

## SOME ASPECTS OF A QUANTITATIVE MARKET RESEARCH: "THE OPINIONS AND ATTITUDES OF RENAULT & AUTOMOBILE DACIA CAR'S BUYER"

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#### Abstract

*The quantitative research on the stratified Romanian car market led to the conclusion that the famous law or Pareto optimal 20/80 can be recast in this area efficiently and with high sufficient coverage. The whole paper is nothing else but a quantitative market research and therefore firstly we select the main aspects to describe the specificity of Romanian car market as a specific and regional one. Introduction anticipates the importance of hypothesis in describing buyer's opinions and attitudes. All the other sections, from the first to the last, are just a natural, detailed and selected story of a marketing research made methodologically correct to understand the traditional buyer.*

**Key words:** quantitative market research; stratified sample; hypothesis; buyer's opinion; specific market law

### 1. INTRODUCTION

Quantitative research on the market called the modern marketing research, trying to describe the specific laws, as if the law 60 - 80 - 100 or the practical correction of projective theoretical models, which states that the calculation of the initial targets declared objectives in Improved research, is a first prudent to retain only 60%, a close second 80% and only a third close to 100%; considering the size of R does not change significantly over time, but thematic priorities have an essential re-sized hierarchy. Such research has been carried out by the authors that stratified Romanian market car which led to the conclusion that the famous law or Pareto optimal 20/80 can be recast in this area efficiently and with high sufficient coverage: a rate of only 20% of companies make about 80% of revenue (in principle paretian inferred and approximated by the "85% of the total tax is paid by about 15% of taxpayers). In 2009, the Romanian market, a number of firms producing only 6 had 80.6% of sales, Renault & Automobile Dacia was the leader of Benfica's worth, a special research, as holder of over 31% of the market. To understand the views and attitudes of buyers in a market quantitative research, their reaction to Renault & Automobile Dacia cars

equals the average Romanian buyer profile describes believe traditionally regular customer of this internal market. But to achieve quantitative market research itself, it had been taken many steps carefully to conduct the most important creative type, with a major impact in conclusions drawing. Quantitative results of this research allowed the authors to formulate opinions posted significant impact on processing the description of Romanian market of buyers of most important brands, Renault & Automobile Dacia respectively.

The main hypotheses and major objectives of this paper are reflected in the questionnaire of our marketing research. A good questionnaire allows us simultaneously achieving several objectives like: a) contributes to shaping the structure of the interview, by ensuring a logical succession of the questions; b) secures the standard format and lends uniformity to the manner in which factual information is recorded, as well as the opinions and attitudes of the responders; c) motivates and coherently sustains the responders' cooperation through the type of the questions used, through the manner the latter were formulated, and through their succession, and even through the general aspect of the questionnaire, in order that the final end of the interview is reached in the best conditions; d) serves as a data base concerning the research conducted; e) facilitates scanning, processing and analyzing facts, through its format, hierarchies and logical correlations etc. The questionnaire is the most widely used instrument in marketing research, and it is on its quality that the success of such an undertaking depends. Half a century ago, C. A. Moser concluded that any research cannot be better than its questionnaire. His conclusions is extended now to the idea that the hypothesis and the investigation instrument finally determine the quality of any type of research.

## **2. THE FIRST STAGE OF TARGETING AND FORMULATING HYPOTHESES FOR A QUANTITATIVE RESEARCH**

Assumptions questionnaire research focused on market leader seconded, that Renault & Automobile Dacia would have been detailed from the following findings:

- most car owners have previously owned at least one car;
- most car owners consider that they meet their expectations;
- no differences between men and women to address the findings leader;
- a number of optional features customers considered insufficient;
- most customers prefer gasoline;
- most customers are satisfied with the distribution;
- a relatively small number of car-owners are unhappy with the service.
- most clients consider that the export of components increases the brand reputation;
- most car owners considered useful help service.

These assumptions have been quantified and were formulated to test them statistically. It may thus exemplify several approaches that can help calibrate the scales of various questions of the questionnaire, but may ensure statistical testing of hypotheses formulated (where the language of classical econometrics  $H_0$  defines the „null” hypothesis and  $H_1$  the „alternative” hypothesis).

**Table 1**  
*The Major Hypothesis*

Null hypothesis H0	Alternative hypothesis H1
1 of 2 customers know performance cars	H1 # 50% average
1 of 3 customers have had ownership of a car	H1 # 33% average
2 of 5 customers prefer a domestic car	H1 # 40% average
1 of 2 customer considers the price available	H1 # 50% average
1 of 3 customer considers similar local car import	H1 # 33% average
4 of 5 customers deemed crucial choice does not affect income	H1 # 80% average
3 of 5 customers appreciate value for money	H1 # 60% average
9 of 10 customers do not see difference in appreciation between women and men	H1 # 90% average
4 reviews from 5 believes that the car meets expectations	H1 # 80% average
7 of 10 are satisfied client grid car	H1 # 70% average

Setting Goals marketing research was a complex and resulted in immediate car market structuring based targets, problems and final targets.

**Table 2**  
*Setting Goals for the Position of Marketing Research Renault & Automobile Dacia in Romania*

Aspects or targets to measure and hierarchical	Issues that need to find the answer R	Concrete and measurable objectives of market investigator
1. Identify how to purchase a car Renault & Automobile Dacia	1. What is the most common purchase? 2. What is the most common funding source?	1. Modal value determination on how to purchase 2. Determining the dominant source of funding for purchase
2. Quantifying awareness of Renault & Automobile Dacia car	1. Q To what extent are known variations in the car? 2. To what degree subjects have information about the types of engines? 3. To what extent the respondents considered polluting car? 4. To what extent the interior space as expected? 5. Have proposals to improve the car buyers?	1. Identifying awareness of vehicle variants 2. Scaling knowledge types of engines 3. Scaling opinions about the degree of vehicle pollutant 4. Scaling interior views about the adequacy of customer expectations 5. Identification of expected improvements
3. Disclosure adequacy of the distribution network to potential customers expectations	1. What is the coverage of distribution network? 2. What is the opinion holders on the quality of service? 3. What is the view of buyers to buy a car?	1. Quantifying market coverage by distribution network 2. Scaling opinion about the quality of car owners 3. Scaling with buyers opinion on purchasing a car
4. Satisfaction of customer needs through quality service network of manufacturer	1. What is the opinion of customers about the quality of repairs and service? 2. What do your customers how long repairs?	1. Buyers often view pre-scaling quality repairs and service 2. Identification of dominant popular belief about customers during repairs 3. Testimonials about the veracity price

	3. Customer opinion about the veracity of which is repair price?	scale repairs
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For the determination of sample's size, we considered 95% confidence interval. The accuracy of the estimate (permissible error)  $\alpha$  will be  $\pm 5\%$ . From normal distribution table to a 95% confidence interval and a permissible error  $\pm 5\%$  ( $\alpha = 0.05$ ),  $z$  has the value 1.96.

### 3. THE SPECIFIC POPULATION AND ITS SIZE

In the marketing research we have considered as a sampling Renault & Automobile Dacia car, all the shoppers, men and women aged at least 18 years old. We considered that limiting the age level because we believed that young people under the age of 18 years have the knowledge necessary to complete the questionnaires truthfully so as not to introduce significant errors in the final outcome of research.

Table 3  
*The Buyer's Gender Structure*

Sex	Male	Female
Share	78.96%	21.4%

According to available data on buyer gender's structure of Renault & Automobile Dacia identify a net dominance of men as shown in the table above. A brief description of the unit of observation and sampling identifies interesting aspects. Sampling unit is considered research Dacia dealer. Observation unit is the individual and the unit of analysis is the Renault & Automobile Dacia car buyers over 18 years. They considered both men and women of all ages to provide equal opportunities for all Renault & Automobile Dacia car buyers to be included in the sample.

### 4. A SOLUTION TO ENSURE THE SAMPLE'S REPRESENTATIVENESS, AND VALIDATION SAMPLE REPORT ABOUT THE MAJOR CHARACTERISTICS OF THE SPECIFIC POPULATION

Representativeness is ensured by the chosen method: random sampling. Ensuring a permissible error  $\pm 5\%$ . Validation sample is the process by which characterizes the representativeness. It involves using a specific test, which differences in percentages or mean differences for the variables studied, that the relevant characteristics of the population studied. The special notations or abbreviations are:  $\Pi$  for the percentage in the population studied,  $p$  for the percentage of the sample,  $H_0: \Pi = p$ ,  $H_1: \Pi \neq p$ ,  $\alpha = 0.05$ ,  $z_{0.05} = 1.96$ ) Gender and age validation are the first operations to be indeed deontological correct from the statistical point of view. These actions are presented in the tables. 4 and 5, after a simple processing data to determine the validity of the sample for gender variable:

**Table 4**  
*The Share of Gender in the Studied Population ( $\pi$ )*

Sex sample	Frequency	Percent	Valid Percent	Cumulative Percent
Male	304	78.96	78.96	78.96
Female	81	21.04	21.04	100.0
Total	385	100.0	100.0	-

Note: Specific population of our sample encountered 385 people, men being essential for our survey, and the 304 men represent a percentage share of 78.96% of the total.

**Table 5**  
*Gender in the Sample Weight ( $p$ )*

Gender of respondents	Frequency	Percent	Valid Percent	Cumulative Percent
Male	314	81.6	81.6	81.6
Female	71	18.4	18.4	100.0
Total	385	100.0	100.0	-

Data level of the 385 people surveyed is 314 men representing a percentage share of 81.6% synthetic values obtained are presented in the next table

**Table 6**  
*The Significant Obtained Values ( $\pi$  and  $p$ )*

Sex	$\pi$	$p$
Male	78.96	81.6
Female	21.04	18.4

Relationship for the validation sample calculation is as follows:

$$R.C = z_{obs} = \frac{|\pi - p|}{\sqrt{\frac{p \times (100 - p)}{n}}} = \frac{|78,96 - 81,6|}{\sqrt{\frac{81,6 \times (100 - 81,6)}{385}}} \approx 0,681 \quad (1)$$

$z_{obs} < z_{\alpha}$  than null hypothesis is accepted, so the sample can be validated in terms of a probability of 95%

**Table 7**  
*The Age's Groups or Sample's Clasifications*

Age's groups or clasifications	Frequency	Percent	Valid Percent	Cumulative Percent
between 18-29 years	68	17.7	17.7	17.7
between 30-39 years	84	21.8	21.8	39.5
between 40-49 years	149	38.7	38.7	78.2
between 50-59 years	71	18.4	18.4	96.6

60 years and over	13	3.4	3.4	100.0
Total	385	100.0	100.0	-

Validation samples according to age's group (with a probability of 95% )

1. For age's group 18-29 years

$z_{obs2} < z_{0\phi} \Rightarrow$  null hypothesis is accepted

$$z_{obs2} = \frac{|\pi - p|}{\sqrt{\frac{p(100-p)}{n}}} = \frac{|18,8 - 17,7|}{\sqrt{\frac{17,7(100-17,7)}{385}}} \approx 0,5655$$

2. For age's group 30-39

$z_{obs3} < z_{0\phi} \Rightarrow$  null hypothesis is accepted

$$z_{obs3} = \frac{|\pi - p|}{\sqrt{\frac{p(100-p)}{n}}} = \frac{|20,6 - 21,8|}{\sqrt{\frac{21,8(100-21,8)}{385}}} \approx 0,5703$$

3. For age's group 40-49 years

$z_{obs4} < z_{0\phi} \Rightarrow$  null hypothesis is accepted

$$z_{obs4} = \frac{|\pi - p|}{\sqrt{\frac{p(100-p)}{n}}} = \frac{|39,3 - 38,7|}{\sqrt{\frac{38,7(100-38,7)}{385}}} \approx 0,2417$$

4. For age's group 50-59 years

$z_{obs5} < z_{0\phi} \Rightarrow$  null hypothesis is accepted

$$z_{obs5} = \frac{|\pi - p|}{\sqrt{\frac{p(100-p)}{n}}} = \frac{|17,7 - 18,4|}{\sqrt{\frac{18,4(100-18,4)}{385}}} \approx 0,3545$$

5. For age's group 60 years and older ( $z_{obs6} < z_{0\phi} \Rightarrow$  null hypothesis is accepted)

$$z_{obs6} = \frac{|\pi - p|}{\sqrt{\frac{p(100-p)}{n}}} = \frac{|3,6 - 3,4|}{\sqrt{\frac{3,4(100-3,4)}{385}}} \approx 0,2165$$

In this situation does not require a recovery of the sample structure, because it coincides with the population structure. From our calculus made clear that for all age ranges it's of less than 1.96 for  $z_{obs}$ .

## 5. THE PRESENTATION OF THE ISSUES THAT LEAD TO THE DESIGN AND STRUCTURE OF THE QUESTIONNAIRE

To achieve the questionnaire were taken into account as questions to meet the following requirements: a) properly worded and easily understood; b) not contradictory, absurd or fanciful; c) consistent over time; d) consistent in relation with the entire population; e) not having hostile reactions of respondents and to minimize non-response; f) correspond to the nature of respondents.

The questionnaire has been designed with a set of 50 questions. In his design were considered to obtain tracking information on: a) essential reasons for purchasing a car Dacia-Renault; b) ways of purchase (by paying in full or committed loans); c) buyer's satisfaction on models purchased; d) buyers know how to extent car purchase; e) perception of confidence in the Renault & Dacia Automobile; f) knowledge and confidence in the distribution, service and support service; g) hierarchy of knowledge and information sources; h) identification of subjects.

It was considered that the information meets the requirements of the study area by achieving the eight groups of information and therefore was switched to drawing flowcharts and formulating questions. The formulation of any question must be considered as they are very short or briefly exposed, clearly understanding and not requiring too much effort completed on a gradual ordering of the questions being really difficult. We had to verify the following aspects: a) using simple words and easy to understand; b) in a direct manner the formulation of questions; c) forms precise and unambiguous; d) avoid slang or jargon words used; e) avoid long words; f) questions avoid suggesting a particular response; g) avoid questions that use a double negation ;

We have also used several types of scales and has devoted considerable attention to connections between the questions flow. There were forty-three questions used to gather information about Renault & Dacia Automobile cars and seven questions to identify respondents.

The questionnaire was field tested on a fourteen interview subjects directly regrouped with certain questions or given up to the others whose relevance was found to be insignificant (a pilot test).

After obtaining the survey data all material is processed and interpreted. It is a complex process that involves going through stages defined as the use of scientific instruments. It requires consideration of four criteria, namely: 1. *number of variables* that must be considered simultaneously (when we consider a single variable will be used single analysis, but in the present case several answers were considered for the questionnaire's items and if two variables have been simultaneously analyzed it can get a multivariate analysis); 2. *what we want from the type of analysis* (i.e. to the sample analysis be considered as a characterization of the population, placed under investigation, and the first event will be a descriptive statistics or inferential statistics); 3. *types of scales* used in measuring the research variables (metric variables and qualitative variables require individually specific statistical processing methods); 4. *the number and types of samples* (primary data may originate from a single sample or from two or even more samples, and you can work with independent or dependent samples: samples being considered independent when they come from different groups or populations and dependent or pairs when observed data are from members of the same group at different time. Final form was analysed and interpreted in the next sections of this paper

## **6. A SIMPLE UNIVARIATE STATISTICS – ANALYSIS OF SIGNIFICANT OR MAJOR QUESTIONS**

Raw data are taken from reworked sheet to facilitate processing and interpretation. This activity defines descriptive statistics, and it is differentiated in relation to the type of scale used to measure variables investigated.

**Q.2** *What version of Renault & Automobile Dacia car do you have?* obtained the following results:

Table 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Logan	291	75.6	75.6	75.6
	MCV	29	7.5	7.5	83.1
	Pick-up	10	2.6	2.6	85.7
	Vain	22	5.7	5.7	91.4
	Sandero	27	7.0	7.0	98.4
	Stepway	6	1.6	1.6	100.0
	Total	385	100.0	100.0	

An overwhelming proportion of owners of those cars, which are from Renault & Automobile Dacia, consider Logan (75.6%) the most important car, far from coming runners.

**Q.4** *Previously you have been a car owner? The responses to this question reveal that almost 26% of Renault& Automobile Dacia car owners their first purchase and 63% were holders of an older version of Dacia, underlying the brand loyalty. Among Renault& Automobile Dacia car owners are people who had Oltcit, Matiz, Tico, Nexia but also imported brands such as Ford, Fiat, Volvo, Lada, Trabant, Wartburg, cars that have generally been discarded in program renewal of the fleet.*

**Q.5** *For how many years did you possessed Renault &Automobile Dacia car? allows the first classification of the sample period the respondents being grouped according to data presented in the next table:*

**Table 9**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 year or less	42	10.9	10.9	10.9
	2 years	66	17.1	17.1	28.1
	3 years	119	30.9	30.9	59.0
	4 years	95	24.7	24.7	83.6
	5 years	63	16.4	16.4	100.0
	Total	385	100.0	100.0	

From the data emerges a group of buyers with a period of 3 years possess the largest share of their being 30.9%. This period marked that the Renault &Automobile Dacia brand sales reached the highest rates.

**Q. 6** *Did you pay the car purchase price in full or the entire vehicle price immediately? It identifies 164 people having yes as an answer to this question (a percentage of 42.6% ).*

**Table 10**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	164	42.6	42.6	42.6
	not	221	57.4	57.4	100.0
	Total	385	100.0	100.0	

**Q. 7** *Even now are you still paying the car price? reveals that from the 221 people who have borrowed loans only 70 cars' owners have finished to pay today.*

**Table 11**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	70	18.2	31.7	31.7
	Not	151	39.2	68.3	100.0
	Total	221	57.4	100.0	
Missing	System	164	42.6		



Total	385	100.0		
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Most of the current Renault &Automobile Dacia car owners are still indebted borrower. This share is quite high, representing 68.3% percentage.

**Q.8** From what source did you borrowed for the acquisition of a Renault &Automobile Dacia car?

The answer to this question provides information on sources of credit. The great majority of people have resorted to bank loans. A traditional major source of credit is the specific Romanian C.A.R.

Table 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I never borrowed	65	16.9	16.9	16.9
	From bank	275	71.4	71.4	88.3
	From CAR	31	8.1	8.1	96.4
	From friends, relatives	10	2.6	2.6	99.0
	Other	4	1.0	1.0	100.0
	Total	385	100.0	100.0	

The percentage of 86% of car buyers means a high confidence in the banking buyers system, in the past years as a good option between funding sources.

**Q.9** What is your opinion about the level of the price for a Renault &Automobile Dacia car? Responses to this question tend to assess a marked price, a so called "Middling" rate of 64.2%.

Table 13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very High	14	3.6	3.6	3.6
	High	94	24.4	24.4	28.1
	So-so	247	64.2	64.2	92.2
	Low	30	7.8	7.8	100.0
	Total	385	100.0	100.0	

None of those questioned buyers were thought that the price is very low.

**Q.10** Do you think Renault &Automobile Dacia cars really match to your expectations? Buyers are generally satisfied, the rate of 63.4% stating that their expectations were fulfilled rather than believe that their expectations were fully met.

Table 14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fully	28	7.3	7.3	7.3
	Quite	244	63.4	63.4	70.6
	Middling	103	26.8	26.8	97.4

Somehow less	10	2.6	2.6	100.0
Total	385	100.0	100.0	

In a neutral position there is a percentage of 26.8% of the respondents. Among those who say *very little* disappointed in what is expected only 2.6% were delivered.

**Q.11** *I believe that possession of Renault &Automobile Dacia car gives...?* To this detailed question the most of the respondents have considered possession as a necessity (60.3%).

Table 15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid gives a certain social status	16	4.2	4.2	4.2
allows a fast and safe travels	135	35.1	35.1	39.2
entails significant costs	2	0.5	0.5	39.7
is a necessity	232	60.3	60.3	100.0
Total	385	100.0	100.0	

A proportion of 16% of Renault &Automobile Dacia owners are proud to see that their possession gives a certain social status. An insignificant minority believes that possession incurred the extra expenses.

**Q.12** *If you acquire one of the versions below, please make an order, marking one box depending on your preference ranked no. 1 on the one that best matches your preferences. After data processing the head buyer preferences is Logan, and within easy reach are the new model Stepway and Sandero.*

Table 16

Logan	Stepway	Sandero	Logan MCV	Pick-up	Logan Van
2.57	2.77	2.93	3.1	4.79	4.83

**Q.20** *Do you think Renault &Automobile Dacia cars are more adequate to Romanian roads?* In this issue Renault &Automobile Dacia car owners agreed represent a rate of 66.2% (total agreement means a high proportion of 22.1%, also).

Table 17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Total agreement	85	22.1	22.1	22.1
Agreed	255	66.2	66.2	88.3
No-no	41	10.6	10.6	99.0
Disagreement	2	5	5	99.5
Totally disagree	2	5	5	100.0
Total	385	100.0	100.0	

**Q.21** Do you feel safely in your Renault &Automobile Dacia car? completes the image described in the previous question.

Table 18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total agreement	42	10.9	10.9	10.9
	Agreed	230	59.7	59.7	70.6
	No-no	93	24.2	24.2	94.8
	Disagreement	20	5.2	5.2	100.0
	Total	385	100.0	100.0	

A percentage of 24.2% are in a neutral position while only 5.2% disagree with the statement, recording that is not totally a disagreement.

**Q.22** To build the maintenance of your Renault &Automobile Dacia car, how do you think costs are? From all the respondents 47.67% defined moderate.

Table 19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	20	5.2	5.2	5.2
	Large	137	35.5	35.7	40.9
	Moderate	184	47.7	47.9	88.8
	Low	39	10.1	10.2	99.0
	Very low	4	1.0	1.0	100.0
	Total	384	99.5	100.0	
Missing	System	2	5		
Total		386	100.0		

A percentage of 10.1% believe in reduced costs and only 1% of respondents consider that maintenance costs are very low.

**Q. 37** Are the today major six versions of Renault &Automobile Dacia car sufficient indeed?

Table 20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	303	78.7	80.4	80.4
	Not	74	19.2	19.6	100.0
	Total	377	97.9	100.0	
Missing	System	8	2.1		
Total		385	100.0		

A percentage of 80.4% from all the respondents believe that the six today versions cover buyer's expectations. A small part has decided that the six major versions are not sufficient.

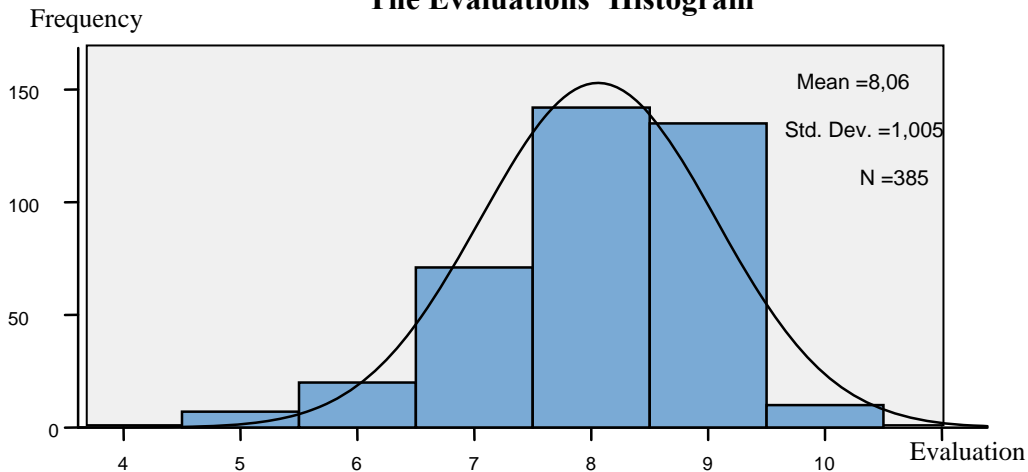
**Q.39** What the general note for Renault & Automobile Dacia car would be, in your opinion?

Table 21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	7	1.8	1.8	1.8
	6	20	5.2	5.2	7.0
	7	71	18.4	18.4	25.5
	8	142	36.9	36.9	62.3
	9	135	35.1	35.1	97.4
	10	10	2.6	2.6	100.0
	Total	385	100.0	100.0	

The dominant evaluation is 8 but 9 has a high proportion, too (35.1%).

**Figure 1.**  
**The Evaluations' Histogram**



**Q.43.** Would you recommend someone to buy a Renault & Automobile Dacia car? A very great majority of respondents were favourable to Renault & Automobile Dacia car (a rate of 91.7% and only 8.3% did not recommend buying such a car).

Table 22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	353	91.7	91.7	91.7
	Not	32	8.3	8.3	100.0
	Total	385	100.0	100.0	

**Q.46** Your occupation is? All the occupations were grouped into 11 representative categories.

The buyers of Renault & Automobile Dacia cars include various occupations, but specialist and employer & managers are the majority of this population.

Table 23

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Student	9	2.3	2.3	2.3
	Worker	31	8.1	8.1	10.4
	Technician / mentor / teacher / clerk	65	16.9	16.9	27.3
	Military framework / cop / guard	27	7.0	7.0	34.3
	Employer / manager	94	24.4	24.4	58.7
	Environmental health professional	10	2.6	2.6	61.3
	Specialist / frame with superior training	100	26.0	26.0	87.3
	Unemployed	7	1.8	1.8	89.1
	Home	2	5	5	89.6
	Pensioner	10	2.6	2.6	92.2
	Other occupations	30	7.8	7.8	100.0
	Total	385	100.0	100.0	

Specialists and professionals with higher education called specialists/frame with superior training include all persons who have completed at least one higher education institution but do not occupy management positions.

## 7. SOME BIVARIATE STATISTICS – ANALYSES

All so called bivariate statistics or bivariational data analyses consist in studying and testing hypotheses in the research, in order to investigate the relationship between two variables simultaneously. The papers' authors researched and underline the link between variational intensity using specific statistical tests. Some interesting connections between variables have been also investigated to explain market phenomena in a so called dependent change with other variable as independent ones (using crosstab and contingency tables for that purpose).

**Q.40** Some of the components necessary to manufacture the Logan car plants in other states are produced at Automobile Dacia and exported to these destinations. Do you think this brings a Renault & Automobile Dacia brand reputation? and **Q. 46** What is you last school's level of graduation?

**Table 24**  
*The Occupation and Prestige Crosstab*

		Prestige					Total
		Total agreement	Agreed	No-no	Disagree-ment	Totally disagree	
Occupation	Student	0	9	0	0	0	9
	Worker	7	20	4	0	0	31
	Technician/mentor/learning or manufacturer/clerk	5	55	5	0	0	65
	Military framework/cop/ guard	8	17	2	0	0	27
	Employer/manager	50	32	12	0	0	94
	Environmental health professional	6	4	0	0	0	10
	Specialist/frame with superior training	40	46	11	1	2	100
	Unemployed	1	3	3	0	0	7
	Home	2	0	0	0	0	2
	Pensioner	3	5	2	0	0	10
	Other occupations	6	20	3	1	0	30
<b>Total</b>		<b>128</b>	<b>211</b>	<b>42</b>	<b>2</b>	<b>2</b>	<b>385</b>

The respondents, who have been interviewed, thought that the analysed facts make a prestige brand Renault & Automobile Dacia. There are four people who disagree or are in a total disagreement with that idea. A total of 42 respondents can not pronounce about. The agreement means 211 persons or 54.8% of total agreement and 128 persons or 33.2%. Those who believe in the most prestige brand that Renault & Automobile Dacia has won are the managers and owners. Household of two people, who answered this question, both totally agree that the company has gained prestige. Also groups of specialists/professionals with higher education are clearly in favour of the claim. The agreement is 46% complete agreement is 40%. All 9 students have concurred that Dacia will increase prestige.

**Q. 39** What the general evaluation (note) for Renault & Automobile Dacia car would be, in your opinion? and **Q. 49** What your age is, in the next groups or classifications by age?

**Table 25**  
*The Age's Group and the General Evaluation (Note) Crosstab*

		General evaluation (note)						Total
		5	6	7	8	9	10	
Group of age	between 18-29 years	2	5	12	37	12	0	68
	between 30-39 years	2	2	11	31	35	3	84
	between 40-49 years	3	8	33	42	58	5	149
	between 50-59 years	0	5	14	23	27	2	71
	60 years and over	0	0	1	9	3	0	13
<b>Total</b>		<b>7</b>	<b>20</b>	<b>71</b>	<b>142</b>	<b>135</b>	<b>10</b>	<b>385</b>

The respondents, giving minimum evaluations or notes, are from the first three age groups (7 persons in these categories). Average score, the lower  $t$  also belong to the people aged 18-29 years, an age group that is more favourable assessments from the group of persons aged 30-39 years. This group, during the analysed period marks the highest evaluation, averaging 8.23. Besides the 10 people who gave the maximum score to Renault & Automobile Dacia car are in the groups aged beyond 30 years old, but not over 60.

## 8. THE NECESSITY OF STATISTICAL TESTS

In our marketing research to formulate the conclusions we assume some hypotheses and statistical tests. The hypothesis testing is to identify the one from two hypotheses is correct. The assumptions are made null and alternative hypotheses. We can analyse, for instance, findings Renault & Automobile Dacia (or a Stepway, etc.) car comparative to a car like the Renault brand. The connection between of Renault & Automobile Dacia car's buyer opinion to a qualitative resemblance like the Renault brand can be put in two hypotheses:

1. *Null hypothesis  $H_0$* : mean subjective assessment Renault & Automobile Dacia (or a Stepway, etc.) car owners is 3 points on a scale of 1 to 5;  $H_0: M_0 = 3$  points

2. *Alternative hypothesis:  $H_1$* : Media subjective assessment is Renault & Automobile Dacia (or a Stepway, etc.) car owners other than 3 points on a scale of 1 to 5  $H_1: M_0 \neq 3$  points

Table 26  
One-Sample Statistics

	N	Mean	Std. Deviation	Std. error	Mean
1. Compared to similar self Sele from the Dacia Renault brand?	385	3.12	0.747	0.038	
2. Ordering Stepway	385	3.03	1823	0.093	

Table 27  
One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
			Lower	Upper		
1. Against Sele from the car like Renault's Dacia brand?	3277	384	0.001	0.125	0.05	20
2. Ordering Stepway	0.307	384	0.759	0.029	- 15	21

1. To test this hypothesis Student  $t$  test was applied. The  $t$  value<sub>obs</sub> is 3.277, compared with  $t_{0.05, 96} = 1.98$  (value for a bilateral test) that  $t_{obs} > t_{0.05, 384}$  and reject  $H_0$  accepting the alternative hypothesis. Value significance level (Sig 2-tailed = 0.001) is less than  $\alpha = 0.05$ , that rejecting  $H_0$ . That decision can be taken and the observation of the confidence interval limits, they do not contain the value 0, this means rejecting the

hypothesis  $H_0$  and supports the hypothesis  $H_1$  that average assessments of Renault & Automobile Dacia car's buyer believes that the performance of a vehicle Dacia is worse than a car like Renault and varies from 3 points on a scale of 1 to 5.

2. To test this hypothesis Student t test was applied. The t value<sub>obs</sub> is 0.307 compared with  $t_{0.05, 384} = 1.98$  (value for a bilateral test) that  $t_{obs} < t_{0.05, 384}$  null hypothesis and accept  $H_0$ , rejecting alternative. Value significance level (Sig 2-tailed = 0.759) is larger than  $\alpha = 0.05$ , it follows that  $H_0$  admits. That decision can be taken and the observation interval confidence limits, it contains the value 0, it means that you accept the hypothesis  $H_0$  and reject the alternative hypothesis  $H_1$  that average assessments of Renault & Automobile Dacia car's buyer for Dacia Stepway is 3 points on a scale of 1 to 6. The statistical tests can be used for testing percentages, or average percentage differences, also.

## **9. SOME CONCLUSIONS OF A QUANTITATIVE MARKETING RESEARCH**

Largest share among the respondents represented men. The first impulse would be that they are more interested in cars than women, but tests show that the cars are better acquainted in their possession. Although it is noted as a trust declared, Renault & Automobile Dacia car, in excess of 84% scores and is slightly above the 8. Men are more uniform assessments compared to women however the overall rating given by women is higher than that of men with only 0.5%. Variant the most appreciated Logan followed a short distance from the new model on Locle Stepway of three centuries, to the Sandero topping preferences. Sandero lead preferences among women. Regarding the safety of the car Renault & Automobile Dacia gone almost 69% of owners surveyed agree with this statement: I agree 10.9%. I disagree with the statement that 5.2% of subjects generally gives confidence the security offered.

Maintenance costs are considered moderate by 47.9% and 35.5% higher, leading to picture to a car with significant maintenance costs. As regards price perception parts are considered rather than 50.5% of subjects with this opinion. Versions are produced in sufficient proportion of 78.8% respondents' opinion. There is a fairly high confidence in Renault & Automobile Dacia when considered that the Dacia factory and exporting auto parts for other Renault factories. Although respondents do not know about cars made in other Renault sites they believe that this brings a prestigious brand Renault & Automobile Dacia.

Respondents believe that the products are known Renault & Automobile Dacia, 80% of respondents answering yes to that question. The Renault & Automobile Dacia cars, through their performance, middle-income class addressed, and the price are the main reasons for its acquisition. To be more attractive it is required several steps like:

- the enrichment of variants with sports models, land and small urban movement consumption necessary;
- improving design and in particular flag over the hood;
- diversification of optional equipment such as steering controls for audio equipment, EBS braking system, equipped with air conditioning climatronic, and burglar alarm system with remote operated from home, setting the front seats on both horizontal and height of the heating system seats, side airbags, parking sensors, automatic switching of lights at dusk and automatically start the wipers when rain start and adapt their speed to the amount of precipitation fallen; (the customers want to limit the running speed automatic when it is



desired by the driver, and to have the real possibility of adjustment wheel which is now fixed).

- increasing shelf from 3 years to 4 years or even 5 years after some opinions. Some subjects would guarantee up to 300,000 miles.
- organizing *test drive* periodically to improve public approach and the knowledge of Renault & Automobile Dacia car;
- organization of an *open door* for the producer in Mioveni; a good understanding of the manufacturing process and technology used to increase confidence in potential buyers;
- transparency repair operations both in terms of technology and process costing, and reduced repairs, improving management reorganization and technological flows;
- developing a credit system to facilitate its manufacturer and purchase a vehicle that would contribute both to increase sales and increase confidence in the products produced;
- flexible manufacturing process to produce copies of personalization to customers desire;
- self organizing travelling exhibitions in various cities of the country and driving tests for promotion of Renault & Automobile Dacia cars.

## 10. SOME FINAL REMARKS

Renault & Automobile Dacia is undoubtedly *on track* and may take other measures which can help company to increase its prestige. For a large company it can be even used the Renault & Automobile Dacia employees who may be involved in promotional activities to mark one man. From previous analysis it has been separated the appearance that most buyers have been holding a derivative version of the Dacia Renault 12 and may insist on customer loyalty by providing bonuses for those who are differentiated from the second purchase. Because most of the Renault & Automobile Dacia car's buyers turned to other sources of credit is necessary to facilitate access to other funding sources available why not some of Renault & Automobile Dacia. That the models currently manufactured are exported to countries from Mioveni with a long tradition in the automotive industry will further increase local confidence in potential buyers that can be explored. Renault & Automobile Dacia brand perception is still largely subjective considered by some buyers that is less than one imported brand in particular German. However Renault & Automobile Dacia cars have entered on the German market without feelings of incisor or inferiority. The same thing happened and the markets of France and Italy, especially in markets where it took place the fleet renewal program...

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