COMPLEX MARKET ANALYSIS MODEL BASED ON COMPLEX SYSTEM OF STRATEGIC DECISION NEEDS FOR BUSINESS COMPANY

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Abstract

The strategic decision system used inside the company consists of a set of decisions about the market position, the structure of their offer, business behavior and coordinating operations. In the management practice, in order to create a competitive strategic system of business, for each level of decision will be used those strategic combinations and alternatives that are consistent with the company's interests and possibilities and with current conditions each market. For it there is continuous process consisting of analysis in various aspects of the market based on its size and continuing with structure, sensitivity and its dynamics, a process that allow having enough data to determine business objectives, specify options for actions and establish implementing measures.

Through this study we analyze a correlation between the needs of business decision on several levels and aspects of characterizing a market so as to be made a correct substantiation in strategic decision. At the same time with utilitarian identification for each type of business market analysis we propose a concise analysis model that is easy to deploy for companies that do not have marketing departments and market studies very extensive.

Keywords: *decision, strategy, market, analysis, system*

JEL Classification: L19, M10, M30

1. Introduction

Market, as aggregate of demand and supply is characterized by several elements of characterization. Many authors propose models for analyzing market generally without taking into account that each element of characterization make the companies take decisions only in one aspect of their work. For instance structural aspects of the market regarding both areal sales structure and assortments sales structure will determine the company's decision regarding its portfolio. Thus firm's business portfolio can be thought of as specialized one or diversified at the same time as a multiple markets portfolio or a focused portfolio on a particular market.

Part of the marketing studies focused on the analysis of market size and form the authors considering that fundamental in formulating company strategy is market volume and its potential (Mann et. al, 1979; Lieberman, 1987). Another part of the studies found that the trends of the market are more important than the size of the market on the assumption that any strategy will consider a future activity and operating period of company in that business market and trend is decisive in making decision (Pelham, 2000; Nobleet, 2002).

A highlight in the literature has been market structure analysis and the impact this has on strategy and organization structure of companies (Pelham, 1995). And a fourth group of studies is placed in a middle area of market research aiming that important functional aspects of the market relating to how the market works and what factors determine certain consumer behaviors but also business competitors behaviors (Narver and Slater, 1990; Morgan and Strong, 1998).

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Therefore we considered it important to propose a complex model analysis of markets that satisfies all decision needs of a firm.

However, in this study we aim to highlight a correlation between the various decision-making needs of the company and the various features that can be analyzed at a market. Because it is obvious that not all information obtained about the business market are relevant for strategic action. Starting from this premise we explain why aspects of functional qualitative analysis of the market will not be useful in decision making concerning sizing production capacity or commercial network together with the necessary logistics. Instead functioning of market identification and description of consumer's sensitivity in one market can be useful in product design decisions, determining how to promote the offer and distribution systems (from exclusive distribution to multilevel-type distribution).

The companies take strategic decisions on several aspects of the business. Each of these matters that concern business are influenced by market characteristics and will impact economic indicators of the company and whose values will indicate the degree of health of the business (Neamtu & Neamtu, 2011).

In this study we inventoried the following four decision-making needs of the firm in relation to markets:

- market position which will set alternatives to strategic business approach, size of the business, capital investment and volume of activity;
- business portfolio that will determine the alternatives regarding firm or corporate strategy;
- selection mode of market segments and business behavior which will determine solutions for business strategy and policy of the company and its diverse strategic business units;
- how to enter and evolving on the market that will determine strategic and functional planning and will take into account the dynamic of product and his functionality in relation to different stages of its life cycle.

2. Analysis of market capacity for establishing a strategic approach regarding company position on the market

Offer and demand capacity analysis is the starting point in market research and base of firm's strategic approaches formulation in its business market. No other feature of the market becomes more important from a business development perspective. A business cannot exist without a market. Because it cannot establish a corporate or a business strategy outside a market size estimates. The accuracy of market supply and demand estimation will determine the strategic approaches accuracy and level of business development.

Taking into account the main trends to estimate the capacity we propose the following four main elements to characterize the market capacity (Neamtu & Neamtu, 2011):

A. Market Volume: synthetic expressed as the amount of product that has been sold in a certain period, usually a year in an area of business. Also estimation can be made as average unit consumption per client. In the case of services estimate of volume can be made in units of measurement such as the number of hours/days of services performed in the field, or the average time to access the service by clients. For example tourism activity can be estimate by indicators such as the average duration of the tourist package or day-tourist. A higher quantity shows a greater presence of the product/service in the shopping cart and so the market is either very extensive (effective market) or a niche market where buyers are specialized but very interested in the product and they purchase large amount of product.

B. Market area: considered as the territorial extent of the market targeted by the company represented by geographical area. But always through the concept of the market area we must understand in fact the number of buyers that they cover the market, because it is not important the physical surface of this market. The best markets are those that involve a large number of consumers in a physical limited space such as a large metropolitan urban market. Also market aria express buyers gravity and space around a store or place of business. Whatever form area of the market is understood, it is important that it is expressed as the number of buyers who purchase or even those who intend to purchase any particular product from an industry.

C. Market extent (depth): we could say it represent the number of segments that compose the whole market or population segments defined by various criteria and acquiring a certain type of product. The more diversified as consumption trends market is the more extension so we can say that it has. The question is to be expressed in value or market depth this extension. So the numbers of products or services the consumers buy in a market it is the market extension. If consumers will have diverse preferences and industry will come up with more choice, the more products will be purchased to the detriment of the quantity of a particular product.

Figure no. 1 Forms/levels of the market

D. Market intensity: describing the qualitative nature of the market in that it expresses the size of a market as monetary-value. A high value market is the market in which the total amount of transactions reaches impressive turnovers. The bigger intensity of consumption is the more customers will be willing to pay a higher price on the product or service purchased. Two markets with the same volume (quantity) can be distinguished by the intensity of consumption so that the one with higher intensity will ultimately have greater capacity.

The market capacity is dynamic because it is subject to constant changes due to needs mobility of consumers, which is reflected in the size, structure and products physiognomy, and the global market and products trends .On the other hand, any company wants to expand its market, while passing from one market level to another .

The practical activity revealed thus four possible paths of company market capacity development: market area growth and increased consumer segments that forms extensive market development; and increased consumption forms of use and increased number of alternative products as well as intensive ways of market growth.

3. Market structure analysis for determining firm's portfolio strategy

Analysis of market structure and segmentation play a key role in defining a products and markets portfolio of the company with effect in increasing the effectiveness of business (Hirschey, 1985). Structurally there are four major types of markets in relation to the two main characteristics: the degree of diversification and concentration levels (Neamtu & Neamtu, 2009).

A. Diversification degree. First we have to define markets with diversified demand by the undiversified demand markets. If one with undiversified demand we are dealing with a homogeneous oriented market type, generally characterized by basic consumption products. Diversified demand characterizes heterogeneous markets based on diverse consumption preferences in relation to many different products and industries.

Markets are diversifying during their evolvement. They evolve with economic and technological developments that facilitate the emergence of new products but also allow consumers to accumulate income with which may diversify their preferences. Another quality level of market is registered under the demographic categories diversification in terms of occupational aspects, family and life style so there are more experiences and new needs inside market. At the same time the new social experiences develop new micro cultures or subcultures and diverse social groups that will turn into groups of consumption independent of each other.

At the same time the markets may be affected by certain setbacks or homogenization with the increasing role and importance of institutional factors such as: opinion leaders, consumer associations, policies on various industries, business domains or products (ex. tobacco), group cultures, consumption habits, etc. All these factors effects a certain group preferences as happens in evolved societies from institutional point of view. In time it can get a new homogenization of the market while all social categories and groups are mixed and the market reaches a new stage. All products meet high technological standards, consumers generally choosing in relation to the price. This results in gradual elimination of less competitive offer and the emergence of competitive and technological monopolies that homogenizes markets.

B. Clustering degree. Secondly a defining characteristic of the market is the distribution of buyers targeted by different lines of product according business approach of the firm. In this regard we distinguish: integrated markets with a demand homogeneously diffused and distributed throughout the entire market area; or on the contrary structured markets with a clustered demand on various areas of the market.

Market as blend of consumer and locations will be composed of several divisions that make up a structured aggregate of need over which the company's business portfolio folds. The degree of market concentration around consumption preferences and around some consumption locations is calculated as the coefficient of market concentration (Gini - Struck). Its result expresses uniform or uneven distribution between market segments either buying groups or market subdivisions.

$$c_G = \sqrt{\frac{n * \sum_{i=1}^{n} p_i^2 - 1}{n - 1}}$$

where: n = number of segments

p_i = share of each segment in the overall market

C_G coefficient can range between 0 and 1. More his value is close to 1, more the concentration of market is higher:

- if it belongs to the range 0-0.3 then concentration degree of the market is low;
- if it belongs to the range 0.3-0.7then concentration degree of the market is average;
- if it is above than 0.7 then concentration degree of the market is high.

4. Market sensitivity analysis for setting the policy/business behavior of the company

The most important analysis of the market is the correct estimation of functional parameters of the market or the so-called functional/sensitivity analysis. Market sensitivity analysis will describe way of working of market exchange processes (Neamțu & Neamtu, 2009).Analysis of functional type on the market can substantiate aspects of business policy of the company. Functional analysis attempts to show the relationships governing the supply and demand in a market. Fundamental indicator that highlights relations between supply and demand and their relations with other functional elements of the market (revenue, cost, cost) is elasticity. In relation to the parameters of this indicator there is some regularity in supply and demand movements on market.

The general function of the market is a complex one, illustrated by a graph of multiple evolutions, consisting of a set of graphs of increasing demand, both in terms of price and available income and assigned income, but also the supply's developments in relation to cost and price. Thus, there is obtained a graphic model of evolution, consisting of a complex of several functional graphs, corresponding to future demand and supply (see Figure no. 2).

This model of market development also certifies that the demand evolves gradually, under the influence of several factors, including directly influenced by the supply, contradicting the general pattern approach of the demand, in addition making arguments to the paradoxes governing the laws of the demand. The evolution during a life cycle of a product, industry or technology describes a closed circuit of the demand market level, with four stages of evolution. The same evolution is valid for the supply. On **the combined pattern of demand and supply** there is also explained the evolution of these market components on a medium term, offering the link between the business' policies of the firms. Thus, the demand evolves in the clockwise, while the supply evolves in reverse.

In conclusion, we should note the following key phenomena (see Figure no. 2):

1. In the 1-st moment, the demand is perfectly inelastic, which makes the buyer to be little influenced by the price, being in search of a truly innovative and superior quality product. Also, at this time the supply is perfectly elastic in relation to costs, which certifies that the costs exceeded the critical threshold, which leads firms to focus on innovation and radical technological solutions. Thus, the 1-st moment is the perfect moment when it is applicable the differentiation policy.

2. In the 2-nd moment, the demand is perfectly elastic in relation to the income, being the moment when the consumer purchases in relation to the attractiveness of the product that can convince the consumers to allocate additional income. At the same time, the supply is perfectly inelastic in relation to price due to the fact that prices reach high levels, the demand has reached the maximum level and the supply tends to be directed to areas where the competition is relatively weak. The 2-nd moment, by its functional specific, becomes that moment in which the application of a policy of positioning becomes inevitable.

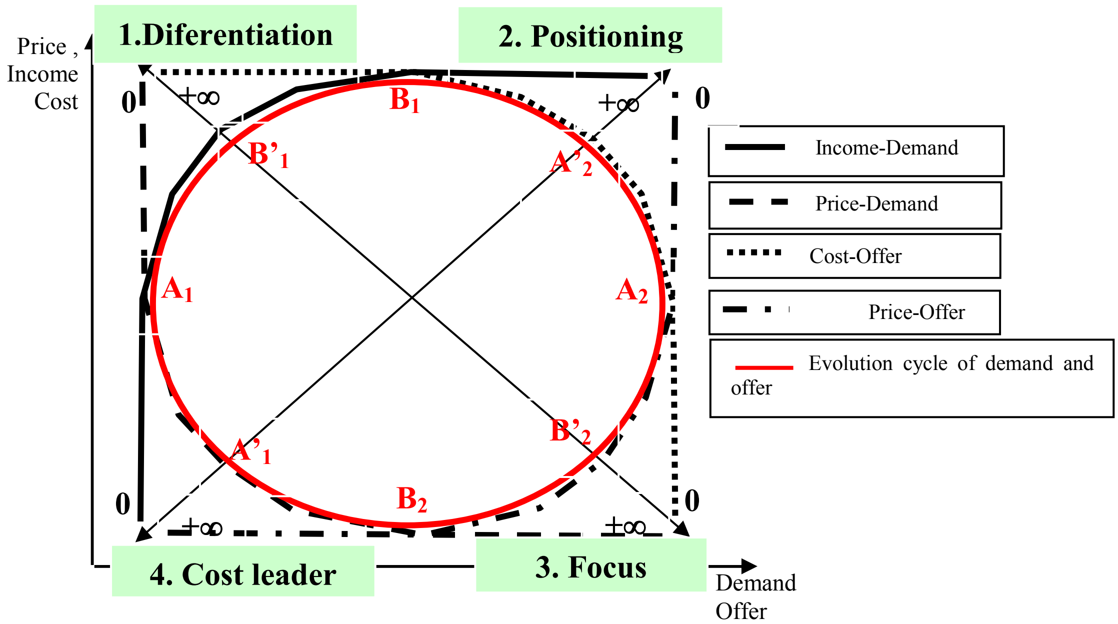

Figure no. 2. Combined model of supply and demand functioning

3. In the 3-rd moment, the demand is perfectly elastic in relation to price, which shows that there are many alternatives on the market, alternatives to choose from. Generally, the consumers migrate, which is a frequent reason for the one who reaches faster to the consumer that will be the main competitor on the market. At the same time, the supply is perfectly inelastic in relation to cost, given that the cost is very low, companies are willing to make additional costs for a better product placement. At this point, it is obviously that if they do not want to enter in a price war, companies should opt for a focus policy that relies on a very good distribution.

4. In the 4-th moment, the demand is perfectly inelastic in relation to income, which means that in the market there are income classes among the consumers, thus being also a certain price reference for each class of consumers. Also, the supply is perfectly elastic in relation to price, being sensitive to any decline in the price, so it is necessary to drastically reduce production costs. In the 4-th moment, the firms have as the main option leader cost policy, aiming to reduce costs and identify main price levels for classes of consumers in the market.

5. Analysis of market dynamics for establishing the strategic plan of action (penetration and evolution) in business domain

If we analyze the functionality and economic efficiency of a product, it is characterized by a period of viability, a certain life cycle in several stages: launch, growth, maturity, decline, and stabilization/fragmentation. According to evolutionary phases of a product it is carried out life cycle of a business field. Business sector and implicit underlying market will be successively in one or another evolution stage and thus will fall under one of the types of industries: young industries, growing industries, mature industries, declining industries/fragmented industries. Major differences between these stages require different and successful business plans model for each stage of development of the field of business (industry).

The temporal transposition of the cyclical evolution of the demand and supply can be described as stages. This transposition allows the correlation of the two models of analysis (functional and dynamic), reflecting a fundamental and permanent link between the market's functionality and dynamics. (see Figure no. 3).

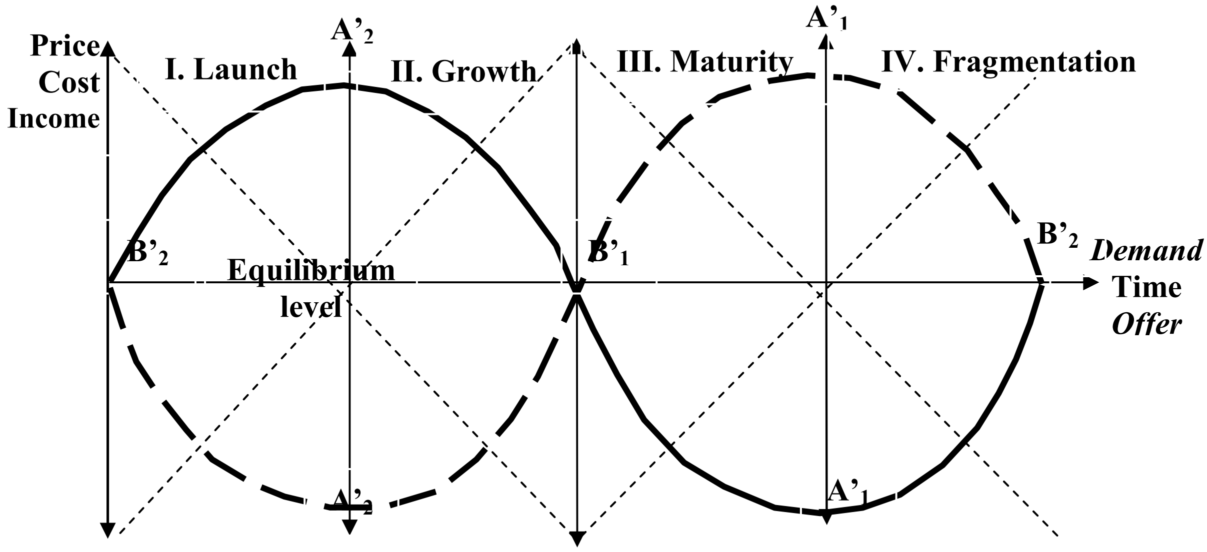

Figure no. 3. The model of demand and supply dynamics

6. Conclusions

Companies develop and adopt business approaches (strategic vision), corporate strategies, business policies, strategic and functional plans, work programs and process design. All these above enumerated component must be developed in an integrated manner within a strategic system targeted towards guiding objectives or otherwise a oriented strategic system. Any change in one level of this well strategic oriented system determines strategic adjustments at all other levels either over or under them.

There is a permanent connection between the two parts of the business: the market environment and internal environment of the company. Both systems are characterized by the same levels of development: dimensions, structure, functional relationships, functional interactions (evolution), dynamic processes and phenomena (factors) of manifestation, these levels having certain parameters status. In an ideal firm-market couple there is a perfect correlation between each level of the two entities of the business domain.

An analysis of the market from one of its levels can theoretically designate the way ahead for the company and its management-marketing levels. However a fair an complete analysis should be conducted at all levels of the market, this analysis having both complex exploratory role and for verification an control use.

We believe that companies generally perform analysis on one or maximum two levels from the four characterization levels of the market. Therefore analysis of supply and demand has never been a complex and complete. But for a complete image of the market it requires a multilevel analysis in the report that it will establish the lines of action of the company, as shown in the figure below (Figure. no. 4).

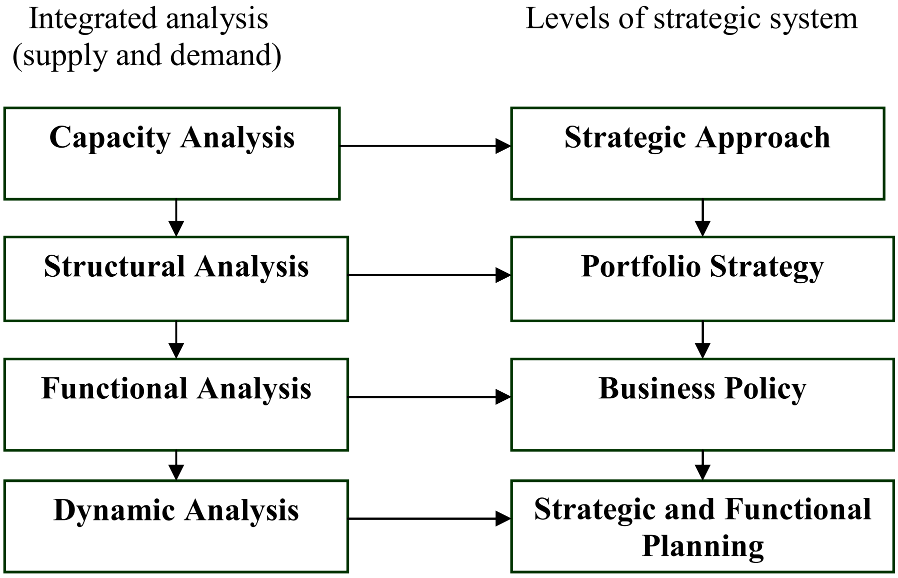

Figure no. 4 Model of complex analysis of supply and demand

References:

1. Day, G. S. (1981). Strategic market analysis and definition: an integrated approach. *Strategic Management Journal*, *2*(3), 281-299.
2. Barnett, W. (1988). Four steps to forecast total market demand. Harvard Business Review, July–August: 28–37.
3. Hirschey, M. (1985). Market structure and market value. *Journal of Business*, 89-98.
4. Duduiala Popescu, L. (2010). Foreign economic affairs internationalization by franchising operations. *Annals-Economy Series*, *2*, 173-182.
5. Duduiala Popescu, L. (2014). The Financial Crisis And The Emerging Markets. *Analele Universitatii" Constantin Brancusi" din Targu Jiu. Serie Litere si Stiinte Sociale*, (3), 84.
6. Enea, C., & Enea, C. (2009). Crisis management effects on tourism services firms and its impact on development sustainable cities. *Annals-Economy Series*, *1*, 159-170.
7. Enea, C., & Enea, C. (2015). Romania's EU Advantages Integration. *Ovidius University Annals, Series Economic Sciences*, *15*(2).
8. Lieberman, M. B. (1987). Excess capacity as a barrier to entry: An empirical appraisal. *The Journal of Industrial Economics*, 607-627.
9. Mann, H. M., Meehan, J. W., & Ramsay, G. A. (1979). Market structure and excess capacity: A look at theory and some evidence. *The Review of Economics and Statistics*, 156-159.
10. Morgan, R. E., & Strong, C. A. (1998). Market orientation and dimensions of strategic orientation. *European journal of marketing*, *32*(11/12), 1051-1073.
11. Mungiu Pupăzan, M. C. (2013). Measuring Competitiveness Of Economic Entities. *Annals-Economy Series*, *6*, 131-135.
12. Mungiu Pupăzan, M. C. (2015). Illusion Of Excessive Consumption And Its Effects. *Annals-Economy Series*, *6*, 234-236.
13. Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *The Journal of marketing*, 20-35.
14. Neamtu, L, & Neamtu , A.C. (2009). Management strategic. Academica Brâncuşi, Târgu-Jiu

15. Neamtu, L, & Neamtu , A.C. (2011). Afaceri internaţionale. Academica Brâncuşi, Târgu-Jiu
16. Pelham, A. M. (2000). Market orientation and other potential influences on performance in small and medium-sized manufacturing firms. *Journal of small business management*, *38*(1), 48.
17. Pelham, A. M., & Wilson, D. T. (1995). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance. *Journal of the academy of marketing science*, *24*(1), 27-43.
18. Răbonţu, C. I. & Bălăcescu, A. (2010). The interdependence of services with economic development. *Annals of Eftimie Murgu University Resita, Fascicle II, Economic Studies*.
19. Răbonţu, C. I. (2015). Services And Their Role In Romanian Contemporary Economy. *Annals-Economy Series*, *6*, 253-259.
20. Romanescu, M. L. (2013). Strategies Adopted by the Company Leadership in Different Situations in Time. *Ovidius University Annals, Series Economic Sciences*, *13*(2).
21. Romanescu, M. L. (2015). Customer satisfaction and loyalty their analysis. *Annals of'Constantin Brancusi'University of Targu-Jiu. Economy Series*, (3).
22. Sanda, G., & Enea, C. (2012). Risks And Responsibilities Between Buyer And Seller In International Relations In Context Of Economic Integration. Ways Of Sharing In The Multinational Companies. *Annals-Economy Series*, *1*, 205-209.
23. Sanda, G., & Enea, C. (2014). Financial Crisis From The Macroeconomic Level To The Microeconomic Level. *Annals-Economy Series*, *4*, 277-282.