

# The Concept of Structured and Restricted Marketing as a Form of Response to the Current Global Crisis. The Impact of Structured and Restricted Marketing on the Car Market.

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*A new type of marketing, i.e. a structured and a restrictive one, can enrich and detail knowledge of how to structure the market, and to measure the concentration or diversification trend, which can finally lead to a double policy: an aggressive marketing policy for the products with favourable dynamics on a market with an excessive concentration trend, at once with an anti-marketing policy for the products with unfavourable dynamics on a market with an excessive diversification trend. That could be a good response given by the economic higher education to the practical aspects of the contemporary global crisis, but it implies a new definition for marketing and anti-marketing, alongside a clarification of some important notions, like “market with an excessive concentration” (defining the relative limit of a concentration coefficient Gini–Struck, in the general conditions of ABC curve’s theory), or “market with an excessive diversification” (defining the relative limit of a diversification coefficient Gini–Struck, in the general conditions of ABC curve’s theory). All these evaluations for the concentration or diversification speed, can be realized only in the conditions of a*

*better understanding of the structures, associations or correlations on a market under investigation, during a period of crisis. The authors exemplify their concept of structured and a restrictive marketing on the Romanian car market. The main conclusion is that structured and restrictive marketing can promptly remove the products with an inadequate trend on the market. Thus, the theory of marketing and the general economic theory provide a simple and clear response to the crisis, even for a long period of contraction on the market (i.e. a period of recession).*

Key words: *marketing, anti-marketing, structured marketing, restrictive marketing, concentration-diversification coefficient.*

JEL classification: *C46, D43, I23, L11, M31*

## **1. Introduction**

Marketing research, as a result of statistical-mathematical modelling, captures, and concentrates in the shape of mathematical formulae, the characteristic traits of certain processes and phenomena pertaining to the market, ranging from consumer behaviour to the efficiency of advertising and promotion, from prices and price policies to supplying and storage, from distributing, delivering, and even launching of a new product, to the understanding of the life cycle of the firm and the product, from the cyclic behaviour of the business and that of the economy, to the behaviour specific to the entrepreneur and the manager in conditions of crisis, or of economic boom. However, marketing modelling, in its statistical-mathematical acceptance, evinces a major drawback, acknowledged in a large number of market reasearches, in the form of the statement “in the business activity, few (cor)relations preserve their initial statistical-mathematical accuracy through time”. In the same manner as marketing models are simplified representations that describe and conceptualize the actual market phenomena, so must those models identify the optimal modelling solution, in order to maximally reduce the impact of the previous shortcoming, i.e. the solution should not be, at the same time, too simple, or too complex, yet it should also be faithful, prompt and

accurate enough. The marketing models exhibit a specific feature of conceptualization, through their statistically and mathematically personalised stage structure: knowing and quantitatively describing the marketing situation, identifying the main factors, the synchronous and asynchronous dependences and interdependences on the real market, formulating the system of statistical correlations or mathematical equations, detailing, through mathematical methods and techniques, the solutions of the marketing model, testing and validating, in time and space, the model, application of the result / product of the modelling on the real market. The final analysis of the model, after the application of the result of the modelling on the real market, must pay special attention to the promptness of the marketing data, to prevent the model from becoming a series of useless, sterile statistical and mathematical formulae (Săvoiu, Grigorescu, Asandei, Manole, 2005).

In the present paper, the authors propose a twofold approach, which is, at the same time, original and simple, in conditions of crisis: one pertaining to the type of the aggressively structured marketing for the products having a favourable dynamics on the markets with an excessive diversification, simultaneous with a different one, belonging to the anti-marketing type, for the products having a seriously decreasing trend on the markets with a tendency of excessive concentration. To draw a foregone conclusion, we think that an applied solution, focusing on giving a theoretical answer to the current crisis, provided by the economic higher education, could represent a method reflecting the image of a specially selected section of reality, by means of which one could efficiently act in response to various questions and challenges of the market, proving a certain degree of realism, and also a certain error limit, or instrumental relativity. As an immediate consequence, such a simple solution, expressing, statistically and mathematically, the marketing problems having to do with the structure, dynamics and market associations, is identified as being a premise of success in business, on condition it is accompanied, when applied to practical aspects, by the quantification of the decision

alternatives, and the options occurring during the more difficult periods of crisis or recession.

## **2.The theoretical content of a marketing research in conditions of crisis**

Numerous acceptations are associated with the term *marketing*, ranging from the identification of the consumers' needs to determining the product strategy, from ensuring its distribution / delivery to providing information about the product, from establishing the price to ensuring the post-sale maintenance services<sup>1</sup>. In the rather hackneyed sense the phrase currently has, to be busy in marketing means to be active on the market, developing ideas, promoting goods and services, delivering them where they are needed, to the kind of people who are likely to expect them, and are willing to pay for them. The essence of the very concept of marketing research is in fact the implementation of marketing itself, i.e. the research into the possible actions as far as the rational and organization alternatives are concerned, meant to adjust production to consumption (alternatives that relate to anticipating, simulating, generating and expanding demand, devising the manufacturing processes, determining the price in a profitable manner, delivering the products at reasonable costs, diversifying the post-sale services, and conducting the research into the way in which demand is met).

Marketing research in conditions of crisis presents four logically correlated premises:

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<sup>1</sup> The term *marketing* means "the provision of goods or services to meet consumer needs"; etymologically, the underlying English verb (*to market* "(tr. v.) to offer or produce for sale; (intr. v.) to buy or deal in a market", substantivized through its gerundial form) implies the idea of "conducting market transactions, buying and selling goods". It is defined by the American Association of Marketing as a process of planning and implementing of the concepts of product, price, promotion and placing ideas, goods and services, and its objective is to create transactions that should meet the aims and ends of the individuals and organizations. (*Marketing News*, 1985, March, p.1).

- a proportion, which stands in a continual contradistinction, of a number of unsatisfied specific needs, within the bulk of the general needs of the consumers (that, once met, generate smaller and smaller profits),
- an evident, yet ever less strong, desire, accompanied by a diminished capacity of meeting specific needs (increasingly based on own resources, and to a very small extent, or even *not*, based on the access to credits),
- asymmetrical, and increasingly relative, information, an alternative message perceived in proportion to the descending dynamics of the demand, conveyed in apparently adequate and prompt promotion media (which are able to clarify, first the price, and only then the name and the brand / make of the product, the location, as well as the services subsequent to the type of sale),
- a final transaction that is as successful as possible for all the participants, where the marketing or the practical action of the firm on the market makes full circle, ensuring the firm's profit and the customers' satisfaction, with special emphasis on the price of the use value, interpreted through the analysis of the value. The economic crisis imposes the structural and multi-leveled approaches to the markets, the evaluations of the tendencies and the rates of concentration or diversification on specific markets, corresponding to the definition of marketing research, in harmony with Kotler Philip's vision, as the systematic collecting of data, analysing and presenting the results that are relevant for a certain marketing problem the firm has to cope with in times of crisis (Kotler, 1991, Kotler, 1999).

The emergence of the marketing problem constitutes a complex process, among the parts of which one can distinguish the definition of the problem, its practical acknowledgement, and the formulation of the solution-target. Concretely defining the marketing problem is tantamount to formulating the particular model of the process under analysis, through implicit models (structures of thinking non-

formalized models), or through mathematical (formalized) models. (Prutianu, Anastasiei, Jijie, 2002).

The domains of the marketing researches in conditions of crisis conceptually extend even the object of marketing as a science. The approaches of the type of societal marketing, or satisfying needs that concern the whole of society (aggregate, structured, and hierarchical markets) gain priority in order to be able to correctly tailor the potential and effective demand. The initial approaches, in conditions of economic boom, are given secondary status compared to the particularizing investigations at the level of the product or service. If, currently, the overwhelming bulk of the marketing researches in Romania is represented by those carried out at the level of production, or of the product, being rather based on hypotheses starting from within the production, and evolving towards the outer sphere, defined by consumption, and much less on the view of crisis marketing, the latter is centred round a completely opposite perspective...

As can be noticed, crisis must be perceived not only as part of the theory of marketing, which is seen, in this paper, as an important referential domain of the economic higher education in Romania, but also, in the practice of the marketing researches, as a period of major theoretical mutations, of shifting methods and concepts, as a response to the global challenges, be they financial, monetary, concerning consumption, the living standards, and even life quality...

### **3. Anti-marketing, and marketing structured on excessively concentrated or diversified markets**

Knowing the mechanism of market functioning in a correct, structured and restrictive manner leads to an improved consumer-producer relationship, through a type of management taking support on a marketing research, or a market study, which are, in their turn, increasingly based on real-time information, using the restrictive possibilities given by the crisis conditions where, on the market, both

the consumers, and the producers are equally faced with problems of optimum: the consumer wants to obtain maximal satisfaction with a minimal income, on a descending average dynamics, and the producer wants to maintain the turnover on a contracting market, while minimizing the production and sale costs, which in fact practically coincides with an increased relative market quota (Săvoiu, 2007).

A distinct aspect of the structural approach to a specific market in a global crisis context is provided by the characterization of the degree of uniformity of the repartition of the sales, or delivery / distribution (i.e. the turnover, goods distribution / delivery, exports, etc.) per products, or per geographical areas / regions. In accordance with the data that are available, the structural analysis of the market will have to capture several aspects, with regard to both space, and time location: the proportions that are established between the various products or groups of products, the competitiveness of the products on the market, and the geographical distribution of the delivery.

In that respect, and along a methodological line, the most frequently resorted to are the method of the Gini-Struck coefficient, the method of the Herfindahl-Hirschman coefficient, or the ABC method (Săvoiu, 2009).

To measure the degree of uniformity, Corrado Gini proposed the following relation:

$$G = \sqrt{\sum_{i=1}^n g_i^2} \in \left[ \sqrt{\frac{1}{n}}; 1 \right], \quad (1)$$

where  $g_i$  represents the weight of the product  $i$  within the total amount of sales / delivery. When the  $n$  products have equal weights within the amount of sales, the structural repartition is uniformly  $G = \sqrt{1/n}$ , uniform and when the sales are concentrated at the level of one product only, then  $G = 1$ . The variability of the inferior limit of the Gini coefficient, as compared with the  $n$  products analysed,

determines a relative difficulty in using it in temporal comparisons. To eliminate that disadvantage, a number of correction procedures were proposed in order to deal with the Gini coefficient. Such a procedure was proposed by R. Struck:

$$GS = \sqrt{\frac{n \sum_{i=1}^n g_i^2 - 1}{n - 1}} \in [0;1] \quad (2)$$

If the value of that coefficient, finally designated by the name Gini-Struck, tends towards 1, it is indicative of a high degree of concentration of the structure, and if the value of the coefficient tends towards 0, it indicates a poor degree of concentration of the market analysed. Turning to account an intermediate form of the above calculation, the Herfindahl-Hirschman index can be determined, which is used to virtually the same end as the Gini-Struck coefficient, but has the additional benefit of higher promptness in measuring the degree of diversification of the activity for various market structures that are useful for the analysis:

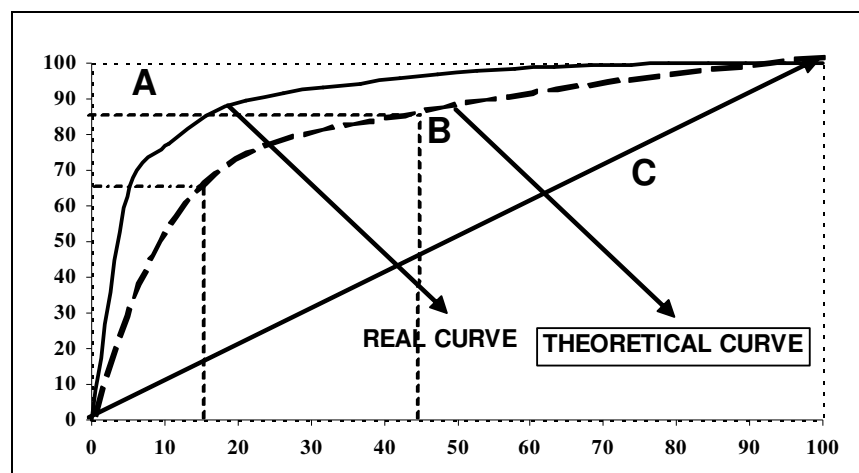
$$HH = \sum_{i=1}^n g_i^2 \quad (3)$$

The structural approach to the market can also be undertaken by means of the classical schema of the ABC curve. The analysis of the theoretical curve allows to identify, within the whole of the products commercialized, three groups having specific features: a group that includes only few articles, but achieves a large portion of the turnover, to which are added another two groups, which achieve less than half of the turnover, but concentrate most of the products.



### The ABC curve of the structure of the turnover on a specific, excessively concentrated market

Graph no. 1



Judging by the marketing researches conducted at various points in time, we were able to establish the following average, or approximate coordinates of the theoretical curve on an excessively concentrated market: 10% of the number of products represent 60% of the turnover; 25% of the products achieve another 25% of the turnover; 65% of the products also contribute 15% of the turnover. In the situation where the real curve is situated above the theoretical curve, this means that the products in region A are prevalent, so the market is either restricted in point of assortments, or excessively concentrated, which would, in crisis conditions, lead to either tough competition, or agreements between the market leader and his runner-up. For an outsider firm, of a rather small size or having a low market quota, the degree of uncertainty tends, in either situation, to a maximum. A policy of anti-marketing is then in order, i.e. a restrictive marketing on

that market, or simply abandoning the market, as a means of prevention, lest only costs, viz. losses should be scored.

This manner of interpretation, specific to the ABC curve, allows to identify, when the Gini–Struck coefficient is calculated, the limit of excessivity in the concentration on a given market (over a certain period), which would dictate anti-marketing, restrictive marketing, and even abandoning the market in cause.

**Table no. 1**

Zone	Structure of the turnover on an excessively concentrated market ( $g_i^{CA}$ )	$g_i^{CA}$ (%)	$(g_i^{CA})^2$
A	0.60	60,0	0,36
B	0.25	25.0	0.0625
C	0.15	15.0	0.0225
Total	1.00	100.0	0.4450

$$GS = \sqrt{\frac{n \sum_{i=1}^n g_i^2 - 1}{n-1}} = \sqrt{\frac{3 \times 0,445 - 1}{3-1}} = 0.409267 \cong 0.41$$

In the situation where the real curve is situated below the theoretical one, it means that the market is structurally defined by a large number of products in regions B and C, which virtually coincides with the situation of a diversified market. In the case of an excessively diversified market, competition grows very slight, as the challengers are in a very large number; this situation gives the outsider (the small firm, or the firm having a low market quota) a greatly diminished degree of uncertainty in conditions of crisis.

The same manner of interpretation as the one described in Table 1, specific to the ABC curve, when the Gini–Struck coefficient is calculated, conduces to identifying the excessiveness limit in the diversification on a certain market, which would dictate non-restrictive marketing, and development on a certain market.

**Table no. 2**

Zone	Structure of the turnover on an excessively diversified market ( $g_i^{CA}$ )	$g_i^{CA}(\%)$	$(g_i^{CA})^2$
A	0.30*	30.0	0.09
B	0.33*	33.0	0.1089
C	0.37*	37.0	0.1369
Total	1.00	100.0	0.3358

*Note:* The three groups, or zones of firms, regions, products have the same structural level for the first decimal unit of their specific weight on market, and are empirically distributed, in a manner that is as normal as possible.

$$GS = \sqrt{\frac{n \sum_{i=1}^n g_i^2 - 1}{n-1}} = \sqrt{\frac{3 \times 0,3358 - 1}{3-1}} = 0.0608 \cong 0.061$$

**The approximate values of the coefficients through the “method of the relative limits”, on excessively concentrated or diversified markets**

**Table no. 3**

Limits of the indicator	Excessively concentrated markets	Excessively diversified markets
The Gini-Struck coefficient	0.41	0.061
The Herfindahl-Hirschman coefficient	0.445	0.3358

The analysis can be extended both territorially, and at the level of the firm, and it will generate either territorial concentration / diversification coefficients, frequently to be met with by the name of indices of the geographical distribution of export, or assortment

deconcentration / diversification coefficients. The extension of the geographical area of the market is directly conditioned by the firm's inner economic development, by the quality and diversification of the supply, of the marketing policy and strategy. At the same time, the geographical extension of the market determines a certain flexibility of the firm, meaning that it reduces the degree of dependence on certain markets. On the other hand, an exaggerated extension of the market has a negative effect on the efficiency of the firm's economic activity, meaning that the production factors are defectively used. In this case, there occur two cases of excess, known by the names of extension or diversification on the foreign markets, and limits of concentration or limitation on the domestic markets (analogously interpreted in point of value as in Tables no. 1 and 2, with the explanatory addition that, instead of zones, foreign markets will be resorted to, finally reaching the same values as those in Table no. 3). The methodological analogy and the relative limit values are also preserved for the assortment range produced by the firm (Grigorescu, 2004).

#### **4. The method, as applied in conditions of crisis, and the statistical instruments quantified on the basis of the available data**

##### **4.1. Significant general aspects concerning the car market**

The domain of analysis and exemplification of the present paper is represented by the car market, with a specific emphasis on the car fleet in Romania, a complex, as well as heterogenous, statistical indicator<sup>1</sup>, including both the number of the Romanian-made cars, and the imported cars, having widely various periods of exploitation, and technical or pollution features. The evolution of the car fleet in

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<sup>1</sup> The car fleet, as a statistical indicator, is made up of the sum total of the cars that are in circulation at a given moment, as a rule at the end of a year ([www.insse.ro/methodological aspects](http://www.insse.ro/methodological_aspects), 2009).

Romania has seen a steep ascending dynamics, with annual ratios of over 10 %, which will theoretically lead to a doubling of its volume over an average period shorter than seven years.

**The car fleet in Romania, and the number of cars per 1,000 inhabitants**

**Table no. 4**

Year	2006	2007	2008
Number of cars in traffic	3,220,682	3,541,765	4,013,576
Number of cars as per 1,000 inhabitants	149	164	186

*Sources for the data:* <http://www.drpciv.mai.gov.ro/> and <http://www.insse.ro/>

In the year 2008, the weight of the Romanian developmental regions, in the descending order of their respective car fleets, shows an excessive polarization, apparently uncorrelated to either the region's population, or their areas. The most graphical example is that of the city of Bucharest, which has more than one quarter of the car fleet in Romania, but only 10.3% out of the country's population, and, respectively, 0.8% out of its area. The opposite pole is represented by the developmental region South-West, which has only 8.4% out of the national car fleet, while having a weight of the population of 10.6%, and, respectively, 12.2% out of the area. On the other hand, a stable correlation can be foreseen between the weights of the development regions as far as their GP and car fleets are concerned.

**The weight of the development regions in the national car fleet, as against the weights represented in the country's population and area, as well as the NGP**

Table no. 5

%

Region	Bucharest	South	South-West	West	North-West	Central	North-East	South-East
<b>Weight within the national car fleet</b>	<b>25.9</b>	<b>12.2</b>	<b>8.4</b>	<b>9.2</b>	<b>12.3</b>	<b>11.4</b>	<b>10.1</b>	<b>10.5</b>
Weight as against the population	10.3	15.3	10.6	9.0	12.6	11.8	17.3	13.1
Weight as against the area of the country	0.8	14.5	12.2	13.4	14.3	14.3	15.5	15.0
Weight as against the GNP	22.5	12.9	8.3	10.4	11.8	11.7	11.2	11.2

Sources for the data: <http://www.drpciv.mai.gov.ro/> and Romania's Statistical Yearbook, Ed. INS, Bucharest, 2008

Using a Pearson association coefficient (i.e the Pearson correlation, marked with  $r$ ), the following significant values are identified (Trebici, 1985, Gherasim, 1985), which define the existence of a number of correlations of strong intensity ( $0.75 \leq r < 0.95$ ) between the number of inhabitants and the number of the licensed cars.

Table no. 6

Associated statistical variables	Number of inhabitants – Number of new cars	Number of inhabitants – Number of prior-owned cars	Gross national product – Number of licensed cars
Pearson association coefficient ( $r$ )* (Pearson correlation)	0.836	0.851	0.972

\* The values of ( $r$ ) were determined by using the SPSS program

The value of the coefficient of association between the GP and the number of the licensed cars is indicative of the existence of a connection of great intensity, close to the maximal limit ( $0.95 < r \leq 1.00$ ). However, values apt to define significant correlations between GP/inhabitant and the number of new prior-owned cars ( $r = 0.008$ ) fail to appear, as do those holding between GP/inhabitant and the number of prior-owned cars ( $r = 0.148$ ) on the plane of the counties and regions. The national car fleet has seen an ascending evolution in a different manner when the developmental regions are concerned, but there have been clear tendencies of diminishing the regional deviations that have occurred over the last year prior to the globalization of the recession, i.e. the start of the financial crisis in Romania as well.

### The regional dynamics of the national car fleet in Romania

**Table no. 7.**

Previous year = 100

The temporal and regional dynamics of the car fleet	Bucharest	South	South-West	West	North-West	Center	North-East	South-East
2007	12.8	10.8	9.3	8.8	8.4	7.5	9.4	9.0
2008	14.2	12.5	11.5	14.0	14.1	13.5	13.8	11.4

*Source for the data:* <http://www.drpciv.mai.gov.ro/>

The developmental region including Bucharest and its neighbourhood has seen the highest dynamics of the car fleet. Similarly, the rise of the Central Region, from 7.5 % to 13.5 %, is quite remarkable, with the major contribution of the county of Braşov, the quota of which exceeds 26%. In the year 2009, the ascending trend of the car fleet already sees significant mitigations.

#### 4.2. The market of prior-owned cars

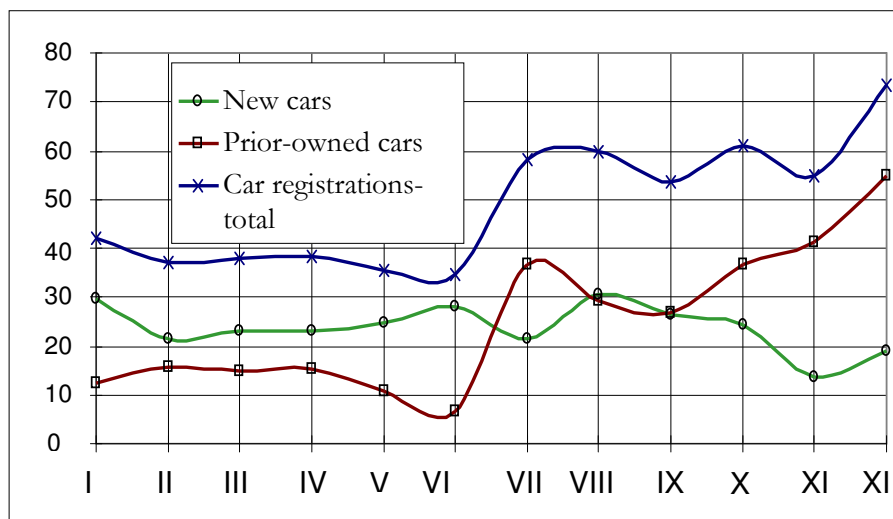
The prior-owned cars represent a high degree of attractiveness owing to the comparatively low price, and the buyers who asked for them were mainly interested in such criteria as the price and the make. In general, young people are attracted by the prestigious makes, especially the German ones, which can give one a certain image and status, but, as those people are restrained by their income, they can only buy prior-owned cars, which cost very little compared to the new cars. In the year 2006, 116,752 prior-owned cars were licensed, in 2007, 123,842 units were licensed, and in the year 2008, 300,981 units were licensed, according to the data provided by the Department for the Regimen of Driving License and Car Registration (DRDLCR), which is part of the Ministry of Administration and Domestic Affairs. In graph no. 2 are represented, for the sake of comparison, the evolution of the prior-owned car registrations, and that of the new car registrations, during the year 2008 (*Anuarul statistic al României*, 2008 și *Buletin statistic APLA*, 2008).

Beginning with July 2008, after the repeal of the registration of the imported prior-owned cars, they have massively penetrated the Romanian market.



## Monthly evolution of the car registrations in 2008

Graph no. 2



Source for the data: <http://www.drpciv.mai.gov.ro/>

The number of the licensed and registered prior-owned cars shows a normal decrease in the year 2007, from 42.8 % to 28.4 %, only to rise sharply in the following year, so much that it exceeded the weight of the new cars (51.3%). From that point of view, the market reveals, prior to the beginning of the global crisis, a contradictory and abnormal evolution, with a significant impact, as the prior-owned cars represented, in the first three months of the year 2009, 53.2 %. The evolution abnormality of the market in 2008, materialized by the flooding of the market with prior-owned cars, is triggered, on the one hand, by the repeal, by the Government of Romania, of the car registration tax in July, and, on the other hand, by the delay in the propagation of the effects of the world financial crisis, which was hoped to spare Romania, which led to the artificial dilation of the demand for prior-owned cars up to the point when the effects were felt.

### 4.3. The market for the new cars

The general trend of the new car market was ascending before the debut of the crisis, but the market was deeply oscillating, or sub-annually alternative, and also in segments of spatial market. That specific market exceeded the threshold of 100,000 as early as the year 2003, and the doubling of the sales was subsequently achieved, in only two years. The year 2005 constituted the peak in point of dynamics, marking the highest level of the annual growth rate (48.5%). The remarkable growth is due to the doubling of the car imports. In 2008 the number of the cars sold was 13 times larger than that of 2000, the reference year. The year 2008, when the financial crisis started, exhibits a negative dynamics, the first consistent and generalized reduction in years, especially noticeable in the last trimester of the year, when, alongside the effects of the financial crisis, the sales of new cars were affected, and so were, even more profoundly, the sales of cars manufactured in Romania (-26%).

#### Car sales on the Romanian market over the period 2000-2008

Table no. 8.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total sales	66276	72157	88802	106673	145120	215532	256364	315621	270995
Percent increase as to the previous year	-	8.9	23.1	20.1	36.0	48.5	18.9	23.1	-14.1
- Imports	14430	23828	34275	42054	58165	102043	137252	204719	189050
Percent increase as to the previous year	-	65	44	23	38	75	35	49	-8

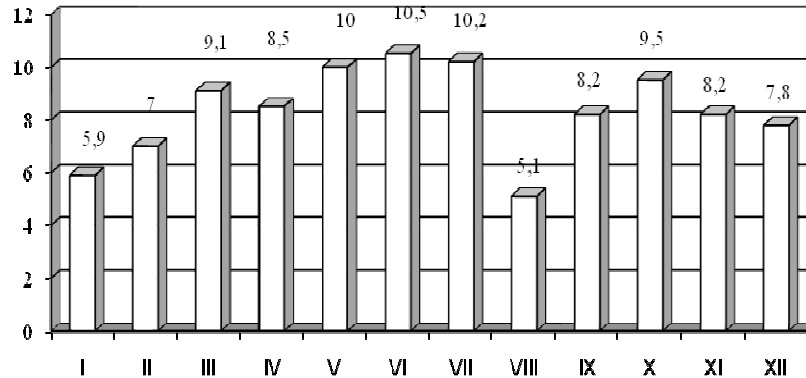
- Domestic production	51846	48329	54527	64619	86955	113489	119112	110902	81945
Percent increase as to the previous year	-	-7	13	19	35	31	5	-7	-26

*Source for the data: Statistical APLA Bulletin, 2008*

The seasonal variation of the car sales reveals interesting aspects, which do not justify the high dynamics of the fourth trimester of the year 2008. Analysing the Romanian-made car sales for the interval 2000-2008, one can notice that the months of August (5.1%), January (5.9%) and February (7.0%) are the periods of the smallest sales, whereas the second and the fourth trimesters have the highest weights (viz. 29% and 25.5%), while the yearly seasonal wave is placed in the months of May, June and July (10.0%, 10.5%, and 10.2%, respectively).

**The weight of the monthly sales as against the annual sales, for the domestic Romanian-made cars**

Graph no. 3



Source for the data: *Statistic APLA Bulletin, 2008*

The seasonal variation revealed by the weight of the monthly sales during the period 2000-2008 is realized in sheer contrast to an average monthly weight of 8.33%, thus generating a relative amplitude of nearly 65%, which creates a marked sub-annual instability of the market. A number of contradictory sub-monthly or inter-monthly tendencies appear as well, as is the case of the month of August, when the sales of imported cars keep an approximately constant level compared to the mean value of the absolute level (with the market preserving a relative stability), but the trend for the domestic (or Romanian-made) cars was descending.

#### 4.3. The degree of market concentration or diversification

The validation of the theoretical answer is possible through the specific concentration or diversification determinations. As far as the Romanian car market is concerned, the solution for a suspected excessive concentration is given by the structured and restrictive marketing; within the modern economic education, in its attempt to understand, and adjust itself to, the global crisis, on a methodical

plane, this can be done through the interpretation of the specific ABC curve. To be able to correctly assess the phenomena of concentration or structuration, it is imperative to ensure methodological comparableness, that is to delimit groups A, B, and C.

These categories refer to the sub-markets in keeping with the origin of the cars (A stands for used cars, B stands for the new, imported ones, and C stands for the new, domestic-made ones). A unitary methodology allows to accurately determine (in accordance with relations 1, 2 and 3, exemplified in Tables 1 and 2) the specific coefficients, as well as identifying the positioning of the market with respect to the excessiveness limit in concentration, determined in Table no. 3), which imposes a policy of anti-marketing, or of restrictive marketing, and even abandoning the market.

**Analysis of the structure, concentration and diversification of the car market in the years 2007, 2008, and during the first six months of 2009**

**Table no. 9.**

Sub-markets or classes in keeping with origin	Number of cars 2007 (registrations)			
	Sales	Structure of sales ( $g_i$ )	$g_i$ (%)	$(g_i)^2$
Used / prior-owned	123,842	0.28376	28.38	0.08052
Imported– new cars	202,515	0.46403	46.40	0.21532
Domestic– new cars	110,074	0.25221	25.22	0.06361
Total	436,431	1.00000	100.00	0.35945
Sub-markets or classes in keeping with origin	Number of cars 2008 (registrations)			
	Sales	Structure of sales ( $g_i$ )	$g_i$ (%)	$(g_i)^2$
Used / prior-owned	200544	0.513118246	51.31	0.263290
Imported– new	300891	0.341993564	34.20	0.116960

cars				
Domestic– new cars	84,962	0.144888190	14.49	0.020993
Total	586,397	1.000000000	100.00	0.401243
Sub-markets or classes in keeping with origin	Number of cars January-June 2009 (registrations)			
	Sales	Structure of sales (g <sub>i</sub> )	g <sub>i</sub> (%)	(g <sub>i</sub> ) <sup>2</sup>
Used / prior-owned	129,075	0.673219352	67.32	0.453224
Imported– new cars	43,967	0.229319662	22.63	0.052588
Domestic– new cars	18,686	0.097460986	9.75	0.009499
Total	191,728	1.000000000	100.00	0.515310

Sources for the data: <http://www.drpciv.mai.gov.ro/> and *Statistical APLA Bulletin, 2008*

The structure of the used / prior-owned car sales shows larger and larger weights for this type of cars (28.38% in 2007, 51.31% in 2008, and 67.32% in 2009). The main tendency continued to be the ascending one, at the end of the year 2008 as well. Although the weight for the year 2009 is relatively high, this is the consequence of the abrupt decrease in the total new car sales, especially for those manufactured in Romania; the current trend became decreasing at the end of the semester, i.e. 67.32% as compared to the first semester of the year, when the weight was 71.28%. As for the weight of the new car sales, the domestic-made ones record growth figures from 7.53%, in the first trimester, to 9.75%, at the end of the second trimester.

The concentration–diversification coefficients of the Gini–Struck, and Herfindahl–Hirshman types, indicate values that describe the imminence of an excessively concentrated market, which gains confirmation in the first semester of the current year.

### Excessive concentration of the Romanian car market between 2007 and 2009

**Table no. 10.**

Indicator	Relative limit for the Excessively concentrated markets	Romanian car market in the year:		
		2007	2008	2009*
The Gini-Struck coefficient	0.41	0.1979	0.3192	<b>0.5225</b>
The Herfindahl-Hirschman index	0.445	0.3595	0.4012	<b>0.5153</b>

\* *Partially (for the first six months)*

The main contribution to generating the excessive concentration was claimed by the sub-market of the prior-owned cars, a category of cars which, during the last months of the year 2008, included, at the height of the global crisis, over 70% of the Romanian market. A parallel aspect already identifies the policy of restrictive marketing, within the framework of the sub-market of the domestic(-made) cars that are new, through the emergence of a phenomenon of diminution of the weight of the used cars in 2009, as part of the overall picture of the car registrations and licensing, though they still account for an overwhelming proportion (over 67%).

### 5. Conclusions concerning the character, and the specific policy for a market during the crisis periods

Several conclusions can be formulated, both general, relating to the marketing policy in conditions of crisis, bearing a major impact on the practical development of the activity of a firm of small or middle size, and particular, determined by the use of a new method, defined as the “method of the relative limits”, on excessively concentrated or diversified markets, as a result of the research conducted.

**I. The impact of ignorance: NETMA (nobody ever tells me anything):**

Nothing affects the personnel's morale more seriously than the lack of information, especially at the executive level. The above statement belongs to Ed Carlson, former president of United Airlines; this truth can be completed by: "more especially in times of crisis..."

**II. The impact of the law 60 – 80 – 100, or the practical correction of the theoretical models:**

From the calculation of the provisioned turnover figure reached through statistical-mathematical modelling, it is more prudent to retain, for the following three ten-day periods of three months, only 60 % – in the first one, 80 % – in the second one, and 100 % – in the third ten-day period or month (permanently calculating the relative error of the estimation).

**III. The impact of Pareto's law, or the Paretian 20/80 optimum:**

A percentage of only 20% of the customers bring in approximately 80% of the income (deduced and approximated from the Paretian principle according to which "85% of the total amount of the taxes and imposts is paid by 15% of the tax-payers"). That optimum will be polarized, during the period of the crisis, around the principle of the coefficient of homogeneity of an alternative variable with a dispersion that could bring the customer population to the homogeneity limit of 35% – or, in an expression based on coefficients – of 0.35. If  $p$  is the mean value of an alternative variable, and  $p(1-p)$  is its dispersion, then the Paretian limitative optimum is determined from the equation

$$C_o = \frac{\sqrt{p(1-p)}}{p}$$

$p = 0.35$ , hence  $p = 0.891$ . Which translates as a polarization to the homogeneity limit, which expresses through the formula: "10.9% of the customers alone bring in approximately 89.1% of the incomes".



#### **IV. The impact of the excessively concentrated/diversified market on the activity of the firm during a crisis period:**

On the excessively concentrated markets which exceed the relative limits of 0.40 for the Gini-Struck coefficient, or 0.44 for the Herfindahl-Hirschman coefficient, it is recommended to small- and middle-sized companies to follow a policy of anti-marketing, or a restrictive marketing on the respective market, simply to preventively abandon the market in order to prevent recording only costs, i.e. losses. The effort of those firms must be redirected towards the excessively diversified markets, which are situated below the level of the relative limits of 0.06 for the Gini-Struck coefficient, or 0.33 for the Herfindahl-Hirschman coefficient. On such markets, the small and middle-sized companies can apply policies of non-restrictive marketing, as well as the continuous development, with emphasis on reducing the costs and the prices and on the quality strictly relating to the use / employment value of the product. The identification of the concentration or diversification of the markets at the level of the counties or developmental regions is peculiarly useful, as that would allow the firms prevalently dealing in delivery / distribution to enter, or leave, a given market.

The analysis of the Romanian car market reveals the following significative synthetic aspects:

- a) Romania's car fleet shows an excessive polarization, lacking correlation with both the regional population, and the area of the country;
- b) Romania's car market is atypical, and manifests abnormal evolutions;
- c) the paradoxical rise of the registration / licensing of sporting cars, all-terrain cars and limousines, especially as prior-owned cars;

d) the impact of the scheme / programme of car fleet renewal is attenuated, because of the fact that the quotas allocated for the firms were not consumed;

e) the reserve of the potential customers in purchasing a new car, on account of the not so easily accessible credits, and also to the growing uncertainty concerning the security of employments, i.e. of personal incomes (one in ten Romanians has already lost their jobs during the first six months of the year 2009) ;

f) the seasonal variation of the market is excessive, internally contradictory, generating a relative amplitude of nearly 65%, which leads to a marked infra-annual instability;

g) the market also exhibits a structural abnormality that has evolved over the last three years (including the year 2009), materialized in the flooding of the market by used / prior-owned cars, the cause of which are a set of inadequate macro-economical policies, and which, on the other hand, amplify the effects of the global crisis;

h) going out of Romania's own market, which is excessively concentrated and dominated by the used cars, onto an external, excessively diversified market, appeared as the only solution of a simultaneously restrictive type on the domestic market, and also centering on an aggressive type of marketing, for the newly penetrated markets.

The *Dacia* concern has found new resources (through the *Logan* and *Sandero* makes), while also anticipating the phenomena of the crisis on the car market, and thus seems to have followed the optimal solution, summarily described through the method of the structured and restrictive marketing, through relatively and temporarily abandoning the Romanian market, and going out, through a policy of aggressive marketing, onto the German car market, which is justly considered the typical model of the excessively uniformed market, specific to the Rhenish model of economic development, the car market having the

highest diversification in Europe, yet also placed among the first strongly atomized markets on an international plane.

## 6. A final remark

The growth of the car fleet would no doubt have been bigger unless the contraction of the demand had occurred, against the background of the financial crisis, which became, in the meantime, a crisis of the global type. The decrease in the sales, as compared to the previous similar period, reached, in some ten-day periods of the crisis months in the last two semesters, levels close to 70%. The year 2009 brings about major changes in the structure of the car market. Certainly, the amount of the registration and licensing of new cars as compared to that in the similar periods of the previous years has seen a substantial drop; yet, a revitalization of the new car sales is noticeable as compared to the sales of used cars, with a weight coming close to 50% in June last year (11,005 registrations, as against 11,647 used cars). The signals of reinvigoration of the car market, though still slight, are however part of an ascending trend.

The challenges of the crises always make it necessary for the research and the higher education to formulate a theoretical answer. Information, innovation, the new entrepreneurship, the new theories, methods and instruments can become the major elements of the process of formulating competitive, efficient solutions on markets defined by the global crisis. However, the problem described by the present contribution remains of a purely methodological nature, with an immediate pragmatic impact – namely, it attempts to underline the necessity that the answers given by the higher education system to the entrepreneurs and managers should be as simple and prompt as possible, so that the latter may be able to apply them rapidly and efficiently in their economic and financial activity.

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