

## Impact of financial crisis on the decision making process for insurance consumers

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**Abstract.** *After 6 years from the debut of the financial crisis, the insurance market in Romania is significantly feeling the effect of this phenomenon, by having to deal with a reduction in the appetite of the insurance consumer even for a typical policy such as CASCO or MTPL.*

*The companies are prone to change their approach to the market due to the changes in the consumer's behavior. The paper aims to analyze the tendencies on the Romanian insurance market, based on an AHP analysis regarding the motivational factors taken into consideration by consumers when signing a CASCO insurance. The study conducted will reveal also whether or not the strategies currently implemented by insurance companies in this line of business are sufficiently appropriate, in this aftermath of the crisis, or should there be more of a change in this direction.*

**Keywords:** insurance, trend, AHP analysis, consumer.

**JEL Classification:** G2, D7.

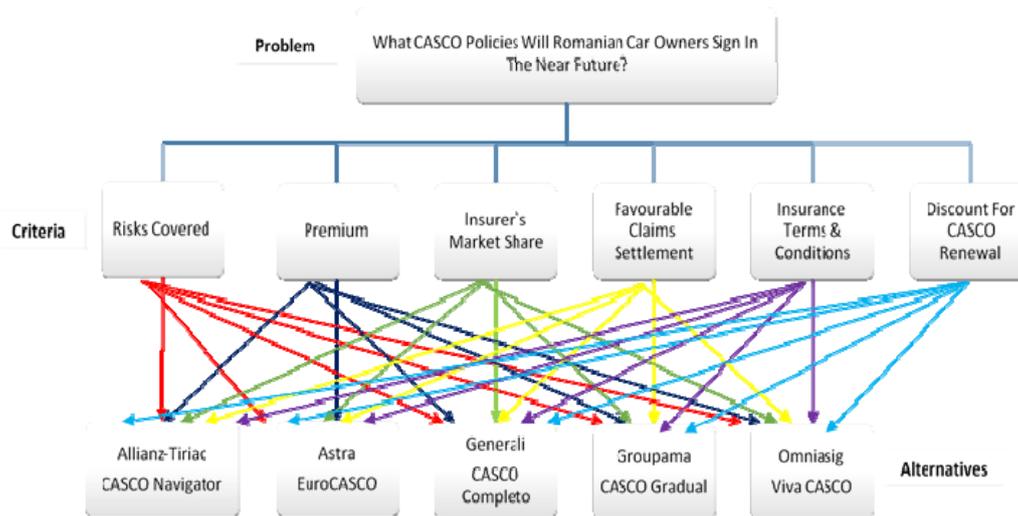
### Decision problem

From 2012 to 2014, the CASCO insurance market registered a drop of more than 30 mil. EUR (CSA,2013), which may also be a result of a change in the behavior of the customers - a change in their priorities when dealing with the CASCO insurance could have led to this downward trend. The debates on the MTPL insurance policy (Motor Third Party Liability) discouraged also the development on CASCO, as authorities on the one hand and the consumers on the other hand tried to reach an amiable consent on the new approach to compute the level of premiums for MTPL. The authorities, and implicitly the insurance companies, are strongly supporting the idea of increasing the level of motor insurance taking into consideration the age factor of the consumer, whereas the consumer is unhappy about the fact that they cannot afford to buy a motor insurance any longer, especially for young drivers up to 30 years (Badea and Naghi, 2008). To see if the trend will be maintained, a thorough analysis of the core factors that could influence the buying behavior is necessary.

All decisions based on logical and emotional reasoning, when buying various goods and services make up the consumer's behaviour. A good understanding of the customer can easily make the difference between the first and the last place on the market (Poleanschi, P., 2013). This also stands true for the motor insurance market, where clients are influenced by dozens of factors and have to take many decisions based on concepts they are not very familiar with. This paper's purpose is to explore the consumer's decision making process behind the purchase of a CASCO insurance, on the Romanian market. The means used to identify and analyse this rationale will be the Analytical Hierarchy Process based on Thomas L. Saaty's research (Saaty, 1980). The study is based on a pair wise comparison questionnaire constructed using Saaty's scale, which uncovers the factors that possess the highest weight in customer's buying behaviour.

Owing to the complexity and subjectivity of this issue, the analytical hierarchy process will be employed, providing objective and accurate results about consumer's decision making process. The criteria that correspond with the study are: the risks covered in the policy, the paid premium, insurer's market share, the favorable claims settlement ratio, insurance terms & conditions and the discount offered by the insurer at the moment of policy renewal.

The chosen alternatives represent the insurance products of the main competitors on the CASCO market: Allianz-Tiriac CASCO Navigator, Groupama CASCO Gradual, OmniasigViva CASCO, which are the top three companies when considering the value of the gross written premiums, and Astra EuroCASCO together with Generali CASCO Completo, which we considered to be their main competitors.

**Figure 1.** Decision problem

### Explanation of the chosen criteria

*Risks Covered (C1):* Due to the nature of the CASCO policy, which is an All Risks type of policy, each insurer can add or subtract a number of exceptions. These can represent unpredictable events or force majeure exceptions (ex: war). The lesser the number of exceptions the better the policy.

*Premium (C2):* The number of exceptions is strictly correlated with the Premium paid for the insurance. Extending coverage means paying a higher premium (ex: water reaching the engine due to voluntary actions). The premium is established by the insurer and highly differs from one to another.

*Insurer's Market Position (C3):* This represents the market share each insurer has on the CASCO insurance market and may reveal how well is each product/company perceived by the consumer.

*Favorable Claims Settlement (C4):* Is the ratio between total number of claims and favorable verdicts (ex: for Groupama in 2013 was 10.86%). This can expose the perceived reliability of each insurer.

*Insurance Terms & Conditions (C5):* The clarity and the simplicity of the terms used in the insurance contract makes it easier to understand by the insured. On the opposite, a very technical oriented contract has the potential to discourage future clients.

*Discount for CASCO Renewal (C6):* The amount of money the insurer is offering as a discount for remaining loyal.

### Saaty and Ma-Zheng Scale

The Saaty and Ma-Zheng scales are two proposed methods for gauging the priority preferences for each criterion. The first one is a linear type, measuring preference on a scale from 1 to 9, while the Ma-Zheng proposed one is a geometrical type. The conversion between the two is done using the following table:

**Table 1.** Conversion between scales

Scale	Equally important	Weakly more important	Moderately more important	Moderately plus more important	Strongly more important	Strongly plus more important	Demonstrated more important	Very strongly more important	Extremely more important
Saaty	1	2	3	4	5	6	7	8	9
Ma-Zheng	1	9/8	9/7	9/6	9/5	9/4	9/3	9/2	9

The Ma-Zheng scale has been proposed as a solution to one of the identified issues in the Saaty's scale that is when the priority vectors associated to the corresponding matrices were plotted they appeared to be concentrated at extremes, indicating the fact that underestimation and overestimation was having a great influence in the final conclusion.

For demonstrative purposes, the tables which illustrate the different priority vectors obtained using the two scales for two of the respondent can be found below:

**Table 2.** Respondent 1

Respondent 1	Saaty		Ma Zheng	
	Criterion	Final Alternative	Criterion	Final Alternative
1	0,42433	0,23851	0,27171	0,22245
2	0,28059	0,12204	0,27229	0,16353
3	0,02305	0,49080	0,06865	0,35549
4	0,14125	0,10206	0,14973	0,14205
5	0,07874	0,04660	0,11997	0,11648
6	0,05204		0,11764	

**Table 3.** Respondent 7

Respondent 7	Saaty		Ma Zheng	
	Criterion	Final Alternative	Criterion	Final Alternative
1	0,10186	0,22436	0,11076	0,19967
2	0,27168	0,13131	0,19777	0,18458
3	0,10388	0,21915	0,13992	0,20823
4	0,35985	0,22429	0,28218	0,20589
5	0,12333	0,20089	0,16725	0,20164
6	0,03940		0,10213	

In the first table, a situation in which the priority vector corresponding to the criteria is affected by polarization is presented and in the second one the aggregated priority vector of the alternatives is the one affected.

“The AHP deals with consistency explicitly because in making paired comparisons, just as in thinking, people do not have the intrinsic logical ability to always be consistent. [...]

In AHP I both locate the inconsistency and suggest the optimal value to improve it.” (Saaty, 1994)

To measure the inconsistency in the judgment of the respondents, Saaty propose an instrument named consistency ratio (CR). For the answers to be reliable the consistency ratio should be less than 0.1 across all matrices.

Due to the complexity of the analysed factors in the questionnaire some of the answers provided were not consistent enough for them to be considered reliable in their initial form. For example, the answers provided by respondent 13 were some of the most reliable one out of all the sample. Still, even in his case one matrix had a consistency ratio of over 0.1. See Criterion C1 in table below:

**Table 4.** *Inconsistency*

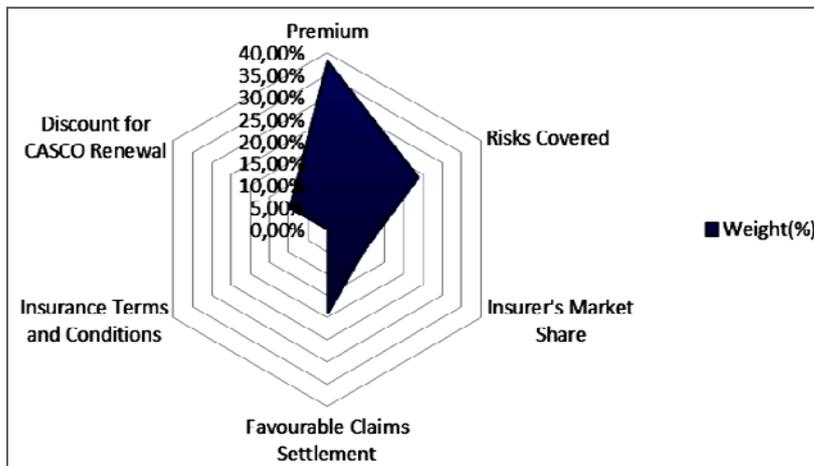
Respondent 13	CI	RI	CR
DM_C	0,08545	1,24	0,06891
C1	0,14278	1,12	0,12748
C2	0,07870	1,12	0,07026
C3	0,06548	1,12	0,05846
C4	0,09059	1,12	0,08089
C5	0,01864	1,12	0,01664
C6	0,10697	1,12	0,09551

To address this issues, we have computed the closest consistent matrix to a given non-consistent one according to the linearization technique conceived by Julio Benítez (Benitez, 2011) and used the consistent matrices across my research.

### Understanding Customer’s Decisions

Now that all the theoretical issues encountered have been clarified and both Saaty’s and Ma-Zheng’s approach have been studied an analysis of the questionnaire results must be made. For the analysis we shall make use of the consistent matrices obtained through the principles established in Benitez’s research, and thus all consistency issues will be adjusted to make the final data reliable and accurate for interpretation.

The results will be evaluated based on the scale used and two sets of interpretations will be provided. The two different scales will deliver a more accurate perspective on the trends determined by the customer’s behaviour. Based on the results obtained from Saaty’s one to nine scale, we have synthesized results are presented in the figure below.

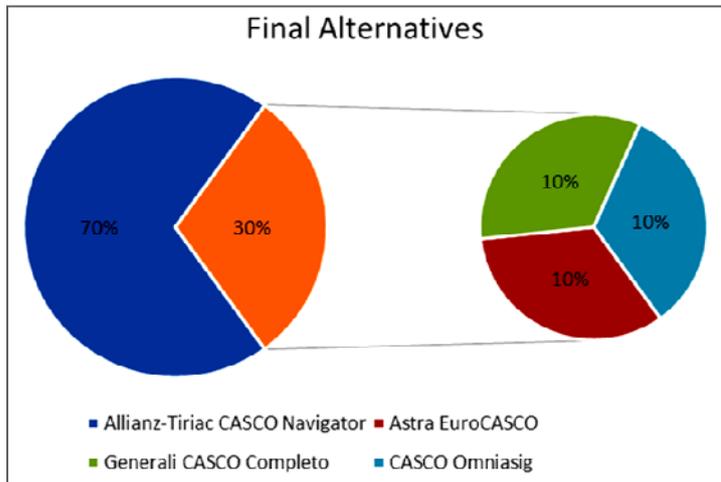
**Figure 2.** Criteria Importance based on Saaty's scale

In the figure above, it is clearly noticeable that the most important criterion for the selected sample was the premium of the insurance, with a weight of 38.10%. The aforementioned indicator reveals us that the potential Romanian customers are very price sensitive and that the price is ranked as one of the most important criteria for a majority of them. In many cases this is what makes the difference between signing or not a new CASCO insurance.

With a weight of 23.81%, the risks covered by the insurance were considered the second most important factor when signing a new motor hull policy. The aim of the insurance being to transfer the risks from the insured to the insurer, we acknowledge that this is a normal and 'healthy' reasoning process of the insured.

The third aspect that was revealed by 19.05% of the respondents to be of utmost importance is the ratio of favourable claims settled. When considering an insurance policy, the customer often asks himself if the insured will compensate his losses in an appropriate and timely manner. The ratio mentioned before proves that if the insured isn't satisfied with the compensation received and submits a claim he will be justly indemnified, if the validity of his claim stands true.

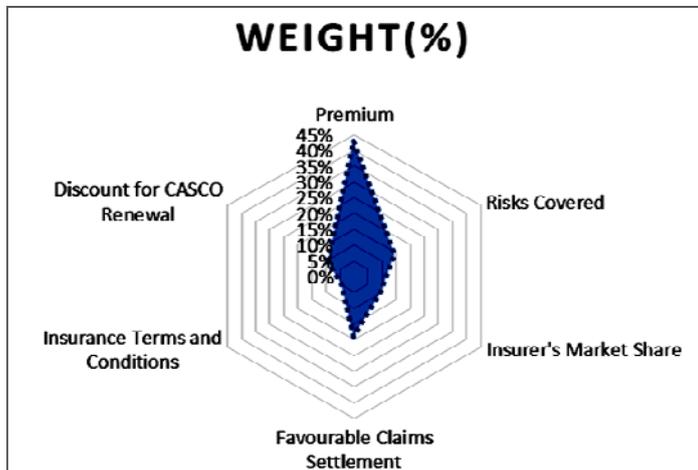
The last two factors, insurer's market share and discount for policy renewal were each chosen by 9.52% of the respondents as being the decisive issue when signing a CASCO policy. One of the disturbing realities that this questionnaire points out is that few people (in the chosen sample 0%) read in detail the insurance terms and conditions, especially the exceptions part of the contract. Even if they might read the contract carefully, they are usually ashamed or afraid to ask about the things that they do not understand and this puts them at a great disadvantage.

**Figure 3.** *Alternative Preferences based on Saaty's scale*

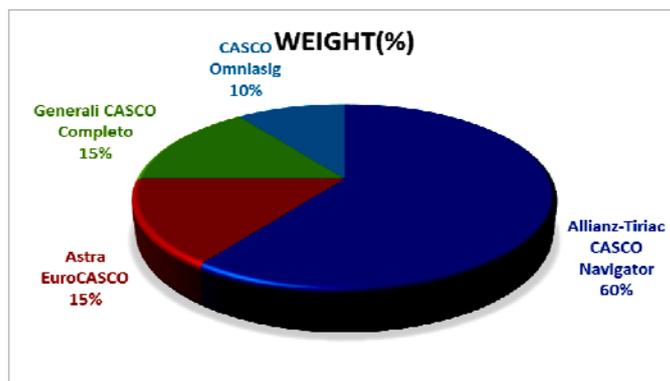
The second part of the survey carefully examines from six perspectives (risks covered, premium, insurer's market share, insurance terms and conditions, discount for renewal and favourable claims settlement) how good is each alternative considered to be from the point of view of the insured. The following pie-chart displays the end results:

As can be seen from Figure 3, with an overwhelming majority of 70%, Casco Navigator from Allianz Tiriac is offering the best insurance conditions regarding all the examined factors, from the point of view of the customers. On the Romanian market, Allianz Tiriac is indeed having the image of a 'premium' reinsurer that offers great coverage at an extra premium when compared to its competitors.

To the creation of this strong brand image, a significant contribution has had Ion Țiriac, who is seen as a model businessman by the majority of the Romanians and whose name is correlated with financial prowess. The products of Astra, Generali and Omniasig have an equal value of 10% each in the eye of the customer, meaning that the requested premium or the risks covered will be the determining factor between these three.

**Figure 4.** Criteria Importance based on Ma-Zheng's scale

Due to the fact that in the case of the Ma-Zheng scale the priority vectors are distributed differently than in the first case the final results tend to take a more uniform shape, as can be seen in the figure above. Nevertheless, the result of the analysis is the same as in Saaty's scale but it is displayed more obviously in the graph. Consequently, the premium paid, with 42.86% is still the most influent factor in the decision making process. The important changes took place at the level of the second and third criteria. The "moderate, uniform" priority assessments based on the Ma-Zheng scale, rules out the inconsistency (Agapie, 2013) in the judgment of the respondents and, thus providing an adjusted view of the results which can be inferred on the total population.

**Figure 5.** Alternative Preferences based on Ma-Zheng's scale

In this case, risks covered were considered the deciding factor to buy an insurance by only 14.29% of the respondents while favourable claims settlement climbed a place in the ranking, having the same weight of 19.05%. This change can be explained by the fact that the average Romanian driver can be influenced in a greater way by the opinions of his

friends, as shown in the study conducted by Kunden Broker regarding the top five myths encountered (Kunden, 2011), and he wants to avoid, at all costs, the possibility that the insurer will not pay the claims in a justly manner.

Using the Ma-Zheng scale shows a more truthful perception of the importance of insurance terms and conditions for the Romanian CASCO customers, having a weight of 4.76%. We might say that this percentage is according the real conditions of the market.

Examining the above figure, it is observable that CASCO Navigator from Allianz-Tiriac is still considered to be the product that meets the requirements of 60% of those polled. Far behind in the preferences of the Romanian customers are Astra EuroCASCO with 15%, Generali CASCO Completo also with 15% and CASCO Omniasig with only 10%.

## Conclusions

The study revealed that the Romanian motor insurance market is a very price sensitive one, the premium emerged as the most important criterion in over 38% of the choices made by those surveyed. What is more important is that the insurance terms and conditions are neglected by an overwhelming majority, in only ~5% of the cases being ranked highly.

This opens up new possibilities to the insurers which can decrease the premiums to satisfy the insured's needs but instead may also have to decrease the overall quality of the product, starting with stiffer insurance terms and conditions and going up to removing some of the insured risks.

Regarding the motor insurance products offered by the evaluated insurers we have discovered that the average insured considers that CASCO Navigator from Allianz-Tiriac is the best CASCO policy on the market. From our computations, 70% of the preferences were indicating that this is the product they would preferred. On the Romanian market, Allianz Tiriac is indeed having the image of a 'premium' reinsurer that offers great coverage at an extra premium when compared to its competitors. A better financial education should also add to the benefits of the motor insurance for the end consumer – as long as the consumer is not accurately informed or is lacking the necessary information from the insurance companies, the "feeling" will be that insurance is just for an expensive product, made only for the insurance companies to benefit.

Taking everything into account, we would like to draw attention to the fact that the Romanian motor insurance market will still be on a descending trend, until the insurers will be able to implement better fraud detection systems for CASCO, which will greatly contribute to the decrease of fraudulent claims. This, in turn, will take the burden off the honest insureds who will pay lower premiums.

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