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Financial Liquidity Management Strategies in Polish Energy Companies

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ABSTRACT

Financial liquidity is the foundation for building a strong enterprise. Every small or large enterprise, regardless of the industry, needs to have financial liquidity to grow. Its management is complicated as it is related to current assets, short-term liabilities and profitability. The existing relationship between profitability and liquidity makes it very difficult to choose the right liquidity management strategy. The purpose of the article is to analyze the strategy of managing liquidity in state-owned enterprises operating in the energy sector. In this industry in Poland in recent years there has been a high increase in costs related to fees for CO₂ emissions, which will have the large impact on the profitability of enterprises, which will hinder the choice of financial liquidity management strategies. The specificity of the industry, the form of ownership of the analyzed enterprises and the government's policy will also have a significant impact on the shape of the liquidity management policy. The analysis was based on the financial statements for 2015-2018.

Keywords: Financial Liquidity, Energy Companies, Strategy

JEL Classifications: G10, G33, Q43

1. INTRODUCTION

Management of a large, small, private or state-owned enterprise is constantly building a strategy that is supposed to ensure financial security and profits for the owners. These two elements of financial liquidity and profitability are one of the most important measures of the company's position in the market. Managers of enterprises in virtually every industry must decide in which direction lead the company, if in the direction of the highest possible profits or to keep primarily the company safely in the market. The exception here may be certain state-owned enterprises, which in the event of poor financial results may be financially supported by the State. Company managers are aware that it is simply impossible to maintain high liquidity and profitability at the same time as the decisions taken to increase financial liquidity will automatically reduce profitability and vice versa. We are constantly looking for solutions that will allow us to maintain safe financial liquidity and increase profitability. When increasing profitability, the

key to success is rational cost management. The introduction of appropriate systems and tools that will lead to optimization of the level of costs in all areas of the enterprise without the emergence of threats related to the loss of financial liquidity. In turn, in the case of liquidity management, managers may have more problems maintaining it at an appropriate level. It is related to the fact that liquidity management is the management of short-term liabilities, inventory and short-term receivables as well as cash. Therefore, appropriate strategies are created for individual components that build financial liquidity, which create financial liquidity strategies. Therefore, each of these elements should be analyzed separately. Still differently, the situation of creating a liquidity management strategy will look in state-owned enterprises operating in the energy sector, in which the risk of losing financial liquidity should not appear. This is due to the specifics of the industry. The purpose of the article is to evaluate and analyze financial liquidity management strategies in Polish state-owned enterprises operating in the energy sector.

2. LITERATURE REVIEW

There are authors who believe that the most important factor driving sustainable energy commercialization is the availability of complementary resources such as knowledge or capital (Aram et al. 1992; Kaufmann and Todtling, 2002; Karytsas and Choropanitis, 2017; Engelken et al., 2016; Darmani et al. 2014). Enterprises, however, primarily need money and a stable financial position to develop. Stability is financial security. Lack of financial security may be the most important development barrier for enterprises. Generally, in the energy sector literature the most important development barriers are the complexity of technologies, climate change, climate policy, the shortage of qualified personnel, the lack of knowledge and experience in marketing and communication, the lack of know-how technology (Foxon et al., 2005; del Río et al. 2018; Cagno et al., 2013; Di Foggia, 2016; Dahlqvist and Soderholm, 2019; Zimon, 2019) and the lack of financial resources (Meijer et al., 2019). However, the lack of financial resources is certainly the most important barrier to the development of an enterprise. It is generally caused by mistakes made by the management in the area of current assets management and short-term liabilities, i.e., the basic elements affecting financial liquidity.

In the case of financial liquidity management, another difficulty in building an appropriate strategy is the large relationship between financial liquidity and profitability. In the literature, you can find a number of studies whose results clearly say that either an enterprise can maintain high financial liquidity or high profitability (Ding et al. 2013; Enqvist et al. 2014; Vahid et al. 2012; Bei and Wijewardana, 2012; Lind et al., 2012). This relationship applies to SMEs as well as large enterprises and virtually all industries (Mun and Jang, 2015; Kieschnick et al. 2013; Zimon, 2018). This correlation is confirmed by subsequent studies carried out by other authors on the example of Belgian, Greek and small and medium-sized Spanish companies, (Deloof, 2003; Garcia-Teruel and Martinez-Solano, 2007). Trade credit is another important element often discussed in the literature strongly affecting liquidity management policy (Long et al., 1993; Deloof, 2003; Shah, 2009).

In the literature, one can often find the statement that working capital has a direct impact on the financial liquidity of an enterprise, therefore, by creating an appropriate working capital management strategy for manufacturing enterprises, it is worth supporting the working capital management strategy (Opler et al., 1999; Zimon and Zimon, 2019; Aktas et al., 2015). The characteristics of the main liquidity management strategies are presented below.

The first of these, the conservative strategy, is the one that guarantees maintaining high financial liquidity. Production companies often carry out production for specific orders. Therefore, in the case of inventory management in production units, inventory will generally be at an optimal level. Conservative debt management will be based on quick collection. A secure approach to managing receivables and payables to suppliers will certainly be applied. Receivables turnover in days must be definitely shorter than liabilities turnover in days. Commitments will be paid on time. The conservative strategy in manufacturing enterprises will have a model level of financial liquidity. Inventories will not increase

financial liquidity ratios, unless security reserves are created, which will result in excess liquidity.

The aggressive strategy is a risky strategy characterized by low financial liquidity. Its basic assumption is to extend the repayment deadlines, the company will want to gain new contractors with an attractive trade loan. Short-term liabilities will increase in the liabilities structure. Short-term investments will be at a very low level, if there is free cash, they will be immediately intended to settle short-term liabilities.

The third type is the moderate strategy of working capital management. This type of management is an intermediate strategy between conservative and aggressive. Moderate strategies will be very similar to earlier strategies. The only change that can be seen will be in the management of receivables from customers. A conservative strategy is a strict control of the level of receivables and contractors, an aggressive strategy is practically lacking.

3. RESEARCH METHODOLOGY

The analysis was conducted on a group of four Polish largest state-owned energy companies. These companies provide energy for the whole of Poland. The financial statements for 2015-2018 were used in the research. In order to determine the financial liquidity management strategy, an analysis was carried out using selected financial ratios.

4. RESULTS

The first and also the basic measure used in the analysis was the current financial liquidity ratio. It informs about the capacity to cover current liabilities (footnote). Table 1 presents the results for the current financial liquidity ratio in individual years.

When assessing the results of current financial liquidity ratios in individual years, it can be seen that there is a decrease in financial liquidity. One enterprise has high financial liquidity, two in turn achieve results on the border of financial liquidity. Based on such a general ratio, it is difficult to assess liquidity management strategies. The second ratio that was used to assess the liquidity management strategy is the quick liquidity ratio. The detailed results are presented in Table 2.

The results of this ratio clearly indicate the fact of having high cash and receivables in the structure of current assets. These results are slightly lower than the results of current financial liquidity. Another ratio used in the analysis concerned the credit position assessment. The details are presented in Table 3.

When assessing credit position ratios, it is clear that all companies are a borrower. Short-term liabilities exceed receivables from customers in each of the periods analyzed. This is mainly due to the specifics of the industry. Consumers pay for energy on time to avoid criminal interest, payment periods are also short. In turn, companies operating in the energy sector obtain long deadlines to pay their liabilities, which translates into their position, they are a borrower and use the cheapest sources of financing, which are liabilities to suppliers.

Table 1: Results of the current financial liquidity ratio in the enterprises analyzed

Current financial liquidity ratio	2018	2017	2016	2015	2014
Company 1	2.3	2.4	1.7	2.1	2.5
Company 2	1.5	1.5	2.0	2.4	2.1
Company 3	0.9	1.0	0.9	1.2	1.0
Company 4	0.9	1.7	1.6	1.9	1.9

Source: Author's own research

Table 2: Results of the quick ratio in the enterprises analyzed

Quick ratio	2018	2017	2016	2015	2014
Company 1	2.2	2.1	1.4	2	1.2
Company 2	1.2	1.1	1.6	2	1.7
Company 3	0.7	0.9	0.6	0.9	0.9
Company 4	0.6	1.2	1.0	1.2	1.6

Source: Author's own research

Table 3: Credit position ratio in the enterprises analyzed

Credit position ratio	2018	2017	2016	2015	2014
Company 1	0.53	0.79	0.85	0.79	0.75
Company 2	0.50	0.60	0.74	0.87	0.85
Company 3	0.43	0.50	0.43	0.41	0.50
Company 4	0.41	0.53	0.62	0.47	0.50

Source: Author's own research

Table 4: Results of the short-term receivables turnover ratio in days in the enterprises analyzed

Short-term receivables turnover ratio in days	2018	2017	2016	2015	2014
Company 1	55	67	67	57	50
Company 2	60	58	58	62	56
Company 3	44	42	39	40	42
Company 4	54	65	50	42	41

Source: Author's own research

The results presented in Table 4 in the analyzed enterprises are at a similar level. The time of flow of receivables from customers should be assessed as short. In the case of assessing the management of short-term receivables, it is important to compare their flow with the results of payables turnover towards suppliers. The results of the payables turnover ratio towards suppliers are presented in Table 5.

These results confirm the position of borrowers of the enterprises analyzed. They collect receivables from customers much faster compared to the dates of repayment of liabilities towards suppliers. Another important ratio allowing to assess the liquidity management strategies that was used for the analysis is the inventory turnover in days. The details are presented in Table 6.

Inventory turnover results in days are low, due to low inventory levels. This level of inventories was confirmed by comparing financial liquidity ratios with quick financial liquidity. Table 7 presents the results of the cash conversion cycle (CCC).

Literature on managing liquidity and working capital contained the statement that companies can increase their profitability by shortening CCC (Shin and Soenen, 1998; Deloof and Jegers, 1996;

Table 5: Results of the short-term liabilities turnover ratio in days in the enterprises analyzed

Short-term liabilities turnover ratio in days	2018	2017	2016	2015	2014
Company 1	83	83	80	74	72
Company 2	102	93	72	70	74
Company 3	95	87	100	86	83
Company 4	125	106	92	88	92

Source: Author's own research

Table 6: Results of the inventory turnover in days in the enterprises analyzed

Inventory turnover in days	2018	2017	2016	2015	2014
Company 1	19	22	25	18	12
Company 2	37	32	29	31	25
Company 3	22	26	23	24	17
Company 4	55	70	58	48	42

Source: Author's own research

Table 7: Results of the CCC in the enterprises analyzed

CCC	2018	2017	2016	2015	2014
Company 1	-9	6	13	-1	10
Company 2	-5	-3	15	23	7
Company 3	-18	19	-37	-22	-24
Company 4	-16	29	16	3	-9

Source: Author's own research. CCC: Cash conversion cycle

Lazaridis and Tryfonidis, 2006; Grosse-Ruyken et al., 2011). The analysis conducted indicates a very low level of CCC, in many cases a negative CCC appears. A negative CCC arises when an enterprise and by ordering goods and services is able to sell them faster and receive payment than is the time of payment for these goods, materials to suppliers.

5. CONCLUSION

The analysis conducted indicates a safe strategy of moderate - conservative financial liquidity management. The results of the basic ratio of current financial liquidity do not clearly indicate this type of strategy, as for some enterprises the result for financial liquidity is below one. However, this in-depth analysis indicates safe management of financial liquidity. The first ratio of a conservative strategy is the high results of the quick liquidity ratio. Then, a clearly faster period of inflow of receivables from customers compared to the rotation of liabilities in days confirms a safe liquidity management policy. This is confirmed by the assessment of the credit position, which clearly indicates the advantage of short-term liabilities over short-term receivables. Another confirmation of conservative management is the CCC, which is generally negative. Its result shows that enterprises benefit to a large extent from short-term liabilities as a source of financing. The high level of these commitments necessitates the qualification of financial liquidity management strategies in the enterprises analyzed as moderate-conservative. Short-term liabilities, which significantly exceed receivables from recipients, low financial liquidity ratios do not allow to define the analyzed strategy as conservative. It is exposed to the risk of a high level of short-term liabilities, which should be systematically

monitored. The presented analysis allows, however, to state that the analyzed units, despite significant increases in costs related to CO₂ emissions, will achieve high profitability. This will be affected by the low cash conversion cycle result and the long repayment period of short-term liabilities, which means using the cheapest source of financing for enterprises.

REFERENCES

- Aktas, N., Croci, E., Petmezas, D. (2015), Is working capital management value-enhancing? Evidence from firm performance and investment. *Journal of Corporate Finance*, 30, 98-113.
- Aram, J.D., Lynn, L.H., Reddy, N.M. (1992), Institutional relationships and technology commercialization: Limitations of market based policy. *Research Policy*, 21(5), 409-421.
- Bei, Z., Wijewardana, W. (2012), Working capital policy practice: Evidence from Sri lankan companies. *Procedia Social and Behavioral Sciences*, 40, 695-700.
- Cagno, E., Worrell, E., Trianni, A., Pugliese, G. (2013), A novel approach for barriers to industrial energy efficiency. *Renewable and Sustainable Energy Reviews*, 19, 290-308.
- Dahlqvist, A., Soderholm, P. (2019), Industrial energy use, management practices and price signals: The case of Swedish process industry. *International Journal of Energy Economics and Policy*, 9(3), 30-45.
- Darmani, A., Arvidsson, N., Hidalgo, A., Albros, J. (2014), What drives the development of renewable energy technologies? Toward a typology for the systemic drivers. *Renewable and Sustainable Energy Reviews*, 38, 834-847.
- del Río, P., Peñasco, C., Mir-Artigues, P. (2018), An overview of drivers and barriers to concentrated solar power in the European Union. *Renewable and Sustainable Energy Reviews*, 81(1), 1019-1029.
- Deloof, M. (2003), Does working capital management affect profitability of Belgium firms? *Journal of Business Finance and Accounting*, 30(3-4), 573-587.
- Deloof, M., Jegers, M. (1996), Trade credit, product quality, and intragroup trade: Some European evidence. *Journal of Financial Management Association*, 25(3), 33-43.
- Di Foggia, G.D. (2016), Effectiveness of energy efficiency certificates as drivers for industrial energy efficiency projects. *International Journal of Energy Economics and Policy*, 6(2), 273-280.
- Ding, S., Guariglia, A., Knight, J. (2013), Investment and financing constraints in China: Does working capital management make a difference? *Journal of Banking Finance*, 37(5), 1490-1507.
- Engelken, M., Römer, B., Drescher, M., Welp, I.M., Picot, A. (2016), Comparing drivers, barriers, and opportunities of business models for renewable energies: A review. *Renewable and Sustainable Energy Reviews*, 60, 795-809.
- Enqvist, J., Graham, M., Nikkinen, J. (2014), The impact of working capital management on firm profitability in different business cycle: Evidence from Finland. *Research in International Business and Finance*, 32(C), 36-49. Available from: <https://www.econpapers.repec.org/article/eeeriibaf>.
- Foxon, T.J., Gross, R., Chase, A., Howes, J., Arnall, A., Anderson, D. (2005), UK innovation systems for new and renewable energy technologies: Drivers, barriers and systems failures. *Energy Policy*, 33(16), 2123-2137.
- Garcia-Teruel, P.J., Martinez-Solano, P. (2007), Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164-177.
- Grosse-Ruyken, P.T., Wagner, S.M., Jonke, R. (2011), What is the right cash conversion cycle for your supply chain? *International Journal of Services and Operations Management*, 10(1), 13-29.
- Karytsas, S., Choropanitis, I. (2017), Barriers against and actions towards renewable energy technologies diffusion: A principal component analysis for residential ground source heat pump (GSHP) systems. *Renewable and Sustainable Energy Reviews*, 78, 252-271.
- Kaufmann, A., Todtling, F. (2002), How effective is innovation support for SMEs? An analysis of the region of Upper Austria. *Technovation*, 22(3), 147-159.
- Kieschnick, R., Laplante, M., Moussawi, R. (2013), Working capital management and shareholders wealth. *Review of Finance*, 17(5), 1827-1852.
- Lazaridis, I., Tryfonidis, D. (2006), Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 19(1), 26-35.
- Lind, L., Pirttilä, T., Viskari, S., Schupp, F., Karri, T. (2012), Working capital management in the automotive industry: Financial value chain analysis. *Journal of Purchasing and Supply Management*, 18, 92-100.
- Long, M., Malitz, I.B., Ravid, S.A. (1993), Trade credit, quality guarantees, and product marketability. *Journal of the Financial Management Association*, 22(4), 117-127.
- Meijer, L.L.J., Huijben, J.C.C., van Boxsteal, A., Romme, A.G.L. (2019), Barriers and drivers for technology commercialization by SMEs in the Dutch sustainable energy sector. *Renewable and Sustainable Energy Reviews*, 112, 114-126.
- Mun, S.G., Jang, S.S. (2015), Working capital, cash holding, and profitability of restaurant firms. *International Journal of Hospital Management*, 48, 1-11.
- Opler, T., Pinkowitz, L., Stulz, R., Williamson, R. (1999), The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52, 3-46.
- Shah, N.H. (2009), Optimisation of pricing and ordering under the two-stage credit policy for deteriorating items when the end demand is price and credit period sensitive. *International Journal of Business Performance and Supply Chain Modelling*, 1(2/3), 229-239.
- Shin, H., Soenen, L. (1998), Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, 8(2), 37-45.
- Vahid, T.K., Elham, G., Mohsen, A.K., Mohammadreza, E. (2012), Working capital management and corporate performance: evidence from Iranian companies. *Procedia Social and Behavioral Science*, 62, 1313-1318.
- Zimon, D., Zimon, G. (2019), The impact of implementation of standardized quality management systems on management of liabilities in group purchasing organizations. *Quality Innovation Prosperity*, 23(1), 60-73.
- Zimon, G. (2018), Influence of group purchasing organizations on financial situation of Polish SMEs. *Oeconomia Copernicana*, 9(1), 87-104.
- Zimon, G. (2019), An assessment of the Strategy of working capital management in Polish energy companies. *International Journal of Energy Economics and Policy*, 9(6), 552-556.