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MEĐUOVISNOST NOVČANOG JAZA I PROFITABILNOSTI U HOTELSKOJ INDUSTRIJI U REPUBLICI HRVATSKOJ

INTERDEPENDENCE BETWEEN CASH GAP AND PROFITABILITY IN THE HOTEL INDUSTRY IN CROATIA

SAŽETAK: U ovom radu istražena je međuovisnost novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj. Novčani jaz predstavlja razliku između broja dana prodaje zaliha i naplate potraživanja s jedne strane te broja dana plaćanja obveza dobavljačima s druge strane, stoga se novčani jaz u ovom radu koristi kao mjera likvidnosti. Profitabilnost hotelske industrije u Republici Hrvatskoj se u ovom radu mjeri putem računovodstveno utvrđene dobiti prije oporezivanja te rentabilnosti imovine i rentabilnosti kapitala. Rezultati istraživanja pokazuju da u hotelskoj industriji u Republici Hrvatskoj u razdoblju od 2009. do 2012. (a) ne postoji statistički značajna linearna veza između novčanog jaza i računovodstvene dobiti prije oporezivanja, (b) ne postoji statistički značajna korelacija između novčanog jaza i rentabilnosti imovine te (c) ne postoji statistički značajna korelacija između novčanog jaza i rentabilnosti kapitala.

KLJUČNE RIJEČI: novčani jaz, profitabilnost, likvidnost, hotelska industrija, Republika Hrvatska

SUMMARY: This paper explores the interdependence between cash gap and profitability of the hotel industry in Croatia. Cash gap represents the difference between the numbers of days to sale inventory and collection of receivables on the one hand and the number of days to settle payables on the other; therefore, in this paper, the cash gap is used as a measure of liquidity. The profitability of the hotel industry in Croatia is measured in this paper by accounting profit before tax, return on total assets and return on equity. The results show that in the hotel industry in Croatia for the period 2009–2012 (a) there was no statistically significant linear relationship between the cash gap and accounting profit before tax, (b) there was no statistically significant correlation between the cash gap and return on total assets, and (c) there was no statistically significant correlation between the cash gap and return on equity.

KEYWORDS: cash cap, profitability, liquidity, hotel industry, Croatia

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1. UVOD

U obavljanju svojih zadataka i ostvarenju ciljeva poduzeća menadžment se koristi različitim i brojnim računovodstvenim informacijama. Učinkovit sustav financijskog upravljanja je od vitalnog značenja za opstanak i ekonomski rast poduzeća. Tradicionalno su korporativne financije bile usmjerene na dugoročne financijske odluke kao što su budžetiranje kapitala, struktura kapitala i odluke o dividendama. Posljednjih dvadeset godina, a posebno u vrijeme globalne recesije, raste interes za upravljanje radnim kapitalom (Lyroudi i Lazaridis, 2000).

Upravljanje radnim kapitalom predstavlja područje od iznimne važnosti za svako poduzeće budući da izravno utječe na ukupnu profitabilnost i likvidnost poduzeća (Appuhami, 2008). Sredstva sadržana u vrijednosti kratkotrajne imovine predstavljaju oblik skrivenog novca ili rezervi te učinkovito upravljanje istima omogućava njihovo korištenje za financiranje sadašnjeg i širenje budućeg poslovanja. Uloga je financijskih menadžera da sredstva sadržana u vrijednosti zaliha i kratkoročnih potraživanja postanu raspoloživa u najlikvidnijem obliku u što kraćem roku kako bi se taj novac oslobodio za investicijske aktivnosti u cilju stjecanja konkurentne prednosti na tržištu.

U ovom radu postavljeni su sljedeći ciljevi istraživanja:

- utvrditi profitabilnost hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. – 2012.;
- utvrditi novčani jaz hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. – 2012. na temelju dana vezivanja zaliha, potraživanja i obveza te
- utvrditi povezanost novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. – 2012.

U radu je postavljena temeljna istraživačka hipoteza prema kojoj ne postoji značajna

1. INTRODUCTION

Managers take many different types of accounting information into account in carrying out their tasks towards achieving company goals. Efficient financial management is of vital importance for survival and economic growth of any company. Traditionally, the focus in corporate finance was on long-term financial decisions such as capital budgeting, capital structure and dividends. However, over the past twenty years, and particularly during the global recession, interest in working capital management has increased (Lyroudi and Lazaridis, 2000).

Working capital management is an area of great importance for every company since it has a direct influence on the company's overall profitability and liquidity (Appuhami, 2008). Resources contained in current assets represent a form of latent money or reserves. Efficient management thereof allows their use for financing current and future business expansion. The role of financial managers is to ensure that the funds contained in the value of inventories and short-term receivables become available in the most liquid form as soon as possible, in order to release those resources for investment activities to gain a competitive advantage on the market.

The following research objectives were set for this paper:

- to determine the profitability of the hotel industry in Croatia for the period 2009–2012,
- to determine the cash gap of the hotel industry in Croatia for the period 2009–2012 based on days to sale inventory, days to collection of receivables and days to settle payables, and
- to determine the relationship between cash gap and profitability of the hotel industry in Croatia for the period 2009–2012.

The fundamental research hypothesis of this paper is that there is no significant inter-

međuovisnost između novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj odnosno ne postoji značajan utjecaj novčanog jaza na profitabilnost hotelske industrije u Republici Hrvatskoj. Hipoteza je temeljena na prethodnim istraživanjima o međuovisnosti novčanog jaza i profitabilnosti uslužnih djelatnosti u drugim zemljama (Nobanee, Abdullatif i AlHajjar, 2011).

Rad je strukturiran u pet poglavlja. Prvi dio rada je uvodni u kojem su navedeni ciljevi i hipoteza istraživanja. U drugom dijelu rada postavljen je teorijski okvir istraživanja te je na temelju analize sekundarnih izvora dan pregled najznačajnijih dosadašnjih istraživanja. U trećem dijelu rada objašnjena je metodologija istraživanja. U četvrtom dijelu rada navedeni su rezultati istraživanja.

2. PREGLED LITERATURE

2.1. Značaj učinkovitog upravljanja likvidnošću u poslovanju poduzeća

Pojam likvidnosti moguće je definirati na različite načine. "Ako se likvidnost shvati u izvornom obliku kao sposobnost cirkulacije imovine u kružnom toku poslovnih procesa poduzeća u planiranom obujmu i planiranom dinamikom, onda je ona i pretpostavka takvog poslovanja privrednog subjekta. Na taj se način likvidnost poslovanja može označiti sposobnošću odvijanja poslovanja bez zastoja, kroz slobodnu cirkulaciju imovine u poslovnim procesima bez zastoja" (Orsag, 2011:117). S druge strane, likvidnost se često definira i shvaća kao sposobnost imovinskih dijelova da se brzo i lako, odnosno u kraćem vremenskom razdoblju transformiraju u novac kao najlikvidniji oblik imovine. Tako shvaćen pojam likvidnosti zapravo se izjednačava sa stupnjem unovčivosti neke imovinske kategorije, odnosno u tom se pristupu pojmovnog određenja likvidnosti radi o likvidnosti imovine a ne likvidnosti poslovanja. U tom se smislu likvidnost imovi-

dependence between the cash gap and profitability of the hotel industry in Croatia, i.e. there is no significant influence of the cash gap on the profitability of the hotel industry in Croatia. The hypothesis is based on previous research on interdependence between cash gap and profitability in the service industry conducted in other countries (Nobanee, Abdullatif and AlHajjar, 2011).

The paper is structured into five chapters. The first part of the paper outlines the research goals and research hypothesis. The second part consists of the theoretical framework of the study and provides a comprehensive literature review of the most significant past research in the field of the paper. The third part of the paper explains the research methodology, while the fourth part presents the research results.

2. LITERATURE REVIEW

2.1. The importance of effective liquidity management in business

The term liquidity can be defined in various ways. "If liquidity is understood in its original form as the ability of asset circulation in conducting company business processes in the planned volume and dynamics, then liquidity is the assumption of such business undertakings. Accordingly, business liquidity can indicate the ability of business performance without stagnation, through the free asset circulation in business performance without stagnation" (Orsag, 2011:117). On the other hand, liquidity is often defined and understood as the ability of assets to quickly and easily, i.e. in the short term, transform into money as the most liquid form of assets. Thus understood, liquidity is actually equated with the degree of liquidity on some asset types, i.e. in that approach of defining liquidity, asset liquidity is highlighted rather than business liquidity. In this effect, asset liquidity is measured by the number of transformations that a certain operating as-

ne mjeri brojem metamorfoza koje određena poslovna imovina mora proći u redovnom poslovanju da bi se pretvorila u novac (Orsag, 2011). Osim toga, pojam likvidnosti često se povezuje i uz sposobnost poduzeća da podmiri dospjele kratkoročne obveze. U tom kontekstu, likvidnost se opisuje kao stanje dovoljnog pokrivanja kratkoročnih obveza brzo unovčivom imovinom. Ipak, s obzirom na činjenicu da je nelikvidnost u Hrvatskoj strukturni problem i sa svim svojim negativnim posljedicama gotovo opća pojava u Hrvatskoj, koja se nalazi u fokusu interesa brojnih istraživača i institucija unatrag nekoliko desetljeća, neophodno je šire shvaćanje pojma likvidnosti. Naime, ako poduzeće želi održavati normalnu likvidnost neophodne su konkretne aktivnosti, odnosno poslovne odluke upravljačkih struktura koje podržavaju odgovarajuću strukturu imovine i izvora financiranja imovine poduzeća, odgovarajuće odnose između kratkoročnih i dugoročnih izvora financiranja imovine te posebice aktivnosti koje potiču brzinu cirkulacije imovine u poslovnom procesu.

Brojne analize uzroka i posljedica nelikvidnosti u Hrvatskoj pokazuju narušenost upravo ovih kratkoročnih i statičkih odnosa te nerijetko potpuno ignoriranje potrebe za primjenom odgovarajućih instrumenata financijskog planiranja i analize kojima se omogućava i neophodno dinamičko praćenje likvidnosti. Sve to govori u prilog potrebi osmišljavanja i implementacije pojedinih elemenata cjelokupnog sustava i procesa upravljanja rizikom likvidnosti kao vrstom financijskog rizika s kojim se suočava suvremeno poduzeće. Neosporno je da odgovornost za upravljanje rizikom likvidnosti, kao uostalom i za upravljanje ostalim vrstama poslovnih rizika, snose upravljačke strukture. Pri tome, postoje brojni instrumenti i alati koji osiguravaju informacije za potrebe racionalnog upravljanja likvidnošću, a među njima svakako nezaobilazni su instrumenti analize financijskih izvještaja.

“Analiza financijskih izvještaja može se opisati kao proces primjene različitih analitičkih sredstava i tehnika pomoću kojih se

set should pass in ordinary business performance in order to be converted into money (Orsag, 2011). Additionally, liquidity is often associated with the company's ability to pay the accrual of short term liabilities. In that context, liquidity is described as the situation of sufficient coverage of short term liabilities with liquid assets. Nevertheless, it is necessary to expand the understanding of liquidity, due to the fact that liquidity is a structural problem in Croatia. With its many negative consequences, this has become a near universal phenomenon in Croatia that has been the focus of interest of many researchers and institutions in past decades. Particularly, if a company wants to retain normal liquidity, it is necessary to conduct management business decisions that support the appropriate structure of the company assets and sources of funding, the corresponding relationships between short term and long term sources of funding and, especially, the activities that stimulate the rate of asset circulation in business processes.

Numerous analyses of the causes and consequences of illiquidity in Croatia have shown the disruption of these short term and static relationships, and have often completely ignored the need for application of appropriate financial planning and analysis instruments, which allow for the necessary dynamic monitoring of liquidity. This seems to point to the fact that there is a need to create and implement certain elements of the overall system and liquidity risk management process as a kind of financial risk faced by each modern company. It is indisputable that management structure is responsible for liquidity risk management, and for the management of the other types of business risks. There are numerous instruments and tools that provide information for rational liquidity management, and among them the most indispensable are the financial statements analysis instruments.

“Financial statements analysis can be described as the process of applying various

podaci iz financijskih izvještaja pretvaraju u upotrebljive informacije relevantne za upravljanje. Uobičajena analitička sredstva i postupci koji se koriste u analizi financijskih izvještaja jesu: komparativni financijski izvještaji koji omogućuju uočavanje promjena tijekom vremena (više obračunskih razdoblja) te uočavanje tendencija promjena s pomoću serije indeksa, strukturni financijski izvještaji koji omogućavaju uvid u strukturu, analiza pomoću pokazatelja, specijalizirane analize“ (Žager, K. *et al.*, 2008:32).

Sposobnost poduzeća da podmiri svoje dospjele kratkoročne obveze mjeri se uobičajeno pokazateljima likvidnosti. U namjeri da održava normalnu likvidnost poduzeće mora imati brzo unovčivu imovinu minimalno u omjeru koliko ima kratkoročnih obveza. Iako je u razmatranju i mjerenju likvidnosti dobra mjera navedeni odnos brzo unovčive imovine (novac i potraživanja) i kratkoročnih obveza, ipak u tom kontekstu najznačajniji su pokazatelji koeficijent tekuće likvidnosti i koeficijent financijske stabilnosti. Naime, “ako poduzeće želi održavati tekuću likvidnost na normalnoj razini i izbjeći situaciju nepravodobnog plaćanja obveza, tada na raspolaganju mora imati, u pravilu, minimalno dvostruko više kratkotrajne imovine nego što ima kratkoročnih obveza. To je važno zato što postoje rizici unovčavanja kratkotrajne imovine“ (Žager, K. *et al.*, 2008). Iz ovog proizlazi da je radi održavanja normalne likvidnosti značajno i to da se dio kratkotrajne imovine poduzeća financira iz kvalitetnih dugoročnih izvora. Prema tome, u kontekstu mjerenja likvidnosti značajno pitanje je razmatranje postojanja, odnosno nepostojanja razlike između kratkotrajne imovine i kratkoročnih obveza koja se naziva neto radni kapital (detajnije u: McCosker, 2003; Proctor, 2012). Likvidnost i financijska stabilnost poduzeća neposredno su determinirani postojanjem ili nepostojanjem neto radnog kapitala koji se često naziva rezervom likvidnosti, rezervom financijske stabilnosti ili rezervom sigurnosti poslovanja (Žager, K. *et al.*, 2008). Negativni neto radni kapital upućuje na neli-

analytical tools and techniques by which the data from financial statements are converted into usable information relevant to management. The usual analytical tools and procedures in the financial statement analysis are: comparative financial statements that allow insight of changes over time (more than one accounting period) and spotting tendency of changes using a series of indexes, structural financial statements that provide insight into the structure, analysis using indicators, and specialized analysis” (Žager, K., *et al.*, 2008).

The ability of the company to meet its short term liabilities is measured by liquidity ratios. In order to retain normal liquidity, the company should have minimum liquid assets to cover short term liabilities. Although the above mentioned ratio of quick asset (cash and receivables) and short term liability is the appropriate measure in analysing and measuring liquidity, in this context, the most important indicators are the current ratio and ratio of financial stability. Particularly, “if a company wants to maintain current liquidity at a normal level and to avoid a situation of undue payments, then it should have at its disposal at least twice the current assets than it has current liabilities. This is important because there are risks of realization of current assets” (Žager, K., *et al.*, 2008). Furthermore, for the purpose of maintaining company liquidity, it is necessary to finance a part of the short term assets from long term sources of financing. Accordingly, in the context of liquidity measurement, the most important issue is to consider the existence or non-existence of a correlation between current assets and current liabilities that is called net working capital (for more information, McCosker, 2003; Proctor, 2012). The company’s liquidity and financial stability are directly determined by the existence or non-existence of net working capital, which is often called liquidity reserve, reserve of financial stability or reserve of operation assurance (Žager,

kvidnost i činjenicu da je financijska stabilnost poduzeća narušena budući da poduzeće financira dugotrajnu imovinu iz kratkoročnih obveza. Stupanj likvidnosti se povećava povećanjem neto obrtnog kapitala uz istodobno brzu konverziju, odnosno transformaciju zaliha i potraživanja u novac kao prvi stupanj likvidnosti. Budući da poduzeće jedan dio svoje kratkotrajne imovine mora financirati iz kvalitetnih dugoročnih izvora, koeficijent financijske stabilnosti kao odnos dugotrajne imovine i kapitala uvećanog za dugoročne obveze, mora biti manji od jedan da bi financijska stabilnost i likvidnost poduzeća bila veća. Uz to, smanjenje stupnja pokrivanja dugotrajne imovine vlastitim kapitalom, odnosno vlastitim kapitalom uvećanim za dugoročne obveze ukazuje na smanjenje likvidnosti.

2.2. Novčani jaz kao model upravljanja likvidnošću

U razmatranju likvidnosti posebno značajno mjesto imaju pokazatelji aktivnosti odnosno koeficijenti obrta i pripadajući dani vezivanja, odnosno trajanje obrta. Ako su koeficijenti obrta ukupne imovine, kratkotrajne imovine, potraživanja ili zaliha neprihvatljivo niski oni zapravo pokazuju da je obrt navedenih oblika imovine vrlo spor, imovina poduzeća tada vrlo sporo cirkulira kroz poslovni proces što uvjetuje probleme s likvidnošću te nezadovoljavajuću uspješnost poslovanja. Niski koeficijenti obrta, posebice u našim uvjetima, uvjetovani su najčešće neodgovarajućom i neprihvatljivom konstitucijom imovine poduzeća u kojoj dugotrajna imovina premašuje i nekoliko puta kratkotrajnu imovinu. Obrnuto, što su koeficijenti obrta veći to ukazuje na brže cirkuliranje imovine kroz poslovni ciklus, počevši od nabave sirovina i materijala, proizvodnje, uskladištenja zaliha gotovih proizvoda, njihove prodaje kupcima, naplate potraživanja od kupaca i plaćanja obveza prema dobavljačima. To znači da je vrijeme vezivanja imovine kraće što pozitivno utječe na likvidnost.

K., *et al.*, 2008). Negative net working capital indicates illiquidity and the fact that the company's financial stability is disrupted, as the company finances long term assets from current liabilities. The liquidity rate is increased by increasing the net working capital, accompanied by a quick transformation of inventories and receivables into cash as the most liquid type of asset. Since the company is required to finance a part of its short term assets from high-quality long term sources, the coefficient of financial stability as a ratio of long term assets and equity plus long term liabilities should be less than one to ensure higher financial stability and liquidity of the company. Furthermore, the decrease of the degree of coverage of long term assets by equity increased by long term liabilities indicates declining liquidity.

2.2. Cash gap as a model for liquidity management

Activity indicators are very important in considering liquidity, particularly turnover ratios and associated turnover days. If the turnover ratios of total assets, short term assets, receivable or inventories are unacceptable low, they actually show that the turnover of these types of assets is very slow, and the company's assets circulate very slowly through the business process, causing problems with liquidity and unsatisfactory business performance. Low turnover ratios, especially in the present conditions in Croatia, are usually determined by an inappropriate and unacceptable structure of the company's assets, in which the long term assets multiple exceeds the short term assets. Inversely, the higher the turnover ratios, the higher the asset circulation across business processes, starting from the procurement of raw materials, production, storage of finished products, their sales to customers, collection of receivables and payment of liabilities. Respectively, this results in fewer turnover days, which has a positive effect on liquidity.

Nadalje, na temelju izračunatih pokazatelja aktivnosti i dana vezivanja može se izračunati i još jedan važan pokazatelj a to je novčani jaz koji pokazuje broj dana u kojima poduzeće nema novac kao najlikvidniji oblik imovine kojim može financirati svoje poslovanje, odnosno izmiriti obveze prema dobavljačima. To zahtijeva financiranje iz vlastitih ili tuđih sredstava što ima svoje posljedice u nemogućnosti plasmana, odnosno investiranja vlastitih sredstava u poslovanje s jedne, odnosno u povećanju rashoda financiranja u slučaju financiranja iz tuđih izvora, s druge strane. Povećanje novčanog jaza s svim sigurno ukazuje na nelikvidnost. Stoga je neophodno smanjenje novčanog jaza što je moguće smanjenjem dana naplate potraživanja od kupaca, smanjenjem dana vezivanja zaliha odnosno povećanjem razdoblja plaćanja obveza prema dobavljačima.

Novčani jaz kao model upravljanja likvidnošću i neto radnim kapitalom poduzeća uveli su Richards i Laughlin (1980). Razdoblje novčanog jaza smatra se ključnim elementom upravljanja radnim kapitalom (Appuhami, 2008; Keown *et al.*, 2003). Gentry *et al.* (1990) tvrde da postoji odnos između razdoblja novčanog jaza i vrijednosti poduzeća, odnosno što je manji novčani jaz veća je profitabilnost poduzeća, neto sadašnja vrijednost novčanih tokova i tržišna vrijednost poduzeća. Novčani jaz predstavlja učinkovit način upravljanja likvidnošću poduzeća, što je posebno značajno za mala poduzeća koja uobičajeno posluju s manje financijskih resursa u odnosu na velika poduzeća koja imaju lakši pristup različitim izvorima financiranja i financijskim tržištima (Nobanee, Abdullatif, AlHajjar, 2011).

Lancaster *et al.* (1999) te Moss i Stine (1993) navode dvije dimenzije u upravljanju radnim kapitalom: statičku i dinamičku dimenziju. Statički pristup upravljanju radnim kapitalom temelji se na tradicionalnim pokazateljima likvidnosti (pokazatelj tekuće likvidnosti, pokazatelj ubrzane likvidnosti) te ukazuje na likvidnost poduzeća

Furthermore, on the basis of calculated activity ratios and turnover days, it is possible to calculate the cash gap that shows the number of days in which the company does not have money as the most liquid type of asset to finance its operations, i.e. to pay liabilities. This then requires funding from its own capital or debt capital that has consequences in the inability of investing its own resources in the business on the one hand, and in increasing financing expenses in the case of financing from external sources on the other. The increase in the cash gap indicates illiquidity. Therefore, it is necessary to decrease the cash gap, which is possible by decreasing the days to collect receivables and days to sell inventory or increasing the days to settle payables.

The cash gap as a model for managing liquidity and net working capital of the company was introduced by Richards and Laughlin (1980). The cash gap is considered to be a key element of working capital management (Appuhami, 2008; Keown *et al.*, 2003). Gentry *et al.* (1990) argued that a short cash gap is indirectly related to the company's value; namely, a short cash gap could be associated with high profitability as it improves the efficiency of the use of working capital (a short cash gap increases the efficiency of company operations and results in higher profitability, higher net present value of cash flows and higher market value of the company). The cash gap is an effective means of company liquidity management, which is especially important for small companies that typically operate with fewer financial resources compared to larger companies that have better access to both money and capital markets (Nobanee, Abdullatif, AlHajjar, 2011).

Lancaster *et al.* (1999) and Moss and Stine (1993) suggested two dimensions in working capital management: static and dynamic views. The static approach to working capital management is based on the commonly used traditional liquidity ratios (cur-

u određenom trenutku. Novčani jaz predstavlja dinamičku mjeru upravljanja radnim kapitalom budući u obzir uzima razdoblje trajanja naplate potraživanja od kupaca te razdoblje podmirenja obveza prema dobavljačima.

Problemi likvidnosti poduzeća se uobičajeno iskazuju u problemima insolventnosti. Naime, "insolventnost ili nesolventnost, dakle, platežna nesposobnost prijeteća je opasnost opstanka poduzeća jer je jedan od osnovnih uzroka njegova propadanja. Tvrtka je insolventna kada raspoloživim novcem ne može podmiriti dospjele obveze plaćanja u rokovima njihova dospijeca" (Orsag, 2011:118).

„Sve navedeno upućuje na opravdan zahtjev za razmatranjem ključnih elemenata upravljanja rizikom likvidnosti pri čemu su neki od najznačajnijih:

- efektivno korporativno upravljanje (aktivno uključivanje menadžmenta u kontrolu rizika likvidnosti);
- odgovarajuće strategije upravljanja rizikom likvidnosti, politike, procedure i ograničavanja izloženosti riziku;
- sustavi mjerenja i praćenja, izvještavanja o upravljanju rizikom likvidnosti, uključujući procjene tekućih i budućih novčanih tokova, izvora financiranja, održavanje pristupa izvorima financiranja;
- primjerena razina vrijednosnih papira visokog stupanja likvidnosti;
- planovi financiranja za nepredviđene i hitne potrebe za likvidnošću procesi interne kontrole i interne revizije organizirani s ciljem utvrđivanja, odnosno osiguravanja adekvatnosti procesa upravljanja rizikom likvidnosti" (Mošnja-Škare i Zenzerović, 2009:63).

2.3. Pregled dosadašnjih istraživanja

Rezultati većine istraživanja kojima je empirijski ispitan odnos između novčanog

rent ratio, quick ratio) and indicates the company's liquidity at a given point in time. The cash gap is a dynamic measure of working capital management as it takes into account the days to sell inventory, days to collect receivables and days to settle payables.

Company liquidity issues are usually expressed in insolvency problems. Namely, "insolvency or financial insolvency is a threatening danger of the company's survival because it is one of the main causes of the company's decline. The company is insolvent when it is not able to settle liabilities upon maturity with available money" (Orsag, 2011).

All of the above indicate on a reasonable requirement for consideration of the key elements of liquidity risk management with some of the most important (Mošnja-Škare and Zenzerović, 2009):

- effective corporate governance (active management involvement in liquidity risk control),
- appropriate strategies of liquidity risk management, policies, procedures and limiting the exposure to risk,
- systems of measurement and monitoring, reporting liquidity risk management, including the estimates of current and future cash flows, sources of financing, retaining access to sources of financing,
- adequate level of securities with a high degree of liquidity,
- plans of financing contingency and emergency liquidity needs, processes of internal control and internal audit organized with the aim of establishing or ensuring the adequate process of liquidity risk management.

2.3. Literature review

Below is an overview of the available literature on previous research focused on the analysis of the relationship between the com-

jaza i profitabilnosti ukazuju na postojanje značajnog negativnog odnosa među promatranim varijablama.

Deloof (2003) je u svom istraživanju dokazao postojanje značajnog i negativnog odnosa između novčanog jaza i profitabilnosti belgijskih poduzeća (nefinancijski sektor). Pri tome, za mjerenje profitabilnosti korištena su dva pokazatelja: neto operativna dobit podijeljena s ukupnom imovinom umanjenom za financijsku imovinu, i bruto operativna dobit podijeljena s ukupnom imovinom umanjenom za financijsku imovinu. Shin i Soenen (1998) dokazuju postojanje negativnog odnosa između neto trgovačkog ciklusa i profitabilnosti za poduzeća iz SAD-a. Profitabilnost je mjerena na temelju dva pokazatelja: operativna dobit uvećana za amortizaciju podijeljeno s ukupnom imovinom te operativna dobit uvećana za amortizaciju podijeljeno s neto prodajom. Uyar (2009) je u svom istraživanju promatrao odnos između novčanog jaza, veličine i profitabilnosti poduzeća koja se listaju na burzi u Istanbulu. Rezultati pokazuju da postoji značajna negativna korelacija između novčanog jaza i veličine poduzeća kao i između novčanog jaza i profitabilnosti poduzeća. Rezultati istraživanja pokazuju da kraći novčani jaz postoji u djelatnosti trgovine (trgovina na veliko i trgovina na malo) u usporedbi s proizvodnom djelatnosti. Također, rezultati istraživanja kojeg su proveli Karaduman *et al.* (2011) pokazuju postojanje značajnog negativnog odnosa između novčanog jaza i profitabilnosti mjerene rentabilnošću imovine za poduzeća koja se listaju na burzi u Istanbulu. Nobanee, Abdullatif i AlHajjar (2011) istraživali su odnos između novčanog jaza i profitabilnosti japanskih poduzeća koja se listaju na Tokijskoj burzi. Rezultati pokazuju da novčani jaz ima značajan i negativan utjecaj na profitabilnost poduzeća mjerenu kroz rentabilnost ulaganja u svim djelatnostima izuzev uslužne djelatnosti gdje je odnos negativan ali bez značajne korelacije među promatranim varijablama.

pany cash gap and profitability. The results of most studies that empirically investigated the relationship between cash gap and profitability showed the existence of a significant negative relationship between the considered variables.

Deloof (2003) showed the existence of a significant and negative relationship between cash gap and profitability of Belgian companies (nonfinancial sector). In doing so, he applied two profitability measures: net operating income divided by total assets minus financial assets, and gross operating income to total assets minus financial assets. Shin and Soenen (1998) proved the existence of a significant negative relationship between the net trade cycle and profitability for US companies. They applied two measures of profitability: operating income plus depreciation divided by total assets, and operating income plus depreciation divided by net sales. Uyar (2009) examined the relationships among cash gap, size and profitability for companies listed on Istanbul Stock Exchange. The results showed that there was a significant negative correlation between the cash gap and company size, and between the cash gap and company profitability. Also, the results showed a shorter cash gap of the retail and wholesale industries than of manufacturing industries. The results of the research conducted by Karaduman *et al.* (2011) show the existence of a significant negative relationship between cash gap and profitability measured by a return on assets for companies listed on the Istanbul Stock Exchange. Nobanee, Abdullatif and Al Hajjar (2011) investigated the relationship between the cash gap and profitability of Japanese companies (nonfinancial sector) listed on the Tokyo Stock Exchange. The results show that the cash gap had a significant and negative impact on the profitability of the company, measured by a return on investment, for all economic activities except service companies, where the relationship was negative but without a significant correlation between the variables.

Lazaridis i Tryfonidis (2006) su istraživali odnos između korporativne profitabilnosti i upravljanja radnim kapitalom na uzorku poduzeća koja se listaju na Atenskoj burzi te su dokazali postojanje značajne korelacije između profitabilnosti i novčanog jaza poduzeća. U grčkoj prehrambenoj industriji postoji značajna pozitivna korelacija između novčanog jaza i tradicionalnih pokazatelja likvidnosti (tekuća i ubrzana likvidnost) te postoji pozitivna korelacija između novčanog jaza i rentabilnosti imovine (Lyroudi i Lazaridis, 2000). Mallik *et al.* (2005) su istražili odnos između radnog kapitala i profitabilnosti odabranih poduzeća iz farmaceutske industrije Indije te rezultati upućuju na postojanje snažne korelacije među promatranim varijablama.

U nekim prethodnim istraživanjima (Peel i Wilson, 1996; Uyar, 2009; Eben i Johnson, 2011; Attari i Raza, 2012) dokazano je da veličina poduzeća značajno utječe na profitabilnost poduzeća prvenstveno zbog toga što velika poduzeća imaju bolju kreditnu sposobnost te lakše stječu kapital na financijskom tržištu dok su mala poduzeća primarno orijentirana na interne izvore financiranja.

Može se zaključiti da na rezultate provedenih istraživanja značajan utjecaj ima djelatnost koja je obuhvaćena istraživanjem, veličina promatranih poduzeća, stupanj razvijenosti i ekonomski uvjeti na pojedinom tržištu te mjera profitabilnosti koja se uzima u obzir pri utvrđivanju odnosa između novčanog jaza i profitabilnosti poduzeća. Također, važno je istaknuti da slična istraživanja do sada nisu provedena u Republici Hrvatskoj.

3. METODOLOGIJA ISTRAŽIVANJA

Primarna svrha ovog istraživanja je utvrditi međuovisnost novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine. Istraživanje se temelji na uzorku koji je

Lazaridis and Tryfonidis (2006) investigated the relationship of corporate profitability and working capital management on a sample of companies listed on the Athens Stock Exchange, indicating the existence of a significant correlation between company profitability and cash gap. In the Greek food industry, there is a significant positive correlation between the cash gap and traditional liquidity measures (current and quick ratios), and a positive correlation between the cash gap and return on assets (Lyroudi and Lazaridis, 2000). Mallik *et al.* (2005) investigated the relationship between working capital and profitability of selected companies in the pharmaceutical industry of India and the results indicated the existence of a strong correlation between the considered variables.

Some previous studies (Peel and Wilson, 1996; Uyar, 2009; Eben and Johnson, 2011; Attari and Riza, 2012) have shown that company size significantly affects company profitability, primarily because large companies with higher credit rating can more easily access capital from the financial markets, while small businesses are primarily focused on internal sources of financing.

Finally, it can be concluded that the economic activity included in the research, the size of the observed companies, level of the development and economic conditions on individual markets and profitability measures that were taken into account when determining the relationship between the cash gap and company profitability, have a significant influence on the results of the previous research. Also, it is important to emphasize that similar studies have not been conducted in Croatia.

3. RESEARCH METHODOLOGY

The primary purpose of this research was to determine the interdependence of cash gap and profitability of the hotel industry in Croatia for the period 2009–2012. The research was based on a sample of large

obuhvatio velika i srednje velika trgovačka društva u Republici Hrvatskoj čija je temeljna djelatnost pružanje hotelskog smještaja odnosno u uzorak su obuhvaćeni oni hoteli u Republici Hrvatskoj koji su organizirani kao velika i srednje velika trgovačka društva. U istraživački uzorak uzeta su velika i srednje velika društva iz hotelske industrije iz razloga što je hotelska industrija jedna od djelatnosti koje su izuzetno značajne za gospodarski razvoj Republike Hrvatske. Prema popisu poslovnih subjekata u Republici Hrvatskoj, identificirano je 99 trgovačkih društava koja udovoljavaju postavljenim kriterijima, od čega je 18 velikih te 81 srednje velikih društava. U istraživački uzorak uključeni su svi poslovni subjekti koji su predali svoje financijske izvještaje u registar financijskih izvještaja koji vodi Financijska agencija u razdoblju od 2009. do 2012. godine. Navedeno razdoblje uzeto je u istraživanje zbog dostupnosti javno objavljenih financijskih izvještaja budući da financijski izvještaji za 2013. godinu nisu bili dostupni u trenutku provođenja istraživanja. Također, potrebno je istaknuti da u razdoblju istraživanja (2009. – 2012. godine) makroekonomsku situaciju u Republici Hrvatskoj karakterizira duboka recesija koja je utjecala na poslovne rezultate trgovačkih društava obuhvaćenih u istraživački uzorak. Istraživanje se temeljilo na konačnom uzorku koji je obuhvatio 72 trgovačka društva iz hotelske industrije u Republici Hrvatskoj, od čega je 58 srednje velikih a 14 velikih društava.

Podaci potrebni za provođenje istraživanja preuzeti su iz javno dostupnih revidiranih financijskih izvještaja trgovačkih društava uključenih u istraživački uzorak iz registra financijskih izvještaja kojeg vodi Financijska agencija. Za potrebe realizacije ciljeva istraživanja i potvrđivanja postavljene hipoteze istraživanja utvrđen je novčani jaz i profitabilnost velikih i srednje velikih trgovačkih društava iz hotelske industrije u Republici Hrvatskoj. Novčani jaz je utvrđen prema sljedećem modelu:

and medium-sized enterprises in Croatia whose principal activity is the provision of hotel accommodation. The sample included those hotels in Croatia that are organized as large and medium-sized companies. The research sample was selected as large and medium-sized companies in the hotel industry, as this industry is one of the most important activities for the economic development of Croatia. According to a list of legal entities in the Republic of Croatia, 99 companies were identified to meet the established criteria, of which 18 were large and 81 medium-sized companies. The research sample included all business entities that submitted their financial statements in the financial statements of the register kept by the Financial Agency in the period from 2009 to 2012. This period was used for the study due to the availability of published financial statements, since the financial statements for the year 2013 were not available at the time of the study. It should also be noted that in the study period (2009–2012), the macroeconomic situation in Croatia was characterized by a deep recession that affected the operating results of companies included in the research sample. The research was based on a final sample of 72 companies from the hotel industry in the Republic of Croatia, of which 58 were medium-sized and 14 large companies.

The data needed for the research were taken from the publicly available audited financial statements of companies included in the research sample from the register of financial statements by the Financial Agency. For the purpose of realizing the objectives of the research and confirmation of the research hypotheses, the cash gap and profitability of large and medium-sized companies from the hotel industry in Croatia was determined. The cash gap was determined by the following model:

$$\begin{aligned} \text{Novčani jaz} &= \text{Dani vezivanja zaliha} + \\ &+ \text{Dani vezivanja potraživanja} - \\ &- \text{Dani vezivanja obveza} \end{aligned}$$

Dani vezivanja zaliha utvrđeni su na sljedeći način:

$$\text{Koeficijent obrtaja zaliha} = \frac{\text{Materijalni troškovi}}{\text{Zalihe}}$$

$$\text{Dani vezivanja zaliha} = \frac{365 \text{ dana}}{\text{koeficijent obrtaja zaliha}}$$

Dani vezivanja potraživanja utvrđeni su na sljedeći način:

$$\text{Koeficijent obrtaja potraživanja} = \frac{\text{Prihodi od prodaje}}{\text{Potraživanja od kupaca}}$$

$$\text{Dani vezivanja potraživanja} = \frac{365 \text{ dana}}{\text{koeficijent obrtaja potraživanja}}$$

Dani vezivanja obveza utvrđeni su na sljedeći način:

$$\text{Koeficijent obrtaja obveza} = \frac{\text{Poslovni rashodi}}{\text{Obveze prema dobavljačima}}$$

$$\text{Dani vezivanja obveza} = \frac{365 \text{ dana}}{\text{koeficijent obrtaja obveza}}$$

Profitabilnost se za potrebe istraživanja mjerila putem računovodstveno utvrđene dobiti prije oporezivanja te putem pokazatelja rentabilnosti imovine i rentabilnosti kapitala. Za izračun pokazatelja rentabilnosti imovine (ROA) primijenjen je sljedeći model:

$$\text{ROA} = \frac{\text{Dobit prije oporezivanja}}{\text{Ukupna imovina}}$$

Rentabilnost kapitala (ROE) utvrdila se putem sljedećeg modela:

$$\text{ROE} = \frac{\text{Dobit prije oporezivanja}}{\text{Ukupni kapital}}$$

$$\begin{aligned} \text{Cash gap} &= \text{Days to sell inventory} + \\ &+ \text{Days to collect receivables} - \\ &- \text{Days to settle payables} \end{aligned}$$

Days to sale inventory are defined as follows:

$$\text{Inventory turnover ratio} = \frac{\text{Material costs}}{\text{Inventory}}$$

$$\text{Days to sell inventory} = \frac{365 \text{ days}}{\text{Inventory turnover}}$$

Days to collect receivables are defined as follows:

$$\text{Receivables turnover ratio} = \frac{\text{Revenues}}{\text{Receivables}}$$

$$\text{Days to collect receivables} = \frac{365 \text{ days}}{\text{Receivables turnover}}$$

Days to settle payables are defined as follows:

$$\text{Payables turnover ratio} = \frac{\text{Operating expenses}}{\text{Payables}}$$

$$\text{Days to settle payables} = \frac{365 \text{ days}}{\text{Payables turnover}}$$

Profitability for the research criteria was measured by the accounting profit before tax and by indicators of return on assets and return on equity. To calculate the indicator return on assets (ROA), the following model was applied:

$$\text{ROA} = \frac{\text{Profit before taxes}}{\text{Total assets}}$$

Return on equity (ROE) was determined by the following model:

$$\text{ROE} = \frac{\text{Profit before taxes}}{\text{Total capital}}$$

Za utvrđivanje međuovisnosti novčanog jaza i profitabilnosti društava u hotelskoj industriji u Republici Hrvatskoj primijenjen je Pearsonov koeficijent korelacije. S obzirom da se u istraživanju utvrđuje međuovisnost novčanog jaza i profitabilnosti društava u hotelskoj industriji u Republici Hrvatskoj, u modelu novčani jaz se tretira kao nezavisna varijabla, a profitabilnost kao zavisna odnosno:

$$\text{Profitabilnost} = f(\text{novčani jaz})$$

Budući da se u istraživanju profitabilnost mjeri putem računovodstveno utvrđene dobiti prije oporezivanja te pokazateljima profitabilnosti imovine (ROA) i profitabilnosti kapitala (ROE), u radu su postavljena tri modela:

- 1) Dobit = $f(\text{novačni jaz})$
- 2) ROA = $f(\text{novčani jaz})$
- 3) ROE = $f(\text{novčani jaz})$

Međuovisnost varijabli u navedenim modelima utvrđena je temeljem Pearsonovog koeficijenta korelacije. Značajnost Pearsonovog koeficijenta korelacije testirana je putem t- testa na razini signifikantnosti od $\alpha = 5\%$. Statistička obrada podataka provedena je uz primjenu MS Excel-a i statističkog programa SPSS.

4. REZULTATI ISTRAŽIVANJA

Ovo istraživanje temelji se na hipotezi nepostojanja značajne međuovisnosti novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj, pri čemu se ova hipoteza nastoji dokazati na temelju podataka javno objavljenih financijskih izvještaja velikih i srednje velikih društava u okviru hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. Rezultati istraživanja pokazuju da u promatranom razdoblju u hotelskoj industriji Republike Hrvatske postoji pozitivan novčani jaz. Također, na temelju analize financijskih izvještaja hotelske industrije u Republici Hrvatskoj utvrđeno je da u 2009., 2010. i 2011. godini hotelska industrija ostvaruje gubitak dok je dobit ostvarena

To determine the interdependence of cash gap and profitability of companies in the hotel industry in Croatia, the Pearson correlation coefficient was calculated. Given that the study assumes that the cash gap does not effect the profitability of companies in the hotel industry in the Republic of Croatia, in the model, cash gap was treated as an independent variable and profitability as dependent, i.e.:

$$\text{Profitability} = f(\text{cash gap})$$

Since in the survey profitability was measured by the accounting profit before tax and return on assets (ROA) and return on equity (ROE), the authors set up three models:

- 1) Profit = $f(\text{cash gap})$
- 2) ROA = $f(\text{cash gap})$
- 3) ROE = $f(\text{cash gap})$

The interdependence of the variables in these models was determined based on the Pearson correlation coefficient. The significance of the Pearson correlation coefficient was tested by the t-test at a significance level of $\alpha = 5\%$. Statistical analysis was performed using the MS Excel and SPSS statistical software.

4. RESEARCH RESULTS

This study was based on the hypothesis that there is no significant interdependence between cash gap and profitability of the hotel industry in Croatia, where it aims to prove this hypothesis based on data from publicly disclosed financial statements of large and medium-sized companies within the hotel industry in Croatia in the period from 2009 to 2012. The research results showed that in this period, there was a positive cash gap in the Croatian hotel industry. A positive cash gap has a negative effect on the liquidity and profitability of the hotel industry, as it points to the fact that liabilities are paid prior to the collection of receivables. Also, based on the analysis of financial statements of the hotel industry in Croatia, it was found that the ho-

tek u 2012. godini. Ovakvi poslovni rezultati hotelske industrije u Republici Hrvatskoj jednim dijelom su uzrokovani aktualnom makroekonomskom situacijom u Republici Hrvatskoj i u njezinom okruženju koju karakterizira financijska kriza i recesija. Pokazatelji rentabilnosti imovine (ROA) i rentabilnosti kapitala (ROE) hotelske industrije u Republici Hrvatskoj odraz su negativnih poslovnih rezultata ostvarenih u promatranom razdoblju. Rezultati istraživanja o novčanom jazu i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine prikazani su u tablici 1:

tel industry operated at a loss in 2009, 2010 and 2011, while a profit was realized in 2012. These operating results of the hotel industry in Croatia are partly due to the current macroeconomic situation in the Republic of Croatia and its environment, characterized by the financial crisis and recession. Indicators of return on total assets (ROA) and return on equity (ROE) of the hotel industry in Croatia reflected the negative operating results achieved in the period. The research results of the cash gap and profitability of the hotel industry in Croatia in the period from 2009 to 2012 are shown in the table below.

Tablica 1: Novčani jaz i profitabilnost hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine (u 000 kn)

STAVKE	GODINE			
	2009.	2010.	2011.	2012.
Zalihe	398.624	393.894	389.219	374.197
Materijalni troškovi	1.753.550	1.846.845	2.005.781	2.229.186
Koeficijent obrataja zaliha	4,40	4,69	5,15	5,96
Dani vezivanja zaliha	83	78	71	61
Potraživanja	637.492	606.588	609.424	426.528
Prihodi od prodaje	4.991.466	5.232.589	5.806.338	6.437.640
Koeficijent obrataja potraživanja	7,83	8,63	9,53	15,09
Dani vezivanja potraživanja	47	42	38	24
Obveze dobavljačima	816.352	783.647	890.224	907.681
Poslovni rashodi	5.051.682	5.233.048	5.584.860	5.878.498
Koeficijent obrataja obveza	6,19	6,68	6,27	6,48
Dani vezivanja obveza	59	55	58	56
NOVČANI JAZ	71	65	51	29
DOBIT / GUBITAK PRIJE OPOREZIVANJA	-174.261	-389.812	-222.951	234.363
ROA	-0,004	-0,010	-0,005	0,006
ROE	-0,012	-0,026	-0,015	0,017

Izvor: Obrada autora prema podacima iz Registra javno dostupnih godišnjih financijskih izvještaja Financijske agencije (dostupno na <http://rgf.fina.hr/JavnaObjava-web/jsp/prijavaKorisnika.jsp>)

Table 1: Cash gap and profitability of the hotel industry in Croatia in the period from 2009 to 2012 (in 000 kn)

ITEMS	YEARS			
	2009	2010	2011	2012
Inventory	398,624	393,894	389,219	374,197
Material costs	1,753,550	1,846,845	2,005,781	2,229,186
Inventory turnover ratio	4.40	4.69	5.15	5.96
Days to sell inventory	83	78	71	61
Receivables	637,492	606,588	609,424	426,528
Revenues	4,991,466	5,232,589	5,806,338	6,437,640
Receivables turnover ratio	7.83	8.63	9.53	15.09
Days to collect receivables	47	42	38	24
Payables	816,352	783,647	890,224	907,681
Operating expenses	5,051,682	5,233,048	5,584,860	5,878,498
Payables turnover ratio	6.19	6.68	6.27	6.48
Days to settle payables	59	55	58	56
CASH GAP	71	65	51	29
PROFIT / LOSS BEFORE TAX	-174,261	-389,812	-222,951	234,363
ROA	-0.004	-0.010	-0.005	0.006
ROE	-0.012	-0.026	-0.015	0.017

Source: Authors according to the Register of publicly available annual financial statements of the Financial Agency (available at <http://rgfi.fina.hr/JavnaObjava-web/jsp/prijavaKorisnika.jsp>)

Utjecaj novčanog jaza na profitabilnost hotelske industrije u Republici Hrvatskoj utvrđena je na temelju Pearsonovog koeficijenta korelacije koji je putem t-testa testiran na razini signifikantnosti od $\alpha = 0,05$. Međuovisnost novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj utvrđena je putem (a) korelacije između novčanog jaza i dobiti prije oporezivanja, (b) novčanog jaza i rentabilnosti imovine te (c) novčanog jaza i rentabilnosti kapitala.

Rezultati korelacije između novčanog jaza i dobiti prije oporezivanja hotelske industrije u Republici Hrvatskoj prikazani su u tablici 2.

The impact of the cash gap on the profitability of the hotel industry in Croatia was determined based on the Pearson correlation coefficient, which was tested by the t-test at a significance level of $\alpha = 0.05$. Interdependence between cash gap and profitability of the hotel industry in Croatia is determined by (a) the correlation between the cash gap and profit before tax, (b) the cash gap and return on total assets, and (c) cash gap and return on equity.

The results of the correlation between the cash gap and profit before tax of the hotel industry in Croatia are presented in Table 2.

Tablica 2: Korelacija između novčanog jaza i dobiti prije oporezivanja hotelske industrije u Republici Hrvatskoj

Table 2: Correlation between the cash gap and profit before tax of the hotel industry in Croatia

		CASHGAP	PROFIT
CASHGAP	Pearson Correlation	1	-,839
	Sig. (2-tailed)	.	,161
	N	4	4
PROFIT	Pearson Correlation	-,839	1
	Sig. (2-tailed)	,161	.
	N	4	4

Izvor: Obrada autora

Source: Authors

Pearsonov koeficijent korelacije između varijable novčani jaz i varijable dobit prije oporezivanja iznosi -0,839. Negativni Pearsonov koeficijent korelacije ukazuje na jaku negativnu linearnu vezu između varijable novčani jaz i varijable dobit prije oporezivanja. Međutim, p-vrijednost dvosmjernog koeficijenta korelacije je 0,161. S obzirom da se značajnost koeficijenta korelacije testira na razini signifikantnosti od $\alpha = 0,05$, u ovom slučaju prihvaća se hipoteza o nepostojanju značajne međuovisnosti varijable novčani jaz i varijable dobit prije oporezivanja budući je $0,161 > 0,05$. Drugim riječima, prema rezultatima testa, na razini signifikantnosti od 5% ne postoji korelacija između novčanog jaza i dobiti prije oporezivanja hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine.

U cilju potvrđivanja međuovisnosti novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine, utvrđen je i testiran koeficijent korelacije između novčanog jaza i rentabilnosti imovine (ROA). Rezultati o korelaciji između novčanog jaza i rentabilnosti imovine hotelske industrije u Republici Hrvatskoj prikazani su u tablici 3.

The Pearson correlation coefficient between the cash gap variable and profit before tax variable was -0.839, indicating a strong negative linear relationship between the cash gap variable and profit before taxes variable. However, the p-value of the two-way correlation coefficient was 0.161. Due to the fact that the significance of the correlation coefficient was tested at a significance level of $\alpha = 0.05$, in this case the hypothesis of no significant interdependence between cash gap variable and profit before tax variable is accepted, as $0.161 > 0.05$. In other words, according to the results of the test, at a significance level of 5% there is no correlation between the cash gap and pre-tax profit of the hotel industry in Croatia in the period from 2009 to 2012.

In order to confirm the interdependence of the cash gap and profitability of the hotel industry in Croatia in the period from 2009 to 2012, the correlation coefficient between the cash gap and return on total assets (ROA) was determined and tested. The results of the correlation between the cash gap and return on asset of the hotel industry in Croatia are presented in Table 3.

Tablica 3: Korelacija između novčanog jaza i rentabilnosti imovine hotelske industrije u Republici Hrvatskoj

Table 3: Correlation between the cash gap and asset profitability in hotel industry in Croatia

		CASHGAP	ROA
CASHGAP	Pearson Correlation	1	-,835
	Sig. (2-tailed)	.	,165
	N	4	4
ROA	Pearson Correlation	-,835	1
	Sig. (2-tailed)	,165	.
	N	4	4

Izvor: Obrada autora

Source: Authors

Pearsonov koeficijent korelacije iznosi -0,835 i ukazuje na jaku negativnu linearnu vezu između varijable novčani jaz i varijable rentabilnost imovine. Ovaj koeficijent korelacije se također testira na razini značajnosti od 5%. S obzirom da je p-vrijednost ovog dvosmjernog koeficijenta korelacije 0,165, prihvaća se hipoteza o nepostojanju značajne negativne linearne veze između varijable novčani jaz i varijable rentabilnost imovine. Prema tome, na razini značajnosti od 5%, ne postoji značajna linearna veza između novčanog jaza i rentabilnosti imovine hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine. Ovi rezultati su u skladu s rezultatima korelacije između novčanog jaza i dobiti prije oporezivanja.

U tablici 4. prikazana je korelacija između novčanog jaza i rentabilnosti kapitala hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine.

The Pearson correlation coefficient was -0.835, indicating a strong negative linear relationship between the cash gap variable and the return on assets variable. This correlation coefficient was also tested at a significance level of 5%. Given a p-value of the two-tailed correlation coefficient 0.165, the hypothesis of the non-existence of a significant negative linear connection between the cash gap variable and return on assets variable is accepted. Thus, at the significance level of 5%, there is no significant linear relationship between the cash gap and asset profitability of the hotel industry in Croatia in the period from 2009 to 2012. These results are consistent with the results of the correlation between the cash gap and profit before tax.

Table 4 shows the correlation between the cash gap and return on equity of the hotel industry in Croatia in the period from 2009 to 2012.

Tablica 4: Korelacija između novčanog jaza i rentabilnosti kapitala hotelske industrije u Republici Hrvatskoj

Table 4: Correlation between the cash gap and return on equity of the hotel industry in Croatia

		CASHGAP	ROE
CASHGAP	Pearson Correlation	1	-,847
	Sig. (2-tailed)	.	,153
	N	4	4
ROE	Pearson Correlation	-,847	1
	Sig. (2-tailed)	,153	.
	N	4	4

Izvor: Obrada autora

Source: Authors

Pearsonov koeficijent korelacije o odnosu između varijable novčani jaz i varijable rentabilnost kapitala iznosi -0,847. Ovaj negativni koeficijent korelacije upućuje na jaku negativnu linearnu vezu između varijable novčani jaz i varijable rentabilnost kapitala hotelske industrije u Republici Hrvatskoj. Međutim, koeficijent korelacije je značajan na razini signifikantnosti od 0,153. Budući da je p-vrijednost dvosmjernog koeficijenta korelacije $0,153 > 0,05$, prihvaća se hipoteza o nepostojanju značajne linearne međuovisnosti između varijable novčani jaz i varijable rentabilnost kapitala. Drugim riječima, na razini signifikantnosti od 5%, ne postoji korelacija između novčanog jaza i rentabilnosti kapitala hotelske industrije u Republici Hrvatskoj. Ovi rezultati su u skladu s rezultatima istraživanja o korelaciji između novčanog jaza i dobiti prije oporezivanja te novčanog jaza i rentabilnosti imovine hotelske industrije u Republici Hrvatskoj.

Rezultati ovog istraživanja mogu se samo uvjetno prihvatiti, budući da je cjelokupno istraživanje temeljeno na općenitim polaznim točkama. U uzorak su uključena sva velika i srednje velika društva iz hotelske industrije u Republici Hrvatskoj bez obzira na način njihovog poslovanja (npr. neki hoteli mogu poslovati tijekom cijele godine a neki samo tijekom

The Pearson correlation coefficient of the relationship between the cash gap variable and return on equity variable is -0.847. This negative correlation coefficient indicates a strong negative linear relationship between the cash gap variable and return on equity variable of the hotel industry in Croatia. However, the correlation coefficient is significant at a significance level of 0.153. Since the p-value of the two-way correlation coefficient $0.153 > 0.05$, the hypothesis of no significant linear dependencies between the cash gap variable and the return on equity variable is accepted. In other words, at a significance level of 5%, there is no correlation between the cash gap and return on equity of the hotel industry in Croatia. These results are consistent with the results of the correlation between the cash gap and a pre-tax cash profit as well as the cash gap and return on asset of the hotel industry in Croatia.

The results of this research can be only conditionally accepted, since the overall survey was based on the general premise. The sample included all large and medium-sized companies in the hotel industry in Croatia, regardless of the way they operate (for example, some hotels may operate year round while others only during the summer season, some hotels are targeted exclusively for the

sezone, neki hoteli su usmjereni isključivo za odmor a neki na konferencije i simpozije). Također, mali hoteli, koji u strukturi hotelske industrije čine značajan udio, nisu uključeni u istraživački uzorak. Ova ograničenja istraživanja treba uzeti u obzir prilikom korištenja rezultata istraživanja.

5. ZAKLJUČAK

Primarna svrha ovog istraživanja bila je utvrditi međuovisnost novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine. Navedeno razdoblje karakterizira financijska kriza i recesija, kako u okviru hrvatskog gospodarstva tako i u njegovom okruženju, što se negativno odrazilo na poslovanje hotelske industrije u Republici Hrvatskoj. Prema rezultatima istraživanja, hotelska industrija u Republici Hrvatskoj u prve tri godine promatranog razdoblja ostvaruje gubitke, dok je oporavak industrije vidljiv u 2012. godini kada je na razini industrije ostvarena dobit. Pokazatelji rentabilnosti imovine i rentabilnosti kapitala hotelske industrije u Republici Hrvatskoj odraz su poslovnih rezultata ostvarenih u promatranom razdoblju. Na temelju podataka iz javno dostupnih financijskih izvještaja velikih i srednje velikih društava u okviru hotelske industrije u Republici Hrvatskoj utvrđeno je da u cijelom promatranom razdoblju hotelska industrija ostvaruje pozitivan novčani jaz. Pozitivan novčani jaz se treba financirati, stoga se on negativno odražava na likvidnost i profitabilnost industrije. U cilju utvrđivanja međuovisnosti između novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj, u radu je istražena međuovisnost (a) novčanog jaza i dobiti prije oporezivanja, (b) novčanog jaza i rentabilnosti imovine te (c) novčanog jaza i rentabilnosti kapitala. Prema rezultatima istraživanja, na razni signifikantnosti od 5% prihvaća se hipoteza o nepostojanju značajne međuovisnosti novčanog jaza i profitabilnosti hotelske industrije u Republici Hrvatskoj u razdoblju od 2009. do 2012. godine.

holidays and some for conferences and symposia). Also, small hotels, which in the structure of the hotel industry comprise the most significant share, were not included in the research sample. These limitations of the study should be taken into account when using the results of research.

5. CONCLUSIONS

The primary purpose of this study was to determine the interdependence of the cash gap and profitability of the hotel industry in Croatia in the period from 2009 to 2012. However, this period was characterized by the financial crisis and recession, both in the Croatian economy and the surrounding countries, which adversely affected the operations of the hotel industry in Croatia. According to the research, the hotel industry in Croatia in the first three years of the observed period recorded a loss, while the recovery of the industry was visible in 2012 when profit was recorded at the level of the industry. Indicators of return on total assets and return on equity of the hotel industry in Croatia reflect the operating results achieved in the period. Based on the data from publicly available financial statements of large and medium-sized companies within the hotel industry in Croatia, it was found that throughout the period, the hotel industry achieved a positive cash gap. A positive cash gap needs to be financed, as it negatively affects the liquidity and profitability of the industry. In order to determine the interdependence between the cash gap and profitability of the hotel industry in Croatia, the paper explored the interdependence of (a) the cash gap and profit before tax, (b) the cash gap and return on total assets, and (c) cash gap and return on equity. According to the research, at the significance level of 5%, the hypothesis of the non-existence of a significant interdependence between the cash gap and profitability of the hotel industry in Croatia in the period from 2009 to 2012 was accepted.

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