

University of Pécs
Faculty of Business and Economics
International PhD Program of Business Administration

THESIS SUMMARY

**THE CONTRIBUTION OF DECISION MAKING
METHODS TO BUSINESS SUCCESS**

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Sincerely, Irina

“Our doubts are traitors,
and make us lose the good we oft
might win, by fearing to attempt”

William Shakespeare, Measure for Measure, 1603

1. Introduction

Any individual alone or in a society, in any aspect of his life, is inevitably involved in an ongoing decision-making process. According to Mullen and Roth (1991): “We make decision for our families, our children, our clients, employers, the stockholders, our patients, students, elderly parents, club members, in addition to ourselves”. In this regard, Rosanas (2013) shares the opinion that decision-making is an ongoing activity as he states: “Decisions are an everyday fact of life”. The concept and the problems of decision-making are elaborated by the researchers throughout the years. Generally, each achievement is linked to personalities of different areas such as Aristotle, Confucius, the Nobel Prize Winner, Herbert Simon, etc.

The study of one of the decision-making aspects -and more concretely, the role of methods of decision-making, is the focus of the study.

❖ Purpose of the study

The decision-making is generally a studied field, comprehensive or partial scientific studies undertaken capture the interest to both managers and academics likewise. In the entirety of issues comprised in decision-making, some have obviously been studied; otherwise there are also studies focusing on specific aspects of decision-making, explicitly the impact of decision-making methods on business success is one of them and the studies on the subject are not considerably frequent. The study assumes the existence of a chain relationship between the factors and the methods of decision-making, as well as the latter correlated to business performance. To this reason, the conceptual model of the study is conceived as a two-phase hierarchical model.

The value of the study lies in the capacity to provide an effective response to the potential and still unresolved questions the research is focusing. To Kumar (2014):

“The first is to decide what you want to find out about, or in other words, what research question you want to find answer to”. In this context, the main question the study aims to approach is formulated as: *Which are the factors influencing the manager’s approach towards the decision-making methods and the manner this approach is reflected in the business performance?*

In order to provide answers to these questions it is necessary to raise the relevant hypotheses.

The hypothesis raised at the expert’s level intends to analyze the expert’s opinion on the impact of decision-making methods in business success and is thus formulated:

H₁: *If the manager used the analytical methods in decision making, the business is expected to be successful.*

The questions deriving from the main research question and the respective hypotheses are depicted as follows:

1. Is the business environment and its characteristics a factor affecting the decision-making methods? To answer this question, the below hypotheses have been raised, formulated as follows:

H₂: *The environmental uncertainty brings a low possibility in the use of intuitive methods in decision-making.*

H₃: *A hostility environment eliminates the possibilities to use intuitive methods in decision-making.*

H₄: *The business activity in an uncertainty environment is an opportunity to use the analytical methods in decision-making.*

H₅: *The more hostility the external environment presents, the more the manager tends to use the analytical methods in decision-making.*

Hypotheses of this nature have also been studied by other scholars as: Goll and Rasheed (1997), Dane and Pratt (2007) and Elbanna, Child and Dayan (2013).

2. Does the type of decision affects the method used in decision-making? To this intent the following hypothesis is raised:

H₆: *The possibilities in using the analytical methods are influenced by the type of decision –the strategic, tactical and operative decisions.*

This hypothesis is also supported by: Elbanna, Child and Dayan (2013), Fredrickson (1985) and Elbana and Child (2007)

3. How is perceived the impact of business characteristics on decision making methods?

H₇: *The bigger the business, the higher the manager's interest in the use of analytical methods in decision-making.*

H₈: *The small and medium size business managers are expected to use more the intuitive methods in decision-making.*

H₉: *The business legal status affects the choice of the decision-making method.*

H₁₀: *The centralized organization culture is expected to positively affect the use of intuitive methods in decision-making.*

H₁₁: *The centralized organization culture offers few opportunities for the use of analytical methods in decision-making.*

H₁₂: *The collective culture enables the use of analytical methods in decision-making.*

H₁₃: *The activity of a collective culture organization adversely affects the use of analytical methods in decision-making.*

In the decision-making field there are prominent scholars that support the impact of various business characteristics on decision-making methods as: Child (1997), Elbanna, Child and Dayan (2013) and Child and Mansfield (1972).

4. Are the demographic characteristics of the manager a determining factor to the decision-making method?

The question mainly refers to the following hypothesis.

H₁₄: *The manager's demographic characteristics are expected to influence his/her decision-making methods.*

To this regard, researchers as Worthy, Gorlick; Pacheco; Schnyer and Maddox, (2011), Connella and Monroe(1997), etj. are noted.

5. Is the financial and non-financial performance influenced by the decision-making method?

As a focal point of any decision-making process, performance is studied according to the below hypotheses:

H₁₅. *The use of intuitive methods in decision-making is expected to negatively influence the non-financial business performance.*

H₁₆: *The non-financial business performance is expected to be positively influenced by the use of analytical methods in decision-making.*

There is a plethora of researchers who have studied the interconnections between the methods of decision-making and performance as: Cyert and March (1963) Covin and Slevin (1989), Dane and Pratt (2007), Goll and Rasheed (1997) etc.

2. Theoretical aspect of decision-making issues

Decision-making is a complex managerial commitment influenced by various factors. The review of each component relies on the reasoning of Elbanna and Child (2007) which leads us to a conceptual model that can be rendered according to an orienting scheme. “A schematic model is a picture or drawing of reality” (Balakrishnan, Render and Stair, 2014). The conceptual model guiding this scientific work is presented in the figure 1 below:

THE CONTRIBUTION OF DECISION MAKING METHODS TO BUSINESS SUCCESS

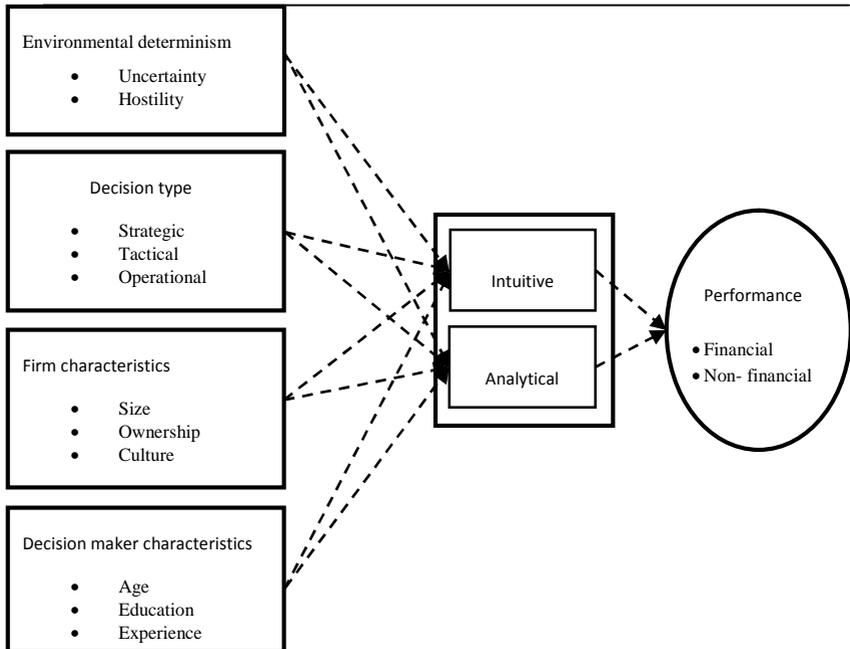


Figure 1: The conceptual model of the scientific work, (Source: Individual research, 2015)

- **Environmental determinism** - Environment represents a very important perspective to decision-making. Its characteristics are environmental uncertainty and environmental hostility. Therefore, the environment can have positive or negative impact in decision-making methods.
- **Types of decision** - The different decisions such as strategic, tactical and operational have impact in decision-making methods.
- **Business characteristics** - Businesses are generally characterized by features such as size, ownership and culture that have impact in decision-making methods.
- **Decision maker** - Simon (1997) assesses in a broader perspective the role of the decision-maker in the decision-making process. The analyzed demographic characteristics of the decision maker are: age, education and experience.
- **Decision-making methods** - are classified in two groups: a. Intuitive methods; b. Analytical methods.

• **Performance** - The business performance considers the decision-making quality. The decision quality is reflected in the level of performance. Performance assessment considers the financial and non-financial perspectives simultaneously.

3. Methodology

The research results and their accuracy are conditioned upon the methodology used. Creswell (2014), referring to Cherryholmes (1992) and Morgan (2007) states: “researchers are free to choose the methods, techniques, and procedures of research, that best meet their needs and purposes”. The methodology can be easily divided into two compounding parts:

- a. **Table work:** The literature review includes the texts published in the decision-making field, the scientific articles, reports and scientific journals, providing the core of the theoretical research basis. The issue be studied in two levels: at the experts’ level and the managers’ level. The expert sampling consist of 52 expert. Thereon 167 businesses were analyzed. The data processing and the hypotheses testing is effectuated via the software Statistical Package for the Social Sciences (SPSS) -version 20.0. and Alpha Micro Operating System (AMOS) - version 18.0., a statistical software package for structural equation modeling. The regional countries included in the study are: Albania, Macedonia and Montenegro.
- b. **Field work:** refers to pre-testing of the questionnaire, interview and canvass.

The study passes through two phases.

The first phase: The independent variables are - Environmental determinism, Decision type, Business characteristics, Decision-maker characteristics. While the dependent variables are- Intuitive methods and Analytical methods.

The second phase: The independent variables are: Intuitive methods and Analytical methods. While the dependent variables are: Financial Performance, Non-financial Performance.

4. Result Analysis

4.1 Analysis on the level of experts - The experts accept that a dependent relation must exist between the method used in the decision-making and the business performance. We refer to the hypotheses:

H₁: *If the manager used the analytical methods in decision-making, the business is expected to be successful.*

The results indicate that the **Coefficient of Association** calculated in both its forms gives evidence that:

1. *Coefficient of Juli*: $K_a = 0.779$
2. *Coefficient of connectivity*: $K_l = 0.883$

According to the “Rule of thumb” if the variable has two variants and if the coefficient is greater than 0.707, it indicates important connection. The **Coefficient of Pearson (C)** results in 0.431. We compare the value of this coefficient with the critical value of $r_{cr} = 0.384$: the Coefficient of Pearson: .431 > .384 This is one argument ensuring that hypothesis H1 confirmed.

4.2. The analysis referred to the managers

The study EFA and CFA is used. “Accordingly, EFA is typically used earlier in the process of scale development and construct validation, whereas CFA is used in later phases after the underlying structure has been established on prior empirical (EFA) and theoretical grounds” Brown (2006).

First Phase

➤ Analysis referring to EFA

- **Environmental analysis characteristics:** have measured the impact of the assumptions on the environment characteristics. The statistic $KMO = 0.735$ and Bartlett's test with $P < 0.001$ indicate that the factor analysis is duly appropriate.

Table 1: Total Variance Explained on the environment characteristics

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1 – Hostility environment	2.320	33.146	33.146	2.320	33.146	33.146	2.145	30.640
2 – Uncertainty environment	1.142	16.308	49.453	1.142	16.308	49.453	1.317	18.813	49.453
3	.871	12.442	61.896						
4	.836	11.938	73.833						
5	.717	10.245	84.078						
6	.607	8.674	92.752						
7	.507	7.248	100.000						

Extraction Method: Principal Component Analysis.

Source: I. Canco Dossier

The correlation between the environmental components marks a relatively strong positive link, indicating that the environmental hostility increase also affects the uncertainty augmentation. This fact is explained on a logical perspective.

➤ **Confirmatory Factor Analysis:** Figure 2 depicts the conceptual model diagram that evidences the influence of environment factors to the decision-making methods. “The diagrams are helpful in clarifying a researcher’s ideas about the relations among variables” Ullman (2006).

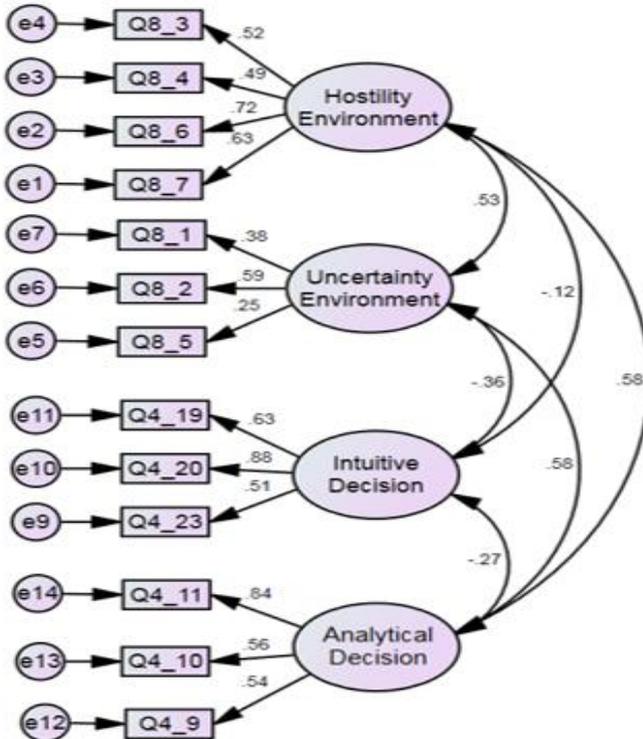


Figure 2: The final hypothesized model for environment characteristics, (Source: I. Canco Dossier)

The indicators show that the model in general has a good compatibility as follows:

Chi-square = 94,968; DF = 59; CMIN/DF = 1,61; P = 0.002; CFI = 0.901; RMSEA = 0.061

CMIN/DF = 1,61 evidences a satisfactory compatibility, as supported by Kline (2005), Chan, Lee, Lee Kubota and Allen (2007). P = 0.002: This level of significance evidences the fact that the indicators possess statistical importance, as indicated in many other cases. CFI=0.901; this indicator is within the acceptable limits, referred to Hair et al (2009), while Hu and Bentler (1999) consider it at the traditional level. RMSEA= 0.061; it is a good level indicator, which is based on the studies of Hair et, al (2006), Hair et, al (2009), Chan, Lee, Lee Kubota and Allen (2007), etc

➤ **Testing the hypotheses of the model** - For an in-depth study the some hypotheses were raised: **H₂, H₃, H₄ and H₅**.

The data analysis regarding the above hypothesis is presented in table 2.

Table 2: Standardized regression weights regarding environment characteristics

			Estimate	S.E.	C.R.	P	Label
Analytical Method	<---	Uncertainty Environment	,42	3,588	,869	,385	
Intuitive Method	<---	Hostility Environment	.072	,162	,682	,495	
Analytical Method	<---	Hostility Environment	,91	,231	4,781	***	
Intuitive Method	<---	Uncertainty Environment	-,99	10,738	-,884	,377	

Source: I. Canco Dossier

The information provided in the table 2 refers to the fact that the environment presents a complex reality. “The decision-maker's information about his environment is much less than an approximation to the real environment” Simon (1959).

➤ The empirical estimation of the model

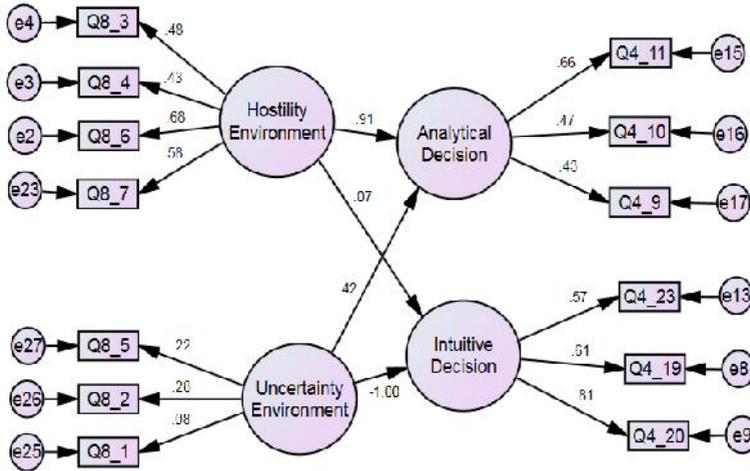


Figure 3: The hypothesized full structural equation model of environment characteristics, (Source: I.Canco Dossier)

The CR and AVE values regarding the influence of environment characteristics are presented in the following table 3.

Table 3: Composite Reliability and Average Variance Extracted on the environment characteristics

	CR	AVE
Analytical Method	0.692	0.439
Hostility Environment	0.684	0.356
Intuitive Method	0.721	0.475
Uncertainty Environment	0.379	0.186

Source: I. Canco Dossier

The above values are acceptable as Field (2009) admits that: “Kline (1999) says: we should expect for this kind of social science data, it is well below the other scales”

➤ **Discriminant Validity:** The statistics about impact of environment on method oh decision making highlight that the Discriminant Validity is reached and the indicators have statistical significance.

• **Decision characteristics analysis:** considers the impact of the type of decision on the methods of decision-making. To this aim is used the statistical analysis via the multiple regressions, in order to prove the raised hypothesis (H₆). From the data processing, the relationship between the independent and the dependent variables can be expressed by the equation:

$$y = 3,789 + 0.196*x_1 + 0.113*x_2 + e$$

y – decision-making method - analytical method

x₁ - strategic decisions

x₂ – operative decisions

e – random term

• **Business characteristics** - the influence of business characteristics on the decision-making methods can be summarized in the hypothesis: H₇ and H₈. The processing of data makes noticeable that the using rate of analytical methods in decision-making is greater in big businesses. So, hypothesis H₇ raised. The situation reinforces the view that while the business size increases, the interest in the use of intuitive methods in decision-making decreases. This result confirms also the H₈ hypothesis regarding the small businesses. “Small firms tend to be less formalized which may encourage a greater use of intuition” Elbanna, Child and Dayan (2013).

The Business Legal Status - a hypothesis is put forward: H₉. Referring to the evaluation it is noticed that the businesses- “corporation” legal status, have the highest appreciation on the use of analytical methods in decision-making. In the lowest level estimates the managers working in businesses having the legal status as “sole ownership”. The opposite evaluation is presented with respect to the evaluation of intuitive methods in decision-making. That prove the H₉ hypothesis

The Organization Culture - The organization culture is perceived as a method of approach by its members in determining the method to be used in decision-making. According to the indicators, result that the factor analysis is appropriate (table 4).

Table 4: Total Variance Explained regarding the organization’s culture characteristics

Total Variance Explained									
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1. Centralized Culture	1.47		36.902	1.47	36.902	36.902	1.28	32.080	32.080
2. Collective Culture	1.05	26.429	63.331	1.05	26.429	63.331	1.25	31.251	63.331
3	.82	20.702	84.033						
4	.63	15.967	100.000						

Extraction Method: Principal Component Analysis.

Source: I. Canco Dossier

The correlation coefficient between the components of the organization's culture regarding decision-making is statistically important, $p < 0.05$. The correlation coefficient turns out to be negative. Namely, the strengthening of the organization's collective culture reduces the centralized organizational culture.

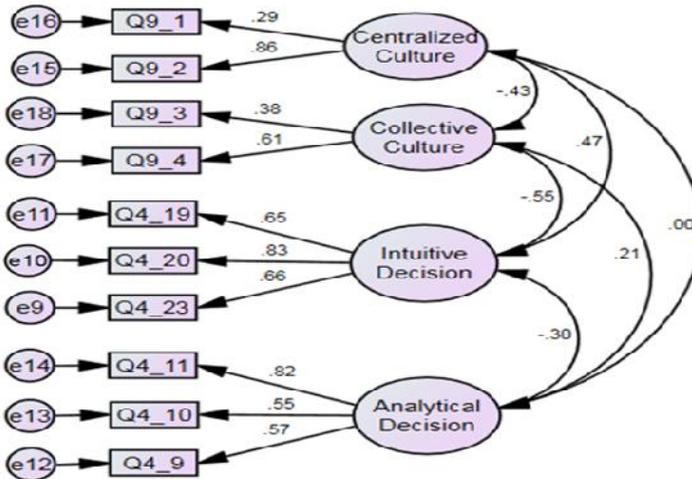


Figure 4: The final hypothesised model of the organisation’s culture characteristics, (Source: I. Canco Dossier)

The indicators are: Chi-square =45.162; DF = 29; CMIN/DF=1,557; CFI= 0.94 and CFI= 0.94 RMSEA=0.058, which are supported by various other researchers as: Albright (2009), Gouzet, Otis and Pelletier (2006), Hoe (2008) based upon Kline (1998) achievements, Suhr (2006), Padilla and Eguia (2010), etc. and evidences a substantial compatibility.

➤ **Testing the hypotheses of the model-** For a more in-depth analysis the below hypotheses are raised: **H₁₀, H₁₁, H₁₂ and H₁₃**.

The regression weights are indicated in the table 5.

Table 5: Standardized regression weights for the organization's culture characteristics

			Estimate	S.E	C.R	P	Label
Intuitive_Decision	<-- -	Centralized_Culture	,66	,764	2,460	,014	**
Analytical_Decision	<-- -	Centralized_Culture	,51	,408	2,196	,028	**
Analytical_Decision	<-- -	Collective_Culture	,86	,585	2,758	,006	**
Intuitive_Decision	<-- -	Collective_Culture	-,75	,838	-2,729	,006	**

Source: I. Canco Dossier

The above table 5 indicates the path coefficients that evidence the direct effect of the type of culture in the decision-making method.

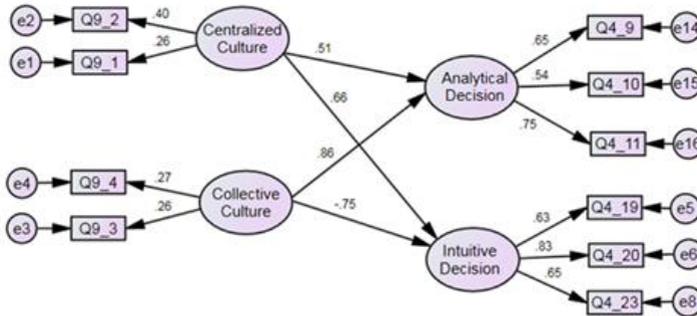


Figure 5: The hypothesized full structural equation model of the organization's culture characteristics, (Source: I. Cancó Dossier)

Referring to the table 5 and the figure 5 it results that all the relations are statistically significant, therefore: the Centralized Culture influences the use of analytical method in decision-making because $CR = 2,196$ and the P value is smaller than 0:05 (0.028). Also the Centralized Culture influences the intuitive method in decision-making, because $CR = 2.46$ and the $P = 0.014$. While the Collective Culture influences the analytical method in decision-making because $CR = 2.758$ and the $P = 0.006$ and the Collective Culture influences the intuitive method in decision-making, because $CR = -2.729$ and the P value is smaller one 0.006.

The impact of the organization's culture in the decision-making methods as above analyzed, supports the hypothesis raised for this purpose (H_{10}, H_{11}, H_{12} and H_{13}).

➤ **Discriminant and convergent validity analysis:** are presented in table 6.

Table 6: Composite Reliability and Average Variance Extracted of cultural organizational characteristics

	CR	AVE
Intuitive Method	0.760	0.516
Centralized Culture	0.529	0.411
Collective Culture	0.396	0.257
Analytical Method	0.691	0.436

Discriminant validity - The indicators of discriminant validity emphasize the fact that discriminant validity is attained.

• **Decision-Makers Characteristics** - influence the decision-making process. On this basis, the H14 hypothesis is raised.

The age of decision-makers- The analysis data indicate that the higher appreciation to the use of the analytical methods in decision-making results from the managers pertaining up to 30 years old age group. It constitutes an acceptable reality, because the young people are more willing to try and engage in innovative activities even if it will entail a considerable risk. They are more prone to new technologies and quickly assimilate them.

Education level - is directly related to the professional competence of the manager. "competence in this activity differentiates the manager from the non-manager and, more importantly, the good manager from the mediocre manager" Al-Tarawneh (2012). The analysis shows that the managers holding a PhD. degree have the highest appreciation for the analytical methods. Meanwhile the lowest assessment pertains to the managers of high school education.

Managerial Experience - the higher evaluation on the analytical methods refers to the managers having an experience of over 35 years.

According to the above observed difference which was conditioned by the characteristics of the decision-makers, the hypothesis H14 is confirmed. "Our results suggest that individual differences leading to a propensity toward the use of one decision-making style over another can affect performance on some complex tasks" Nygren and White (2002).

Second Phase

Analysis according to the decision-making methods

The second phase refers to the problematics of the decision-making methods and their impact on business performance.

Based on the collected evidences a highly significant level. The total variance explained is presented in the table 7.

Table 7: Total Variance Explained on the decision-making methods

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 – Intuitive	2.399	39.976	39.976	2.399	39.976	39.976	2.045	34.091	34.091
2 – Analytical	1.490	24.832	64.808	1.490	24.832	64.808	1.843	30.716	64.808
3	.663	11.053	75.861						
4	.550	9.174	85.035						
5	.477	7.949	92.985						
6	.421	7.015	100.000						
Extraction Method: Principal Component Analysis.									

Source: I. Canco Dossier

The correlation coefficient between the analytic and intuitive decision-making methods results highly statistically significant as $p = .005$. The value of this coefficient results negative, namely $r = - .218$. This value should not be a concern. Most decisions are not based entirely on analytical methods or based entirely on intuitive methods. (Delaney, Guidling and McManus (2014)) based on Mares (1991) and Butler et al. (1993).

• **Performance Analysis:** Performance represents a key issue of the business activity. It consists of the non-financial performance and the financial performance.

The non-financial performance: The analysis considered the relevant hypothesis- H15 and H16. The regression model statistically results highly significant ($p < 0.001$). The relationship between the variables is expressed via the equation:

$$y = 4.369 - 0.155 * x_1 + e$$

y – non-financial business performance

x_1 - the intuitive methods use in decision-making

e – random factor

The statistical “t” test is different from zero $t = (- 3.625)$ and $p < 0.001$, which means that the raised hypothesis H15 is accepted.

According to the data analysis it can be evidenced that the use of analytical methods in decision-making explains. The regression model statistically results significant. The relationship between the variables can be expressed via the below equation:

$$y = 3,133 + 0.179 * x_1 + e$$

y - non-financial business performance

x_1 – the analytical methods use in decision-making

e – random factor

So, the raised H16 hypothesis is accepted.

Financial Performance: According to the indicators such as “Liquidity Ratio” indicator, "Return on Assets Rate" (ROA), “Total liabilities to assets ratio” indicator, Return ratio or “Inventory turnover” and “Net Profit” indicator, the financial situation is not at all optimistic. Among the key factors that have contributed to this situation are Clan organization culture, shortage of a well-organized management structure, the high degree of informality, the financial crisis effects, etc.

4.3 Application of some analytical methods of decision-making

We are convinced to reason and believe that the business managers should orientate their decision-making activity towards the use of analytical methods. This perspective is supported by the analysis conducted in one of the big businesses in Tirana, Albania “Stefani & Co” Company. The historical data collected from the business were processed using different analytical method.

Based on the data collected from company serving as the object of study, the below applications are implemented:

- Autoregressive – Moving - Average (ARMA) Model
- Data Envelopment Analysis (DEA)
- Decision-making tree
- Analytic Hierarchy Process (AHP)

The above approaches stand as firm grounds that, without denying the role of intuitive methods in decision-making, managers must orientate business activity towards the analytical methods in decision-making. It is because the power of

intuition cannot delve deep in detailed analysis to accurately determine the extent and impact of various factors in decision-making process.

5. Conclusions and Recommendations

This scientific study is an endeavor to validate some theoretical achievements on decision-making and their respective assessment in the business decision-making practice.

The theoretical research indicates that: Decision-making is a widespread activity extended through the levels of –macro, meso and micro (Jeurissen, 1997). The evolution of the decision-making process is related to the names of prominent scientists and philosophers like Aristotle, Confucius, Alexander the Great, the Nobel Prize winner Herbert Simon, etc. The decision-making is effectuated via the decision-making cycle. This study provides a specific evaluation of the decision-making methods referring to the researchers (Simon, 1959) Paul Erdos (1974), etc. They have divided the methods into: the intuitive method and the analytical method (Covina, Slevin and Heeley (2001), ect

The research finds that the experts admit that the analytical methods positively impact the business performance, but the dominant in decision-making are the intuitive methods. In some cases, these methods have a satisfactory business performance. This is possible to be achieved mainly when the manager has a prominent professional profile. The hypothesis is validated, supported as well by other researchers as Dane and Pratt (2007) referring to (Dreyfus & Dreyfus, 1986; Klein, 1998, 2003; etc.

The analysis evidenced that the interest of managers to use analytical methods in decision-making in a hostility environment is considerable. It should be highlighted that the link between the environmental characteristics –uncertainty or hostility –and the decision-making methods is not statistically sustained in other cases. Consequently, the hypothesis delineating these links do not result validated. This conclusion emphasizes the critical perspective on the understanding of the environmental impact on decision-making being consistent with the accomplishments of researchers as Simon (1959), Courtney Kirkland and Viguerie (1997), Goll and Rasheed (1997) and Bocana Anca (2012) .

The study confirmed that managers are oriented towards the use of analytical methods in strategic decisions. This having a logical interpretation and moreover justified by the fact that the problems constituting a strategic decision are all-comprehensive (Elbanna, Child and Dayan, 2013).

The findings regarding the impact of the business size on the method to be used in decision-making restate our belief that with the increase of the business size, the interest of managers in the use of analytical methods in decision-making is enhanced, a conclusion achieved as well by Child and Mansfield (1972).

The study confirms that the managers of the business 'having a sole-owner' have a curtailed degree of freedom in selecting the method of decision-making.

The close relationship between the organization culture and the methods of decision-making is supported by the results of the research. The study found out that a centralized organizational culture has the lowest impact on the use of analytical methods in decision-making and vice versa

The study brings into attention the linkage between the assessment of the analytical methods in decision-making and the demographic characteristics of the manager, as the manager represents the key factor in the process. The young age-groups have the highest appreciation for the analytical methods in decision-making, because they are easily involved in innovative activities. Another conclusion logically acceptable and statistically provable that the study brings into attention is the fact that the manager's appreciation of the analytical methods in decision-making manifests an ascending trend, in parallel to the education degree. These approaches are endorsed by various researchers as Chen and Dahlman (2004), Musso and Francioni (2012) referring to Gilbeus, et al., etc. The field of study has a positive impact on the evaluation of analytical methods in decision-making because the managerial involvement in decision-making is a result of all the levels of competence: the technical level, the cognition level of good management practices and the designing of strategies. The results of the research on the impact of the managerial orientation regarding decision-making methods is studied and substantiated by Chen and Dahlman (2004). Furthermore, experience enables that the knowledge gained by education is converted into conviction, enabling a more contemporary decision-making process. A similar conclusion is obtained by Cheng, Rhodes and Lok (2010).

The findings justify the challenges that managers face in business decision-making regarding the ongoing accessibility of the accounting information due to irresponsible operational units. As a result the decision-making manager is consistently pursuing his/her duty with insufficient accounting information regarding the accounting (financial) business state. The non-optimally optimistic financial performance is also referred to the presence of informal economy. According to the CIA-s Fact Book, the informal economy in Albania amounts to above 50% of GDP, meanwhile the informal economy in Macedonia is around 47%

and in Montenegro around 40%. Another difficulty is noted due to the impact of 2008 financial crisis.

Contribution of the study

The study is the first of its kind comprising Albania and the regional countries extended through a considerable time-frame. As such, the study brings numerous contributions of various facets, specifically a theoretical, a practical and a methodological contribution. Theoretical contribution: From the theoretical point of view, the study should be appraised for the presentation of a conceptual model and the valid theoretical approaches of the decision-making issues. In this context, the research stands as a good opportunity to be exploited by other researchers who intend to advance their studies in the field. The practical contribution is referred to the importance of the research conclusions related to the benefits that business gains from the due orientation of the managers towards the methods of decision-making. The methodical contribution offered by the study amounts to the fact that it utilizes and presents a method used for the first time in measuring a chain of impacts, analyzed in two stages: Firstly, conditioning factors → decision-making method and secondly, decision-making method → business performance.

Limitations of the study

The study creates the due premises for furthering this undertaking in the field, a fact that also constitutes the limitations of the study. The first limitation regards the fact that the measurement in the greater part of the study is carried out by individual perceptions. The manager's personality characteristics also constitute a restriction. Furthermore, the manager's lack of willingness to cooperate as a result of the lack of confidence that their anonymity will be observed constitutes an essential restriction. Another restriction refers to the period of the study, which coincides with the period after the financial crisis of the year 2008. Additionally, the formal data provided by the authorized institutions in a future perspective, under different socio-economic conditions, need to be updated.

Recommendations of the study

The recommendations are addressed specifically to the managers and the policymakers.

➤ *Recommendations for the managers:* being the first study in the field, it is indispensable to increase the number of undertakings of this character, publications on specific issues of decision-making, a need that is obvious and concrete. Also, it is worth mentioning that it is necessary to adapt in Albanian language the psychometric tests in order to increase the variety of measuring perceptions in this area. It should be encouraged and promoted the belief in using the analytical

decision-making methods. In this context, it should be considered the establishment of a consolidated and effective structure for consistently training the managers. Additionally it is recommended improving the quality of the ongoing accounting information available to the managers, thus it will be possible for managers to act as proactive agents and not rear observers.

➤ *Recommendations for the policy makers:* are mainly related to the creation of a favorable environment for the business. Therefore taking measures to reduce the level of informality. To this regard better tax administration must be considered an emergency. It is indispensable the establishment of an integrated system, connecting through an operative network the business fiscal cases, the Tax Offices, the National Registration Center, the Local Government and the Customs Offices to a powerful server in order to monitor the economic activity carried out by the businesses. Scaling the VAT up to the smallest business chain, referring to the experience of Macedonia and Montenegro. The small businesses in Albania must pay VAT. To reduce the level of informality citizens can be motivated to take the tax receipt by refunding VAT in the amount 2%-3% of the receipt value. All the recommendations for reducing the informality will affect the public debt reduction. A smart decision must be made on the part of policymakers regarding the payment of tax obligation which can be instigated to be paid in installments. Sanctions shall be enforced for the tax administration employees who make erroneous decisions. We suggest the sanctions to amount up to 30% of the damage caused by the wrong/improper decision. We recommend to create or set to full-fledge operation the Business Ombudsman in order to establish and intensify the business community interaction with the government. The study also endeavors to propose to the Ministry of Education that the Faculty of Economics program/ curricula must contain a module on decision-making educating managers to cultivate a Western European vision on running a business.

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