

The Marketplace – Key Element to Increase Company Efficiency

Claudiu Cicea

Academy of Economic Studies Bucharest, Căderea Bastiliei Str., Piața Romană 6, Sector 1, Bucharest, Romania
e-mail: claudiu.cicea@man.ase.ro

Abstract

We are passing through a period of new product launching that we have not dealt with ever since the Industrial Revolution. Companies face an ever increasing pressure to bring new products on the market. During new product development, companies of any size must deal with the common problem as regards the transfer of the new products from the R&D stage to that of production and finally to the marketplace. Companies are forced to find ways to improve this process and remain profitable and competitive. The paper introduces the concept of market from a modern perspective, like one of the key components to increase company efficiency.

Key words: market, components, growth potential, investments, segmentation

JEL Classification: L11, M21, M31

Under current economic circumstances, characterized by many competitors and resource constraints, it is very important to sell fast and profitable. In order to achieve this objective, you must understand the concept of market, from a new global perspective. We will analyze three major aspects related to the market concept¹:

1. The characteristics of the ideal market;
2. The selection of the optimal sale market;
3. The segmentation of the optimal sale market.

The Characteristics of the Ideal Market

The concept refers to the existence of a growth potential for the respective market, the possibility to make an early entry on the market, which is attractive from the competition point of view; it needs low investments that will generate high profit; it presents a low risk etc.

1. *The growth potential* – is quantified by the market's size (expressed in EURO or USD) and by its growth rate².

¹ Balaure, V. et al, *Marketing*, Uranus Publishing House, București, 2000

² Boothroyd, G., Dewhurst, P., Knight, W., *Product Design for Manufacturing and Assembly*, Marcel Dekker Inc., New York, 1994

While the market size is important, its growth potential is fundamental to identify new opportunities. In a stable market, a new product can be successfully valued only under the basis of the sales taken directly from the competition. This is more difficult to realize than in the situation of a developing market. Even more, higher prices can be practised for the products on the expanding markets, which make them more attractive than the stable markets.

There are several econometric models for the evaluation of a market's growing potential. One of them is the Franck Bass model³:

$$V(t) = [NCT - TCC(t-1)]xP(t) \quad (1)$$

where:

$V(t)$ – the sales of the new product, at the moment t ;

NCT – the total number of consumers from the market;

$TCC(t-1)$ – the total number of consumers from the market that have already bought the product until the moment $(t-1)$;

$P(t)$ – the probability of those who have not bought the product to buy it during the (t) period.

$$P(t) = P(0) + q \cdot \frac{TCC(t-1)}{NCT} \quad (2)$$

where:

$P(0)$ – The initial probability to buy the product

q – The adjusting coefficient.

Usually, $P(0) = 0,04$ and $q = 0,3$ (values that are smaller for the consumption goods and greater for the production goods).

By replacing the second relation in the first one we obtain:

$$V(t) = -\frac{q}{NCT} \cdot TCC(t-1) + (q - P(0))xTCC(t-1) + NCTxP(0) \quad (3)$$

It is a second quadratic equation with the negative “a” coefficient. Therefore, the function has a maximum, represented by the maximum level of the sales.

E.g.: Let us consider that on a market the sales evolve according to the following function:

$$V(t) = f(y) = -0,0012y + 0,26y + 10 \quad (4)$$

where:

y – represents the number of the buyers in the previous period (thousands of pieces).

We have to determine the capacity of the market and the maximum sales in a given period.

$$f(y) = -0,0012y + 0,26y + 10 = 0$$

³ Bridger, R.S., *Introduction to Ergonomics*, McGraw Hill Inc., New York, 1995

$$\Delta = b - 4ac = 0,1156; \sqrt{\Delta} = 0,34$$

$$y_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-0,26 \pm 0,34}{-0,0024} = \frac{y_1 = 250}{y_2 = -33,3}$$

$$f(y) = \max \Leftrightarrow f(y) = 0 \Leftrightarrow -0,0024y + 0,26 = 0$$

$$y = \frac{0,26}{0,0024} = 108,3$$

$$f(108,3) = -0,0012 \cdot (108,3) + 0,26 \cdot 108,3 + 10 = 24,08$$

Therefore, the maximum capacity of the market is of 250 thousands pieces. Above this value, the sales on the market are practically void. The maximum sales from a certain period are of 24,08 thousands pieces, while the total incomes from the previous period are of 108,3 thousands pieces.

2. The early entry on the market

Given the conditions under which all the other factors are constant, the entry on the market, as a first-provider of certain products or services, offers certain substantial advantages. Following the statistical data, it was established (Table 1).

Table 1. Number of competitors according to the entry order

| The entry order Number of Competitors | The first | The second | The third |
|--|------------------|-------------------|------------------|
| 1 | 100 % | - | - |
| 2 | 59 % | 41 % | - |
| 3 | 44 % | 31 % | 25 % |

Source : Robert G. Cooper – *Winning at New Product: Accelerating the Process from Idea to Launch*, Basic Book Publishing House, 2001

There are more *causes* that can explain the advantages of the early entry on the market⁴:

- the position on the market (the first that enters the market provides products with both the A and B characteristics, in a proportion of 50% and 50%); this way, it will gain the majority of the consumers, thus occupying a central place on the market; those who will then enter the market will be able to attack the central position of the first comer, or find certain NISE, thus assigning different proportions to the A and B characteristics;
 - the entry barriers (with the help of the aggressive publicity, the first on the market can build barriers against the other possible competitors);
 - the consumers' habit (the second who entered the market has to realize a product that is at least as good as the first one in order to convince the consumers to give up the product they have already got used to).
3. *Attractiveness from the competition's point of view* – even if a market is in full expansion and it has only a few competitors, it can not represent a viable opportunity, if the competitive environment is hostile and an important market quote cannot be reached. From this point of view, the attractiveness of the competition mainly refers to:

⁴ Henderson, S., Illidge, R., McHardy, P., *Management for Engineers*, Butterworth Heinemann Ltd. Oxford, UK, 1994

- the possibility to improve the products of the competition, that present different vulnerabilities;
 - the absence of a powerful competitor, when the market quota is approximately the same for all competitors;
 - the presence of an adequate law environment able to stop the various forms of manifestation in case of *unfaithful competition*.
4. *The reduced investments* – taking into account several studies it was seen that the greater the necessary investment to enter the market, the lower the attractiveness of that market. More than that, in case of failure, its amplitude may be a disaster for the company.
 5. *The high possible gains* – the existence of a great number of consumers, with a high purchase power, that will generate great incomes represents an impulse for a company that enters that sale market.
 6. *The low risk* – any market that is considered to be unsafe is not attractive. If the request cannot be estimated or there are great fluctuations, the failure risk of a new product is high.

The Selection of the Optimal Sale Market

The 6 criteria (characteristics) of the ideal market presented above are used to determine the global attractiveness degree of market. In the specialised literature there are many types of classification methods of the markets. The most famous is the life profile analysis method that comprises 3 stages⁵:

1. The explanation of the criteria that are to be taken into account and of the quantification modalities. This stage can be ended in Table 2:

Table 2. Sub-criteria for market's characteristics

| The market's characteristics | Sub-criteria |
|-------------------------------------|---|
| 1. The growth potential | <ul style="list-style-type: none"> ○ the size of the market ○ the sales growing rate |
| 2. The early entry on the market | <ul style="list-style-type: none"> ○ the entry order ○ the necessary time for the stabilization |
| 3. The competition's attractiveness | <ul style="list-style-type: none"> ○ the existence of a law environment ○ the existence of a strong competitor |
| 4. The investments | <ul style="list-style-type: none"> ○ the volume of the necessary investments ○ the reserve of the raw materials ○ the solicited technology |
| 5. The future incomes | <ul style="list-style-type: none"> ○ the term of the investment's recuperation |
| 6. The risk | <ul style="list-style-type: none"> ○ the failure probability ○ the stability degree ○ the rate of technological renewal |

Source : Robert G. Cooper – *Winning at New Products: Accelerating the Process from Idea to Launch*, Basic Book Publishing House, 2001

2. Establishing importance coefficients for criteria and sub- criteria, as well as the development of a unique evaluation scale, necessary to the quantification of the intensity of each criterion. E.g.: the scale from 0 to 4 points (Figure 1).

⁵ Fiksel, J., *Design for Environment: Creating Eco-efficient Products and Process*, McGraw Hill, New York, 1996

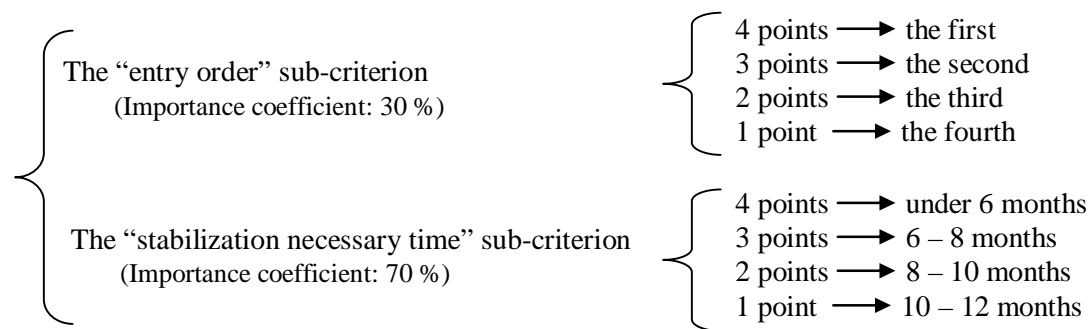


Fig. 1. Establishing importance coefficients for criteria and sub-criteria⁶

3. The calculation of the total score for each market and the identification of the optimal market.

Based on the information provided by the second stage, we calculate the score obtained on the market for each criterion (characteristic). This is obtained by multiplying the score registered by each sub-criterion with its importance coefficient. Then, by summing up all these products, we obtain the score of the given criterion.

In the end, the score of each criterion is moderated with the importance coefficient and added to the sum of the other criteria, thus obtaining the global product of the given market.

The Segmentation of the Optimal Sales Market

Once the optimal sales market identified, we must focus on the issue of identifying the market segment the new product will direct to: the young or older consumers, those with high or medium incomes, those who prefer the risk or the conservative ones etc. To this aim, the segmentation of the sales market can be realized according to⁷:

1. *The demographic elements* (age, sex, familial status, mobility, occupation, educational level, nationality etc.).
 - E.g. – the young families with children are considered to prefer big and safe cars, while single youngsters prefer sports cars;
 - The soft drinks producers consider that the young people prefer the sweeter drinks in comparison with the older persons (“Fanta” with cherry taste).
2. *Attitudes and behaviours* (For instance, consumers with different beliefs regarding religion, politics, family, health, social status, can behave differently on the market, thus contributing to its segmentation).
3. *Different expectations regarding the new product.* Most of the times, persons of the same age, social status and relatively equal incomes have different expectations regarding a new product (e.g. a person prefers to have very clean laundry, so he or she will buy a very strong detergent; another person is preoccupied with the impact over the environment and he or she will buy an ecological detergent; other persons are interested in a detergent that can be safely transported and thus they will buy only detergents that are packed in boxes etc.).
4. *The usage behaviour of the consumers.* From this point of view there are two categories of consumers, situated on extreme positions:

⁶ Johnson, G., Scholes, K., *Exploring Corporate Strategy*, Prentice Hall, London, 1993

⁷ Kahn, K., *The PDMA Handbook of New Product Development*, Wiley Publishing House, 2004

- consumers who use the product in intensive conditions (for them, the new product has to be strong and provide an adequate service network). On many markets, they represent 20% of the consumers, but they generate 80% of the incomes of the respective product;
 - occasional consumers who do not frequently use the new product.
5. *The presentation of the product.* E.g.: It was noticed that the persons who consider their dog as a member of the family prefer the canned meat for the dog, while the persons who consider the dog as a guard prefer the dry food for the dog.
 6. *The product's price* – the segmentation based on the price refers to the division of the buyers in persons who are willing to pay a supplementary price for an EXTRA product (extra light, extra strength, extra dry, super filtered etc.) and persons who prefer the product in its usual form.

The optimal market can be divided with the help of these 6 elements. We must underline the fact that a “too widely” segmented market (e.g.: the sugar-free soft drinks market) creates problems to the team who takes care of the development of the new product, in terms of the necessary time to assess the sales, the selection of the clients, the understanding and counteraction of the competitors⁸. At the same time, a “too narrow” market (e.g.: the sparkling sugar-free soft drinks, packed in boxes of 6 bottles x 2,5 litres for the persons who are over 50 years old) creates difficulties regarding the omission of certain opportunities as well as the relatively small number of consumers.

The first decade of the 3rd Millennium is characterized by a renewed interest in market problems and challenges, in order to improve the efficiency of a company, at the global level. The interest was not least fuelled by new and partly surprising variations in growth patterns across, as well as within, countries. Moreover, the apparent importance of “new” factors in growth, notably new technologies and the way they interact with changes in innovation, in human capital, and in industrial restructuring and organization, triggered novel ways of thinking. We believe that the fastest way to achieve success for a company is to understand the market's features, challenges and characteristics.

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⁸ Manole, V., Stoian, M., *Agromarketing*, ASE Publishing House, București, 2004

Piața de desfacere – componentă-cheie pentru creșterea eficienței companiilor

Rezumat

Am intrat într-o perioadă de lansări de produse noi nemaîntâlnită de la Revoluția Industrială. Companiile se confruntă cu o presiune crescândă de a aduce noi produse pe piață. Pe măsură ce noile produse sunt dezvoltate, transferul produselor noi din stadiul de cercetare și dezvoltare (C&D) la cel de producție și în final la cel de piață de desfacere reprezintă o problemă comună pentru companiile de orice mărime. Companiile sunt obligate să găsească modalități de îmbunătățire a acestui proces de transfer și să rămână profitabile și competitive. Lucrarea prezintă conceptul de piață într-o viziune modernă, ca una dintre componentele cheie pentru îmbunătățirea eficienței într-o companie.