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LIQUIDITY AS A DEVELOPMENT COMPONENT IN THE SEASONAL VARIATIONS OF FINANCIAL FLOWS

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Abstract: Synchronicity of cash flows, receiving and issuing cash conditions liquidity as the development component of the company. If to receive cash from operations is more consistent with the dynamics of the expenditure for financial obligations, than a problem for liquidity is relatively small. If the flows of income and expenditure occur in a large time gap, the risk of insolvency increases more. This risk is eliminated by trying to maintain constant cash balances, which serve the same purpose as any other stocks: to absorb the deficit caused by uneven cash receipts to the continuity issue and necessary funds to meet liabilities and make them possible. Establishing and keeping that balance as well as the seasonal variation of financial flows in the service of development is a specific problem of financial management, given that it is directly conflicting principles of liquidity and profitability. Underestimating the required cash balance threatens its continuity or the possibility of settlement of liabilities, which is the essence of the principle of liquidity. The overestimation of the balance directly threatens the company's development and profitability, because the cash at bank does not provide any or very little income. Missed income from alternative uses of unemployed cash is the opportunity cost of holding unemployed cash.

Key words: *seasonal variation, cash flow, cash, liquidity*

1. INTRODUCTION

The ability to maintain the liquidity of the entity, which in the course of its business activities enters into property relations with other companies, is caused by many factors, acting individually and mutually, which are complex procedures of their isolated observation and analysis. This is because these factors affect the profitability of the company as its primary long-term goal. This is the basic dilemma of financial management in order to maximize the profitability requirements aligned with the necessity of maintaining current

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liquidity. Current assets due to its quick turnaround are called liquid assets, which refer to dynamic understanding of the property.

Businesses whose funds are chaotic and funded from any source without taking into account their rational use, prone to risk and non-existing optimism during the formation of the financial structure, usually come into a situation of over-indebtedness. Also, if there is inefficient and uneconomical use of business assets, no careful control and cash flows are not adjusted, as a rule these are put in an unfavorable financial situation. Financial analysis used for this purpose is balance sheet due to significant relations between current assets and short-term funds from the obligation to report and the flow of current funds, i.e. cash. The most important of these relations is between general and rigorous ratio and net working capital. With these numbers, the ratio is measured by the degree of coverage of short-term liabilities, total current assets and liquidity. Similarly, net working capital, as the difference between current assets and current liabilities represents long-term financing of working capital that cannot provide such an immediate and strong pressure on liquidity, which increases the security interests of short-term creditors. As liquidity conditions in the seasonal variations of financial flows represent a dynamic category, it should be subjected to detailed planning. For this purpose the current financial plan, projected balance sheet and income statement, with all their underlying components related to the projection of revenues and expenditures, investments in operating assets and the selection of sources of financing, including cash flow plan, occupy a central place.

The analysis of the annual accounts includes the types of data analysis from the balance sheet which face the determination of initial indicators to show the ability of the company to pay its short-term liabilities. This analysis shows the relation between the parts of the balance sheet to be used as indicators for measuring liquidity, security, immobilization and indebtedness. The analysis is focused on obtaining the financial position of the company in a short time and a projection of future development.

2. MAINTAINANCE OF LIQUIDITY IN SEASONAL BUSINESS

Certain forms of tangible and intangible values, which are referred to as liquid assets, from the standpoint of the possibilities of converting their value in cash do not have the same degree of velocity transformation in the form of property. Starting from the logical sequence of business processes, it is logical that claims are more quickly converted into cash from stocks of finished products, finished products in inventory of work in process, and especially of the stock material, which has not yet entered the production process. There are also differences in the rate of turnover of fixed assets in cash, because individual forms long and the other short time transfer of their value to products in whose creation it participates.

The surest way of securing liquidity of the season is the establishment of dynamic equilibrium of horizontal relationships between long-term and short-term funding sources on the liabilities side of the balance sheet and permanent and temporary business assets in assets. Security by maturity binding agents requires that fixed assets, as well as the constant need or fixed

current assets financed by long-term sources of own and borrowed, and that overall the occasional need for working capital will be covered by short-term sources, spontaneous and contracted. This implies that the share of net current assets to total current assets should be such that only urgent or unforeseen needs for working capital are financed by short-term sources. The business dynamics and expansion of the company is often associated with a risk of over-indebtedness, which is reflected in proportionately larger share of debt in the structure of financial resources. Such dynamics is acceptable in the season until the company is able to use borrowed funds making enough business income, and to cover all expenses for interest and expenses for settlement of principal. This orientation of companies with seasonal business character is necessary. However, it contains unexpected changes in economic conditions or any unexpected business activities that may result in the loss of company zone, when it is unable to settle matured obligation out of their own cash flow, but also new responsibilities. Playing it safe in a seasonal business conditions assumes financing business out of their own resources, which is a limiting factor for adjustment of operations to seasonal growth of business activity and profitability but, on the other hand, it reduces the fear of insolvency of the company. For these reasons it is necessary to monitor and carefully analyze the seasonal variations of financial flows based on experience from previous years.

The primary rule for composing financial structure, which will optimally reconcile liquidity and profitability, as well as the objectives of financial management in terms of seasonal variations of financial flows, can be defined by carefully monitoring seasonal variations. The basic rule of economics requires that when once acquired, the assets should be used as economically as possible. This means that the available funding provided must be used for a greater volume of activity and realize higher revenues from organization with as low operating costs as possible. Although the efficiency and effectiveness of the use of funds are paramount determinants, they affect the company's liquidity. Efficient use increases the turnover quotient of the season, as well as permanent working capital, which leads to shortening the cash cycle, i.e. the conversion period of tangible assets and receivables into cash which can be settled by the due obligations.

3. SEASONAL VARIATIONS

The basic strategic advantage of every participant in the contemporary economic trends does not always make the geopolitical coordinates, but much more achieved competitive advantages that arise in the process of unifying the specific efforts in the process of integrated developments at the macro and micro level.

Prediction of seasonal variations in business which is characterized by a large number of branches can be a significant source of competitive advantage. Under the influence of seasonal variation in sales in a number of weeks or months it is rising sharply, and then is followed by a significant drop in demand. These ups and downs are repeated in cycles which can be predicted. The most common examples of such variations refer to retail, where sales depend on holidays or certain categories of customers with special requirements associated with the season. Manufacturers of seasonal products

such as ice cream depend on the seasonal sales. This is a seasonal business form exemplified in the production of footwear, where the season of autumn-winter requires much more involved funds of the spring-summer season.

Seasonal variation is a phenomenon refers to time when series in certain months or quarters vary around monthly or quarterly average following a particular rule."The season of the rule of variation of the time series that is repeated every year."³

When analyzing the trend value and the value of seasonal indices, it is possible to predict the movement of a phenomenon in the future, taking into account the influence of the season. The procedure is performed by the individual quarterly or monthly trend values which are multiplied with the corresponding values of typical seasonal index. Providing financial analysis of seasonal variations we show the case of the sale of fruit juices.⁴

The sales of fruit juice per year and per quarter in thousands of liters were as follows:

Quarter:	2012	Year:	2013	2014
I	120		80	170
II	320		250	260
III	450		330	270
IV	250		250	245.

The first step is to calculate the specific seasonal indices based on moving averages in the table:

Table 1: Calculation of the specific seasonal index

Year (i)	Quarter (j)	y_{ij}	Moving averages \bar{y}_{ij}	Centered Moving averages \bar{y}'_{ij}	Specific Seasonal indices (I_{ij})
1	2	3	4	5	6
2012 (1)	I	120	–	–	–
	II	320	285	–	–
	III	450	275	280	1.6071
	IV	250	257,5	266,25	0,9390
2013 (2)	I	80	227,5	242,5	0,3299
	II	250	227,5	227,5	1,0989
	III	330	250	238,75	1,3822
	IV	250	252,5	251,25	0,9950
2014 (3)	I	170	237,5	245	0,6939
	II	260	236,25	236,875	1,0976
	III	270	–	–	–
	IV	245	–	–	–

³ Hanke, J.E., Wichern, D.W., Reitsch A.G. (2001), *Business Forecasting, seventh edition*, Prentice Hall, page 56

⁴ Savić, M., (2005), *Poslovna statistika*, Subotica, page 132

Moving averages are obtained as the arithmetic mean of the four adjacent data:

The first mobile environments: $(120 + 320 + 450 + 250) / 4 = 285$; and so on.

Centered moving averages are obtained as the arithmetic mean of the two neighboring moving averages:

The first centered moving averages: $(285 + 275) / 2 = 280$; and so on.

The first two specific seasonal indexes are obtained as follows:

$I_{31}=450:280=1,6071$; $I_{41}=250:266,25=0,9390$; etc.

Specific seasonal indices are then entered in the second table where the typical seasonal indices are calculated:

Table 2: Calculation of corrected and typical seasonal indices

Year (i)	Quarter (j) / Specific seasonal indices I_{ij}			
	I (1)	II (2)	III (3)	IV (4)
1	2	3	4	5
2012. (1)	–	–	1,6071	0,9390
2013. (2)	0,3299	1,0989	1,3822	0,9950
2014. (3)	0,6939	1,0976	–	–
Total (I_i)	1,0238	2,1965	2,9893	1,9340
Typical seasonal indices (I_j)	0,5119	1,0983	1,4947	0,9670
Corrected typical indices ($I'j$)	0,5029	1,0789	1,4683	0,9499

Typical seasonal index for the first quarter is obtained as follows:

$I_1 = 1,0238 / 4 = 0,5119$; and so on

The sum of typical index should be accurately 4. Since the sum of the typical seasonal index in this case is 4.0718, correction must be done. Calculated correction factor:

$c = 4 / 4.0718 = 0.982362334$.

Each typical seasonal index multiplied by the correction factor is obtained and typical seasonal indices that represent the end result are corrected.

After the analysis of seasonal indices, we conclude that in the first quarter revenue from the sale of fruit juices was 49.71% below normal, in the second quarter 7.89% above normal, in the third quarter 46.83% above normal, in the fourth quarter 5, 01% below normal. The moving averages are normal in this case

All forms of business are characterized by seasonal Kruz movement of funds subject to great changes in a short period of one year or less.

Production during the period of low demand should be financed with funds from internal or external sources. It is best, if possible, to work out the season soon, as it works in some tourist enterprises. In most cases, there is a gradual increase of stocks, either through production or procurement. Most often necessary funding must be obtained through credit. Moreover, when sales start, grow and amounts due from customers who buy on credit, but these

claims are a burden on the company to charge. Only the first payment means that the money starts coming in. Financial delays are usually such that the collection of receivables from the sale period is due after the period of greatest need for funds has passed.

In companies where there are distinct seasonal fluctuations in business activity, managers doing a careful financial analysis of seasonal variations have to come up with an answer to the question of the size of the stock in relation to the expected demand, the amount of business and other expenses during the business cycle and the manner of financing the greatest need for funding. It is advisable in the extraordinary circumstances, such as falling demand, to lower price below expectations, delays in collection claims or in the inflow of short-term funds. If you do not perform a detailed financial analysis you may be in a position to own obligations to be paid before the collection of receivables.

CONCLUSION

Rate of property in seasonal business processes depends on a number of factors, the most influential being the income level of business activity generated during the season. When you are trying to shorten the turnaround time, then you have to study all the influencing factors and subject to the act, because crafts parts of the property must be aligned with each other. Craft value of assets in business processes and its return to the starting point for a new engagement depends on its structure, the influence of individual parts on the craft, the influence of the length of the season, and thus the time of fertilization. If it is a shorter turnaround time for invested assets, the quicker the process of their conception. Since the craft value of the assets of the season depends on the mass of the produced profit, their accumulation represents the first link for development components. For the foregoing reasons, the management must take into account the rate of transformation of property value and strive to shorten the duration of the trades in the season because the shortening of the time affects the size of the total revenues and hence the quality indicators of the economy. The indicator in the projection of the seasonal variation of financial flows is the risk of illiquidity, which in times of crisis and slower development requires more detailed and more frequent analysis.

LIKVIDNOST KAO RAZVOJNA KOMPONENTA U SEZONSKIM VARIJACIJAMA FINANSIJSKIH TOKOVA

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Apstrakt: Sinhronizovanost novčanih tokova, te primanje i izdavanje gotovine uslovljava likvidnost kao razvojnu komponentu preduzeća. Što je dinamika primanja gotovine iz poslovanja usklađenija sa dinamikom izdataka na ime izmirenja dospelih novčanih obaveza, utoliko je problem održavanja likvidnosti relativno manji. Nasuprot tome, što se tokovi primanja i izdavanja nalaze u većem vremenskom raskoraku, utoliko više raste rizik od nelikvidnosti. Rizik nelikvidnosti se pokušava otkloniti putem stalnog održavanja određenog salda gotovine koja služi u svrhe apsorbovanja deficita koji nastaje zbog neravnomernog priliva gotovine da bi se kontinuitet neophodnih izdavanja novčanih sredstava i izmirenja obaveza učinio

moogućim. Utvrđivanje i držanje salda gotovine kod sezonskih varijacija finansijskih tokova u službi razvoja predstavlja specifičan problem finansijskog menadžmenta, s obzirom da se u njemu najneposrednije sukobljavaju načela likvidnosti i rentabilnosti. Potcenjivanje neophodnog salda gotovine ugrožava kontinuitet njenog izdavanja, odnosno mogućnosti izmirenja obaveza o rokovima dospeća, što čini samu suštinu načela likvidnosti. Nasuprot tome, precenjivanje salda gotovine neposredno ugrožava razvoj preduzeća odnosno rentabilnost, budući da gotovina na računu kod banke ne obezbeđuje nikakav, ili sasvim mali prihod u obliku kamate. Izgubljeni prinosi od alternativne upotrebe neuposlene gotovine van sezone predstavljaju oportunitetne troškove njenog držanja koji sa stanovišta rentabilnosti nisu manje značajni od realnih troškova.

Ključne reči: *sezonske varijacije, novčani tokovi, gotovina, likvidnost*

REFERENCES

1. Braley, R. A., Myers, S. C., Marcus, A. J. (2007): *Osnove korporativnih finansija*, Mate, Zagreb
2. Ehrhart, M. C., Brigham E. F. (2011): *Corporate Finance: A Focused Approach*, Fourth Edition, South – Western Cengage Learning, 2011.
3. Fabozzi, F. J., Draker P. P. (2010): *The Basics of Finance: an Introduction to Financial Markets*, Business Finance and Portfolio management, John Wiley & Sons
4. Gligović D., (2009): *Inovacije i konkurentska prednost*, Škola biznisa, Novi Sad.
5. Hanke, J.E., Wichern, D.W., Reitsch A.G. (2001): *Business Forecasting, seventh edition*, Prentice Hall.
6. Kaen, F.R., (1995) *Corporate Finance*, Blackwell, Cambridge.
7. Parrino R., Kidnez D. S., Bates T. W. (2012): *Fundamentals of Corporate Finance*, second edition, John Wiley & Sons, Inc.
8. Savić, M., (2005): *Poslovna statistika*, Subotica.