. Vrednosti benčmark i za kompanije koje su manipulisale kao i za one koje nisu manipulisale su preuzete iz Beneish-ove orginalne studije i one predstavljaju prosečne vrednosti.

describe the variables used in the model, and their value that may point out at manipulation in presenting earnings.

1 Days' sales in receivable index: This index is calculated so that the period of collection of receivables expressed in days in the year t is divided by the period of collection of receivables in the year t-1. The growth of this index may be the result of changes in the crediting policies that the company is undertaking under pressure from competition, but it may also be the result of the previously manipulated revenues and the problems in collection of receivables which are the facts that are increasing probability that the company is overrating its revenues and earnings.

2 Gross margin index: This index is calculated by dividing the gross margin from period t-1 by the gross margin from period t. When this index is higher than one, this is the signal of the unfavorable prospects for the company in future. If the company is having poor prospects for the future, there is a higher probability that it will manipulate its earnings.

3 Asset quality index: This index is calculated by dividing the ratio of intangible assets and total assets in the year t with the ratio of intangible assets and total assets in the year t-1. The growth of this index suggests that the company is capitalizing its costs and in this way it is postponing them, which leads us to the conclusion that they tend to overrate the earnings.

4 Sales growth index: This is the ratio between sales in the year t and sales in the year t-1. This index may reflect manipulation in the earnings because the share prices of the companies that are developing fast are more susceptible to the news and for this reason such companies are afraid that the market may have a negative reaction to the slowing down of growth in their earnings.

5 Depreciation index: This index is calculated by making the ratio between depreciation rate in the year t and the corresponding rate in the year t-1. The growth of this index suggests that the company is making efforts to reduce depreciation costs and thus increase earnings.

6 Sales and general and administrative expenses index: This index is calculated as a ratio of these expenses in respect to the revenues in the year t in respect to the corresponding measure in the year t-1. The increase in this index suggests that the company is losing control over its expenses which may have a negative effect on its future business, and in order to cover this up the company may have overrated its earnings.

Leverage index: This index is the debt to total assets ratio in the year t and the corresponding ratio in the year t-1. The growth of this index may motivate management to overrate earnings in order to present the company less risky and thus lower its future borrowing costs.

8 Total accruals to total assets: Total accrual is calculated as the change in accounts of net working capital except cash minus depreciation costs. This ratio is used in the model as a replacement for the measure of volume in which cash received is matched with earnings presented.

In the next Table we are presenting an earlier version of the Beneish Model, which included five ratio numbers. This example presents Enron and three other companies from the telecommunications sector. The common feature for all of these companies is that they have caused huge corporate scandals after the discovery of their creative accounting practices. The benchmark values both for the companies which have manipulated and those that did not manipulate have been taken from the Beneish's original study and they represent average values.

Tabela 2: Racio brojevi za detekciju manipulacija zaradom

	Enron	WorldCom	Global Crosing	Qwest
Indeks perioda naplate potraživanja u danima				
Prosečni indeks za preduzeća nemanipulatore = **1,031**				
Prosečni indeks za preduzeća manipulatore = **1,465**	**1,376**	**0,865**	**0,411**	**0,882**
Crveni indikator?	**Moguće**	**Ne**	**Ne**	**Ne**
Indeks bruto marže				
Prosečni indeks za preduzeća nemanipulatore = **1,014**				
Prosečni indeks za preduzeća manipulatore = **1,193**	**2,162**	**1,040**	**1,444**	**1,101**
Crveni indikator?	**Da**	**Moguće**	**Da**	**Moguće**
Indeks kvaliteta imovine				
Prosečni indeks za preduzeća nemanipulatore = **1,039**				
Prosečni indeks za preduzeća manipulatore = **1,254**	**0,771**	**0,984**	**0,934**	**0,891**
Crveni indikator?	**Ne**	**Ne**	**Ne**	**Ne**
Indeks rasta prihoda				
Prosečni indeks za preduzeća nemanipulatore = **1,134**				
Prosečni indeks za preduzeća manipulatore = **1,607**	**2,513**	**0,900**	**2,541**	**1,186**
Crveni indikator?	**Da**	**Ne**	**Da**	**Moguće**
Indeks ukupnog accrual-a i ukupne imovine				
Prosečni indeks za preduzeća nemanipulatore = **0,018**				
Prosečni indeks za preduzeća manipulatore = **0,031**	**0,014**	**0,033**	**-0,124**	**-0,070**
Crveni indikator?	**Ne**	**Da**	**Ne**	**Ne**

Izvor: Grove, H, Cook, T, (2004), „Lessons for Auditors: Quantitative and Qualitative Red Flags“, *Journal of Forensic Accounting*, pp. 131-146.

Dva od pet prikazanih racia u prethodnoj tabeli signaliziraju crvene indikatore i nalaze se iznad ili blizu prosečnog indeksa preduzeća koja su manipulisala sa svojim finansijskim izveštajima. Indeks bruto marže za Enron je bio 2,162 i 1,444 za Global Crosing a benčmark je 1,193. Enron-ovi rezultati reflektuju pad bruto marže od 13,3% u 1999 na 6,2% u 2000. godini i taj pad generiše pritisak za manipulaciju prihodima i zaradama. Indeks bruto marže za WorldCom (1,040) i Qwest (1,101) je bio između proseka za preduzeća nemanipulatore i manipulatore, i otuda predstavlja potencijalni crveni indikator.

Altman Z score (1968 i ažuriran 2005) je multivarijaciona statistička formula koja se koristi u predviđanju verovatnoće da preduzeće ode u bankrot u sledeće dve godine. Model sadrži pet racio brojeva sa njihovim koeficijentima zasnovanim na Altman-ovim istraživanjima. Ovaj model se primenjuje pre svega na proizvodna preduzeća i preduzeća koja se bave maloprodajom, ali je primenjiv i na banke, uslužne kompanije i sl. Crvena zastavica se podiže kada je Z score manji od 1,8 i u tom slučaju postoji velika verovatnoća za bankrotstvo. U intervalu od 1,8 do 3,0 postoje mogući problemi sa bankrotstvom. Dok se preduzeća sa skorom iznad 3 smatraju sigurnim Altman i Hotchkiss, 2005) U nastavku ćemo detaljnije prikazati racio brojeve koji se koriste u ovom modelu i ujedno prikazati njegov obračun i validnost na primeru preduzeća Fidelinka, a.d Subotica:

1. (*Neto obrtni kapital / Ukupna aktiva*) x 1,2 = -0,02

Ovaj racio je mera neto obrtnog kapitala (ili likvidne imovine) u odnosu na ukupnu imovinu. Preduzeće sa većim obrtnim kapitalom će imati

Table 2 Ratio numbers for the detection of earnings manipulation

	Enron	WorldCom	Global Crosing	Qwest
Days' sales in receivables index				
Average index for non-manipulating companies = **1.031**				
Average index for manipulating companies = **1.465**	**1.376**	**0.865**	**0.411**	**0.882**
Red Flag?	**Possible**	**No**	**No**	**No**
Gross margin index				
Average index for non-manipulating companies = **1.014**				
Average index for manipulating companies = **1.193**	**2.162**	**1.040**	**1.444**	**1.101**
Red Flag?	**Yes**	**Possible**	**Yes**	**Possible**
Asset quality index				
Average index for non-manipulating companies = **1.039**				
Average index for manipulating companies = **1.254**	**0.771**	**0.984**	**0.934**	**0.891**
Red Flag?	**No**	**No**	**No**	**No**
Sales growth index				
Average index for non-manipulating companies = **1.134**				
Average index for manipulating companies = **1.607**	**2.513**	**0.900**	**2.541**	**1.186**
Red Flag?	**Yes**	**No**	**Yes**	**Possible**
Total accruals to total assets index				
Average index for non-manipulating companies = **0.018**				
Average index for manipulating companies = **0.031**	**0.014**	**0.033**	**-0.124**	**-0.070**
Red Flag?	**No**	**Yes**	**No**	**No**

Source: Grove, H., Cook, T. (2004), "Lessons for Auditors: Quantitative and Qualitative Red Flags", Journal of Forensic Accounting, pp. 131-146.

Two of the five presented ratios in the above Table are signaling red flags and are above or close to the average index of the companies that have manipulated their financial statements. The gross margin index for Enron was 2,162 and 1,444 for Global Crossing, and the benchmark is 1,193. Enron results are reflecting the fall in gross margin of 13.3% in the year 1999 to 6.2% in the year 2000, and this fall is generating pressure for manipulation with revenues and earnings. The gross margin index for the WorldCom (1,040) and Qwest (1.040) was between the average for non-manipulating companies and manipulating companies, and thus it stands as a potential red flag.

Altman Z score (1968, and updated in 2005) is a multi-variant statistical formula that is used in the probability forecasting for companies to go bankrupt over the forthcoming two years. The model contains five ratio numbers with their coefficients based on Altman's research. This model is applied primarily on the production companies and companies engaged in retail trade, but may also be applied to the banks, service provider companies, and similar. Red flag is raised when the Z scope falls below 1.8 and in that case there is a great probability of bankruptcy. In the interval of 1.8 to 3.0 there are possible problems with bankruptcy, while companies with the scope above 3 are considered to be safe (Altman and Hotchkiss, 2005). We shall now present in more detail ratio numbers used in this model and also its calculation and validity in the case of company Fidelinka a.d. Subotica:

1. *(Net working capital/Total assets) x 1.2 = -0.02*

This ratio is the measure of net working capital (or liquid assets) in respect to the total assets. The company with higher working više kratkoročne imovine i biće sposobno da lakše izmiri kratkoročne obaveze. Ovaj racio je snažan indikator krajnjeg diskontuniteta jer nizak ili negativni obrtni kapital znači da preduzeće nije sposbno da ispuni kratkoročne obaveze. Preduzeće predmet naše analize ima negativan neto obrtni kapital što implicira da je u ovom period deo njegove stalne imovine bio pokriven sa kratkoročnim kapitalom što nas upućuje na njegovu ne baš najsretniju finansijsko - strukturnu poziciju.

2. (*Zadržana zarada / Ukupna aktiva*) x 1,4 = 0,10

Ovaj racio meri kumulativnu zaradu preduzeća u odnosu na njegovu veličinu. Ovde je važno uzeti u obzir starost preduzeća jer relativno mlada preduzeća imaju ovaj racio niži, što ukazuje na veću mogućnost poslovnog neuspeha u ranijim godinama postojanja preduzeća. Ovaj racio je i pod dejstvom računovodstvene kozmetike jer preduzeće može reklasifikovati neraspoređenu dobit u osnovni kapital. Postojanje visoke zadržane zarade može ukazivati na to da je preduzeće u prošlosti uspešno poslovalo i u slučaju da su njegove performanse trenutno lošije možemo se nadati da je to samo trenutno.

3. *EBIT / Ukupna aktiva*) x 3,3 = -0,01

Zdrava preduzeća će biti sposobna da sa svojom imovinom generišu dobitke. Ako je ovaj racio nizak profitabilnost je loša i preduzeće je u opasnosti od bankrotstva jer je osetljivije na nepovoljna tržišna kretanja. Preduzeće predmet naše analize ima negativnu vrednost ovog racia. Što je posebno zabrinjavajuće jer EBIT-a meri efikasnost suštinskog (core) poslovanja preduzeća. Situacija kada je EBIT-a pozitivan a neto dobitak negativan može ukazivati na situaciju neodgovarajuće finansijske strukture koja se može lakše poboljšati nego što je to slučaj sa samim poslovanjem.

4. (*Tržišna vrednost sopstvenog kapitala / knjigovodstvena vrednost ukupnih obaveza*) x 0,6 = 0,10

Ovaj racio uvodi u model faktor tržišta. Teoretski preduzeće sa visokom tržišnom kapitalizacijom ima manju verovatnoću da ode u bankrot jer njegov kapital ima veću vrednost. Uz to tržišna kapitalizacija reflektuje tržišna očekivanja o preduzeću koja uzimaju u obzir relevantne buduće finansijske informacije. U slučaju našeg preduzeća možemo reći da su tržišna očekivanja svakako bila neodmerena, što je delimično bilo i posledica opšte euforije ali i odsustva primene fundamentalne analize što je svojstveno bar našim domaćim tržišnim participantima koji se pre oslanjaju na insajd informacije.

5. (*Prihodi / Ukupna aktiva*) x 0,99 = 0,31

Ovaj racio poznat i kao racio obrta ukupne imovine pokazuje koliko je preduzeće efektivno u korišćenju svoje imovine sa ciljem generisanja prihoda. Ako je ovaj racio nizak preduzeće nije efikasno što stvara rizik od bankrotstva. Ovde je potrebno imati u vidu strukturu imovine analiziranog preduzeća. Preduzeća sa velikim iznosima nematerijalne imovine obično imaju ovaj racio. Zbog toga Altman i Hotchkiss isključuju ovaj racio prilikom analize preduzeća iz sektora usluga.

Kada saberemo dobijene vrednosti za pojedinačne racio brojeve dobijamo Z score za preduzeće predmet naše analize u iznosu od 0,48 što je daleko ispod nivoa od 3,0 koji predstavlja granicu iza koje ne postoji verovatnoća bankrotstva.

F-Score Model je razvijen 2007. godine od strane (Dechow i saradnika, 2007) i on se koristi za određivanje manipulacija u finansijskim izveštajima. Slično ostalim modelima on ne implicira nužno manipulacije već služi za indikaciju crvenih indikatora za daljnu analizu. Model sadrži mere za identifikovanje problema u akrualu, potraživanjima, zalihama, novčanim prilivima, zaradama i emisiji novih akcija. Koeficijenti u modelu su zasnovani na istraživanjima. Benčmark za crveni indikator u F-Score modelu je vrednost veća od 1 i obračunava se eksponencijalnim modelom. F-Score za Enron u njegovoj poslednjoj godini poslovanja je bio 1,85 (Grove i Basilico, 2011).

1. *Akrual x 0,773*

Preduzeća koja manipulišu dobitnim ostvarenjima obično imaju abnormalno visok akrual. Značajan iznos nenovčane zarade rezultira u naduvanoj zaradi, i to je upozoravajući signal koji ukazuje na neadekvatno prikazivanje dobitka.

capital will have more short-term assets and will be able to settle more easily its short-term liabilities. This ratio is a robust indicator of the ultimate discontinuity because a low or negative working capital designates that the company is no longer capable of servicing its short-term liabilities. The company subject of our analysis has a negative net working capital which implies that in this period, one part of its non-current assets will be covered by short-term capital, which leads us to conclude that its financial – structural position is not so fortunate.

2. *(Retained earnings/Total assets) x 1.4 = 0.10*

This ratio is measuring cumulative earnings of the company in respect to its size. It is important here to take into consideration the age of the company, as relatively young companies are having this ratio lower which points out at the higher possibility of business failure in the early years of the company existence. This ratio is also under the impact of the accounting cosmetics because the company can re-classify retained earnings into fixed capital. The presence of high retained earnings may point out at the fact that the company had successful business results in the past and in case its present performances are poorer, we may hope that it is only a temporary occurrence.

3. *(EBIT/Total assets) x 3.3 = -0.01*

Sound companies will be able to generate earnings with their assets. If this ratio is low profitability is poor and the company is in danger of bankruptcy, as it is more sensitive to adverse market movements. The company subject of our analysis has a negative value of this ratio. What is particularly worrying is the fact that EBIT is measuring efficacy of the core company business. Situation when EBIT is positive and the net earnings are negative may point out at the fact that there is an inadequate financial structure, which can be more easily improved than is the case with the business itself.

4. *(Market value of own capital / Book value of total liabilities) x 0.6 = 0.10*

This ratio is introducing into the model the market factor. In theory, a company with high market capitalization has a lower probability of going bankrupt because its capital has higher value. In addition, market capitalization is reflecting market expectations from the company, which are taking into account the relevant future financial information. In the case of our company, we can say that the market expectations have certainly been reckless, which is due in part to the general euphoria, but also the absence of application of the fundamental analysis, which is rather characteristic for our domestic market participants who tend to rely on insider information.

5. *(Revenues/Total assets) x 0.99 = 0.31*

This ratio is also known as the total assets turnover ratio if the company is effective in the deployment of its assets with the aim of generating profit. If this ratio is low, the company is not efficient and this creates the risk of bankruptcy. It is important to bear in mind here the assets structure of the analyzed company. Companies with high amount of intangible assets usually have this ratio. This is the reason why Altman and Hotchkiss are excluding this ratio from the analysis of companies in the sector of services.

If we are to add the obtained value for the individual ratio numbers, we obtain the Z score for the company subject of our analysis, in the amount of 0.48 which is far below the level of 3.0 which is the limit beyond which there is no longer the probability of bankruptcy.

F-Score Model was developed in 2007 by Dechow (Dechow and associates, 2007) and it is used for identifying the presence of manipulation in financial statements. Similar to the other models, it is not necessarily implying the presence of manipulation, but serves as an indication of the red flags for further analysis. The model contains measures for identifying problems in the accrual, receivables, stocks, cash flows, earnings, and the issuance of new shares. Coefficients in the model are based on research. The red flag benchmark indicator in the F-Score model is the value higher than 1 and it is being calculated with the exponential model. F-Score for Enron during the last year of its operation was 1.85 (Grove and Basilico, 2011).

1. *Accrual x 0.773*

Companies which are manipulating their

Obračunavanje ove mere je kompleksno i zasnovano je na brojnim akrual merama i tako dobijeni iznos se deli sa prosečnom ukupnom imovinom. Suštinski sve poslovne transakcije osim onih vezanih za obične akcije su reflektovane u akrualnom merenju (Dechow i saradnici, 2007).

2. *Promene u potraživanjima x 3,201*

Promene u potraživanjima iz perioda u period se dovode u vezu sa prosečnom imovinom. Velike promene u potraživanjima mogu ukazivati na manipulacije prilikom priznavanja prihoda i iskazivanja dobitka pomoću prevremenog ili fiktivnog priznavanja prihoda. Velike oscilacije u potraživanjima mogu vršiti distorziju novčanih tokova iz poslovnih aktivnosti.

3. *Promene u zalihama x 2,465*

Promene u zalihama iz perioda u period se dovode u vezu sa prosečnom ukupnom imovinom. Velike promene u zalihama mogu ukazivati na nagomilavanje zaliha zbog nemogućnosti prodaje, neiskazivanje obezvređenja zaliha ili njihovu zastarelost

4. *Promene u novčanim prilivima x 0,108*

Ovo je mera procentualne promene u novčanim prilivima iz perioda u period. Da bi se odredilo koja preduzeća se angažuju u manipulisanju zaradama potrebno je stopu rasta novčanih priliva porediti sa stopom rasta prihoda, ali u ovom modelu takva vrsta analize se ne koristi. Tvorci ovog modela zauzimaju stav da je upravo promena u novčanim prilivima ključna mera u monitoringu potencijalnih manipulacija zaradom (Grove i Basilico, 2011).

5. *Promene u zaradama x 0,999*

Ova mera se obračunava deljenjem ROA u poslednjoj godini sa ROA iz prethodne godine. Promenljivost u visini zarada može ukazivati na manipulacije. Preduzeća koja manipulišu iskazuju bolje performanse pre manipulacija. Uzrok za te manipulacije je tekući pad performansi koji menadžment pokušava prikriti neadekvatnim finansijskim izveštavanjem (Dechow i saradnici, 2007).

6. *Aktuelna emisija akcija x 0,938*

Ova mera je veštačka varijabla koja postoji ako su dodatne akcije emituju u godini u kojoj postoje manipulacije. Dodatna emisija akcija može ukazivati na probleme generisanja dovoljnog novčanog toka iz poslovnih aktivnosti kako bi se kompenzovale potrebe za dodatnim finansiranjem.

Kvalitativna analiza crvenih indikatora

Graham i Dodd (1934) ističu kako su kvantitativni faktori mnogo bolji za analizu od kvalitativnih faktora. Ovi prvi izraženi brojevima su mnogo bolji za izražavanje definitivnih zaključaka. Finansijski rezultat sam po sebi epitomizira mnoge kvalitativne elemente tako da detaljnije studije kvalitativnih faktora nemogu dodati neke nove posebno važne informacije. Međutim, mi bi analizi crvenih indikatora kao neophodnom delu fundamentalne analize dodali jednu značajniju dimenziju na području kvalitativnih faktora. Sama suština analize crvenih indikatora je identifikovanje nekih potencijalno upozoravajućih indikatora, nakon čega sledi detaljnija analiza i donošenje konačnih zaključaka. U tom smislu smatramo da kvalitativni faktori mogu imati značajnu ulogu idektifikujući poslovne situacije i neka ponašanja preduzeća koja mogu biti pogodno tle za manipulacije u finansijskom izveštavanju. Zbog toga ćemo u nastavku predstaviti po našem mišljenju neke od najvažniji kvalitativnih potencijalno crvenih indikatora:

1. *Povećani broj preuzimanja*. Prvo, preduzeće može koristiti preuzimanja kako bi prikrilo usporavanje u svom suštinskom poslovanju. Drugo transakcije preuzimanja veoma često prate određene forme restruktiranja kojima ponudilac želi da se oslobodi nepotrebnih delova ciljnog preduzeća. U primeru na početku ovog napisa smo videli kako restrukturanje može biti dobra prilika za agresivno računovodstvo (Rockwood, 2002).

2. *Udovoljavanje prognozama analitičara*. Zbog negativnih reakcija tržišta kapitala menadžment preduzeća često oblikuje finansijske izveštaje kako bi prikazao rast prihoda i dobitnih ostvarenja koji je u skladu sa prognozama

earnings are usually having abnormally high accrual. Significant amount of non-cash earnings results in inflated earnings and it is a warning signal pointing out at inadequate presentation of earnings. Calculation of this measure is complex and based on numerous accrual measures, and the amount obtained is divided by the average total assets. Essentially, all the business transactions, except for those pertaining to the common shares, are reflected in the accrual measuring (Dechow and associates, 2007).

2. *Changes in receivables x 3,201*

Changes in the receivables from period to period are connected with the average assets. Large changes in receivables may point out at manipulations in recognizing revenues and presenting earnings through premature or fictitious recognition of revenues. High oscillations in receivables can produce distortion of the cash flows from business activities.

3. *Changes in stocks x 2,465*

Changes in stocks from period to period are connected with the average total assets. Large changes in stocks may point out at the pilled up stocks because of the absence of sales opportunities, failure to present impairment of stocks, or their becoming outdated or obsolete.

4. *Changes in cash flows x 0.108*

This is the measure of percentage change in the cash flows from period to period. In order to determine which are the companies engaging in earnings manipulation, it is necessary to compare the cash flows growth rate with the growth rate of revenues, but in this model this type of analysis is not applied. The authors of this model are taking the stance that actually the change in cash flows is the key measure in the monitoring of potential earnings manipulation (Grove and Basilico, 2011).

5. *Changes in earnings x 0.999*

This measure is calculated by dividing the ROA in the last year with the ROA in the preceding year. Changeability in the amount of earnings may indicate at manipulations. Companies that are manipulating are presenting better performances prior to manipulation. The cause of such manipulations is the current fall in performances which the management is trying to cover up through inadequate financial reporting (Dechow and associates, 2007).

6. *Actual issuance of shares x 0.938*

This measure is an artificial variable which exists if the additional shares are issued in the year in which there are manipulations. Additional shares issuance may point out at the problems in generating sufficient cash flows from the business activities in order to compensate for the needs for additional financing.

Qualitative Red Flags Analysis

Graham and Dodd (1934) are arguing that quantitative factors are much better for the analysis than the qualitative factors. The former ones are expressed in numbers and are much better for presenting final conclusions. The financial result in itself is an epitome of many qualitative elements, so that any more detailed study of qualitative factors can not add some new and especially salient information. However, we are rather inclined to add to the red flags analysis, as a requisite part of the fundamental analysis, also an important dimension in the area of qualitative factors. The essence itself of the red flags analysis is to identify some potentially warning indicators, after which what follows is a detailed analysis and drawing of final conclusions. To that end, we are of the view that the qualitative factors may play an important role in identifying business situations and some conduct patterns of companies that may be a fertile ground for manipulations in financial reporting. Hence we shall present here some of the qualitative potential red flags that we find important:

1. *An enhanced number of acquisitions:* Firstly, the company may use acquisitions in order to cover up slowing down in its core business. Secondly, acquisition transactions are very often followed by certain forms of restructuring through which the bidder wishes to be rid of some unnecessary part of the targeted company. In our case study earlier in this paper we have seen how the restructuring may offer a good opportunity for aggressive accounting

analitičara. Warren Buffett ističe da kada preduzeće iskazuje njihove brojeve na način da ispunjava očekivanja u recimo 20 kvartala kao što je to činio Enron crveni indikatori postoje, pošto je suština biznisa ciklična sa kretanjima na dole i gore a ne konstantan rast (Buffett, 2006). Lucent je dobar primer za ovu situaciju. U martu 1999. godine iskazuju rast zarade jer se smanjuju otpisi potraživanja sa rizikom naplate. Ovi otpisi padaju 11% a bruto potraživanja se povećavaju za 26% (Rockwood, 2002).

3. *Uslovljeno mišljenje* revizora ili promena nezavisnog revizora koja nije opravdana. Ovo može ukazivati na tendenciju kupovine mišljenja.

4. *Pad cena akcija*. Cene akcija Enron-a padaju sa $80 u februaru 2001 na $1 u novembru 2001. Kratke prodajne pozicije (Short-selling positions) se povećavaju od 2 miliona akcija u avgustu 2000 na 8 miliona akcija na kraju 2000 i 33 miliona akcija u oktobru 2001 i 88 miliona akcija u novembru 2001 (Grove i Cook, 2004).

5. *Povlačenje menadžmenta*. Jeffrey Skilling Enron-ov izvršni direktor se povukao 14. avgusta 2001. godine samo šest meseci nako što je izjavio da je njegov tadašnji posao njegov posao iz snova uz obrazloženje da želi da posveti više vremena porodici (Grove i Cook, 2004).

6. *Značajno povećanje trgovine akcijama od strane insajdera*. Top menadžment Enron-a je prodao velike blokove svojih akcija pre otkrivanja prevara kojima su se služili (Grove i Cook, 2004).

7. *Slabosti interne kontrole*. Cullinan i Sutton u svom istraživanju nalaze da top menadžment ima većinu u bordu direktora u 90% slučajeva u uzorku od 276 kompanija koje su bile predmet istraživanja Komisije za hartije od vrednosti (Securities and Excange Commision - SEC) u periodu od 1987 - 2001. godine (Cullinan, i Sutton, 2002).

I ovi kvalitativni potencijalni crveni indikatori kao i kvantitativni imaju višestruko značenje. Neke interpretacije su zasnovane na jasnim poslovnim razlozima, dok su neke druge diskutabilne. Zbog toga je kao što smo i prethodno istakli najbolje upotrebiti analizu crvenih indikatora kao startnu tačku za dalja istraživanja.

Zaključak

Kreativno finansijsko izveštavanje može u značajnoj meri da derogira upotrebnu vrednost finansijskih izveštaja. Neprepoznavanje kreativne računovodstvene prakse ima negativne posledice ne samo po pojedine eksterne korisnike finansijskih izveštaja već i za efikasno funkcionisanje finansijskih tržišta i privredu kao celinu.

Da bi analiza finansijskih izveštaja bila korisnija pre nje je potrebno izvršiti računovodstvenu analizu. U tom procesu potrebno je identifikovati ključne faktore uspeha i rizika preduzeća što omogućava analizu važniji računovodstvenih politika koje preduzeće primenjuje.

Finansijski izveštaji preduzeća mogu da odstupaju od ekonomske realnosti i usled objektivnih razloga a ne samo diskrecione primene računovodstvenih politika od strane menadžmenta. Neka računovodstvena pravila su kruta i smanjuju fleksibilnost menadžmenta u slučaju kada on želi da predstavi fer i pošteno finansijske performanse preduzeća. Tako npr. zabrana kapitalizacije troškova izgradnje brenda onemogućava menadžere da realno prikažu ekonomsku realnost preduzeća. U analizi finansijskih izveštaja potrebno je uzeti u obzir ove granice fleksibilnosti u obuhvatanju pojedinih poslovnih događaja preduzeća.

Obelodanjivanje je veoma važan indikator kvaliteta finansijskih izveštaja. Obelodanjivanje loših događaja po preduzeće pravovremeno sigurno podiže kvalitet finansijskih izveštaja, dok u suprotnom izbegavanje takvog obelodanjivanja ili namerno komplikovanje ima suprotni efekat. Stav menadžmenta prema dobrovoljnom obelodanjivanju omogućava eksternim korisnicima sagledavanje strategije koju menadžment koristi u finansijskom izveštavanju.

Tradicionalna finansijska analiza pomaže u ublažavanju informacione asimetrije između menadžmenta i eksternih korisnika finansijskih izveštaja. Međutim, kreativno finansijsko izveštavanje može biti visoko sofisticirano što iziskuje primenu i nekih nestandardnih upozoravajućih indikatora koje je potrebno koristiti pre tradicionalne finansijske analize. U praksi se ta produbljena finansijska analiza

(Rockwood, 2002).

2. *Accommodating analysts' prognostics:* Mindful of the negative reaction of the capital market, company management is often shaping up financial statements in order to present growth in revenues and earnings which are concordant with the analysts' prognostications. Warren Buffett point out that when a company is presenting its figures in the way fulfilling expectations in the, let's say, 20 quarterly periods, which was the case with Enron, there must be red flags, because the very essence of business is cyclical in movements upwards and downwards, and it is not any constant growth (Buffett, 2006). Lucent is a good example illustrating this situation. In March 1999, they presented growth of earnings because of the reduction in writings-off of receivables with the risk of collection. These writing-offs are falling for 11%, while the gross receivables are growing for 26% (Rockwood, 2002).

3. *Contingent auditing opinion,* or change of independent auditor, is not always justified. It may indicate the tendency to buy the stance.

4. *Fall of share prices:* Enron share prices have fallen from $80 in February 2001 to $1 in November 2001. The short-selling positions have grown from 2 million shares in August 2000 to 8 million shares by the end of the year 2000, and 33 million shares in October 2001, and 88 million shares in November 2001 (Grove and Cook, 2004).

5. *Management withdrawal:* Jeffrey Skilling, Enron's CEO, withdrew on 14 August 2001, only six months after having stated that his current job is the job of his dreams, and explained his withdrawal with the wish to devote more of his time to his family (Grove and Cook, 2004).

6. *Substantial growth in shares trading by the insiders:* Top management of Enron Company sold large blocks of their shares before the fraud was discovered that they committed (Grove and Cook, 2004).

7. *Internal control shortfalls:* Cullinan and Sutton in their research find that the top management has the majority on the board of directors in 90% of cases, in the sample of 276 companies which were subjected to the research by the Securities and Exchange Commission – SEC, in the period from 1987 – 2001 (Cullinan, and Sutton, 2002).

These qualitative potential red flags, just like the quantitative ones, have a manifold significance. Some interpretations are based on clearly business reasons, while some other ones are arguable. Hence, as we have already stated, it is best to use the red flags analysis as the starting point for further research.

Conclusion

Creative financial reporting may significantly derogate the usability of financial statements. Failure to recognize creative accounting practices has negative effects not only on individual external users of financial statements, but also on an efficient functioning of financial markets, and the economy in general.

In order for the analysis of financial statements to be useful, prior to venturing in the analysis, it is necessary to make the accounting analysis. In this process it is necessary to identify the key factors of success and risk exposure of the company, which will allow for the analysis to be made of the important accounting policies that the company is applying.

Company financial statements may digress from the economic reality for objective reasons as well, and not only due to discretionary application of the accounting policies by the management. Some accounting rules are strict and reduce flexibility of the management in case it wishes to present fair and correct financial performances of the company. Thus, for example, prohibition of brand building costs capitalization is preventing managers from presenting in real terms the economic reality of the company. In the analysis of financial statements it is necessary to take into consideration these flexibility limits in the coverage of certain company business events.

Disclosure is a very important indicator of the financial statements quality. Disclosure of the company adverse events in a timely fashion shall certainly enhance the quality of financial statements, while in the case of contrary, in case of evasion of such disclosure or intentional complication of the matter, there will be an opposite effect produced. The attitude that he management has towards voluntary disclosure is enabling external users to assess strategies that the management is deploying in its označava kao analiza crvenih indikatora.

Cilj analize crvenih indikatora je da se svi oni koji svoje odluke donose na osnovu informacija iz finansijskih izveštaja pravovremeno upozore na eventualno postojanje kreativne računovodstvene prakse u tim finansijskim izveštajima. Analiza crvenih indikatora je proces koji se sastoji iz četiri faze: identifikovanje indikatora koji ukazuju na kreativno finansijsko izveštavanje, preispitivanje i preuređenje finansijskih izveštaja, identifikovanje indikatora koji ukazuju na povećane poslovno-finansijske rizike i analize i interpretacije ključnih indikatora performansi.

Analiza crvenih indikatora treba da uključi i kvantitativne i kvalitativne upozoravajuće indikatore. Zajedničko svima njima je da oni ne predstavljaju definitivni odgovor. Njihovo postojanje samo implicira dodatna istraživanja koja treba da daju odgovor na to da li postoji kreativna računovodstvena praksa. Veći rast zaliha od rasta prihoda može ukazivati na propuštanje da se vrednost zaliha umanji za njihovo obezvređenje, što predstavlja kreativno računovodstveno rešenje, ili pak da je menadžment ugovorio veću isporuku zaliha na neko novo tržište. Takođe, povećani broj preuzimanja može ukazivati na usporavanje rasta u suštinskom poslovanju i namere da se to usporavanje prikrije preuzimanjem, ili pak pojave serije povoljnih investicionih mogućnosti koje se realizuju uspešnim preuzimanjima i imaće za rezultat kreiranje dodate vrednosti za akcionare.

Prikazanu listu upozoravajućih indikatora ne treba shvatiti kao konačnu i ne treba im dati univerzalni karakter, jer oni nisu jednako uspešno primenjivi u svim preduzećima i svim poslovnim situacijama.

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financial reporting.

Traditional financial analysis is helping mitigate information asymmetry between the management and the external users of financial statements. Creative financial reporting, however, may be highly sophisticated which requires the application of some non-standard warning indicators (red flags) which must be used before the traditional financial analysis. In practice, this profound financial analysis is designated as the red flags analysis.

The objective of the red flags analysis is for all those that are making their decisions on the basis of the information contained in the financial statements, to be warned in a timely fashion of eventual presence of the creative accounting practices in these financial statements. The red flags analysis is a process which consists of four phases: identification of indicators pointing at the creative financial reporting, reexamination and rearrangement of financial statements, identification of indicators pointing out at higher business and financial risks, and analysis and interpretation of key performance indicators.

The red flags analysis should comprise both quantitative and qualitative red flags. The common feature of them all is that they do not yield the final answer. Their presence only implicates additional research that should provide answers to the question whether there is a creative accounting practice present or not. The higher growth of stocks than the growth of revenues may point out at the failure to reduce the value of stocks for their de-valorization, which is a creative accounting solution, or it may be the situation where the management had contracted a larger delivery of stocks to some new market. In addition, an increased number of acquisitions may indicate that there is a slowing down in growth of the core business and the intention for this slowing down to be concealed by the acquisitions, or yet it may be the case of the advent of a series of advantageous investment opportunities which are realized through successful acquisitions and shall have as the result creation of an added value for the shareholders.

The presented list of red flags should not be deemed conclusive and final, and should not be deemed to be of a universal character, because they are not equally successfully applied in all the companies and in all the business circumstances.

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