PERSPECTIVES ABOUT THE ANTICIPATION OF CONSUMER BEHAVIOR- THE KEY ELEMENT IN SELLING INSURANCE

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Abstract:

   Insurances represent a special product by their nature, thing that implies the management of risks and protective measures in which concerns them. Consumers of this kind of products are individuals that are risk averse, their main concern being to protect their assets or stock echange.In this case, selling this type of products depends on knowing the consumer behavior and adapting continuously the products to the consumer needs. Selling insurance products means effectively to offer a financial support in the future for which the buyer pays continuously. Moreover, it is possible not to benefit from it if the risk does not occurs. Sales management of insurance products represent the managerial component which creates the link between the sold product and the client and has a powerful anticipation proclivity of market tendencies and consumer attitudes. The market place for insurance products mainstays the selling process through its continous development due to creation of new products (diversification of products and also price), due to the selling people and organization which plan a lot of actions to influence in a positive way insurance market. Nevertheless, in order to obtain efficiency it is required a rigorously sells management which desires to maximize the synergy effect at the organizational level.

Keywords: insurance market, selling process, consumer behavior, insurance products, sales management.

JEL Classification: D,D01

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1. **Introduction**

The globalization of the economy could lead us to the idea that the user or buyer of some insurance products would have the same requirements and the same motivations regardless of the geographical location or social circumstances. This assumption is wrong because every market is formed of certain consumers with different particularities and, in terms of insurance products we cannot expect a demand with similar characteristics or a standard offer on the part of the insurance companies. For example, we cannot address the same insurance offer for a city in Romania as the one we would offer in UK, simply because the two communities differ in terms of financial education, cognitive learning, social environment and so on.

In terms of insurance, we must take into account what are the reasons for contracting insurance, cognitive affective processes, types of behavior and under what conditions is made the decision for contracting insurance, the differences of situation and context. In other words, the insurance consumer behavior should be perceived from a holistic point of view because the way people behave in an economic environment is based on their needs but also on experience.

A fundamental premise of the consumer's behavior is that people not only buy products or services for what the products can do but also for what they represent, consumers often trying to create an identity through different consumption activities. Therefore, a person will choose the brand or an insurance company that has an image that fits to his ideas about himself, in other words the brand chosen should not enter into cognitive dissonance with the mental representations of the insurance consumer.

One of the characteristics of consumer behavior is the fear of loss.(Kahneman, D. , Tversky, A. Prospect teory- An analysis of decision under risk). Research has shown that, for a certain client the fear of loss is greater that the desire to win. Fear of failure and of loss represents a factor with social and cultural valence. Thus, there are cultures that encourage behavior of not taking risks. An effective method for using fear is by showing the potential clients what will happen if they wont buy an insurance policy (for disasters), what will they lose (assets acquired by hard work).

In what follows, we will present the two approaches: the economic and the psychological approach of the consumer's behavior.

The contemporary economic theory of the consumer's behavior is

based on three streams: classical theory, the theory of social economy and the new theory of Backer and Lancaster.

•   The influence of the classical theory in addressing the consumer

The basic assumptions of this theory have exerted influence on the consumer's behavior patterns. These relate to the following aspects:

- the consumer benefits from perfect information regarding his needs and the offer available on the market;

- the consumer's environment doesn't exert influence on the choosing process of products

- the consumer's decision-making process is geared towards maximizing its utility based on the budget imposed constraints,

- the usefulness of an acquisition is regarded in a global manner at the product's level.

Basically, this approach is based on rational dimensions of the decision-making process.

• The influence of social economy on consumer's behavior whose basic principle refers to the fact that consumer's decisions may be influenced by a series of external factors, namely social factors. Based on this principle were subsequently stated a number of theories on the consumer's behavior with emphasis on elements such as: social visibility, consumption trends, and famous brands.

• The new economic theory and its impact on consumer's behavior

In this case, two crucial areas were noted:

- the products are evaluated according to their attributes and the brand reputation is the basis for their differentiation.

- the utility associated, by the consumer, with a product is determined not only by the consumption of the good but also by the effort, respectively time and money, needed for its acquisition.

Thus, are taken into account several new concepts, namely:

- consumer loyalty is given by the correlation between the characteristics of the purchased product and the consumer's expectations.

- the consumer groups the products by categories according to the similarities he perceives.

- the price is used as a reference for products differentiation.

The psychological approach of the consumer's behavior is

successfully used in the study of consumer's behavior. Thus, a first opinion in psychology refers to the motivation theory. Later to this approach was appended the one regarding the study on the individual's personality with the purpose of explaining the behavioral differences. Currently, research conducted in the field of perception, memorizing, mental images, etc.. contribute to a better understanding of consumer's behavior. The input of this research can be found in different fields: the analysis of the effects of advertising, market segmentation, brand positioning.

Regarding the insurance field, we can say that the aversion towards risk of the individual represents the basis for the insurance activity existence, because requesting protection against risks and the transfer of risk to insurers is determined by the aversion toward risk.

The idea of different behavior of individuals faced with risk was developed by Kenneth Arrow, back in the 5th decade, in his work regarding the theory on risk and uncertainty. Arrow showed that there is a natural fear attitude, of aversion towards risk, but also a preference towards it: "the existence of insurance….demonstrates the validity of the hypothesis of aversion towards risk, while gaming (gambling N/N) and other speculative activities could be considered as evidence of preference against risk in certain circumstances.

2. Summary

According to the theory of prospecting, a person is risk averse if they prefer certain prospecting (x) to any risky Prospecting that has the expected value x. In the expected utility theory, the aversion towards risk is due to the concavity of the utility function. This characteristic is explained in its turn, by the law of diminishing marginal utility. The concave utility function is represented and compared with other functions in the section for utility function forms. Attitudes of different individuals towards risk have been grouped according to their acceptance of the game with equal chances. The simplest example is that of the game of chance with a currency which, thrown, leads to gain, respectively, to a loss, equal in size depending on the, face coin, which remains visible after it falls. The individual attitudes toward the game with equal opportunities can be grouped into three categories: risk aversion, neutrality towards risk and preference towards risk.

1. although the chances of gain or loss are equal, the individual with

risk aversion will refuse to play. The aversion for risk was defined as " the hypothesis of behavior against risk which consist of rejecting any lottery where the hope for winning is null"(Gollier, Chr. – Aversion pour le risque, in Risques, no. 17,1994, p. 27).This doesn't mean that the risk averter individual will never play. Under circumstances where the chances are favorable (70% chance of winning and 30% chance of loss), the earnings probably will prevail against risk aversion. What is more important from a practical standpoint is that a person with risk aversion agrees to pay an insurance risk premium higher than the average mathematical risk, provided he/she will be free from that risk.

2. a person with preference towards risk (risk-loving), accepts the risk, even if the chances of winning are unfavorable. The greater his preference to risk (risk-loving) the less favorable are the chances he accepts.

3. risk neutrality manifest in individuals which are not interested and don't take into account the risks to which they are subject to.

The manifestation of these types of attitudes towards risk can be illustrated with a eloquent example. A person owns an asset, amounting 100 million lei, which is threatened by a risk (fire, earthquake, hurricane) in regard to which there is a 20% chance of being totally destroyed respectively, 80% chance that good shall not be affected by the risk involved. If the individual bears alone the risk he can hope for, on average, a fortune of 80 million (80% * 100 million). An insurance company offers to ensure the asset, for a premium of 40 million lei. The individual will have to pay this premium, but in case of total loss, the insurer will pay compensation amounting 100 million lei. For this case, the individual's wealth will be of 60 million lei (100 million -40 million), regardless of the occurrence/nonoccurrence of the risk, but he will hold a safe asset amounting 100 million lei, if the risk will not occur, or its equivalent in cash, if the total loss occurs. Insurance has unfavorable chances towards retaining risk, but offers its reduction. If the insurance is not accepted, the average result is a wealth amounting 80 million lei, but the real result can be anything between 0 lei and 100 million lei. The acceptance of the insurance guarantees a wealth in amount of 60 million lei, no matter what happens to the insured asset.

An individual with risk aversion (considered a rational behavior, normal) will accept the offer of the insurance company agreeing to pay a premium of 40 million lei, and thus obtaining a wealth in average of 60 million lei. A person with a preference towards risk will not accept the

insurance, both because the insurer's offer has unfavorable chances, and because their desire to face the risk.

The individual manifesting neutrality towards risk, will also reject the insurance. He is indifferent to risk and he is not interested to transfer the risk, but on the potential gain: the uninsured asset has an average value of 80 million lei, while if it is insures, it's value is only of 60 million lei.

The most part of the individuals have an attitude of risk aversion but its size varies from one individual to another. The degree of adversity towards risk can be expressed using the concept of certainty equivalent(Laffont, J.-J. – Equivalent certain, in Risques, no. 17, 1994, p. 67), which is defined, as the amount a person is ready to pay in order to free itself from risk. The larger the amount, the bigger the degree of risk aversion.(The mathematical proof of the link between the certainty equivalent, risk premium and the three attitudes towards risk can be pursued in Eeckhoudt, L., Gollier, BC - Les risques financiers, Ediscience International, Paris, 1992, p 23-33) .

 The existence and the degree of risk aversion exerts a notable influence on the insurance activity. As shown before, the aversion towards risk makes the policyholder willing to pay a bigger insurance premium than the average actuarial value of the risk they want to transfer. This allows the insurance companies to operate as profitable economic operators, because the premiums claimed and cashed in from policyholders allow them to cover the undertaken risks, to cover the expenses and obtain a margin of profit.

Secondly, the individuals with risk aversion are willing to spend a part of their resources to find possibilities for reducing the risk, which explains the demand for insurance and creates the premises for the existence and development of insurance activities.

On the insurance market, the consumer's behavior is shaped by several particular aspects like: moral hazard, adverse selection, information asymmetry and the issue of regret on the demand for insurance. We will detail these aspects in what follows, in order to create an overview on what constitutes behavioral restrictions in insurance.

Moral hazard

H.W. Rubin distinguishes this risk (moral hazard) assessed *ex ante*, before concluding the contract, of moral hazard, manifested *ex post*, after the contract conclusion. Moral hazard also leads to an increase in the probability of damage occurrence, but due to the indifference

attitude towards risk of the already insured individual. In this regard it has been created a moral risk if the person owning a homeowner's insurance leaves the doors unlocked and the windows opened when leaving home. The analysis for the occurrence of the moral risk conducted by the Norwegian economist Karl Borch, in the work cited (The Economics of Uncertainty), was continued by J. Stiglitz who states that insurance cannot effectively cover the risk, due to an information asymmetry, emerged precisely due to the moral hazard. The information the insurance companies have on the insurance applicants' behavior faced with risk is imperfect, because the actions of the policyholder cannot be fully supervised and foreseen before concluding the contract. Stiglitz reached the following conclusion: the more complete the coverage by insurance and the higher the amount, the less are the individuals incited to avoid the insured event. It turns out that in the absence of the insurer's control, the insurance tends to diminish the spirit of anticipation against the risk that might occur, and thus determines the increase in the frequency or gravity of the risk consequences. The policyholder of an auto insurance contract for several risks, parks his car carelessly, even in a place where it could be hit or stolen; also the policyholder of a loan insurance granted for the purchase of a house will take fewer security measures for not loosing his job, than another, which has no such insurance.

The existence of moral hazard has negative effects on the insurance activity, generating an anti-selection of risks, with consequences on the financial equilibrium and the insurance companies' profitability. Insurers cannot eliminate moral hazard, but may take a number of steps to mitigate its effects. Thus, insurers may determine the insured to have a preventive attitude towards risk, offering only partial coverage of risk through the franchise provided in the contract. The policyholder is thus subject to uncertainty and is aware that in case of risk occurrence he will bear some of the loss, thus existing the motivation for risk prevention, more than for the case of a a full coverage contract.

Another possibility for mitigating moral hazard is by collecting information about the policyholder's behavior in the field of risk

prevention. Information implies additional costs and is still imperfect which constitutes another reason for the need of partial coverage of risk.

<u>Adverse selection</u>

The hypotheses on which the adverse selection is based refers to the fact that while the insurance companies know better the risk, the policyholders have some personal information and unobservable by the insurance company, relevant for determining the risk. It can even be considered that the adverse selection is no longer on some markets Chiappori and Salanie (2000). If we go even further and assume that the insurance companies know better the risk, then the latter should be better informed regarding the risk. Based on this reasoning Villeneuve (2000) proposed an analysis of the better-informed policyholders, analysis based on which it is studied the way the information is transmitted,.

The presence of adverse selection and moral hazard, on the insurance market has been tested empirically. Thus, Wolfe and Goddeeries (1991) studied the demand for a certain type of life medical insurance, Medigap. They found weak evidence of the presence of adverse selection in this case.

Pueltz and Snow (1994) tested the same insurance market in the U.S., referring to car insurance and found that agencies have greater inclination to providing risk insurance with more coverage, that which is consistent with the notion of adverse selection.

In 2001, Godfried studied Oosterbeeck studied the demand for dental insurance in the Netherlands, which was not included in the standard package of health insurance in 1995. It was noted that the agents with high inclination towards risk tend to buy supplementary dental insurance. Other studies have come to different conclusions. Chiappori and Salanie (2000) studied the automobile insurance market in France and Cardon and Hendel (2001) studied the health insurance market. Cawlez and Philipson (1991) studied the U.S. life insurance market. The results of these studies have not explicitly demonstrated the presence of adverse selection and moral hazard. Further more, at a global level, the information asymmetry is studied based on empirical

tests, those that have the most interesting results will lead, in the future, to changes in the theoretical models. In Romania, the studies have just begun, being a field toward which the researchers began focusing in the recent years.

Information and information asymmetry

Both involved parties hold an important element of the insurance contract. Thus, information is related to a multitude of variables verifiable under the contract framework. For the example regarding the relationship between the insurer and the insured, the latter through his personal decisions and actions knows better the probability of risk occurrence he isured himself against. Insurers, however, are not able, nor have all the information necessary to achieve the best results in terms of the behavior of each policyholder. Hence, a conclusion can be drawn, that a contract should not be based on the insured's behavior, since this variable is not verifiable. Moreover, the policyholders do not have enough information regarding the characteristics and hidden costs of the insurance, or regarding the behavior of insurance agents and or of managers in relation with policyholders. It is, thus, difficult to establish the contractual terms that depend on various competencies and qualities of a person.

In economics, information asymmetry occurs when in a transaction, one of the parties has more information or better information than the other party involved. A specific situation in this case is when the seller knows more about the product than the buyer, it is also possible the reverse situation, where the buyer has more information than the seller.

This situation was first described in 1963 by Kenneth J. Arrow in an article on health entitled Uncertainty and welfare Economics of Medical Care in the American Economic Review. Later in 1970, George Akerlof used the term of information asymmetry in the paper "The Market for Lemons." He emphasized that on such market, the average value of an exchange object tends to decrease, even for the one that is in perfect condition and of good quality, being possible that the market will go bankrupt. Due to information asymmetry, some sellers may lie about the products, misleading the buyers and consequently the latter tend to avoid this risk renouncing to certain types of transactions or spending less on a product, which can lead to negative economic effects.

Information asymmetry has recently been assessed as being in a slight

decrease, due to the internet, which allows ignorant buyers to obtain information that was not available previously, such as the price of the insurance premiums of the competition, etc.

Studying the situation where a contract is under information asymmetry conditions refers to the analysis of the relationship between two individuals or institutions, where one of the participants has an information advantage over the other, and the individual goals are in conflict. The reason for the combination between the information asymmetry and conflict of interests is that, if the contracting parties have common interests, then all relevant information should be automatically disclosed, and thus any asymmetry in information shall become irrelevant.

Information asymmetry on the insurance market is a situation where consumers are better informed than the insurers, those who draw up the insurance- definition provided by Rothschild and Stiglitz (1976). But, the insurance companies have a completely different opinion regarding the definition of information asymmetry, considering that individuals have still limited experience, while the statistical models for estimating their knowledge experienced significant progress. The adverse selection represents a process that occurs when the individuals from which different losses are expected forgo the insurance contracts, so that the insurance company is left with the customers that will bring great losses. Due of the presence of adverse selection, the private insurance markets operate with difficulty. (World Bank, 2000).

3. Case Study

Definitions

Gross nominal earnings include wages, respectively the rights in cash and in kind of the employees for the work performed (including for overtime) according to the wage applied, bonuses and allowances granted as percentage of the wage or in fixed amounts, other additions to wage, the amounts paid for non-worked time (indemnities for rest and study, holidays and other days off, amounts paid from aggregate wage bill for sick leave) awards, holiday bonuses and other amounts paid from the wage fund according normative acts and collective agreements, amounts paid from net profit and other funds

(including value vouchers).

The nominal net wage is obtained by subtracting from the nominal gross salary: the tax for the health insurance fund, the individual contribution the State Social Insurance Fund and the contributions to the national social security fund.

The average monthly wage represents the ratio between the amounts paid to employees by the economic operators in the reference month, for whatever period it is due and the average number of employees. Average number of employees represents an arithmetic mean calculated based on daily number of employees in the reference month. The daily number of employees take into account are included only the persons that have been paid for that month. Are not taken into consideration: the employees on unpaid leave, on strike, the ones transferred to work abroad or those whose employment contract/employment relationship has been suspended.

The methodology used

The monthly data, regarding the monthly wage and the number of employees, is obtained through a selective statistical research. For establishing the size of the sample were considered acquiring some estimation of the main researched features, that will be affected by errors within +/- 3% and guaranteed with a probability of 95%. Starting with January 2010 the sample contains 25000 socio-economic units. The budgetary units are exhaustively included in the research, except the local government authorities for which the local communal councils data is collected based on a representative sample at the county level (about 770 units). For the economic sector were included within the research the units with 4 employees and more, representing 92.73% of the total number of employees in this sector.

The objective of the monthly statistical research on earnings is the evaluation of the short-term tendencies of the average monthly and hourly wages and on the overall economy and industries.

Source: http://ro.wikipedia.org/wiki/Salariul_mediu_%C3%AEn_economia_Rom%C3%A2niei

Based on the above mentioned elements, we wanted to indentify the existing relationship, in our country, between the earning and the variation of the general insurance gross written premiums. In this sense, we used as an

analysis method the simple linear regression.

In case of simple linear regression, it is necessary to identify an econometric factorial model with the structure:

$$y = f(x) + u$$

where:

y = actual values of the dependent variables;

x = actual values of the independent variables;

u = residual variable representing the influences of the other factors of the y variable, not specified in the model and considered to be incidental factors with insignificant influence on the variable y.

In order to be able to build a unifactorial linear regression model we've defined the salary as an independent variable, while the value of gross was considered a dependent variable (outcome). Thus, the regression model may be written down as the following mathematical equation:

$$PSAG = a + b \cdot CS$$

From an econometric perspective, the considered model should include the residual component, seen as a representation of the differences that arise between the values determined from a theoretical point of view and the one measured in the real economy.

$$PSAG = a + b \cdot CS + u$$

where:

PSAG = general insurance gross written premiums - dependent variable;

CS = earnings - independent variable;

a, b - parameters of the regression model;

u - residual variable.

In order to determine the parameters of the unifactorial linear regression model we've considered a range of data on the evolution of the two macroeconomic indicators of results from 2002 to 2012. This information can be summarized in a table as follows:

TABLE 1: The evolution of the average salary in Romania during 2002-2012

Year	Gross annual average value	Net annual average value	Average exchange rate (Euro)	Net annual average value (Euro)	Gross premium for general insurance	%
2002	532 lei	380 lei				
2003	647 lei	470 lei			2.673.816.291	
2004	804 lei	582 lei			3.476.543.926	
2005	943 lei	721 lei			4.417.165.819	
2006	1.108 lei	832 lei	3,5245	236.06€	5.729.284.541	
2007	1.410 lei	1.043 lei	3,3373	312,52€	7.175.789.699	
2008	1.742 lei	1.282 lei	3,6827	348,11€	8.936.286.505	
2009	1.889 lei	1.381 lei	4,2373	325,91€	8.869.746.957	
2010	1.936 lei	1.407 lei	4,2099	334,21€	8.305.402.152	
2011	2.022 lei	1.504 lei	4,2379	354,89€	7.822.309.952	
2012	2.117 lei	1.604 lei	4,4560	359,96€		

Source: National Institute of Statistics
(http://www.insse.ro/cms/rw/pages/comunicate/castigulSalarial.ro.do)

To be able to make a proper analysis of the existing correlation between the two macroeconomic indicators shown in the above table, it is necessary, as a first step of this research, to identify a series of features targeting the evolution of each measure considered within the timeframe under review. In this respect, using EXCEL software we've studied, initially, the individual evolution of the two indicators. Thus, studying the evolution of the general insurance gross written premiums during 2002-2012 enabled the obtainment of the following significant information and graphical representations:
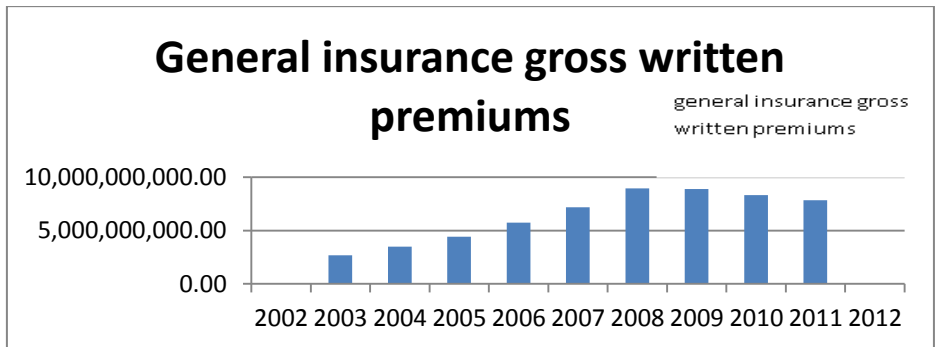

Figure 1 The evolution of general insurance gross written premiums during 2002-2012

As it can be seen, both from the analysis of the data series subject to research, and especially from the figure shown above, within the considered timeframe, the general insurance gross written premiums experienced a constant increase from one year to the next, with the exception of the last years included in the analysis period. Thus, it appears that, amid the eco-financial crisis that affected the whole world starting with the second half of 2009, the value of the premiums for 2010 records a decrease of over 6% compared to the immediately preceding time interval.

Column1	
Mean	6.378.482.871,33
Standard Error	795.788.707,90
Median	7.175.789.699,00
Standard Deviation	2.387.366.123,71
Kurtosis	-1,49
Skewness	-0,48
Range	6.262.470.214,00
Minimum	2.673.816.291,00
Maximum	8.936.286.505,00
Sum	57.406.345.842,00
Count	9,00

Table 2 The main statistical tests performed on the general insurance gross written premiums during 2002-2012

Using the EXCEL software package we have conducted a series of statistical tests designed to ensure a better picture of the evolution of general insurance gross written premiums within the considered timeframe. Therefore, we can note that the average value of this indicator for the 2002-2012 time frame is 6.378.482.871,33 lei, with a range between a minimum of 2.673.816.291,00 lei (recorded at the end of 2003) and a maximum of 8.936.286.505,00 lei (at end 2011).

The values of the statistical tests performed above enable us to state that the distribution of the general insurance gross written premiums values for the considered timeframe is not perfectly symmetrical (the value of the

skewness test is different from 0), the distribution being rather flat (kurtosis <3). Moreover, it is easy to see that, within the data series considered, the values comprised between the minimum and the average of the data series are more numerous than those included in the second half of the variation interval of the indicator subject to this research.

A similar analysis can be carried out in respect to the salary development (public and private) within the timeframe 2002-2012. The main elements obtained from the analysis conducted using EXCEL software can be presented as follows:
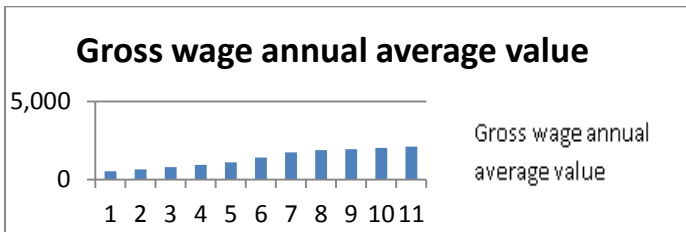

Figure 2 The evolution of the salary earnings during 2002-2012

The previous graphic representation leads to the conclusion that, within the timeframe subject to this research, the indicator for the salary earnings has had an accentuated evolution, with significant increases from a period to another.

Mean	1377,272727
Standard Error	178,5938557
Median	1410
Standard Deviation	592,3288092
Sample Variance	350853,4182
Kurtosis	-1,784250748
Skewness	-0,149066393
Range	1585
Minimum	532
Maximum	2117
Sum	15150
Count	11

Table 3 Statistical tests carried out on the salary earning during 1990-2009

Using the Excel application, we established the variation interval of the researched indicator, establishing thus the fact that the salary earning value falls between 532 lei, in 2002 and 2117 lei, at the end of 2012. Also, we could establish that the average value of this indicator for the period 2002-2012 is of 1377,27 lei. As it can be seen, the values for the Skewness and Kurtosis tests offer us the possibility to state that the considered distribution is not perfectly symmetrical, being predominant the values placed between the average and the maximum of the data series.

From the two analyzes previously carried out it was possible to draw a very important conclusion regarding the analysis method of the correlation between the two indicators subject to research- the general insurance gross written premiums and salary earnings. Thus, it can be noted the fact that the evolution of the two macroeconomic indicators is very similar, with accentuated increases for the period between 2002-2012 and a decrease of around 6% during the last year included in the timeframe subject to the research. Also, it can be seen that the statistical tests carried out on the data series on to the two indicators are almost identical. Based on these findings, we can state that between the value of the general insurance gross written premiums and that of the salary earnings there exists a strong interdependence.

In order to support this statement, and to identify the regression function typology we created a graphical representation of the pairs of points that comprise the general insurance gross written premiums and the corresponding salary earnings points. This graphical representation is as follows:
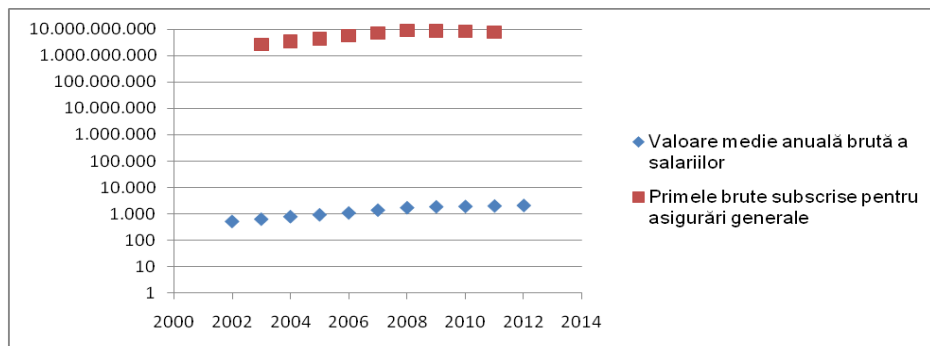

Figure 3 The parallel evolution of the gross written premiums for the general insurance and salary earning

As it can be seen in the previous figure, the pairs of points for general insurance gross written premiums and salary earning describe almost perfectly a straight trajectory, and give us the possibility to conclude that the unifactorial linear regression model can describe with very good results the relationship between the two indicators analyzed.The main issue of any regression model is determining the model's parameters, operation that can be carried out using the method of the smallest squares (least squares). In doing so, we start from the simple linear regression model equation:

$y = a + bx + u$

where:

yt= the theoretical values of the y variable obtained only according to the values of the essential factor x and to the values of the parameters estimators a and b.

To estimate the parameters of this regression model we used the Excel application, where we defined the equation that has as a resultative variable the general insurance gross written premiums, and as a factorial variable the value of the salary earnings. Also, we considered that this model of regression will include the free term c. the estimation method defined in the program is the method of the smallest squares- least squares.

Based on the elements presented above, using the Excel application, the following results have been obtained:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0,952372
R Square	0,907012
Adjusted R Square	0,893728
Standard Error	7,78E+08
Observations	9

ANOVA

	df	SS	MS	F	Significance F
Regression	1	4,14E+19	4,14E+19	68,27856	7,41E-05
Residual	7	4,24E+18	6,06E+17		
Total	8	4,56E+19			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Intercept	4,18E+08	7,67E+08	0,544834	0,602785	-1,4E+09	2,23E+09	-1,4E+09	2,23E+09
X Variable 1	4291439	519350,8	8,263084	7,41E-05	3063370	5519509	3063370	5519509

RESIDUAL OUTPUT

Observation	Predicted Y	Residuals
1	3,19E+09	-5,2E+08
2	3,87E+09	-3,9E+08
3	4,46E+09	-4,7E+07
4	5,17E+09	5,57E+08
5	6,47E+09	7,07E+08
6	7,89E+09	1,04E+09
7	8,52E+09	3,46E+08
8	8,73E+09	-4,2E+08
9	9,09E+09	-1,3E+09

To interpret the results obtained using the linear regression method it is necessary that we establish, from the beginning, if it can be viewed as correct, and the provided results can be used in real macroeconomic analysis.

We can also see that the probability that this model is correct is very high- approximately 95,23%, this conclusion being made based on the values determined using Excel application for the R tests- Squared (0,9070) and Adjusted R-squared (0,8937).

Also, the validity if this regression model is confirmed by the values of the F tests-statistic (68,27- a value far superior to the level provided in the table, considered to be the reference point for the validity assessments of the econometric models), and also by the null degree of risk (reflected by the value of the Prob F test-statistic).

Based on the afore mentioned elements, we can consider the regression model describing the correlation between the value of the general insurance gross written premiums and that of the salary earnings as being correct, thus reflecting accurately the real evolution of the two macroeconomic indicators. We can therefore transcribe the unifactorial linear regression method as follows:

PSAG = 0,00000004 + 4291439 CS

This regression method allows us to establish a series of aspects regarding the relationship between the two variables considered. It can be noted that between the value of the general insurance gross written premiums and the value of the salary earnings registered between 2002-2012 in our country there is a significant direct relationship. Therefore, we can state that an increase by a monetary unit of the salary earnings (with its two components – private consumption and public consumption) will lead to an increase with 4.291.439 monetary units of the general insurance gross written premiums. The insurance consumption during the analyzed period shows the individual's

aversion to risk because together with the salary increase it increased the income for premiums in the insurance field.

The situation previously presented can be regarded as normal provided that it is known that, in our country, the economic growth in the recent years has been based almost exclusively on a consumption stimulation policy, especially in terms of its private component.

We can also say that in order to overcome the current socio-economic crisis, in Romania the measures that directly and negatively affect the salary earnings should be limited (for example: major wage cuts implemented within the last period or the layoffs from the public sector).

The analysis of the regression method previously presented cannot be considered complete without mentioning the fact that the significant value of the free term means that the factors that were not included in the model present a relatively high influence on the value of the general insurance gross written premiums. The negative value of the free term proves that the variables that were not included in the previous econometric model have, in their entirety, a negative effect on the evolution of the general insurance gross written premiums.

4. Conclusions:

- Regarding security, we must keep in mind the reasons underlying an insurance contracting, cognitive affective processes, the types of behaviors,a fundamental premise of consumer behavior being that people buy products or services not only for what they do but also for what they are, consumers often try to create an identity through consumption activities
- risk aversion people is willing to spend some of their resources to find ways to reduce risk, which explains the insurance claim and creates the potential existence and development of the insurance business.
- insurance market consumer behavior is shaped by some particular aspects such as moral hazard, adverse selection, information asymmetry and regret on the demand for insurance issues
- Information on the behavior of insurance companies insurance applicants at risk is imperfect, because actions can not be fully insured supervised, the insurance cover is complete and its amount is higher, the less individuals are incited to avoid the insured event
- Existence of moral hazard would affect the insurance

business, generating antiselection risk, affecting financial stability and profitability of insurance companies.

-	In the study case General Insurance gross written premiums and earning almost perfectly describe a straight trajectory which allows us to state that the linear regression model can describe unifactorial very successful relationship between two indicators analyzed.

-	it can be concluded that gross written premiums for insurance are influenced primarily by the evolution of wages and consumer attitudes on insurance.Din analyzed data we conclude that the Romanian consumer financial education has improved , which is associated with increased risk aversion and improvement in insurance underwriting noting that during the crisis, it seems that people are less willing to purchase insurance, thus satisfying their need for security, the main directions for the allocation of earnings the basic needs and monetary obligations such rates, rents.

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