Correlation of core strategic business factors in development of Albanian wood industry

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Abstract
In Albania, a number of studies have been done for many different business categories, but there is little or no evidence for strategic management in the wood industry. Over the years, the wood industry in Albania has undergone drastic changes. Company owners say that their business is constantly changing the shape and it is important for them to change the operational model in order to: 1) improve efficiency; 2) reduce complexity; 3) reduce costs; The research was conducted in the district of Tirana and Durres. The data was collected in the wood processing companies and 30 questionnaires were processed in this regard followed by statistical analysis. The study has showed: 1) In terms of the product, companies have considered as a strong factor the development of a new product; 2) Operational management is still in its infancy, but its importance is well appreciated; 3) Most critical areas in operations management are being practiced, except for inventory and innovation. Based on the theoretical framework and the collected data, we find that although the companies aim to be leaders in the market, they are followers of the customer and innovation as a competitive advantage is missing in this field; 4) In terms of technology, 70% of companies accept the purchase of new machines as a very strong factor. 5) The development of new ideas related to the product is also accompanied by obstacles where the financial sector and developments in the region are listed in this direction; 6) The improvement of customer service and quick response in product distribution are strongly correlated; 7) Companies did not achieve the level of synchronization that would be required in an ideal supply chain management; 8) Companies should work on gathering feedback from suppliers and customers and find ways to improve their systems.

Introduction

Wood processing industries include a wide range of activities related to the processing and production of wood products. Nowadays, the wood processing industry faces several important challenges in the modern era where in our field of study it is worth mentioning: 1. Fluctuating wood prices; 2. Competition from alternative materials; 3. Lack of qualified workforce; 4. Market demand fluctuations; 5. Technology integration; 5. Supply chain disruptions; 6. Innovation and Design Trends. The wood processing industry in Albania has taken a solid progress. This industry itself contains a history of change. Until the 1990s, the forms of management were controlled and directed by a centralized state system that determined the form of technology (in large schemes), the quantity of the products on the basis of a concentrated market demand. With the breakdown of the centralized system and the opening of private enterprises, the wood processing industry underwent its changes. Therefore, from large enterprise systems concentrated in few cities of Albania, this industry began its development with a wide geographical extent but fragile and grouped in the small business category. The overpassing of transition period in Albania, the strengthening of the economy, opening of new markets in Albania and abroad and the increase in market demand have also brought a development of the industry toward expansion of the product range, the involvement of modern technology and automated lines of production and increase of specialized workforce for specific technological processes.

Over the years, the wood industry in Albania has undergone drastic changes. Company owners say that their business is constantly changing the shape. As stated above, it is important for companies engaged in this industry to have a well-defined operational management strategy. Ensuring competitive advantages by adding value from operational processes through the transformation of raw wood into final products is very important for companies in the wood processing industry. In Albania, a number of studies have been undertaken for various business categories with regard to the operational management strategy, but there is very little or no evidence for the wood industry. In this way, this study seeks to contribute by presenting the existing practices in the field of operational management and to present the need for their adoption in this direction.

Material and Methods

This is a study designed to identify the strategies that companies in the Albanian wood industry applies to operations management practices. The research was based on the development of questionnaires. The questionnaires were compiled to contain 6 sections as follows: General information, Product, processes and product variety, Strategies, Design and innovation, Operational management practices, Additional information

The questionnaires contained open and closed questions. A Likert scale five-point were used to identify the importance of product, technology and customer in development strategy of the companies. In this study, the target population was the wood processing and trading companies in Albania, registered by the National Business Center (NBC). The research was conducted in Tirana and Durres area. The questionnaires were distributed to several companies but 30 of them responded. The data were analyzed using SPSS and hypothesis testing and statistical test were carried out [1-3].

Results and Discussions

In order to maintain a competitive position in the market, every company must have its own long-term strategy.

Core competencies

As core competencies for the companies are considered products, technology and quality of their products. The companies are aiming to invest in products and machineries in order to maintain competitive advantages in market. The main direction (80%) is the production technology, followed to (70%) product development. These are considered as strong factors that also determine the development directions of the companies. A factor of 25%, is considered the market, determining that even environmental changes have an impact on the company's strategy. In practice, the idea of product improvement is the norm since operations managers are constantly looking for new ideas. A small change in products can be enough to create a substantial difference in demand. As a result, companies feel the need to make frequent adjustments to their products. Besides the market, another pressure to change the type of products comes from internal demands. Many operational activities can adapt their existing product to reduce the cost of production or can design a new product. 100% of the companies admitted that they have a special sector for design of project and admitted that during the last 10 years they have developed new ideas regarding technological products and processes the companies taken in the study [4-5].

Analyze of findings (SPSS)

From the data we are facing a low- variance. Most of answers varies between agree – strongly agree factor in Likert scale. Therefore; in our analysis we consider to use Pearson and Spearman test and to compare the results. We are aware that both of them measure the strength & direction of the relationship between variables.

Table 1. Correlation between product (P), technology (T) and client (CL)

Hypothesis	IV (X)	DV (Y)	Parametric	Non- parametric
There is a correlation between product (P), technology (T) and client (CL)	P, T and CL	P, T and CL	Pearson Correlation	Spearman correlation

Correlation is a measure of relationship between two variables. Correlation analysis is used to describe the strength and direction of the linear relationship between two variables. There are a number of different statistics available from SPSS, depending on the level of measurement and the nature of the data. Pearson product-moment correlation coefficient (r), Spearman correlation (rho) procedures [6-8].

Table 2. Correlation between product, technology and client in development of new ideas and enhancement of the strategy of the company.

Correlations (Pearson)

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Product 1	4.53	0.68	1																	
2 Product 2	4.23	0.90	-0.323	1																
3 Product 3	3.93	0.87	-0.171	-0.201	1															
4 Product 4	4.40	0.67	0.345	0.125	0.047	1														
5 Product 5	4.37	0.56	-0.534	0.444	-0.09	-0.221	1													
6 Product 6	3.33	0.76	-0.156	0.439	0.035	0.27	0.027	1												
7 Product 7	3.97	0.76	-0.229	0.363	-0.107	-0.04	0.192	0.139	1											
8 Product 8	4.07	0.98	0.048	0.609	-0.197	0.271	0.143	0.247	0.141	1										
9 Production technology 1	4.57	0.73	0.065	0.16	0.007	0.225	0.396	-0.027	0.235		1									
10 Production technology 2	4.53	0.51	-0.053	0.096	0.24	-0.04	0.016	0.239	-0.041	0.134	-0.193	1								
11 Production technology 3	3.63	0.89	-0.008	0.111	-0.256	0.023	0.211	-0.017	0.032	0.464	-0.254	0.219	1							
12 Production technology 4	4.10	0.99	0.071	-0.259	0.247	-0.113	-0.131	0.183	-0.267	-0.007	0.062	0.369	0.199	1						
13 Production technology 5	4.27	0.64	-0.338	0.609	0.095	-0.016	0.2	0.379	0.371	0.191	0.183	-0.028	-0.186	-0.314	1					
14 Client1	6.28	9.40	0.153	-0.058	-0.208	-0.13	0.215	-0.332	0.265	0.007	-0.389	-0.18	0.303	-0.213	-0.089	1				
15 Client2	4.30	0.70	0.086	-0.17	0.373	-0.189	-0.291	0	0.276	-0.281	-0.074	0.213	-0.204	0.155	-0.107	-0.082	1			
16 Client3	4.30	0.70	-0.058	0.159	0.034	0.029	-0.026	0	0.083	0.07	-0.074	0.019	0.017	0.054	0.353	0.168	-0.189	1		
17 Client4	4.07	0.78	0.447	-0.17	-0.145	0.208	-0.137	0.077	0.061	-0.096	0.052	-0.006	-0.112	0.212	-0.174	-0.265	0.275	-0.038	1	
18 Client5	4.30	0.84	0.073	-0.051	-0.304	-0.037	-0.096	-0.109	-0.145	0.143	-0.176	0.179	0.523	-0.203	-0.219	0.193	-0.041	-0.158	-0.032	1
19 Client6	4.27	0.74	-0.087	0.059	0.243	-0.083	0.006	-0.102	-0.045	0.07	-0.098	0.067	0.206	0.384	0.209	0.166	-0.027	0.372	-0.091	0.033

From the matrix we notice:

1. Spearman and Pearson coefficient are quite similar with slightly differences.
2. The negative correlation are markedly low and negligible. The (r) coefficient varies between the sizes -0.10 to -0.30.
3. The low variance of variables indicates no strong relationship b/w variables. Most of the responders ranked the variables b/w 3 to 5 in Likert scale and thus provides a low variance of them. Some of the links between variables certify the sub-hypothesis.

Conclusion

The companies included in the study have a clear formulation of their mission and vision, which in itself is an important component in terms of fulfilling the company's objectives. Product technology and clients are stated in their mission. The hypothesis proved that product and technology are two important components ensuring the competitive advantages of the companies. Although the mission is clearly stated by them, the content does not distinguish their differences. Most of them are paying a lot of efforts in product, technology and customers at the same time. Fulfilling the need of market and customers made them follower and not leader. It should be considered as positive that currently the leadership of companies are moving toward compiled strategy but still need to be done in order to enforce their competitive advantages. Focusing and investing in few core competencies rather than working in all of them will ensure more their place in market [9-11].

References

1. Hunger, J. D., & Wheelen, T. L. (2013). Essentials of strategic management. Pearson.
2. Steiner, G. A. (2010). Strategic planning. Simon and Schuster.
3. Caune, J., & Dzedons, A. (2009). Strategiska vadisana. Otrais izdevums (Strategic Management. Second Edition). Riga: Lidojosa zivs, 384.
4. Hill, C. W., Schilling, M. A., & Jones, G. R. (2017). Strategic management: An integrated approach: Theory & cases. Cengage Learning.
5. Whelan, J., & Sisson, J. D. (1993). How to realize the promise of strategic planning. Journal of Business Strategy, 14(1), 31-36. https://doi.org/10.1108/eb039535
6. Geipele, I., & Fedotova, K. (2007). Strategic management decisions: distribution of goods in the market, marketing logistics, merchandising. RTU Publishing House
7. Hitt, M., Ireland, R. D., & Hoskisson, R. (2014). Strategic management: Concepts: Competitiveness and globalization. Nelson Education.
8. Gerry, J., & Scholes, K. (1989). Exploring corporate strategy: text and cases. Prentice Hall.
9. Davies, M., Devlin, M., & Tight, M. (Eds.). (2010). Interdisciplinary higher education: Perspectives and practicalities. Emerald Group Publishing Limited.
10. Ioan, C. C., & Carcea, M. I. (2010). The environmental dimension-An interdisciplinary research area. Environmental Engineering & Management Journal (EEMJ), 9(5), 735-741
11. Fedotova, K., & Geipele, S. (2013). Wood materials applied in civil engineering and wood industry management in Latvia: Case study. Advanced Materials Research, 804, 106-113. https://doi.org/10.4028/www.scientific.net/AMR.804.106