Summary of the PhD thesis

BRAND-INFLUENCED BUYING DECISIONS IN CAR INDUSTRY

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BRAND-INFLUENCED BUYING DECISIONS IN CAR INDUSTRY

INTRODUCTION

The PhD thesis deals with the impact of brand on consumer’s buying decisions in car industry – from the point of view of the marketer and with a view to the behavior of the buyer.

Why automobile industry?

The remarkable development of automobile industry in Romania in previous years, interrupted for the moment because of the global financial crisis, has generated the need for information pertaining to the behavior of car purchasers and also to the factors that play a significant role in influencing this behavior.

Why Renault, Skoda and Opel?

The decision on the three car brands that have been appraised in the thesis (Renault, Skoda and Opel) is based upon data on the automobile market. It was necessary to select three car brands with a fairly high awareness and with a large number of owners in Romania in order to come up with a valid and reliable model for whom it may concern, such as car dealers or rent-a-car companies.

It was also necessary to get three fairly similar car brands in terms of price and quality perception. When consulting different car sites and using the data provided by APIA (The Association of Producers and Importers of Automobiles) the following brands have been chosen: Skoda, Renault and Opel, which ranked second, third and fifth, judging by the sales volume in 2011. These three brands fare amongst the best sold cars in
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*Do brands play a significant role in purchase decisions?*

The brand was defined in two stages: the first one emphasizes the identification role, whereas the second one adds up new elements that lead to the concept of brand equity. The information pertaining to brands is linked more or less directly to consumer’s purchase decisions.

People are growing more and more attentive, choosing familiar and favorite brands. Therefore, if companies want to outdo their competition, they have to persuade the consumers to appreciate, positively appraise and buy their products. Although consumers acquaint themselves with and are willing to buy a product, brand awareness is a key factor in influencing the purchase decision.

The best-known purchase decision model (Engel, Blackwell and Miniard, 1995) separates the decisional process in-between five stages: 1) problem recognition, 2) information search, 3) alternative evaluation, 4) purchase, 5) post-purchase behavior.

Engel et al. (1995) consider that the buying intention can be unplanned when people decide to buy a product or brand on location (in-store). This can be considered a purchase under impulse. One can also speak about a partially planned purchase, in which people decide upon the category and features of the product before buying it from a store.

The brand and the equity of a particular product have an impact upon consumer’s purchase in every stage of the decisional process. If
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marketing has one goal, it is to reach consumers at the moments that most influence their decisions. The decision-making process is a circular journey, with four primary phases representing potential battlegrounds where marketers can win or lose: initial consideration; active evaluation, or the process of researching potential purchases; closure, when consumers buy brands; and post-purchase, when consumers experience them.

In conclusion, the growing complexity of the decision-making process will force companies to adopt new ways of measuring the consumers’ attitudes, the brand performance and the efficiency of the money spent on marketing activities all through the buying decision process; that is why the validated empirical research model is useful for the players in automobile industry.
RESEARCH THEORY; RESEARCH HYPOTHESIS; RESEARCH OBJECTIVES

Our investigation model integrates the results of previous empirical research. It links the Customer-Based Brand Equity (CBBE) construct with attitudinal equity constructs. Brand preference is associated with both purchase intention and behavioral loyalty. The model will analyze the impact of the country of origin and the attitude towards the company in connection with the CBBE construct, brand preference, behavioral loyalty and purchase intention.

Fig.1. The model-in-view
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Our empirical research has checked up the following aspects:

- **Hypothesis 1**: The attitude towards the manufacturing company and the country of origin positively influences the Customer-Based Brand Equity constructs (CBBE).

- **Hypothesis 2**: CBBE constructs, the attitude towards the manufacturing company and the country of origin positively influence Brand Preference at the consumer level.

- **Hypothesis 3**: CBBE constructs, the attitude towards the manufacturing company and the country of origin positively influence Purchase Intention at the consumer level.

- **Hypothesis 4**: Brand Preference positively influences Purchase Intention at the consumer level.

- **Hypothesis 5**: CBBE constructs, the attitude towards the manufacturing company and the country of origin positively influence Behavioral Loyalty at the consumer level.

- **Hypothesis 6**: Brand Preference positively influences Behavioral Loyalty at the consumer level.

The thesis includes the following research objectives: the identification of the behavioral differences pertaining to CBBE constructs, the attitude towards the manufacturing company, the attitude towards the country of origin, brand preference and the purchase intention according to such “data” of the respondent:

- **O1**: sex;
- **O2**: age;
- **O3**: education;
- **O4**: income.
METHODOLOGY

Various quantitative and qualitative research techniques have been employed herein, according to the specific features of each stage.

**Defining concepts, surveying present-day knowledge, and choosing the research theory**

This first stage represents a documentary study regarding ways of defining the concept of *brand*, the role of brand in the consumer decision process, and the choice of empirical studies which relate the *brand* to the *purchase intention* in automobile industry. This stage comes complete with a draft of the research model.

**Making up the research instrument**

This stage is about generating an initial pool of items for the model constructs. Therefore, a secondary research has been designed. The large number of items in literature has been filtered after running a qualitative analysis – there are four focus groups, each made out of eight informants. The people attending such meetings were separated into two age groups: 25-34 olds and 35-44 olds. The participants have been extracted from the databases of the three car brand dealers, Renault, Skoda and Opel, as well as from rent-a-car companies.

Here are the major debate topics included in the focus groups:

- a hierarchy of car brands according to their quality;
- the description of a valuable car;
- the description of a prestigious car;
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- the description of the favorite car;
- car brand loyalty.

The result was a 32 items set.

**Testing the research instrument**

The oncoming questionnaire, as a result of running qualitative investigation, has been tested on a pre-test sample of 120 people living in Iași. An exploratory factor analysis has been run on these questionnaires, in three cases: owned cars, tried cars and never tried cars and on each of the three car brands – Renault, Skoda and Opel.

Using Kaiser, Cattell and Benzecri’s criterions, a number of five factors: “image,” “equity,” “knowledge,” “satisfaction” and “loyalty” have been decided on. One item has been eliminated at this stage, because it charged less than 60% on one of the factors, on each of the three models and on all the three car brands at issue.

When running a reliability analysis, the alpha Cronbach statistic was higher than 0.7 for four of the factors, the only exception being the satisfaction construct; a new reliability analysis, when excluding one item from the satisfaction construct, provided an alpha Cronbach statistic of 0.82, and therefore the problem was solved.

The results of factor and reliability analyses have led to the final structure of the questionnaire and to the adjusted research model (Fig. 2).
Fig.2. The ongoing research model, as a result of running the exploratory factor analysis
The quantitative stage – testing the research hypotheses; research objectives

The new questionnaire has been applied onto a sample of 393 people and gives a maximum error margin of 4.94%.

The target market was made out of people living in Iași, who corresponded to the three filter questions at the beginning of the questionnaire: the respondent must have heard of at least one of the car brands: Renault, Skoda or Opel; he must be able to identify/distinguish between the brands if he were to see it in the street or at a dealer’s and he has to have a great deal of information about that particular car brand.

Survey unit: the individual;
Sample volume: 393 respondents;
Sampling procedure: “snow-ball” survey;
Data collection method: intercept survey;
Research instrument: the questionnaire.
Empirical research sets a certain relationship between brand preference and purchase intention, on the one hand and purchase intention and behavioral loyalty on the other hand. The relationship between CBBE constructs, attitude towards country of origin and attitude towards the company has also been dealt with in connection with brand preference, purchase intention and behavioral loyalty.

When testing the research hypotheses the following results have been put forward:

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<thead>
<tr>
<th>Cars unpurchased</th>
<th>Brand preference</th>
<th>Purchase Intention</th>
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<td>Knowledge</td>
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<th>Cars tried but not purchased</th>
<th>Brand preference</th>
<th>Behavior-based loyalty</th>
<th>Purchase intention</th>
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### BRAND-INFLUENCED BUYING DECISIONS IN CAR INDUSTRY

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<th>Satisfaction</th>
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<tr>
<th>Cars purchased</th>
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<th>Behavioral loyalty</th>
<th>Purchase intention</th>
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<tbody>
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<td>Knowledge</td>
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BRAND-INFLUENCED BUYING DECISIONS IN CAR INDUSTRY

Caption:

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<tr>
<th>*</th>
<th>Very low or statistically insignificant connection</th>
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<td>*</td>
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<td>*</td>
<td>Statistically significant medium connection</td>
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<td>*</td>
<td>Statistically significant high connection</td>
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CONCLUSIONS

Never tried cars:

- The model displays a medium efficiency in predicting “brand preference” and a low efficiency in predicting “purchase intention” (the values of correlation coefficients are rather low and the regression analysis barely explains purchase intention). The reason for all this is the lack of experience in connection with the brand in-question. Consumers who have never tried a particular brand need to know more about it and especially need to try it in order to develop a strong preference and a desire to purchase that particular brand.

- “Image” and “company-oriented attitude” are the two elements that best predict brand preference.

- Of all the CBBE constructs, “purchase intention” is best explained by what we could call “company bias,” although the correlation level is still medium to low.

- “Knowledge equity” does not display a strong correlation with either of the model elements.
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Note: Grey lines signal partially-confirmed research hypotheses and they are worth further analysis in order to find out which cases they apply to.

Red lines – strong correlation
Orange lines – medium correlation
Green lines – medium to low correlation
Very low intensity correlations have not been included in the model.

Fig.3. Structural model: never tried cars
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Tried cars:

- The model is relatively efficient in predicting “brand preference” and it displays a medium efficiency in predicting “purchase intention,” because this depends largely on the people’s income; “loyalty” is not very well explained either, probably because of a minimum relationship with the brand.

- The items pertaining to the “knowledge equity” construct display a very low intensity in comparison to the other elements of the model.

- “Image” and “satisfaction” display a strong correlation with “brand preference.”

- „Loyalty” presents a strong correlation with “brand preference” and along with “image” and “satisfaction” best explains this construct, as one can also notice in the regression equation.

- “Attitude-biased loyalty” displays both a medium intensity with “brand preference” and a medium to low intensity with “purchase intention.”
Fig. 4. Structural model: tried cars

Note: Grey lines signal partially-confirmed research hypotheses and they are worth further analysis in order to find out which cases they apply to. Red lines – strong correlation Orange lines – medium correlation Green lines – medium to low correlation Very low intensity correlations have not been included in the model.
Owned cars – the model has been accepted with a difference:

- The model is perfectly adequate especially when having eliminated the “knowledge equity” construct; all of the other elements display a correlation of at least medium intensity, with the exception of the connection between “purchase intention,” on the one hand and “value,” “company-based attitude” and “country-based attitude,” on the other hand.

- The model is very adequate in predicting brand preference and purchase intention.

- There is a strong correlation between “brand preference” and “loyalty,” as well as between “loyalty” and “purchase intention.”

- “Value” does not display a strong correlation with “brand preference” and “purchase intention.” In other words, drivers establish their purchase decision only when taking into consideration the experiences that they once had of a particular brand.

- “Satisfaction” presents a medium to low correlation with “brand preference” and “purchase intention.”

- “Attitude-biased loyalty” displays the highest correlation coefficients in connection with “brand preference” and “purchase intention.”
Fig. 5. Structural model: owned cars

Note: Grey lines signal partially-confirmed research hypotheses and they are worth further analysis in order to find out which cases they apply to.
Red lines – strong correlation
Orange lines – medium correlation
Green lines – medium to low correlation
Very low intensity correlations have not been included in the model.
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On the whole, the perception about “never tried cars” is dominated by the stereotypes of automobile industry: German cars are good, French cars are not good enough from the point of view of the youngsters, but they have many fans among retired people and the elderly by and large or among those with a medium to low level of education. On these segments Skoda has a less favorable position.

The positioning efforts of brands are very well presented by socio-demographic analyses. Women are, on each of the three car brands, less informed than men, when it comes to “never tried cars.” For “tried cars,” men say that they are most loyal to Skoda or that they have the best attitude towards this brand when it comes to “owned cars.”

Speaking about Opel, perceptions differ slightly between various demographic categories, with the notable exception of the comparison between men and women. As it is a best-known and popular brand in Romania, the difference in perceptions cannot be accounted for by using demographical factors.

As for Skoda, the degree of knowledge along with perceptions is more favorable when it comes to active people with medium to high incomes. Renault enjoys better perceptions on the segments with lower incomes, relatively old age and medium (high school) studies.

Purchase intention is associated with age and therefore this indicator lowers as people grow older. Renault has the best success on this segment, also because it charges lower prices than the other two car brands.

In the case of the “owned cars,” one can notice the fewest differences in socio-demographic characteristics, the explanation being simple: the discriminations are made according to the loyalty actions of the dealers, as shown in Fig. 5.
Our thesis contributes to the development of specific knowledge along two significant axes:

- The development and the validation of a measurement scale that accounts for brand preference;
- The validation of a model which connects brand preference with purchase intention, on the one side and purchase intention with behavioral loyalty, on the other side. The model explains brand preference, purchase intention and behavioral loyalty with the help of CBBE constructs, attitude towards country of origin and attitude towards the manufacturing company.

As pointed out in the documentary study, brand preference plays a major role in purchase decision and that is why the validation of measurement scales for constructs that explain brand preference has been a central element of this thesis.

The items related to brand preference have been picked up from marketing scale literature: report, recognition, value, social status, quality, prestige, affect, satisfaction and loyalty. A documentary study was previously made to measure all these constructs, resulting in a list of items for each factor, the list being filtered by qualitative research. The 32 resulting items were put together in a questionnaire and applied to a pre-test sample of 120 respondents. Their answers were assembled to run an exploratory factor analysis. Its results were similar for all of the cases in
question (never tried cars, tried cars and owned cars) and for each of the car brands (Renault, Skoda, Opel).

The items included in the questionnaire were grouped along five factors: “knowledge” (for the report and recognition items), “equity” (for the value and social status items), “image” (for the quality, prestige, and affect items), “satisfaction” (the same with the initial satisfaction factor) and “loyalty” (the same with the initial loyalty factor). Two items in the initial questionnaire have been taken off: one, when running the factor analysis, because it charged less than 60% on one factor, and the other, when running the reliability analysis, because the alpha Cronbach statistic was lower than 0.7.

Measurement scales have been validated for five factors, which help explain brand preference.

The final questionnaire was tested on a sample of 393 respondents. The research hypotheses have been analyzed and the research model has been adjusted. The oncoming model can be successfully applied to the Romanian automobile market, for middle-class car models, i.e. for the most important part of this market. The model allows the dealers to better understand the needs of the (potential) clients and therefore they can perform better in their field. Clients can also benefit from the model, because they may now be offered better services.
RESEARCH QUESTIONS

Brand preference, behavioral loyalty and purchase intention are somehow explained by the regression model and this means that there are also other factors that might account for these constructs, but they (for example, the psychosomatic features of the individuals) have not been taken into consideration when the model was designed.

The research objectives imply that socio-demographic characteristics such as age, sex, level of education and level of income hardly influence the measurement variables.

Another error source is represented by the human limits of the data collection phase. Different distortions may have occurred because of (not always sincere) answers.
FUTURE RESEARCH DIRECTIONS

It is necessary to look for new information in order to find out whether there are also other relevant factors which help explain brand preference, behavioral loyalty and purchase intention. A possible but not singular lead would be to deal with the psychosomatic characteristics of the individuals.

It is important to clarify the situations in which there are statistically significant connections with at least a medium intensity between the factors presented below (the cells marked in grey) in order to generate a model to cover the car brands at a medium price.

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<tr>
<th>Tried cars</th>
<th>Brand preference</th>
<th>Behavior-based loyalty</th>
<th>Purchase intention</th>
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<th>Owned cars</th>
<th>Brand preference</th>
<th>Behavior-based loyalty</th>
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<td>Knowledge</td>
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Another important aspect is that empirical research targeted only European car models in the middle class. It would be useful to expend the study over to Asian and American cars and also to cars (European, Asian and American) at low cost and premium price ranges. The qualitative study provides several hints that these aspects do matter when it comes to measuring the concept of *brand*, and that they can influence the relationship between *brand* and *purchase intention*, on the one hand and between *behavioral loyalty* and *purchase intention*, on the other hand.