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The importance of net working capital in the hotel companies' liquidity assessment

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Abstract

The liquidity of the company, observed especially in crisis periods, through key indicators, is of great importance. In this context, net working capital represents a significant indicator, given that for its calculation current assets and current liabilities. The aim of this paper is to see that the pandemic of the COVID-19 virus affected the liquidity of hotel companies operating in the territory of the Republic of Serbia, but there are differences in the level of liquidity between hotel companies of different sizes, i.e., legal forms. The research covered 100 hotel companies, whereby their liquidity was measured by net working capital. In addition to descriptive analysis, the method of document content analysis and group comparison methods were used. The research results showed that, with the onset of the COVID-19 pandemic, hotel companies neither increased nor decreased their liquidity measured by net working capital.
Keywords*: *liquidity, net working capital, COVID-19, hotel companies, Republic of Serbia

1. Introduction

Financial statements are of great importance (Knežević, 2019). First of all, they show the absolute values of positions on the basis of which interested users make decisions. Those decisions are very often supported by financial analysis techniques, and more in-depth analysis of financial statements. This is how we get to ratio analysis, which is an important technique and help in making decisions, as well as various comparative analyses, comparison of companies in the industry, comparison with the best practice, etc.

Liquidity shows, in general, the company's ability to meet its obligations in the short term. In this regard, the liquidity ratios see the starting point and the ultimate goal in the ability to settle obligations. Liquidity ratios focus on current assets and short-term liabilities, and considering the method of calculation and origin, it is important to consider net working capital as well (Mitrović et al., 2019). In addition to ratios, net working capital is often used to measure a company's liquidity.

Net working capital does not represent a ratio, but rather the net value of all elements of working assets (working capital). The intention is to find out whether the company has a sufficient free amount of net working capital in the short term to survive in business. A healthy company will have enough capacity to meet its short-term obligations from current assets. In other words, if the value of net working capital is negative, it means that the company is not in a situation to pay operating expenses (earnings, liabilities to suppliers, etc.) (Knežević, et al., 2019, p. 64). When current assets exceed current liabilities, net working capital is positive. The concept of net working capital sheds light on the fact whether the business is capable of taking care of current liabilities from its current assets or whether more funds need to be provided for the timely settlement of current liabilities (Shrotriya, 2019).

The subject of the paper is the liquidity of hotel companies in the Republic of Serbia. The aim of the paper is to determine whether the emergence of the COVID-19 pandemic has led to a disruption of the liquidity of hotel companies in the Republic of Serbia. Further, the paper aims to determine whether there are differences in the level of liquidity between hotel companies of different sizes, that is, legal forms. The research included 100 hotel companies in the Republic of

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Serbia, where their operations were observed in 2019, the year before the outbreak of the pandemic, and in 2020, the first year of the pandemic. For the purposes of measuring liquidity, the net working capital was used. The pandemic caused by the COVID-19 virus has led to numerous problems and, therefore, changes in doing business. Starting with the everyday ones, the way of doing business and many specifics in the work of employees and users of the company's financial reports. For these reasons, it is important to measure the liquidity of companies in periods of various crises and to see whether companies are able to regularly settle their obligations. Hotel companies are particularly affected by the crisis caused by the pandemic of the COVID-19 virus, so the goal of the paper, taking into account only hotel companies, gains even more importance.

2. Literature review

Net working capital is equal to net working fund that shows the difference between long-term capital and fixed assets and, therefore, the part of long-term capital that serves to finance current assets (Obradović & Karapavlović, 2014, p.453). As it is known, the main components of current assets are cash, short-term investments, inventories, debtors, loans and advances given by the company to others, etc., and the main components of current liabilities are loans and advances received by the company, creditors and certain reserves. The working capital of the company should be used for the timely settlement of short-term liabilities. There should not be a need to obtain a short-term loan to satisfy creditors. In this direction, cash sales are most helpful. Therefore, a business should always focus more on cash sales compared to credit sales (Shrotriya, 2019).

As Ranković (1999) pointed out, from period to period, special attention should be focused on changes in net working capital, i.e., net working fund, and when we want to discover tendencies in the development of the financial structure, financing and solvency trends. Monitoring net working capital is also important for bankruptcy prediction purposes. Bankruptcy represents a state of insolvency in which the company is unable to repay the creditor the amount owed, and it will occur in a situation where the value of the debt is higher than the value of the assets (Milašinović et al., 2019).

The availability of long-term financing can reduce a company's vulnerability, particularly in the absence of short-term financing. Long-term financing provides stability and enables the company to meet its financial obligations over an extended period, which can be especially beneficial during challenging times. The measure of current assets, including net working capital, can indeed serve as an indicator of a company's viability under extreme circumstances. By maintaining sufficient levels of current assets, a company ensures that it has the necessary resources to cover its short-term liabilities and continue its operations even in adverse situations. However, determining the appropriate level of net working capital is a company-specific decision. It depends on various factors that you mentioned, such as the company's operations, opportunities, threats, supplier and customer relationships, specific business processes, and the speed and variability of its operating cycle (Knežević et al., 2019, p. 64).

A number of papers have dealt with net working capital management strategies. One of them is the paper of Jędrzejczak-Gas (2017), in companies operating in the construction sector that are listed on the alternative foreign exchange market NevConnect, which is considered one of the most positive among similar markets in Europe. Sales growth, sales uncertainty, expensive external financing and financial problems encourage companies to pursue more aggressive working capital strategies. According to Hill et al. (2010) emphasizes that evaluating working capital performance should consider both operating and financing conditions. It suggests that comparing a company's working capital performance solely against industry averages may not provide a complete picture.

Numerous papers deal with the analysis of net working capital, which is considered a basic tool in business financing. Managing liquidity and working capital effectively is indeed a fundamental task of short-term financial management. However, it's important to note that managing current assets and liabilities, which contribute to net working capital, can also have implications for long-term financial management. The decisions made in working capital management can impact a company's financial health and long-term prospects. Integrating both short-term and long-term perspectives is necessary to ensure effective working capital management and overall financial stability. The study conducted by Motlíček & Polák (2015) focused on determining the appropriate amount of working capital, as an important part of the financial decision-making process in the company. Pirvutoiu & Popescu (2009) for the period 2005-2007, by analysing agricultural enterprises engaged in the production of cereals, found that the net working capital reached a critical point in 2005. Management decisions improved financial performance. It was further established that in 2006 and 2007, the company was able to face short-term debt and upcoming operating costs, because the net working capital had a positive value, i.e., current assets exceeded short-term liabilities.

Speaking about hotel companies, it is important to point out the following observations in the context of the objective of the paper. According to Ryu & Jang's (2004) study, casino hotels have much greater liquidity ratios than commercial hotels, suggesting that the difference may be due to the hotel's kind. A study conducted by Mitrović et al. (2019) in the sector I-accommodation and food services, the companies whose shares are traded on the Belgrade Stock Exchange, and based on the financial reports of hotel companies from 2016-2018 in the part of net working capital, it found the following: in the first observed year, 18 companies had a negative value of this indicator (which indicates that short-term liabilities are greater than current assets). In 2017 17 companies had a negative value of net working capital, the same number as in 2018. The movement of net working capital indicates problems in the financing of operational business at companies with a negative value of this indicator. Research conducted by Milašinović et al. (2021), in the sector I-accommodation and food services of companies listed on the Belgrade Stock Exchange, and for the period from 2013 to 2020, shows the trend of fluctuation of net working capital, due to the trend of changes in the value of current assets and short-term liabilities. Thus, in all observed years, both for companies and entrepreneurs in sector I, the value of net working capital was negative. This gap is even more pronounced in companies compared to entrepreneurs. The lowest value of net working capital for both companies and entrepreneurs were recorded in 2020. Various studies regarding hotel companies consequently talk about liquidity and its monitoring. A study conducted by Lima Santos et al. (2021) shows that the behaviour of individual hotels with regard to short-term liabilities does not differ much depending on the location of the hotel. The official star rating ended up having the biggest impact. The size of the hotel, as well as the existence of a restaurant, has a negative effect on liquidity. The main goal of Lucas & Ramires' research from 2022 was to determine whether there is a connection between economic success and liquidity in the hotel and hospitality sector, namely in small and medium-sized businesses. The crucial question is whether or not those organizations' future performance is at risk due to their short-term focus. The study focused on an examination of Portuguese businesses operating in the hotel and restaurant industries for the five years prior to COVID-19. The findings revealed no connection between liquidity and economic success in small and medium-sized hotels and restaurants.

The net working capital strategy of an organization is crucial since it has an impact on the company's cost of capital and market value (see Duggal & Budden, 2015; Abuhommous, 2017; Altaf, 2018). Indicators of business liquidity that are typically linked to short-term bank loans include cash and net working capital. A study conducted by Apak et al. (2016) revealed both short-term and long-term bank loans and their impact on cash, current assets and short-term liabilities of companies in the long term, observed in a sample of companies selected from all sectors in Turkey in the period from 1996-2014. Company size had a negative and not statistically significant impact on profitability, whereas net working capital had a positive and not statistically significant impact, according to Awaluddin et al. (2020). The impact of company size, net working capital, and profitability on cash holdings is positive and statistically significant.

3. Research methodology

In order to perform the research for this paper, 100 hotel companies in the Republic of Serbia were chosen at random for the sample. These are companies that are registered under the activity code 5510-Hotels and similar accommodation. Out of that number, the largest number is small companies (72 of them), followed by the category of medium-sized companies (20), while the fewest belong to micro-companies (8 of them). When it comes to the legal form, 88 of them are registered as a limited liability company, or 12 of them as a joint stock company. The individual financial sources of hotel companies for 2019 and 2020, which are publicly available on the website of the Business Registers Agency, were used as a data source for research purposes. In particular, the balance sheet was used for the purposes of the paper.

Since the aim of the research is to determine whether the emergence of the COVID-19 pandemic has led to a disruption of the liquidity of hotel companies in the Republic of Serbia, net working capital was used for the purposes of measuring liquidity. It is a liquidity indicator that is determined as the difference between current assets and short-term liabilities (Milašinović et al., 2021). That is, it is calculated according to the formula:

Net working capital=Current Assets-Current liabilities (1)

In order to determine whether there was a change in the level of liquidity of hotel companies in the Republic of Serbia with the onset of the COVID-19 pandemic, i.e., in 2020, compared to 2019, the Wilcoxon rank test will be applied. The Kruskal-Wallis test will be applied to determine whether there is a statistically significant difference in the level of liquidity between hotel companies of different sizes during 2019 and 2020. However, the Mann-Whitney U test will be used to establish whether there are statistically significant variations in the amount of liquidity a cross hotel companies with various legal structures in 2019 and 2020. In addition to the aforementioned tests, descriptive statistics will also be used. IBM SPSS Version 23 statistical software for social sciences was used for data processing.

4. Research results

Table 1 shows the results of descriptive statistical analysis of net working capital in 2019 and 2020. As can be seen from Table 1, the value of the total current assets of the observed hotel companies is less than the total short-term liabilities during 2019 and 2020. This has the consequence that the net working capital at the sample level has a negative value during both observed years. Since in 2020, a higher growth of short-term liabilities (of 4.84%) was recorded compared to the growth of current assets (of 2.68%), a decrease in the value of net working capital of 27.25% was recorded. In addition, a decrease in the average value of net working capital in 2020 compared to 2019 was recorded. This occurs as a result of the decline in the value of net working capital of certain companies. The hotel company with the lowest value of net working capital in 2019 recorded the lowest value of this liquidity indicator in 2020 as well. Further, the hotel company that had the largest positive difference between current assets and short-term liabilities in 2019 achieved the largest difference in 2020 as well.

Table 1. Descriptive statistics of net working capital in 2019 and 2020

	2019	2020
Total current assets (000 dinars)	11.368.353	11.673.883
Total short-term liabilities (000 dinars)	12.460,768	13.064.015
Net working capital at the sample level (000 dinars)	-1.092.415	-1.390.132
Average value (000 dinars)	-10.924.5	-13.901.32
Median (000 dinars)	-8.073.50	-10.327.00
Minimum (000 dinars)	-830,157	-848.779
Maximum (000 dinars)	1.330.540	1.311.034
Number of hotel companies with positive net working capital	42	38
Number of hotel companies with negative net working capital	58	62

Source: Authors

The largest number of hotel companies recorded a negative value of net working capital in 2019 and 2020. Thus, out of 58 of them in 2019, 5 belong to the category of micro enterprises, 42 to the category of small and 11 to the category of medium enterprises. According to the legal form, 50 of them are registered as limited liability companies, while 8 of them are registered as joint stock companies. The number of companies with negative net working capital in 2020 increased by 4 compared to 2019. Of that number (62), 5 of them belong to the category of micro enterprises, 46 to the category of small and 11 to the category of medium enterprises. 54 of them are registered as limited liability companies, while 8 of them are registered as joint stock companies. In 37 hotel companies, the value of net working capital increased in 2020 compared to 2019, that is, in 63 of them there was a decrease in the value of net working capital. However, the Wilcoxon rank test determined that the mentioned changes in the value of net working capital in 2020 compared to 2019 are not statistically significant ($p>0.05$) (Table 2). In other words, with the onset of the COVID-19 pandemic, hotel companies neither increased nor decreased their liquidity measured by net working capital.

Table 2. Wilcoxon rank test results

Median		z	p	r
2019	2020			
-8,073.50	-10,327.00	-1.919	0.055	0.1919

Source: Authors

The Kruskal-Wallis test showed that there are no statistically significant differences in the level of liquidity between hotel companies of different sizes during 2019 and 2020 (Table 3). Further, the existence of a statistically significant difference in the level of liquidity between hotel companies of different legal forms during 2019 and 2020 was not identified (Table 4).

Table 3. Results of Kruskal-Wallis test

Year	Chi-Square	df	p	Median for micro enterprises	Median for small enterprises	Median for medium enterprises
2019	0.166	2	0.920	-6172.50	-11147.00	-2621.00
2020	0.421	2	0.810	-7314.50	-14754.00	-8984.00

Source: Authors

Table 4. Results of Mann-Whitney U test

Year	Mann-Whitney U	Z	p	r	Median for limited liability company	Median for joint-stock companies
2019	452.000	-0.806	0.420	0.008	-7.080.50	-44.498.00
2020	499.000	-0.308	0.758	0.003	-10.327.00	-12.629.00

Source: Authors

Adequate financial literacy of managers who make decisions on asset financing is particularly important when it comes to maintaining the financial sustainability of the company and efficient management of the company's performance (Gačić et al., 2023; Resimić et al., 2022), and within that also for monitoring trends of net working capital. Valid financial information is necessary for quality business decision-making (Knežević et al., 2012), among other things, in the domain of short-term financial security. Inefficient management of working capital over a long period of time can lead the company into great financial trouble (Matejić et al., 2023), therefore, in the domain of short-term financial decision-making, it is necessary to carefully analyse the size and changes in working capital components, in order to carefully maintain liquidity and financial stability of the company, and at the same time for planning financial needs (Milojević et al., 2021a; 2021b). It is necessary to keep in mind that working capital managers are considered in practice as passive contributors to key business decisions (Ramiah et al., 2012). Predicting financial issues has gained significant attention in recent years from a variety of stakeholders, and the situation is made even more complicated by the fact that financially viable businesses are impacted by multiple highly complex aspects that are both internal and external (Srebro et al., 2021).

A crucial decision for financial managers is determining the appropriate level of working capital. On the other hand, higher levels of working capital demand financing, which increases the likelihood of bankruptcy for the company (Kieschnick et al., 2013). Sales growth, sales uncertainty, expensive external financing, and financial problems are causing businesses to increasingly adopt more aggressive working capital strategies (Hill et al., 2010).

5. Conclusion

The importance of net working capital in assessing the company's liquidity is a specific field for several reasons. The first is, although net working capital represents the net value of all elements of current assets, and not the ratio, based on its positive or negative values (existence or not), conclusions can be drawn about liquidity. In the same way, monitoring its movement from period to period can provide a starting point when looking at various factors of business and financial decision-making. Furthermore, the level of net working capital should be observed individually and specifically for that company, with the possibility of looking at different time periods, but also the average of the branches in which companies operate for certain purposes.

Hotel companies were extremely affected by the emergence of the pandemic caused by the COVID-19 virus. Considering the impossibility of carrying out or the reduced volume of operating activity, and bearing in mind the high share of fixed costs, many of them were faced with different operating and financial decisions. The research done in the paper aimed to determine whether with the onset of the COVID-19 pandemic there was a disruption of the liquidity of hotel companies in the Republic of Serbia and whether there are differences in the level of liquidity between hotel companies of different sizes, i.e., legal forms. It was established that with the onset of the COVID-19 pandemic, hotel companies neither increased nor decreased their liquidity measured by net working capital.

The assessment of the liquidity of hotel companies with the help of net working capital in the observed period from 2019 to 2020 offers opportunities for further research and open questions. Certainly, the next research should cover more years. The very analysis of net working capital according to different activities and their comparative analysis are also significant for future research. What is certain is that the pandemic of the COVID-19 virus has caused many changes in the daily life of people and business, but, on the other hand, it represents and will represent an inexhaustible source of data and opportunities for comparative analysis before, during and after the pandemic.

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