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The Role of Decision-making Methods in Business Performance

Irina CANCO[1+]

[1] University of Pecs, Hungary

Abstract. *Decision-making is a central problem, widespread, difficult and an intellectual engagement with responsibility to protect from risk. This paper does not cover all the problems of decision-making in business but it is focused on the impact of decision-making methods in business performance that is characterized by some performance indicators. A few theoritical problems of decision-making are presented in the framework of the paper. After the theoretical part, the actual situation of decision-making is analyzed, and the impact of the methods in business performance.*

The objective of the paper is to measure the impact of decision-making methods in business performance.

Key words: decision-making, decision-making methods, financial performance, ubiquity of decision-making.

JEL codes: M10, M20.

1. Introduction

Decision-making is a ubiquitous engagement. For this, Rosanas (2013) shares the opinion that decision-making is an ongoing activity as he says: "Decisions are an everyday fact of life". While, Garvin and Roberto (2001) see and handle the ubiquity of decision-making from the point of view of numerous meeting points of the individual with the decision-making. In relation to this they underline: "The fact is, decision-making is not an event. It's a process, one that unfolds over weeks, months, or even years; one that's fraught with power plays and politics and is replete with personal nuances and institutional history; one that's rife with discussion and debate; and one that requires support at all levels of the organisation when the time comes for execution". Decision-making is widespread everywhere especially managerial decision-making. The decision-making is obviously an essential management commitment, accountable for the business fate. Accordingly, Garvin and Roberto (2001) will proclaim: "Decision-making is arguably the most important job of the senior executive and one of the easiest to get wrong". Therefore, cognition of the business decision-making issues becomes of a paramount importance.

Decision-making impact in business performance conditioned by the method used in it. The methods still utilized in decision-making vary. Considering the approaches of Covina, Slevin and Heeley (2001), Nygren and White (2002), Dane, Rockmann and Pratt (2012) the decision-making methods are classified in two groups:

a. intuitive methods

[+] PhD Candidate, Faculty of Business and Economics, Ministry of Finance – Albania, e-mail: cancoirina@yahoo.com

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b. analytical methods

Intuitive methods differ greatly from analytical methods. Ingredients, values, peculiarities and goals have evolved over time. To Anderson (2002): “Intuition is what we ordinarily use”. Additionally, he deems that: “Intuition is quicker, takes less effort, and requires no training”. According to Anderson, Sweeney, Williams, Camm & Martin (2012) claim that: “Qualitative analysis is based primarily on manager's judgment and experience; it includes the manager's intuitive "feel" for the problem and is more an art than a science”. Forecasting the future of the business performance is a necessity. This amounts to a very important managerial responsibility. The manager’s predictive capability based solely on his intellectual experience, in some cases may be considered as limited. Making use of intuition considers only the manager’s experience. Reliance on descriptive methods (intuitive) in many cases poses difficulties to the penetration in the economic phenomena analysis and their affecting factors. It is highly quandary measuring the impact degree of these factors to the economic phenomenon, being the object of decision-making.

2. Methodology

The offered methodology for this paper includes:

Desk work: focuses on researches in the respective contemporary economic literature and data gathering from available documents of different institutions like: General Tax Directory, questionnaire preparation, data processing and coming to conclusions.

Field work: terrain researches is focused on the businesses subjected to study and survey.

In respect of the paper’s objectives, the necessary data for the research conduction were provided by the questionnaire prepared for this purpose. The sample is composed of 167 managers, Tirana, Skopje and Podgorica included. The data are processed by the Least Squares method.

3. Results analysis

As least squares method is a standard approach in regression analysis, it has given the opportunity to evidence the decision-making methods impact in business performance. Concretely, the decision-making impact in business financial performance is analyzed with two important indicators: “Return on Assets Rate” (ROA) and “Net Profit”

At the end of the analysis, it concluded:

→ Return on assets rate **(ROA)**

The business performance is conditioned by the way in which the assets are used, which is evidenced by the indicator "Capital Intensity" ROA. By using ROA as a comparative indicator, the financial situation of the businesses being an object of study in the capitals of the three regional countries may be analyzed. The actual structural reports on country basis are presented as follows:

- In Tirana, 7.79% of the total businesses have a negative return on assets rate. A considerable part of these businesses about 51.94% have achieved a return on assets rate of over 5%. While the remaining part or 40.26% have a return on assets rate smaller than 5%, which testifies that a large number of businesses have a low wealth intensity.
- In Skopje, in the structural reports, a more positive situation is noticeable. About 67.6% of the businesses have a return on assets rate higher than 5%, so they have a high wealth intensity. About 24.3% of the total businesses have a poor achievement as their ROA results to be less than 5%. Meanwhile only 8.1% of the businesses, result in a negative return on assets rate.

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- In Podgorica, it is evidenced a situation that can be considered relatively optimistic. We state relatively because 17% of the businesses have a negative return on asset rate, while 77.4% of the total businesses have good accomplishments to this indicator, since their return on asset rate results to be over 5%. The rest of the businesses, amounting to 5.6% results to having a return on asset rate of fewer than 5%.

Generally speaking, the business accomplishments referring to this indicator highlight a not very positive financial situation. ROA is a characterizing indicator of the business financial performance, since it accentuates the wealth intensity. If ROA, expressing the return on assets rate, is lower than 5%, which evidences high wealth intensity, it means that under other unchanged conditions, a higher wealth intensity degree requires injecting larger amounts of money to business reinvestment in order to ensure future profits. The rationale adds to the manager's interest in focusing on the factors that positively or negatively influence on ROA. The hypothesis for this indicator is:

H_1: Decision-making methods expected to affect in the business financial performance measured via ROA

To put in focus the manager in its decision-making activity, this problem is reflected in questionnaire with these statements:

- After I provide the necessary information from subordinates I engage in decision-making
- I consider the subordinates engagement for different parts of decision.

The field data analysis is reflected by Table 1.

According to the processed data, it results that only one of the statements is statistically important p = .0292. The statement that we can consider is "After I provide the necessary information from subordinates I engage in decision-making". The results analysis stressed out the negative relation between business financial performance defined by ROA and the statement.

Table 1: Return on Assets Rate (ROA)

Method: Least Squares
Sample: 1 167
Included observations: 167

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.428879	0.155119	2.764830	0.0063
Q142	-0.087896	0.039963	-2.199420	0.0292
Q143	0.025730	0.035084	0.733376	0.4644

R-squared	0.028712	Mean dependent var	0.197391
Adjusted R-squared	0.016867	S.D. dependent var	0.339228
S.E. of regression	0.336355	Akaike info criterion	0.676504
Sum squared resid	18.55414	Schwarz criterion	0.732516
Log likelihood	-53.48812	F-statistic	2.423944
Durbin-Watson stat	2.100701	Prob(F-statistic)	0.091739

Source: I.Canco Dossier

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As above the relation between dependent variable “Financial performance – Return of Asset Rate - ROA” (Y) and depend variable “After I provide the necessary information from subordinates I engage in decision-making” (x) express as follows:

$$\mathbf{Y = 0.428879 - 0.087896*x_1 + e}$$

Y- business financial performance characterized by the “Return on assets rate” (ROA)

x_1 - After I provide the necessary information from subordinates I engage in decision-making

e **-** random factor

As above, the hypothesis is verified.

The negative result stressed out some problems, such as:

- Cooperation among manager and subordinates to provide the necessary information for decision-making creates enough space for link-up among the two actors (managers and his/her staff). It enables the enhancement of human capital that is available in collecting the data and prepare the necessary information for making the decision. Negative coefficient in front of the depend variable “x” that result from the analysis will not make us think that in every case cooperation with subordinates in the decision-making framework will affect negatively in business financial performance and concretely the indicator that we have analyzed ROA. As a logic rule, the cooperation among subordinates must affect positively in decision-making because it generates more ideas. It cannot be considered only the trust relationship among parties but it can be considered as a conditional engagement from the respective functional duties of each of them. Therefore the above results cannot be taken separately but interpreted in the framework of the nature of the factors that caused this situation.
- Exploring in this direction, we think that this situation is conditioned by:
  - quality of possible data provided from subordinates.
  - subordinates’ professionalism to provide the necessary data and to transform them into necessary information.
  - impact of random factors that are predicted.
- Analysis results on managers’ attitude related to this statement must be analyzed in the framework of the nepotistic relation that are presented in regional businesses. 63.5% of the businesses are a single ownership and in these businesses a majority are the “Klan” organizational culture. This tradition conditions the actual behavior of managers and make them less searcher-related to information. The development prospects of regional countries require the awareness of business leaders and managers related to data. The data are considered as an important contribution in business development.
- Field work presents the fact that the businesses with single ownership in the majority of their 83.7% of the total of the businesses that we have analyzed do not possess the data for the previous periods. The lack of data available gives impact in the situation that we have presented in this analysis.

→ Net Profit

Net profit is an important financial indicator that makes interested all the management structure of the business. This indicator informs for the financial state of the business and represents a major objective of each business. It is of interes to gain the knowledge if it exist any relation between “Net profit” indicators and the methods that use in decion-making. This problem takes answer if we will test the hypothesis.

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H_2: Financial performance measured by net profit expected to affect negatively in only use of intuitive methods in decision-making.

It is analyzed and evidenced the relationship of financial performance – net profit and some statements that refer to the intuitive methods in decision-making. Concretely, the statements are:

- I make decision when I dispose of the necessary data
- Rarely I make decision without consulting with my colleagues
- I sense the necessity of the training in decision-making field
- I always rely on my intuition when I make decisions
- I make decisions based on my logic
- I take decisions in an independent way

From the data analysis in Table 2 we conclude that only one statement results in the statistics as important and, more concretely, the statement "I always rely on my intuition when I make decisions", which has a negative impact.

Table 2: Net Profit

Dependent Variable: NET
Method: Least Squares
Sample: 1 167
Included observations: 165
Excluded observations: 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	70084.86	185461.8	0.377894	0.7060
Q41	4048.948	23175.57	0.174708	0.8615
Q44	12073.77	20426.37	0.591087	0.5553
Q418	6135.873	24324.40	0.252252	0.8012
Q420	-45793.09	21307.89	-2.149114	0.0331
Q421	-7533.056	21909.51	-0.343826	0.7314
Q425	30295.50	20277.09	1.494075	0.1372

R-squared	0.039568	Mean dependent var	63467.37
Adjusted R-squared	0.003095	S.D. dependent var	252593.0
S.E. of regression	252201.8	Akaike info criterion	27.75534
Sum squared resid	1.00E+13	Schwarz criterion	27.88711
Log likelihood	-2282.816	F-statistic	1.084872
Durbin-Watson stat	1.848326	Prob(F-statistic)	0.373796

Source: I.Canco Dossier

The use of intuitive methods in decision-making has impacted negatively in the businesses financial performance that we have analyzed. This conclusion verifies because p = 0.0331. It shows that the factor has statistical significance. So, the hypothesis is verified.

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The model expresses the relationship among the use of intuitive methods in decision-making and business financial performance – Net profit. It can express as follows:

$$\mathbf{Y = 70084.86 - 45793.09 * x_1 + e}$$

Y- business financial performance – Net profit

x_1- I always rely on my intuition when I make decisions

e - random factor

Financial performance characterized by "Net profit" in businesses that we have analyzed should not refer only decision-making method despite the importance that it has. In perception of managers have influenced also the high level of informal economie of regional countries. Based on Fact Book of CIA in 2007 and until the period that we have analyzed the level of informal economy in Albania is over 50% of GDP. Based on cea.org.mk. informal economy in Macedonia is approximately 47% and 40% in Montenegro. This means that in Albania, 50% of the revenues are not declared. In Macedonia 47% of the revenues are not declared and in Montenegro is 40%

4. Conclusions

Considering the above, we come up with the following conclusions:

- Decision-making and decision-making methods make up an important managerial engagement. It has made that decision-making focus the attention of some scholars for handling theoretical problems of decision-making
- Methods that are used in decision-making affect business financial performance. Generally, we can pretend that analytical methods have a positive impact in business financial performance. In this context, the managers must orient their engagement from analytical methods in decision-making. It requires to increase the professional competence of the managers.
- Based on Fact Book of CIA in 2007 and until the period that we have analyzed the level of informal economy in Albania is over 50% of GDP. While based on cea.org.mk the level of informal economy in Macedonia is 47% of GDP and in Montenegro is approxiamtely 40% of GDP. It means that the revenues not declared in Albania is 50%, in Macedonia is 47% and in Montenegro is 40%.
- From the statements of the questionnaire it results that only statement "After I provide the necessary information from subordinates I engage in decision-making" affect the ROA indicator.
- From all statements of the questionnaire we can conclude that only statement "I always rely on my intuition when I make decisions" affect the "Net profit" indicator.
- Generally, we observe that the managers neglect the use of analytical methods in decision-making and they tend to use the intuitive methods in decision-making.

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