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The decision-making method, another argument for the business success

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Abstract.*The attempt for successful decision-making in business has been and still is a continuous managerial concern. The decision- making activity is very old. The Antiquity is compared to the upcoming of the human society. Currently, when Albania is involved in the integration process within the European structures, decision-making gets a special importance. In this context, the focus refers to problems of the methods used in decision-making. According to researches it comes out 76% of the managers use consider the manual methods. But the society is currently facing many economic problems. Therefore, we think and believe that it is very important that decision-making in business should support a new vision: decision- making oriented towards the statistical, econometric mathematical and computational methods. The achievement of this intention is linked with continuous efforts of the experts to affect the managers in order to change their psychology, with the aim to orient the decision-making towards contemporary methods, traditionally relied on as accurate. After the theoretical treatment, considering the paper dimensions there will be an evidence of the factors that have defined the current status of decision-making in business. In this context, the paper is a modest contribution that intends to highlight the rate of the dependence of the business success from the decision- making. The analysis will consider the opinion of the experts aiming at an examination of the current situation of decision-making in Albanian businesses. Interview was used as the main instrument to gather data. The data processing will be made by statistic method.*

Keywords: coefficient of association, coefficient of Spearman, decision-making, performance.

JEL codes: D70.

1. Problem definition

Every individual either alone or in group, in every aspect of his/her activity, personal, familial, social or economic, is involved in a process of continuous decision-making. "Decision-making is an integral part of our daily lives. It ranges in scope from individual to the largest groups and societies, including nations and ultimately, organizations at the global level" (Chankong, Vira & Hiames Yacov,

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Y., 1983).

But decisions in the business are specific engagement. The decisions in the business organizations represent a managerial engagement and they are important parts of managerial responsibility. Decisions are not an intention in themselves, they are made to fulfill certain intentions of the business, and seen from this point of view they are loaded with responsibility. They are numerous, of different types and conditioned by the problem to be solved, the time when they need to be made and the consequences they may have.

Analyzing some decisions in business there comes out that each of decision-making aspects and the whole process of decision-making is lead by judgment. According to Jeremy Kourdi (2003), Peter Drucker, when speaking about judgement states that: "Every decision is a risk-taking judgment …". Treating the decision as a risky judgment from Peter Drucker, I think that he is based on the fact that the decision-maker cannot have full security of the decision-making consequences, because of the great number of factors that affect the decision, and because of the conditions where the decision is implemented. Therefore, further on Drucker defines that: "Effective executives try to make the few important decisions on the highest level of conceptual understanding" (Jeremy Kourdi, 2003). But judgment, on its side, is the thought dimension. The importance of thought in decision-making is highlighted by the fact that the thought is one of the three secrets of wise decision-making. According to Barry F. Anderson (2002): "The three secrets of wise decision-making are courage, creativity, and balance in the management of complexity". According to the attitude of the author, it is easily noticed that the three secrets of wise decision-making have in their centre the thought.

From the decision-making point of view, the thought remains in the centre of each of the decision's "secret" that Barry F. Anderson treats as follows:

Rationality is a matter of direction in thought. Rationality in thinking gives the individual (manager) the necessary courage. Courage on the other hand is very important as it makes you act convincingly.

Creativity is a matter of richness of thought. Creative decision- making considers broad ranges of alternatives, bases for evaluating those alternatives and events that might affect their value.

Judgment is a matter of balance in thought. Judicious decision making weighs the various fact and value considerations in proportion to their importance.

It is common fact that the decision-making focuses on problems that have to do with the business performance. The goal of every decision-making process is the increase of the incomes, minimizing the insecurities, the risk reduction, etc. All these have highlighted the necessity of improving the decision-making. As a result, the improvement of the decision-making quality has found the proper interest in the academic level as well as in the managerial level.

Every decision is evaluated by the problem it solves and its cost, which is conditioned besides others, by the method use for its preparation. We focused on the method use for decision preparation. Currently, the managers more often use simple methods that refer to experience and personal intuition in the decision-making, whose efficiency is not very sure. It is understandable that the power of intuition in decision-making may not always provide efficient decisions. The concept of intuition leads to approximation not to effective solution of the problem that the decision aims. Based on intuition only, the decision-making may not be considered good and rational. Thus, the intuitive method of management should be replaced with that one based on scientific logic as the logic not intuition is the best effect in decision-making. On the basis of this, it becomes obvious that intuition should not be totally ignored in the process of decision-making but on the contrary it can be inhanced if it is based

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on contemporary methods.

Methods that have been used and are still used in decision-making are being analyzed in the historical scope, have evolved in accordance to the social-economic development of the society in general and the development of sciences in specific. Regarding this evolution, the integrity of different methods of decision-making may be divided in two groups. In more concrete terms, I think that the decision-making method groups may be classified as follows:

First Group – manual method. In this group, as a rule there should be involved the describing methods of the economic phenomena. These methods support the managers' experience and intuition. Manual methods belong to the period before 20th century.

Second group - contemporary methods. The use of contemporary methods in decision-making is a potential opportunity to increase the profitability of managers and business directors from the science development. From the point of view of decision-making the use of contemporary methods considers a simpler and more explicit way compared to the respective treatments in the existing literature. The use of contemporary methods in decision-making is an intertwined problem between science and practice. The contemporary methods (statistical, mathematical, econometric, etc methods) belong to the 20th century.

Managerial commitment for the use of contemporary methods in decision-making should consider these methods not simply in preparing the decision but, also the conditions of the business environment. The environmental conditions in which the decision is made may indicate the model that should be used. Only in this way, the model used will lead the manager towards success. The use of contemporary methods requires considerable availability of scientific knowledge by the decision-making manager. The using of the contemporary methods in decision-making should be a priority of every managerial level that engages in decision-making. Contemporary method provides the pretended quality in decision- making, as they simplify the vision on the economic phenomena and precise the goals.

2. Methodology

The methodology provided in this paper serves to the objectives settled and it considers:

Table work: focuses on the relevant economic literature researches in Albanian and other languages, different researches and studies, definition of the sample, preparation of the interview, data processing and preparation of conclusions.

Field work: refers to researches in various institutions, interviews with experts preliminarily selected and interview.

In this paper two kinds of research have been considered. In more concrete terms - the descriptive research – statistical description is used with the aim of acknowledging the situation, and the verifying research – non-parametrical statistical analysis (coefficient of association and coefficient of Spearman) necessary to explain and highlight the relations between variables. These methods were used alone as well as combined with each other. Whereas, the results of the survey of this paper on the necessity of using contemporary methods in decision-making are analysed according to the hypothesis:

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H: Is it important relation between the method used in the decision- making and the business performance?

The study involved three countries: Albania, Macedonia, Montenegro.

3. Result analysis

Business performance is of interest for managers of every managerial level as it has to do with the achievement of objectives defined through work. The performance starts with decision-making in business. Evaluating the importance of decision-making for achieving the objectives the method used is very important. Regarding the decision-making importance and considering its role in business performance the experts interviewed accept that there is an important connection between the method used in decision-making and the business performance.

4. Descriptive analysis

The interviewed experts, according to their position regarding the role of the method used in decision-making and its impact in the business performance were grouped in two groups and each in two levels. In the first there are the experts that support the opinion that the manual methods provide the business performance, whereas in the second group there are experts who consider the contemporary methods as a condition for a good performance. The data gathered by their interview may be reflected in the contingence table with r = 2 rows and c = 2 columns where the factual densities are presented for every variant combination between the kind of the method used in decision-making and the business performance in other unchangeable conditions as follows:

Table No.1

Variables	Use manual methods	contemporary methods	Σ
Less successful (y1)	a=8	b=3	a+b = 11
Successful (y2)	c= 4	d=15	c+d = 19
Σ	a+c = 12	b+d =18	n = 30

This table serves for studying the links that exist between the method used in decision-making and the business performance such as the coefficient of association, Pearson coefficient, Spearman coefficient etc. Considering the data on the table of contingence it is acceptable for the calculation of the coefficient of Spearman, as the Spearman correlation is a version of the Pearson product-moment correlation.

Referring to the table of contingence the experts may be grouped in two groups regarding the time context:

First group – experts who appreciate the manual methods

Second group – experts who appreciate the contemporary methods

For a more accurate appreciation of the relationship between the kind of method used in decision-making and the business performance, the experts were asked to evaluate individually with point system according to LIKERT scale, the level of the impact of the decision-making methods in the business performance. From the entity of the experts positioned in the 4th quadrant of the table of contingence that appreciate the contemporary methods five of them denied at first to do the evaluation with points of the impact of the decision-making method in business performance according to

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LIKERT scale. We insisted by deep questions and this made possible the reduction of this number to three. In this way, we lead to 24 experts to be considered. The individual evaluation of the experts enabled the respective grouping of these evaluations and the calculation of the respective relative densities to the group as well as to the total number of respondents. The grouped data and their relative densities are presented in the following table:

Table No.2

Likert scale	1	2	3	4	5	Total
First group						
The level of estimate	0	2	5	4	1	12
Relative densities to the group	0	16.7	41.6	33.3	8.4	100
Relative densities to the total	0	8.4	20.7	16.7	4.2	50
Second group						
The level of estimate	0	0	6	3	3	12
Relative densities to the group	0	0	50	25	25	100
Relative densities to the total	0	0	25	12.5	12.5	50
Total	0	2	11	7	4	24
Relative densities to the total	0	8.4	45.7	29.2	16.7	100

From the above table we may notice that the experts start their evaluation from level "two". None of the experts despite the above grouping is not positioned in the level "one" of the LIKERT scale. Whereas 8.4% of the experts, considered in this paper, have evaluated the level "two", the impact of the decision-making in the business performance. These belong to the first group of experts, the experts that appreciate the manual methods. The relative biggest density has the level "three" of the evaluation. In this evaluation there are represented 45.7% of the experts considered in the level "four" there are positioned 29.2 of them. In the 5th level of LIKERT scale of the evaluation there are 16.7% of the total number of experts considered. Whereas expanding the analysis in the 5th level of evaluation within the respective groups we may notice that:

Experts of the first group represent only 4.2% of the total.

Experts of the second group represent 12.5% of the total of the experts considered.

Even though the experts appreciate very much the role of the contemporary methods in decision-making as a factor of success in business in some cases they are skeptic for the evaluation in level "five" of LIKERT scale of the method role. A great part of them think that the success of business in level "five" should not necessarily attribute to the kind of the method used as a series of barriers in this direction that according to them can discredit the method itself. Some of these barriers may be:

- The quality of the available data that condition the quality of the decision and the respective reflection in the business performance which is a dominant opinion of the experts (87.5% of them).
- The professionalism of the manager to define the referring method for the available data. This is the opinion of 46% of the respondents with the claim that in this direction the manager, in order to be successful he should consider the opinion of experts.

Time as an important element considered by two point of views, the first one has to do with the time when the manager is provided with necessary data. Whereas, the second point of view, the "time" element has to do with the managerial engagement in the best time possible for the decision preparation. The time element is appreciated by 33% of the experts considered, as they claim, selection of time limits is a situation manageable by the decision-making manager.

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The way of decision implementation is referred by 26% of the respondents.

Selection of the contemporary method and the respective technique which is influenced by the problem specifics on which the decision was made.

5. The non-parametrical analysis

Despite the above, all the experts think that there is a connection between the kind of the method used (either manual or contemporary) in decision-making and the business performance. In order to consolidate this opinion, in the position of the researcher, the data of the interview were processed according to the non-parametric method of the range of Spearman. In order to use this method it is necessary a preliminary preparation such as:

The gathered data from the interviews with experts should be preliminarily processed ordering them according to the increase of values. This is presented in the following table:

Table No. 3

Nr.	Manual method	Contemporary method
1	2	3
2	2	3
3	3	3
4	3	3
5	3	3
6	3	3
7	3	4
8	4	4
9	4	4
10	4	5
11	4	5
12	5	5

The above data enable the processing by means of non parametric methods and concretely in this paper it is considered the coefficient of the range of Spearman. Starting from the labeling, this non parametric method considers – the range that expresses the place of variables according to their size in the same conditions compared.

The ranges are as follow:

Rx	**Ry**	**Di=Rx-Ry**	**Di^2**
1.5	3.5	2	4
1.5	3.5	2	4
5	3.5	1.5	2.25
5	3.5	1.5	2.25
5	3.5	1.5	2.25
5	3.5	1.5	2.25
5	8	3	9
9.5	8	1.5	2.25
9.5	8	1.5	2.25
9.5	11	1.5	2.25
9.5	11	1.5	2.25

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12	11	1	1
Total			36

The respective range are calculate as follow:

The manual method: The contemporary method:

Level "2"- (1+2)/2 = 1.5 Level "3"- (1+2+3+4+5+6)/6 = 3.5

Level "3"- (3+4+5+6+7)/5 = 5 Level "4"-(7+8+9)/3 = 8

Level "4" - (8+9+10+11)/4 = 9.5 Level "5"- (10+11+12)/3 = 11

The end of preliminarily preparation enables the processing of data. The data processing according to this method follows this order:

Defining the rate of correlation between the variables by considering their respective ranges through this formula:

$$R_s = 1 - \frac{6 * \sum d^2}{n * (n^2 - 1)}$$

where:

d_i - express the variation between the ranges of the values of the variables.

n - expresses the number of variations
Approximate mistake of this evaluating indicator on the importance of the correlation of the range according to Spearman is calculated as it follows:

$\overline{R_s} = 0$

$S_{R_S} = \sqrt{\frac{1}{n-1}}$

It is calculated the factual value of the criterion "Z_f":

$$Z_f = \frac{R_s}{S_{R_S}}$$

It is defined the critical value "$Z_{\alpha/2}$" $Z_{\frac{\alpha}{2}} = 0.05/2 = 1.645$

It is compared the "Z_f" with "$Z_{\alpha/2}$"

In case $Z_f \rangle Z_{\alpha/2}$ it is said that the relation between the variables is very important.

Based on our dates:

$$R_s = 1 - \frac{6*36}{1716}$$

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$R_s = 0.874$

$S_{R_S} = \sqrt{\frac{1}{n-1}}$

$S_{R_S} = 0.301$

Zf = 0.874/0.301 = 2.903 › 1.645

So the relation between the variables is very important.

6. Indicators of the relations

Despite the above, based on the data of the table of contingence, it is studied as well the relation between the kind of method used and the business performance. For this it is used the coefficient of the association.

The coefficient of association is treated in both its forms:

Ka = $\frac{ad-bc}{ad+bc}$ - coefficient of Jul

Ka = 0.81 $\frac{8*15-4*3}{8*15+4*3}$

- the coefficient of the relation

Kl = $\sqrt{\frac{1-\frac{bc}{ad}}{1+\frac{bc}{ad}}}$

Kl = $\sqrt{\frac{1-\frac{4*3}{8*15}}{1+\frac{4*3}{8*15}}}$ = 0.9

The coefficient of association in both its forms highlight the fact that the business performance positively depends considerably on the method used in decision-making.

For a more consolidated opinion the above conclusions are supported by the "rule of thumb". So, if the coefficient is greater than 0.707 the relation between the variables is very important.

7. Conclusions and suggestions

Developing alternatives of the economy highlight the necessity of the commitment in researches in

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various fields, among others in the field of decision-making, which is a challenge. From this point of view the researches are important as they highlight the problems that aim solutions. Thus the actual paper on the relationships between the kind of method used in decision-making and the business performance it highlighted these problems:

- Based on the surveys, analyses and evaluations of the experts it is noticed that the decision-making is a factor of success of the business especially in the conditions of the struggle of competition.
- The use of statistical non-parametric methods highlight the positive relations between the method used in decision- making and the business performance.
- Currently we can conclude that the use of contemporary methods in decision-making is not of a considerable degree. The obstacles in this direction has been and still is the background of the albanian managers as the result of the past economy which is extremely centralized. This has inevitably lead to non sufficient acknowledgement of the theory and practices of quality decision-making from the managers.
- The shortages of qualifying programs in the decision-making field and the shortages of the consulence have been evident in the activity of the managers.

Though there is a positive attitude in using the contemporary methods in decision-making the situation of business in this direction has many handicaps. Therefore the following suggestions may be considered as very important:

8. Suggestions

- It is required an institutional will to treat the managers in the field of decision-making in general and especially in the field of using the contemporary methods. .
- It is necessary to increase the cooperation with universities in order to increase the business profitability by the application of science innovations.

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