BUCHAREST UNIVERSITY OF ECONOMIC STUDIES



Doctoral School of Accounting.

DOCTORAL THESIS

Presented and publicly defended by the author: Ion Gh. Dragoş Gabriel

MANAGERIAL STRATEGIES FOR FINANCIAL CONTROL AND PERFORMANCE DRIVEN MANAGEMENT IN SMALL AND MEDIUM-SIZED ENTERPRISES THAT ACTIVATES IN THE COMMERCE OF CONSTRUCTION MATERIALS AND BRICOLAGE

Scientific supervisor: PhD. Şerban Claudia Elena

Doctoral thesis defense committee:

PhD. Lungu Camelia Iuliana (Chairperson) - ASE București
PhD. Siminică Marian Ilie (Referee) - Universitatea din Craiova
PhD. univ.dr. Cîrciumaru Daniel (Referee) - Universitatea din Craiova
PhD. Crețu Raluca Florentina (Referee) - ASE București
PhD. Şerban Claudia Elena (Scientific supervisor) – ASE București

Bucharest, 2023

Table of contents

Chapter	Name of chapter	Page	
	Foreword	3	
	Abstract	5	
	Results	7	
3	Introduction	20	
4	Literature Review		
4.1	The Origin and Evolution of the Strategy Concept		
4.2	The Necessity of an Offensive Strategic Planning Perspective	26	
4.3	The Development of Strategic Management as a Field of Study 2		
4 4	The Most Relevant Models of Strategic Management Formulated by		
4.4	Academics and Currently Used	42	
5	Research	91	
5.1	Good Practices of Strategic Management in Romania. Comparative		
	Analysis of the Largest Players in the Construction Materials Industry	91	
5.1.1	Context	92	
5.1.2	Methodology	97	
5.1.3	Performance Measurement - Comparative Study Based on Key Business	00	
511	Indicators Research Results	98 117	
3.1.4	Research Results Piloting Performance Variations of a Dashboard Case Study on	11/	
52	Performance Indicators that can be Used by the Management of a SMF		
5.2	Operating in the Construction Materials Sector	121	
5.2.1	Context	122	
5.2.2	Methodology	129	
500	Dashboard - Case Study on an SME Operating in the Construction		
5.2.3	Materials Trade	130	
524	Research Results and Performance Indicators Selected for Illustrating a		
5.2.7	Highly Efficient Dashboard	166	
5.0	Comparative Econometric Analysis of the Evolution of the Main		
5.3	Economic Actors Operating in the Construction Materials and DIY	160	
531	Methodology	109	
532	Data Presentation	170	
5321	Types of Econometric Models that can be Used for the Proposed Analysis	174	
5322	Types of Panel Data	173	
5 2 2 2	Types of Variables	1//	
5324	Types of Variable Variations	170	
5 2 2 5	Types of Vallable Vallations	1/0	
5.2.2	Types of wodels that can be Used 1 Veriable Scheeting 1		
J.J.J 5 2 2 1	Valiable Selection	101	
5323	Group BD1 - Companies with a Turnover between 100k-1111 Euro; Group BD2 - Companies with a Turnover between 1m 5m Euro;	191	
5.3.3.2	Group BD2 - Companies with a Turnover between Int-Sin Euro;	208	
5.5.5.5	Group BD3 - Companies with a Turnover between 5m-10m Euro;	223	
5.5.5.4	Group BD4 - Companies with a Turnover between 10m-50m Euro	236	

5.3.3.5	Group BD5 - Companies with a Turnover larger than 50m Euro;	250
5.3.4	Research Results	261
5.4	The Importance of Financial Control in the Formation of a Strategy	271
5.4.1	Methodology	273
510	Empirical Financial Control - Objectives and Implementation Methods	
3.4.2	Proposed by Researchers	274
5.4.3	Verifying the Existence of Seasonality in Revenues through the Analysis	
	of a Cash Flow - Case Study	277
5.4.4	the Financial Circuit in the Business Ecosystem - Case Study	283
	Mathematical Model of Linear Programming - Using Efficiency Scores	205
5.4.5	(Data Envelopment Analysis)	289
5.4.5.1	Data Presentation	290
5.4.5.2	Efficiency Scores Results	291
5.4.6	Research Results	294
6	Conclusions	298
7	Bibliographic References	322
7.1	Books	322
7.2	Articles / Chapters Published in Work Volumes	332
7.3	Electronic Sources	350
8	Annexes	351
8.1.1	Annex 3.1	351
8.1.2	Annex 3.2	351
8.1.3	Annex 3.3	352
8.1.4	Annex 3.4	353
8.1.5	Annex 3.5	354
8.1.6	Annex 3.6	355
8.1.7	Annex 3.7	356
8.1.8	Annex 3.8	357
8.1.9	Annex 3.9	358
8.1.10	Annex 3.10	359
8.1.11	Annex 3.11	360
8.1.12	Annex 3.12	361
8.1.13	Annex 3.13	361
8.1.14	Annex 3.14	362
8.1.15	Annex 3.15	363
8.1.16	Annex 3.16	363
8.1.17	Annex 3.17	364
8.1.18	Annex 3.18	370
8.1.19	Annex 3.19 - BD 0	370
8.1.19.1	BD1	371
8.1.19.1.1	Regression 1	371
8.1.19.1.2	Regression 2	372

8.1.19.1.3	Regression 3	373
8.1.19.1.4	Regression 4	373
8.1.19.1.5	Regression 5	374
8.1.19.1.6	Regression 6	375
8.1.19.1.7	Regression 7	375
8.1.19.1.8	Regression 8	376
8.1.19.1.9	Regression 9	377
8.1.19.1.10	Regression 10	377
8.1.19.1.11	Regression 11	378
8.1.19.1.12	Regression 12	378
8.1.19.1.13	Regression 13	379
8.1.19.1.14	Regression 14	380
8.1.19.1.15	Regression 15	380
8.1.19.1.16	Regression 16	381
8.1.19.1.17	Regression 17	382
8.1.19.1.18	Regression 18	382
8.1.19.1.19	Regression 19	383
8.1.19.1.20	Regression 20	383
8.1.19.2	BD2	387
8.1.19.2.1	Regression 1	387
8.1.19.2.2	Regression 2	388
8.1.19.2.3	Regression 3	389
8.1.19.2.4	Regression 4	390
8.1.19.2.5	Regression 5	390
8.1.19.2.6	Regression 6	391
8.1.19.2.7	Regression 7	392
8.1.19.2.8	Regression 8	392
8.1.19.2.9	Regression 9	393
8.1.19.2.10	Regression 10	393
8.1.19.2.11	Regression 11	394
8.1.19.2.12	Regression 12	395
8.1.19.2.13	Regression 13	395
8.1.19.2.14	Regression 14	396
8.1.19.2.15	Regression 15	396
8.1.19.2.16	Regression 16	397
8.1.19.2.17	Regression 17	398
8.1.19.2.18	Regression 18	398
8.1.19.2.19	Regression 19	399
8.1.19.3	BD3	402
8.1.19.3.1	Regression 1	402
8.1.19.3.2	Regression 2	403
8.1.19.3.3	Regression 3	404

8.1.19.3.4	Regression 4	404
8.1.19.3.5	Regression 5	405
8.1.19.3.6	Regression 6	405
8.1.19.3.7	Regression 7	406
8.1.19.3.8	Regression 8	406
8.1.19.3.9	Regression 9	407
8.1.19.3.10	Regression 10	407
8.1.19.3.11	Regression 11	408
8.1.19.3.12	Regression 12	409
8.1.19.3.13	Regression 13	409
8.1.19.3.14	Regression 14	410
8.1.19.3.15	Regression 15	410
8.1.19.3.16	Regression 16	411
8.1.19.3.17	Regression 17	411
8.1.19.3.18	Regression 18	412
8.1.19.4	BD4	417
8.1.19.4.1	Regression 1	417
8.1.19.4.2	Regression 2	417
8.1.19.4.3	Regression 3	418
8.1.19.4.4	Regression 4	419
8.1.19.4.5	Regression 5	419
8.1.19.4.6	Regression 6	420
8.1.19.4.7	Regression 7	421
8.1.19.4.8	Regression 8	421
8.1.19.4.9	Regression 9	422
8.1.19.4.10	Regression 10	423
8.1.19.4.11	Regression 11	423
8.1.19.4.12	Regression 12	424
8.1.19.4.13	Regression 13	424
8.1.19.4.14	Regression 14	425
8.1.19.4.15	Regression 15	425
8.1.19.5	BD5	431
8.1.19.5.1	Regression 1	431
8.1.19.5.2	Regression 2	431
8.1.19.5.3	Regression 3	432
8.1.19.5.4	Regression 4	433
8.1.19.5.5	Regression 5	434
8.1.19.5.6	Regression 6	434
8.1.19.5.7	Regression 7	435
8.1.19.5.8	Regression 8	435
8.1.19.5.9	Regression 9	436
8.1.19.5.10	Regression 10	437

8.1.19.5.11	Regression 11	437
8.1.19.5.12	Regression 12	438
8.1.19.5.13	Regression 13	439
8.1.19.5.14	Regression 14	439
8.1.19.5.15	Regression 15	440
8.1.20	Annex 3.20	445
8.1.21	Annex 3.21	449
8.1.22	Annex 3.22	450
8.1.23	Annex 3.23	451
8.1.24	Annex 3.24	452
8.1.25	Annex 3.25	452
8.1.26	Annex 3.26	452
8.1.27	Annex 3.27	453
8.1.28	Annex 3.28	454
8.1.29	Annex 3.29	454
8.1.30	Annex 3.30	455
8.1.31	Annex 3.31	455
8.1.32	Annex 3.32	456
8.1.33	Annex 3.33	457
8.1.34	Annex 3.34	459
8.1.35	Annex 3.35	461
8.2	Table of Contents - Tables	461
8.3	Table of Contents - Graphs	462

Keywords

Strategic management; Key Performance Indicators (KPIs) in the construction materials industry; Balanced Scorecard; Financial control; Cash flow optimization; Financial planning; Strategically oriented leadership; Econometric analysis of an industry.

Research results

In the digital era, entrepreneurship and its evolving practices have captured the attention of the academic community and researchers, with a special emphasis on how they apply across various industries and fields. One such field that requires heightened attention is the bricolage industry in Romania, where market challenges and dynamics necessitate sophisticated and well-thought-out managerial approaches. This paper aims to contribute to this discussion by exploring and analyzing the essential aspects that form part of the management strategy of this field. Performance in the building materials trade, as our results show, requires a series of strategies and management models. Such a strategy involves a continuous reinvestment of profits into new locations, while maintaining a debt to assets ratio below 20%. This balance ensures financial stability, minimizing risk, and promoting sustainable growth. In addition to financial aspects, the commercial approach played a significant role in achieving performance. The "DIY" (Do It Yourself) sales strategy not only helped increase sales but also fostered customer loyalty, providing them with autonomy and confidence in their abilities. This, combined with maintaining a profit margin at an accessible level, provided customers with the feeling of beeing valued and satisfied. From a financial control perspective, we have used an econometric model that allowed for an abstract and rigorous analysis of the elements influencing turnover. Diversification of stocks, attention to fixed assets, continuous investment in employees, and maintaining affordable prices were all highlighted as essential for growth and sustaining performance.

It is important to mention that at the center of this study are people. Value creation is not simply achieved through numbers and analyses, but primarily through people. This paper reiterates the importance of valuing individuals who embrace change, are responsible, and honest. This is not just a business strategy, but also a life philosophy: "comfort is the enemy of wealth". By encouraging such behavior and such a mindset, companies not only improve their performance but also contribute to the sustainable development of our society. The doctoral thesis is structured around four strategic axes covering different aspects of the commerce of construction materials industry in Romania, offering a comprehensive approach to understanding and improving strategic management and performance management practices at the enterprise level in this sector:

Comparative analysis of strategic management practices in the construction materials industry in Romania: The study focuses on the most important players in the construction materials and bricolage industry in Romania, analyzing their strategic management practices. The aim is to identify the most effective management strategies used by companies in this sector to achieve outstanding results.

Implementation of the balanced scorecard model to improve company performance: This axis focuses on using the balanced scorecard model as a management tool to enhance the performance of companies in the construction materials and bricolage industry. It seeks to identify specific performance indicators (KPIs) and align objectives with the company's vision and strategy.

Comparative econometric analysis of the evolution of key economic players in the construction materials and bricolage retail industry in Romania: The third axis aims to identify and analyze independent variables from the balance sheet of companies in the construction materials and bricolage retail industry in Romania that have a significant relationship with revenue. The goal is to predict revenue based on these variables and identify growth and development strategies for companies.

The importance of financial control in strategy formation: The final axis focuses on analyzing and improving the performance of small and medium-sized enterprises (SMEs) in the construction materials industry through the use of financial control and optimization methods. The objective is to help SMEs manage their financial resources efficiently and develop growth strategies adapted to the specific needs and circumstances of the market.

The main objective of the study "Best Practices in Strategic Management in Romania: A Comparative Analysis of the Largest Players in the Construction Materials Industry" is to carry out a comparative analysis of strategic management practices in Romania, focusing on the most important players in the construction materials industry. The study was conducted in the context of the fundamental need for construction in people's everyday lives, encompassing the provision of housing, infrastructure, facilities, and spaces to support the social, economic, and cultural needs of communities. Additionally, the study considered housing quality, covering a wide range of aspects related not only to the housing itself but also to the residential area around it.

The methodology used is quantitative, involving post-factum analysis, comparative projection, and analytical processing of indicators of the largest companies operating in the construction materials and bricolage industry in Romania (Arabesque, Dedeman, Bricostore). The research questions addressed include: "Which company efficiently utilizes resources? What is the

industry's trend for the future? What is the most effective management strategy in this industry? What is the leadership model with the highest potential?"

The research results revealed that financial resources alone are not sufficient for quality leadership. For instance, although the giant Kingfisher invested significant amounts of money to boost the retailer Bricostore, it proved to be inefficient compared to its competitors. On the other hand, Dedeman, with revenues ten times higher than Bricostore, managed to implement the same B to C business strategy. Dedeman's success was attributed to maintaining a low level of indebtedness, timely payments to suppliers, continuous reinvestment of profits in opening new locations, and maintaining high liquidity indicators.

Furthermore, in a constantly changing and competitive environment, the B to C approach demonstrated to be the most profitable. This involved aggressive expansion, standardization of business processes at the location level, considerable investment in automation, and a strong online presence. Maintaining strong solvency parameters, particularly a debt ratio below 20% of total assets and a debt coverage ratio above 100%, rapidly collecting amounts owed by customers (less than 3 days), a current assets turnover ratio higher than 3.5, a high employee return value (over 800,000 lei), continuous reinvestment of profits in expansion, and a sufficient level of inventory to meet customer demand allowed achieving exceptional results in the construction materials and Bricolage industry.

The contributions made by this research have provided a more detailed understanding of the construction materials and Bricolage industry in Romania, as well as effective management strategies in this field. Through the comparative analysis of these companies, a clear picture has been presented of how each company manages its resources, the industry trends for the future, the most effective management strategy, and the leadership model with the highest potential.

The main objective of the study "**Performance Management - Variations of a Balanced Scorecard: A Case Study of Performance Indicators That Can Be Used by the Management of an SME Operating in the Construction Materials Industry**" was to explore how a balanced scorecard-based leadership model can improve the performance of companies involved in the trade of construction materials and DIY in Romania. This involved creating a plan for achieving objectives, identifying representative indicators, and developing a simplified dashboard that can be easily tracked.

The research questions and hypotheses included: How can a balanced scorecard approach improve the performance of companies involved in the trade of construction materials and DIY in Romania? What are the key performance indicators (KPIs) that should be included in a dashboard for the construction materials and Bricolage industry? How can a dashboard be used to align the objectives and strategies of DIY companies with those of their stakeholders? What are the potential challenges and limitations of implementing a dashboard in the construction materials and Bricolage industry, and how can these be overcome? How can a balanced scorecard approach be used to compare the performance of different enterprises, and what are the potential implications for industry competitiveness?

A case study was conducted on an SME engaged in the trade of construction materials, with a focus on understanding and anticipating business seasonality and how it can affect company performance. Additionally, the study explored the use of the dashboard as a management tool to help organizations measure their performance and align business activities with their vision and strategy. This involved considering financial measures, customer satisfaction, internal processes, as well as innovation and development, thus providing a more comprehensive view of organizational performance.

The research results indicated that the implementation of a balanced scorecard-based leadership model can significantly impact the performance of companies involved in the trade of construction materials and DIY in Romania. It was demonstrated that there is a strong positive correlation between demand and sales, suggesting a clear growth trend in sales when demand increases. This can be useful in decision-making for resource planning and marketing strategies.

Additionally, the contributions made included identifying specific key performance indicators (KPIs) that should be included in a dashboard for the construction materials and Bricolage industry, as well as proposing a balanced scorecard-based leadership model that can be used to improve company performance.

Moreover, a deeper understanding of how seasonality can affect the performance of companies in this sector and how a dashboard can be used to measure performance and align business activities with the vision and strategy has been provided.

The main objective of the study "**Comparative Econometric Analysis of the Evolution of Key Economic Players Operating in the Construction Materials and DIY Retail Industry in Romania**" was to identify the independent variables from the balance sheet indicators of a company that have a significant relationship with its revenue (the dependent variable), enabling the prediction of revenue based on these variables. In this regression model, it was expected to highlight which independent variables have a positive or negative relationship with the company's revenue. Moreover, it was expected to identify which independent variables are statistically significant in explaining the variation in revenue. To identify the appropriate independent variables for the model, a multiple linear regression analysis of the panel type was applied, using a range of statistical methods and analysis techniques such as analysis of variance (ANOVA), correlation coefficients, t-test, and F-test. Additionally, the relevance and importance of each independent variable were evaluated through regression coefficients and P-values.

The database consists of 23,658 observations for 8,753 companies in Romania over the period 2010-2022. The data is collected annually for companies in the activity sectors with the CAEN codes 4673 and 4613, representing wholesale trade of wood and construction materials, respectively.

After identifying the limitations of the initial econometric model, a new methodology was developed to improve forecasting capability and construct a more realistic econometric model. This methodology involved removing companies with outlier values of residuals (errors) and segregating the sample into five different groups based on the average revenue over the 13 years analyzed (2010-2022). This approach allowed analyzing the specific behavior of companies from different market segments and provided a better understanding of their dynamics.

The used methodology applied a stepwise regression to analyze different company groups based on the average revenue. Stepwise regression is a statistical method that selects relevant variables for a regression model by eliminating non-significantly relevant variables step by step.

The research results successfully identified significant variables for each company group based on the average revenue. These variables, including total expenses, the number of employees, current assets, receivables, and inventories, have a direct impact on the financial performance of companies. These indicators can be used to develop growth and development strategies for companies.

Furthermore, the results can help identify improvement opportunities and develop strategies to address specific challenges for each company group. Additionally, these findings can be used to inform investment decisions and concrete financing strategies.

Overall, these results provide a solid foundation for the development of growth and development strategies that are tailored to the specific needs and circumstances of each company group. By applying these strategies, companies can improve their financial performance, increase competitiveness, and ensure long-term efficiency.

The main objective of the study "**The Importance of Financial Control in Strategy Formation**" was to analyze and improve the performance of small and medium-sized enterprises (SMEs) operating in the trade of construction materials. This was achieved through a mixed methodology involving financial analysis, business process models, and optimization methods.

The applied methodology was structured into five main stages:

Analysis of the financial flow structure: The risk associated with receipts and suppliers was evaluated by analyzing the top 10 clients to identify revenue dependence and concentration risks, as well as suppliers and associated procurement risks.

Verification of the financial flow in the form of a UML: The visual modeling language UML was used to understand business processes, data structures, and relationships between entities, representing the type of business (B to B, B to C), revenue structures, and expenses.

Financial analysis structured by months (seasonality): Monthly purchases and receipts were analyzed to identify seasonal trends and their impact on the financial flow, comparing purchase and receipt volumes during the summer and cooler months to determine fluctuations caused by seasonality.

Financial analysis from the stock perspective: Inventory levels were examined to evaluate the efficiency of inventory management and adjust it according to demand, identifying potential inefficiencies related to stock volume.

Objective selection through DEA: Data Envelopment Analysis (DEA), a linear optimization technique, was used to establish performance improvement objectives, comparing the efficiency of different SMEs in the construction materials trade.

The research results revealed the seasonal characteristics of the cash flow. It was found that the cash flow of the enterprise is influenced by seasonal factors, which can significantly impact its financial performance. In this regard, it was considered important to analyze these aspects as they can have a significant impact on the financial performance of the enterprise and how it manages its financial resources. It was observed that in July, the enterprise recorded significant cash inflows and outflows on specific days. This suggests that during peak periods of the hot season, the enterprise needs to cope with high demands for construction materials and manage cash flows accordingly. The efficient management of cash flows during these periods was highlighted as essential for ensuring the financial stability of the enterprise.

Moreover, the results indicated that in February, cash inflows were lower than outflows. This could indicate that during the slower periods of the construction season, the enterprise faces difficulties in maintaining a positive cash flow and may encounter liquidity issues. In this sense, it was recommended to consider seasonal factors when planning the enterprise's financial activities to ensure proper cash flow management and avoid potential liquidity problems.

The efficiency scores analysis for the ten companies in the construction materials sector, using the relevant indicators, allowed the identification of their efficiency and productivity. The results provided valuable information for comparing financial and operational performance of companies, considering various dimensions of the business, such as human resources, inventory, and distribution. This study emphasized the importance of adapting the offer to the specific market demand and consumer needs, as well as recognizing the impact of factors such as technology, geographic location, and population density on the growth potential of a company.