

Mobley Matrix as a Financial Management Tool in Terms of Small and Medium-Sized Enterprises

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Abstract: The owners of small and medium-sized enterprises do usually not consider the financial management of their SMEs significant. This statement results from our survey. It is mainly underestimation of financial variables in business management and the low financial literacy of the owners, who are often managers at the same time. This study analyses the principles of the Financial Scoreboard/Mobley Matrix as rather considerable, yet, a user friendly tool by means of which the owners of SMEs and their managers can implement the principles of business intelligence in an efficient way. It is crucial to apply the principles of good financial management in a relatively short time period and target the company to higher efficiency and ability to adapt in a highly competitive environment. A healthy and long-term profit-making firm is not only the owner's target but also the objective of the whole society. From a macroeconomic perspective, SMEs represent 99.83% of the total number of enterprises in the Czech Republic and provide nearly 60% of employment.

Key words: Business performance, efficiency, Mobley Matrix, Financial Scoreboard, small and medium-sized enterprises, macroeconomic

INTRODUCTION

In professional and managerial circles there is a range of views on the financial management of SMEs in which its primary importance for successful, long-term and stable operation is highlighted. On the contrary there are also opinions that it is not a specific feature and businesses, considering their size, do not need to assess financial criteria in time and financial information within the compulsory financial statements are completely sufficient (Lukes and Zouhar, 2013). These statements are made purposely for tax returns and business owners usually tend to minimize the tax base. The main purpose of the data in terms of financial management is rather underestimated.

In small and medium-sized enterprises varied competencies held by one person are concentrated. It is often the owner of the company who may not have all the knowledge and skills of qualified financial management and decision making. Providing financial management services can be outsourced which also seems to be a particular solution (Bures, 2009). In this variant, the significant additional costs dependent on the depth and interval of processing economic and financial data. This obtained financial information is usually not completely understood by the owner and consequently not appropriately used. It means that conclusions on financial stability and financial efficiencies are not implemented in the management of the company in time and in a

meaningful way (Maresova and Halek, 2014; Shim, 2000). The owners of small and medium-sized companies can use very effectively Small Office/Home Office "SOHO" tools. These are systems which without large initial investments or deep knowledge and time requirements bring the users significant information effect (Kremer *et al.*, 2000). In this study, the authors focus on financial Scoreboard/Mobley Matrix, called by renowned Louis R. Mobley, director of IBM's executive school. He trained IBM chief executives to use the matrix as a central financial planning technique there in the 1950 and 1960s (Mobley and McKeown, 1989).

Financial Scoreboard/Mobley Matrix is a powerful tool for turning financial data into valuable information¹¹. It seamlessly uses with information from any accounting system and includes a variety of financial tools that deliver real-time understanding of business performance. Financial analysis using unique visual presentations communicates the interaction between related pieces of accounting data, bringing the whole financial picture into focus (Mobley and McKeown, 1989). In addition to comprehensive Financial Reporting there is a:

Financial literacy tool: Is accessible and understandable information presented in a way that demystifies accounting and financial data, stops being intimidated by numbers, ratios and financial statements, recognizes the difference between income and cash, understands a balance sheet and how it is related to an income

statement, bridges the financial language barrier between middle management and executives. It can be seen how different pieces of financial data are related through, unique visual presentations-balance sheet income statement and Cash-flow statement all in one, easy to understand view.

Business decision making tool: Slices and dices financial data in a variety of ways to get the most detailed and accurate picture of financial well-being. It can be perfect for executives, managers and teams. It can be viewed the business over time with trend reports of data in many views and given financial planners easy access to financial information. The tools empower to plan and project and leverage budget and scenario tracking by easily comparing against actual, comparing against each other and revising and comparing to revised versions.

Budgeting and scenario tools: Understand the past and strategize the future, import budgets or projections from Excel, compare budgets with actual and create unlimited “what-if” scenarios to inform long-term plans.

MATERIALS AND METHODS

Objective and methodology: The main objective of the article is to analyse the use of various tools and relationships in the Financial Scoreboard/Mobley Matrix for efficient and effective evaluation of the financial health of the company particularly in terms of small and medium-sized companies. Flexible financial statement is based on three interrelated financial statements and an analysis of individual components is carried out from that perspective as well. Although, each component-Balance Sheet-Income statement-cash flow statement-is an independent unit, they create a purposeful view of the company. Based on this view calculations of financial ratios are derived and compared over time. In particular, the time interval is a category which should contribute to higher information value and conveniently should be displayed every month to be most useful to the owner and management.

The methodology used to tackle the subject has the nature of basic theoretical research which is focused on the analysis of the structure, linkages and relations of the studied subject. From the methodology point of view, trend, system and qualitative analysis are used to achieve the objective.

RESULTS AND DISCUSSION

Model analysis: The overall philosophy of the Scoreboard Financial/Mobley Matrix Model is based on the link between accounting information from the assets and capital structure, i.e., the balance sheet, from

measuring the effectiveness of functioning of operational business processes, i.e., the profit and loss account and from measurement of changes in financial position, i.e., the cash flow. Each of these separate financial statements reflects the running of the company processes either to a certain date/point or over a certain period. These are called trial balances system from which the outputs are generated in the form of several base synthetic indicators (Mohr, 2003). The principles of DuPont analysis are implemented into the outputs of the model itself. It is an expression of the relationship between Return on sales and asset turnover, return on assets, financial leverage and return on equity as illustrated in Fig. 1.

In practice of small and medium-sized enterprises, as follows from the research (Hamplova, 2015), there is a time interval for determining financial results and other economic indicators over a 1 year tax period (Hamplova, 2015). Twelve months is a long enough time to prevent negative developments in case financial results and economic indicators have been unfavourable. If partial indicators are regularly collected and analysed, the subsequent early warning may help solve the issue.

Return on Sales analysis (ROS): The first column of Mobley Matrix outputs presents the significance of return on sales indicators which relate entirely to the ability of the company to make a profit with a particular amount of sales. Mobley Matrix uses net profit, after tax however untaxed/gross profit is also possible to be used. In particular, it is very practical for comparisons during the year at shorter intervals when the company does not pay Income tax.

Return on sales analysis (Fig. 1) helps to seek costs which are included in revenues-Cost and Exp Info. Expenses are taken from the profit and loss account to Cost of Goods Sold (COGS) column and subsequently compared with revenues. This is an important operational piece of information as it is a major and an essential part of inputs to the production or to the services provided. This is material, external purchases and services and wages of workers in direct production. In companies it will be a significant proportion of the whole and therefore, this indicator is strategic information. However, the frequency of its monitoring once a year is not sufficient. The second key area of costs in the ROS column are Marketing, Selling, General and Administration (MSG&A) Expenses (Fig. 1) which is a major non-production cost presented in an Income Statement. It is a non-production cost which once again make a significant share in total sales and this part of costs must be under permanent control.

The third part of the return on sales column (Fig. 1) provides an overview of the cost of research and development. The information is again taken from the income statement. It is therefore, not an investment but

Financial Performance Strategies							
Net Profit Sales		Sales Average Assets		Net Profit Average Assets		Average Assets Average Equity	
-3,40%		2,11		-7,17%		1,21	
[ROS] Return on Sales		Asset Turnover		[ROA] Return on Assets		[FL] Financial Leverage	
[ROE] Return on Equity						-8,65%	
Cost & Exp Info		Average Days & Other		Balance Sheet Amounts		Cash-Flow Statement	
						(Direct Option)	
				THOUSAND \$			
COGS / Sales	70,00%	Receivables	11,0	Average Assets	237	Collections (OCF)	470
MSG A Exp / Sales	31,00%	Inventory	93,9	Average Liabilities	41	Inventory Paid (OCF)	-380
R&D Exp / Sales	0,00%	Payables	58,9	Average Equity	197	Prepayments (OCF)	0
Ttl Dprctn+Amrt/Sales	2,20%	Net Prft/AvgNetFxdAst	-17,89%	Avg Net Fixed Assets	95	Lend (Receive) (OCF)	0
						Expense Paid (OCF)	-105
						Interest & Other Paid (OCF)	-1
						Income Tax Paid (OCF)	0
						Operating Cash Flow (OCF)	-16
						Fixed Asset Investment (ICF)	0
						Other Investment (ICF)	0
						Investing Cash Flow (ICF)	0
						Borrow / Payback (FCF)	11
						NonOperatingExpPaid(FCF)	0
						Paid In (FCF)	0
						Dividend & Other (FCF)	0
						Financing Cash Flow (FCF)	11
						Cash Increase (Decrease)	-5
Ending Balance Sheet							
12.31.15							
						>>>Three Bottom Lines	
						Operating Cash Flow (OCF)	
						Net Profit (Loss)	
						Return on Assets (ROA)	
						-7,17%	
						+ A New Bottom Line	
						OCF / Sales	
						-3,20%	

Fig. 1: Overview of the total output of synthetic indicators based on Du Pont analysis-financial performance strategies (Siegel *et al.*, 1993)

the labour or material costs, possibly expenses on purchase of external services in research and development. Due to its significance connected with innovation and development of the company, the costs cannot be overlooked and their highlighting in the return on sales indicators is obvious. Therefore, inputs into accounting should be adapted, since, not all companies when that cost arises, charged it separately.

The fourth part of the return on sales column complements the analysis with total depreciation and amortization share (Fig. 1) which expresses wear value of tangible and intangible assets. These costs may be significant for companies that have a large percentage of fixed assets but in most small and medium-sized companies do not exceed 5% of total sales. Provided the company underestimates the importance of depreciation and amortization in its accounting, it does not produce sufficient sources for new investments and lives only by its very nature. A certain drawback is that SMEs often do not calculate depreciation on a monthly basis. Therefore, the activity is necessary to be introduced into accounting with a possible increase in its informative value necessary for effective use of Mobley Matrix in current practice.

Asset turnover analysis: The second major part of indicators in Mobley Matrix focuses on the analysis of turnover ratio of property. This method is well-known from DuPont analysis. It highlights the importance of monitoring not only the total assets turnover, but most of its particular components. In Mobley Matrix attention is paid to receivables inventory and payables. Completely

purposefully, these indicators are calculated from the average balance of receivables, average stock, the average payables and benchmarking/measuring to sales, so that, average period of individual components of selected assets could be evaluated according to the accepted time dimension. Attention is focused on average receivables period in days, the average inventory period in days and average payables period also in days. To check the liquidity of the company it is necessary to measure these indicators precisely and permanently. In Kaplan and Norton (1996) balanced scorecard view this measurement is called the cash to cash cycle. Basically, the essential philosophy of the company is that average inventory period should be increased by period average receivables and decreased by average liabilities period. The company of any size must carefully monitor liquidity, since it is the primary objective of ensuring its existence.

The three indicators based on average turnover period are completed by ratio index comparing net profit to the value of net fixed assets. This indicator assesses what profit in the company has been developed by long term assets. It is an assessment profitability and significance of assets for the company, since, investing in this type of property should bring a higher return (Kremer *et al.*, 2000).

Return on assets: Result of the comparison of return on sales and assets Turnover is a synthetic indicator of return on assets. This indicator is often assessed as the most comprehensive. Profitability is the ability of an enterprise to generate profit. It can be classified according to the

sustainable intensity and stability and compared with other businesses. Profitability is not identical with the current values of ratios by which the profitability is measured from various aspects. Operative part of the financial analyst about the profitability relates to future expectations and is backed by proven results. If there is an appropriate way to organize the results in time series in a particular company or compare them with indicators identified in other similar businesses or with average indicators for the sector, we can find out likely trends and also seek answers to questions about causes of the past results (Hamplova and Provaznikova, 2014).

In return on assets columns in Mobley Matrix (Fig. 1), there is an overview of selected absolute indicators showing the status of average total assets, total average liabilities, total average equity and total average net fixed assets. The indicators are partly used to calculate the ratios such as asset turnover and return on net fixed assets and are also used to calculate financial leverage.

Financial leverage: The indicator of financial leverage measures the debt. It is the ratio of total average assets to total average equity. Various sources suggest the possibility to base the calculation on variables which are not averaged. However, this indicator cannot in principle have a less value than one and it will always grow with a higher debt. The information would suggest that the increasing indebtedness is always positive and therefore desirable, nevertheless, this fact must always be confronted with the interest reduction of profit (Grunwald and Holeckova, 2009). The reduction focuses on the size of the interest which must be covered by profit. By considering the profit after deduction of interest (EBT) and Earnings Before deducting Interest (EBIT) Financial Leverage analysis and indebtedness in general are recreated. This calculation is not indicated in Mobley Matrix but it is important to keep in mind. The essential explanation is that that Mobley Matrix operates in all its calculations with a net profit unlike the methodology of calculation of profitability based on profit before tax and before deducting interest (EBIT).

In the column of financial leverage the Mobley Matrix focuses on presenting changes in financial position of the company. Data are taken from the cash-flow statement and focus on the definition of operating cash flow investing cash flow and financing cash flow in an overall change in cash. In the overview managers of the company are offered the analysis of place of creating cash surpluses and the way they are used (Shim, 2000).

The analysis can be used very effectively in parts of operating Cash flow in particular. Mobley Matrix lists areas that affect operating cash flow significantly. It is the volume of collections for a certain period as the principal representative of the company's liquidity. In the next step collections are reduced by inventory paid and prepayments and current lend/receive are reflected as well. Operating cash flow also reduces expense paid

which represents payments for Marketing, Selling, General and Administration (MSG&A) Expenses which is a major non-production cost presented in an Income statement. A part of operating cash flow is payment for interest and income tax. The philosophy of this Cash flow summary (Fig. 1) is based on the direct method and in this way can be compared with particular items of Income statement. It means the difference between sales and collections or cost of goods sold and inventory paid can be immediately visible. The indirect method analyses only the difference between the size of profit/loss statement of the Income Statement and surplus/deficit of the cash flow statement (Mohr, 2008).

Return on equity: The last column of outputs of Mobley Matrix/Financial performance strategies completes the overall view of the profitability and performance of the company in terms of owner's revenues. The comparison of net profit/average equity brings percentage revenue of business activity which belongs to the owner. Since the owners bear the greatest risk, they also demand their income with respect to the risk. The income should be at least equal yield of alternative (and risky) investment. If the yield is lower and there is no way to increase it, then comes the consideration of leaving the business and investing in alternatives. In this case, the company ends up. Return on Equity (ROE) indicator has a much higher importance on an annual basis than on a monthly basis. However, an analysis of the causes of the result is important and in Mobley Matrix the three bottom lines function has been selected. On a monthly basis the function can summarize and regularly monitor the level of operating cash flow, net profit (Loss) and Return on Assets (ROA).

CONCLUSION

The researchers of this study perceive very intensely a lack of knowledge/skills of the owners or managers of financial management of firms, small and medium businesses in particular. Author's research shows that entrepreneurs strongly underestimate the financial preparation of business, financial evaluation of ongoing business activities and the results themselves which offer their financial information and statements (Hamplova and Provaznikova, 2014). It is often a lack of knowledge of financial data and inability to perform additional calculations and combinations with the data. The only interest of owners or managers of small and medium-sized firms in the financial data is to minimize the tax base in clearing up income tax once a year. Our surveys show that every second entrepreneur does not consider its economic software to be a significant support and every other small business has accounting records processed externally (Hamplova, 2015). Knowledge and analysis of financial data, however should be an inseparable and inherent part of successful business. It is not only the

analysis once a year but permanent care and interest in the data on a monthly basis. The researchers aimed to analyse the principles of working practical and user friendly Financial Scoreboard/Mobley Matrix, series of "SOHO" small office/home office tools. The users are not dependent on complicated and expensive input medium for the use of Mobley Matrix. Just once a month they summarize the basic economic variables and data processing is carried out with a logical and theoretically correct methodological support. Thus, clear elements of Business Intelligence are or may be implemented with the aim of increasing the efficiency, stability and liquidity of the business. Financial Scoreboard/Mobley Matrix connects three essential financial statements balance sheet income statement and Cash flow and creates from them a transparent group of financial indicators which have high informative value ability in managing. Processing of financial Scoreboard/Mobley Matrix does not require special software or does not have special knowledge requirements. The only thing for successful implementation which is essential is consistency and really permanent and timely data processing. Only under these assumptions, this tool can become a useful aid to entrepreneurs and can promote his/her business. At present company it is just knowledge advantage which is an essential part of the competition and the opportunity of successful long-term business (Siegel *et al.*, 1993; Bures, 2009).

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REFERENCES

- Bures, V., 2009. Conceptual perspective of knowledge management. *E+M Econ. Manage.*, 12: 84-96.
- Grunwald, R. and J. Holeckova, 2009. [Financial Analysis and Planning Enterprise]. Ekopress Publisher, Prague, Czech Republic, (In Czech).
- Hamplova, E. and K. Provaznikova, 2014. Entrepreneurship Versus Employment Contract-Pilot Basic Research on Conditions for Business in the Czech Republic. In: Hradec Economic Days 2014 Economic Development and Management of Regions, Hamplova, E. and K. Provaznikova (Eds.). Gaudeamus Helsinki University Press, Helsinki, Finland, pp: 192-199.
- Hamplova, E., 2015. The use of expense allowances by small entrepreneurs in the context of the evaluation of business conditions in the Czech Republic. *Econ. Dev. Manage. Regions*, 1: 215-220.
- Kaplan, S.R. and P.D. Norton, 1996. *The Balanced Scorecard: Translating Strategy into Action*. Harvard Business Review Press, Watertown, Massachusetts, ISBN:978-0-87584-651-4,.
- Kremer, C.H., R. Rizzuto and J. Case, 2000. *Managing by the Numbers: A Commonsense Guide to Understanding and using your Company's Financials*. Partnership International Inc, New York, USA., ISBN:978-07382-0256-3, Pages: 202.
- Lukes, M. and J. Zouhar, 2013. No experience? No problem-its all about yourself: Factors influencing nascent entrepreneurship outcomes. *J. Econ.*, 61: 934-950.
- Maresova, P. and V. Halek, 2014. Deployment of cloud computing small and medium sized enterprises in the Czech Republic. *E+M Econ. Manage.*, 17: 159-174.
- Mobley, L. and K. McKeown, 1989. *Beyond IBM*. Mcgraw-Hill, New York, USA,.
- Mohr, A., 2003. *Bookkeepers' Boot Camp: Get a Grip on Accounting Basics*. Self-Counsel Press, British Columbia, Canada,.
- Mohr, A., 2008. *Financial Management 101: Get a Grip on Your Business Numbers*. Self-Counsel Press, British Columbia, Canada,.
- Shim, J., 2000. *Accounting and Finance for the Non Financial Executive: An Integrated Resource Management Guide for the 21st Century*. CRC Press, Boca Raton, Florida,.
- Siegel, G.J., K.J. Shim and D. Minars, 1993. *The Financial Troubleshooter*. Mcgraw-Hill, New York, USA,.