

Importance of financial perspective indicators in Balanced Scorecard in a leasing company

Alina CHIȚU

Bucharest University of Economic Studies, Romania
alina.chitu@cig.ro

Mădălina Elena OPRIS

Bucharest University of Economic Studies, Romania
madalina.opris@cig.ase.ro

Abstract. *Balanced scorecard is a strategic management tool for communicating performance and aims to help managers express priorities. Its philosophy is to learn from their actions, to work in a team and to supervise the activity of the company focusing on a clear communication of objectives and priorities.*

The study is limited to the financial perspective recognized for the importance of short-term financial results of the competitive environment institutions. The aim is to determine the importance of perspective indicators in order to know the critical areas with impact on the company performance. The analysis is addressed to the management of leasing companies and interpreted by a multiple regression model.

Keywords: balanced scorecard, profitability, decision, objectives, indicators.

JEL Classification: G23, C31.

REL Classification: 14K.

Introductions

Since 1988, researchers (Berliner and Brinson, 1988: pp. 25-33; Bromwich and Bhiman, 1989: pp.137-162; Johnson, 1988: pp. 15-28; McNair, Lynch and Cross, 1990: pp. 28-36) have shown the disadvantages of short-term financial analysis of the company. Managers were limited in taking long term decisions. Researchers urged them to use financial and non - financial results (Hoque, 2013: pp. 33-59) to determine long-term performance.

Balanced scorecard (BSC) pursues goals aligned with the mission, vision and core values to achieve performance (Banker et al., 2004: pp. 1-23) and requires the use of different sets of measures: financial and operational, qualitative and quantitative. When BSC uses only financial indicators, it gives managers a picture of past performance (Banker et al., 2004: pp. 1-23). By adding the analysis the learning and development indicators relating to clients or internal processes, management will be able to analyze the company's future. Management is able to make better decisions when using the four perspectives of BSC (Sainaghi and Corti, 2013: pp. 150-159).

Financial measures appear as a traditional method of analyzing success (Kaplan and Norton, 2000: pp. 9-15). To achieve these objectives, the research is divided into three parts. The first part includes the literature review on the use of BSC in managerial decision making and control of the company by adapting the financial perspective and the non-financial performance analysis. The second part introduces the concept of financial perspective, advantages and limitations arising in a company. The last part determines the importance of financial ratios using a multiple regression model and interprets the results. In conclusion we draw references for management and future research.

1. The use of BSC for decision and control

BSC is a necessary tool in the design and the achievement of objectives - the key to sustainable management and decision control. Researches on performance management systems have shown that excessive financial success may hinder organizational development (Kaplan and Norton, 1996: pp. 5-9). BSC has been widely applied to evaluate the performance of different industries (Wu and Chang, 2012: pp. 474-485).

BSC components are the following perspectives: financial – it pursues growth strategy and risk analyzed in terms of the shareholder; client – it provides strategy

for value creation; internal processes – it analyzes the strategic priorities in different business processes in order to create customer and shareholder satisfaction; learning and development – it creates a climate that supports organizational change, innovation and growth (Kaplan and Norton, 2000: pp. 9-15).

There are three characteristics that lead to mixed results: key performance indicators (KPIs), setting objectives and reward systems. Link reward system is sometimes referred to as a user attribute performance (Malmi, 2001: pp. 207-220; Speckbacher et al., 2003: pp. 361-387), but the design is a decision on the structure of BSC (Agostino and Arnaboldi, 2013: pp. 327-339). BSC seeks to measure both productivity and development of learning in the organization (Antonsen, 2013: pp.17-38). The measurements included customer satisfaction, process and output quality, productivity, efficiency and satisfied employees (Banker et al., 2004: pp. 1-23). Studies have found that BSC provides a structure for analyzing performance management (Voelpel et al., 2006: pp. 43-60), namely financial results (Antonsen, 2013: pp.17-38). Norreklit (2000, 2003 and 2012) was very critical regarding the causal relationships between the four perspectives of BSC and the validity of the system to serve as a strategic management tool (Hoque, 2013: pp. 33-59).

The critical point occurs when the four BSC perspectives are connected in a causal chain (Papalexandris et al., 2004: pp. 292-293). Prospects are part of a major impact on any company, whether analyzed by shareholders, customers or employees. The aim is to provide an overview of the organization that can be used for strategic thinking and implementation (Fernande et al., 2006: pp. 623-634).

2. Financial Perspective – concept, advantages and limitations

Balanced scorecard helps managers to establish strategic objectives and to monitor processes to achieve them. The information at the end of the study alerts managers about what they need to improve to ensure success. The financial perspective is recognized for the importance of short-term financial results obtained from the analysis of financial targets for institutions in the competitive environment (Kaplan and Norton, 2000: pp. 9-15). They can be different at each stage of development of the company's activity. The three main levels are: revenues growth, cost reduction or productivity improvement and assets use or investment strategy. The revenues growth is achieved by increasing sales volumes and refinancing. Perspective can be linked to the concept of “waste disposal” synonymous with cost reductions, considered the most important level of the also mentioned (Baroma et al., 2013: pp. 239-251). Cost reduction focuses on

decreasing the variables. This leads to further increase financial returns. After implementation it is necessary to increase the business volume, which would lead to a return to profitability in sales turnover and a high return on investment (Baroma et al., 2013: pp. 239-251).

The company's strategy presents value-based businesses. Unlike ordinary entities, maximizing cost efficiency in non - profit or government is achieved by maximizing the benefits of stakeholders, submitted to resource constraints. The financial target is considered a major goal. Financial indicators are presented together with the vision, mission and core values related to stakeholders. Successful financial measures may be considered massive cost reductions, small deviations from the budget, performance changes in a short period of time and increased return on investment. Critical success factors can increase the company's efficiency (Farooq and Hussain, 2011: pp. 754-768).

Improving the financial perspective and the internal process performance, objectives are achieved through the development of innovation and learning. For the financial perspective the following indicators are considered to be important: shareholder value, customer market share and customer satisfaction, basic skills of internal processes and learning and growth perspective, the attitude of employees (Kaplan and Norton, 2004: pp. 10-17). Shareholder value is an indicator of performance, not the performance, although it measures financial results. Presented in a hierarchical pyramid, the financial outlook appears at the top, and the prospect of learning and development at the bottom.

Achieving financial success cannot be the main objective of many organizations such as non -profit organizations, as modified hierarchical structure appears to peak customer perspective and financial perspective to the next level (Wu and Chang, 2012: pp. 474-485) .

3. Research methodology

The current research is based on an implementation model of Kaplan and Norton BSC used in the 2003 Federal Energy Personal Property Management program. We go through the following stages: defining the mission, vision and strategy, presenting the company organization chart, realizing customer analysis, establishing the deadline for completion of the implementation, but also listing the main objectives and measures of targets present in each BSC perspective.

Research study proposes to limit the financial perspective review of management vision through a multiple regression model. The study is applied on a leasing

company in Romania, located in Bucharest, a member of a well-known international group. Its market features over 20 active competitors and has over 5,000 employees. In the company there are 60 managers and 300 non-management employees, all with high economic education.

Of these, 27 are top managers, the rest being auxiliary managers. BSC implementation is achieved after the company has determined the problem areas. To determine the importance of the objectives of the BSC there were developed interviews with Likert response scale. The interview is addressed to the management and contains 20 questions that assess the impact of each objective on the company performance. In the interview, stage responses were obtained from a sample of 53 managers on the basis of which was established research practice.

The indicators listed in the financial perspective are: sales volumes (β_6), costs (β_7) margins over refinancing lines (β_8), old portfolio income (β_9) and net profit after tax (β_{10}). The multiple regression models appear as endogenous variables. The profitability was considered the exogenous variable, as measured by performance in 2013. Y can take values {1, 2}.

4. Results

To perform the research an AGA meeting was necessary; 53 top managers, general management and company associations took part. During the interview, respondents were asked their opinions on current performance of company's management, emphasizing aspects that are found in the Balance Scorecard. The main critical issues mentioned in the purview of this meeting are: to maintain its leading position in the market of leasing, the company – customer relationships, the company – supplier relationships and the company – employees' relationships (AGA X lease, 2013).

Following the debates conducted, the management wants to meet financial goals such as: increasing service facility determined as the ratio between facilities and developments, changing the company's profile as the ratio of market failure and sales loss, service costs reduction, calculated as a ratio between the high costs and facilities (Kartalis et al., 2013: pp. 413-422). The managers' responses on new targets are processed according to ANOVA equation and shows, according to the multiple regressions equation, the following results:

Table 1. Final performance indicators, financial perspective

SUMMARY OUTPUT	
<i>Regression Statistics</i>	
Multiple R	0,970075241
R Square	0,941045973
Adjusted R Square	0,9270093
Standard Error	0,120650527
Observations	53

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	4,87949764	0,975899528	67,04195311	3,43183E-12
Residual	21	0,305687545	0,01455655		
Total	26	5,185185185			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0,243046164	0,068405799	3,553005246	0,001881517	0,100788517	0,385303811	0,100788517	0,385303811
6	0,11620592	0,032549894	3,570085955	0,001807048	0,04851471	0,183897131	0,04851471	0,183897131
7	0,111488805	0,042872489	2,600474283	0,016698662	0,022330584	0,200647027	0,022330584	0,200647027
8	0,091277093	0,035119121	2,599071128	0,016750053	0,018242883	0,164311303	0,018242883	0,164311303
9	0,065054766	0,028683403	2,26802816	0,033998356	0,005404364	0,124705167	0,005404364	0,124705167
10	0,07332647	0,034533057	2,123370336	0,045772419	0,001511046	0,145141894	0,001511046	0,145141894

The regression model is:

$$Y = \beta_0 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + e_i$$

where:

Y represents profitability employee;

β_6 represent sales volumes;

β_7 represents the costs;

β_8 is refinancing margins over lines;

β_9 is old portfolio income;

β_{10} is the net profit after tax.

Each evaluation criterion has attached an appropriate performance indicator. All endogenous variables in the model (sales volumes, costs, refinancing margins over lines, old portfolio income, net profit after tax) have a positive influence on Y – profitability. There is no endogenous variable that adversely affects exogenous variable Y.

A significant influence is underlined by the values of the coefficients of determination ($R^2 = 0.9700752410$ and R^2 adjusted = 0.941046), meaning that both quantitatively and qualitatively, the variables included in the model are well

chosen, and the model is correctly specified (Radu 2013: pp. 26-47). A strong bond between them appears near R^2 and adjusted R^2 . The value of 0.941046 Adjusted R^2 shows that 94% of the variation is caused by the influence profitability targets financial perspective. Ideally, the standard deviation of the errors is 0 which means that all points are on the same regression axis.

The tests used to confirm the hypothesis that applied correlogram heteroscedasticity square error and settled in the absence of autocorrelation determined quadratic residues (Radu, 2013: pp. 26-47). The tests to verify the validity of the econometric model are t-test and F test. T test defines the econometric model and is valid because there is at least one parameter significantly different from 0. Assumptions in the model are defined by the null hypothesis H_0 where $\beta_i = 0$ and the alternative hypothesis H_A where $\beta_i \neq 0$, and $i = 1, 2$.

The model depends on the importance of the variables: volume of sales, costs, margins across lines refinancing old portfolio income. If variable sales volume increases or decreases by 1, then profitability changes by 0.11620592; if variable costs increase or decrease by 1, then profitability changes by 0.111488; if the variable margin over refinancing lines increases or decreases by 1, then profitability changes to 0.0912770934; if the variable income portfolio increases or decreases by 1, then profitability changes by 0.06505476; if net profit after tax increases or decreases by 1, then profitability changes in the same direction 0.073326469.

All parameters of the model ($\beta_0, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}$) are significant because the test value $T > 0$ and P -value threshold of significance is less than 0.05.

F test shows that the regression model used is a valid model. The assumptions used in the model are: the null hypothesis H_0 where $\beta_0 + \beta_6 + \beta_7 + \beta_8 + \beta_9 + \beta_{10} = 0$ and the alternative hypothesis H_A where $\beta_0 + \beta_6 + \beta_7 + \beta_8 + \beta_9 + \beta_{10} \neq 0$. The value of $F = 67.0419531$ and the significance F is $3.43182993409634E -12$ value of less than 0.05, in these conditions the regression model generated is valid and thus can be used to assess the dependence of the variables initially set.

The profitability growth strategy aims to develop existing sales volumes. A leasing company in the market is based on the life of the assets held in the lease. The weakness of this strategy is that less attention is being paid to long-term financial performance. To be successful, managers and employees must take appropriate measures that can be monitored by BSC. One advantage of using the BSC is that initiatives can be presented and verified at every level of the company (Radu, 2013: pp. 26-47).

Conclusions

BSC is a necessary tool in the design of objectives - the key to sustainable management and decision control. At the same time the record of the information is required to observe financial and non-financial performance (Lansiluoto and Jarvenpa, 2010: pp. 184-206).

The literature presents financial KPIs, less non-financial ones. Only by taking into account financial and non-financial KPIs, it is possible for a company to obtain information about the problems of businesses (Meier et al., 2013: pp. 28-39).

According to the multiple regression model performance, the indicator with the highest influence is the volume of sales activity, it is considered as a first priority to change the company's image to the general public in terms of management. Following strategic objective requests service cost adjustments. Another important point to be addressed is the refinancing margins over lines. The limitations of the current study are generated by human consciousness. The group of experts involved in the analysis may lead to a bias in the selection of indicators.

Acknowledgements

This work was financed by the Institute for Doctoral Studies, The Bucharest University of Economic Studies (IOSUD-ASE).

References

- Agostino, D., Arnaboldi, M. (2013). "Design issues in Balanced Scorecards: The "what" and "how" of control", *European Management Journal*, No. 30(32), pp. 327-339
- Antonsen, Y. (2013). "The downside of the Balanced Scorecard: A case study from Norway", *Scandinavian Journal of Management*, No. 2(4), pp. 17-38
- Banker, R.D., Chang, H., Pizzini, M.J. (2004). "The balanced scorecard: judgmental effects of performance measures linked to strategy", *The Accounting Review*, No. 79(1), pp. 1-23
- Baroma, B., Bellisario, A., Chirico, A., Appolloni (2013). "A Breakthroughs in the Management Accounting Science: Imaging a Balanced Scorecard Thought by Lean Philosophy Rationales Transit Stud Rev 20", pp. 239-251

- Berliner, A., Brimson, J.A. (1988). "Cost Management for Today's Advanced Manufacturing-The CAM-I Conceptual Design", *Harvard Business School Press*, No. 1(1), pp. 25-33
- Bromwich, M. (2009). "Economics in management accounting. In C.S. Chapman, A.G. Hopwood, M.D. Shields (Eds.)", *Handbook of Management Accounting Research*, No. 1(1), pp.137-162
- Farooq, A., Hussain, Z. (2011). "Balanced scorecard perspective on change and performance: a study of selected Indian companies", *Procedia Social and Behavioral Sciences*, No. 24(1), pp. 754-768
- Fernandes K.J., Raja V., Whalley A. (2006). "Lessons from implementing the balanced scorecard in a small and medium size manufacturing organization", *Technovation*, No. 26(2), pp. 623-634
- Hoque, Z. (2013). "20 years of studies on the Balanced Scorecard: Trends, accomplishments, gaps and opportunities for future research", *The British Accounting Review*, No. 26(1), pp. 33-59
- Johnson, H.T., Kaplan, R.S. (1988). "Relevance Lost, The Rise and Fall of Management Accounting. Boston", *Harvard Business School Press*, No. 4(1), pp. 15-28
- Kaplan, R.S., Norton, D. (2004). "The strategy map: Guide to aligning intangible assets", *Strategy and Leadership*, No. 32(5), pp. 10-17
- Kaplan, R.S., Norton, D.P. (1996). "The Balanced Scorecard: Translating strategy into action", *Harvard Business School Press*, No. 2(1), pp. 5-9
- Kaplan, R.S., Norton, D.P. (2000). "Strategy Maps: Converting Intangible Assets into Tangible Outcomes", *Harvard Business School Press*, No. 1(1), pp. 9-15
- Kartalis, N., Velentzas, J., Broni, G. (2013). "Balanced Scorecard and Performance measurement in a Greek Industry", *Procedia Economics and finance*, No. 5(1), pp. 413-422
- Lansiluoto, A., Jarvenpaa, M. (2008). "Environmental and performance management forces: integrating "greenness" into balanced scorecards", *Qual. Res. Acc. Manage*, No. 5(3), 184-206
- Malmi, T. (2001). "Balanced Scorecards in Finnish companies: A research note", *Management Accounting Research*, No. 12(1), pp. 207-220
- McNair, C.J., Lynch, R.L., Cross, K.F. (1990). "Do financial and nonfinancial performance measures have to agree?", *Management Accounting*, No. 1(2), pp. 28-36
- Meier, H., Lagemann, H., Morlock, F., Rathmann, C. (2013). "Key performance indicators for assessing the planning and delivery of industrial services", *Procedia CIRP*, No. 11(9), pp. 28-39
- Nørreklit, H. (2000). "The balance on the Balanced Scorecard: a critical analysis of some of its assumptions", *Management Accounting Research*, No. 11(1), pp. 65-88
- Nørreklit, H. (2003). "The Balanced Scorecard: what is the score? A rhetorical analysis of the Balanced Scorecard", *Accounting, Organizations and Society*, No. 28(6), pp. 591-619
- Nørreklit, H., Norreklit, L., Mitchell, F., Bjomenak, T. (2012). "The rise of the balanced scorecard! Relevance gained?", *Journal of Accounting & Organizational Change*, No. 8(4), pp. 490-510
- Papalexandris, A., Ioannou, G., Prastacos, G., (2004). "Implementing the balanced scorecard in Greece: a software firm's experience", *Long Range Planning*, No. 37(4), pp. 292-293
- Radu, M. (2013), "Balanța scorecard în strategia organizațională", pp. 26-47
- Sainaghi, R., Phillip, P., Corti, V. (2013). "Measuring hotel performance: Using a balanced scorecard perspectives' approach", *International Journal of Hospitality Management*, No. 34(1), pp. 150-159

- Speckbacher, G., Bischof, J., Pfeiffer, T. (2003). "A descriptive analysis on the implementation of Balanced Scorecards in German-speaking countries", *Management Accounting Research*, No. 14(2), pp. 361-387
- Voelpel, S.C., Leibold, M., Eckhoff, R.A. (2006). "The tyranny of the BSC in the innovation economy", *Journal of Intellectual Capital*, No. 7(1), pp. 43-60
- Wu, I.L., Chang, C.H. (2012). "Using the balanced scorecard in assessing the performance of e-SCM diffusion: A multi-stage perspective", *Decision Support Systems*, No. 52(1), pp. 474-485