

# Barriers to investment toward Barriers to learning: the case of Béjaia area's companies in Algeria.

by

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## **Abstract**

The purpose of this paper is to identify the obstacles inhibiting the building culture of organizational learning in the Algerian company. The business climate or the professional conditions in which Algerian companies operate are steadily worsening according to the Doing Business report 2016 . Algeria does not facilitate the task for its entrepreneurs, quite the contrary. The Doing business report make a comparison of countries in the world in the field of entrepreneurship, and Algeria is very poorly placed. Algeria continues to fall in the Doing Business ranking of the World Bank and loses two more places compared to the last year joining the group of the last countries. Algeria, ranked 163 out of 189 countries in Doing Business 2016, remains a very difficult country to do business. Starting from this idea, we will see how these barriers to investment -the complexity of procedures to create companies, the long durations to receive a building permit, etc- are mainly caused by the institutional deficit in the coordination of economic activity, have contributed to the construction of obstacles to organizational learning in Algerian companies.

**Keywords:** learning by exploitation, learning by exploration, environmental stability, formalization, centralization of decision-making.

## Introduction

Organizational learning has been for many years a concept extensively explored in management sciences literature. The profusion of research and the abundance of literature on organizational learning can be explained by the fact that the rules governing the market today are not those of previous years where the acquisition of competitive advantage remained in mass production and in experience effects. In this context, the key to success is necessarily knowledge management, constantly questioning oneself and the desire for change.

Organizational learning are currently developing on two sides. On the one hand, it continues to be interested in the management of accumulated experience; on the other hand, it is concerned with the intelligence of experimentation, March(1991) exploitation versus exploration. In this paper, we are only concerned with learning by exploitation. March (1991) argues that excessive concentration on existing activities, that is, learning by exploitation, risks to form routines that block exploratory activities, learning by exploration; and generates rigidities. For this type of learning, the firm acquires new behaviors without modifying the framework of actions or the founding beliefs. This type of learning is a way of maintaining the status quo.

The literature advances two different principles or determinants that favor learning by exploitation of existing activities, and hindering learning by exploration of new insights. The first principle is related to the characteristics of the external environment to the organization and their potential effects on the processes of learning. There was consensus among the researchers that too placid, static, or too simple environments would not be conducive to learning at higher levels that requires both stability and change (Hedberg, 1981). The second principle that researchers agree is the internal characteristics of the organization. There was a consensus among the researchers that the centralization of decision-making and the intensification of formalization procedures multiply the exploitation of a company's existing activities, and diminishes innovation and exploration of new insights (Jansen, Van Den Bosch, & Volberda, 2005). On the other hand, decentralized and participatory structures, structural diversity and role recovery, flat structures and organizational flexibility, stimulate learning at higher levels (Easterby-Smith, 1997)

In his article "A typology of organizational learning systems", Shrivastava (1983) has developed four approaches to organizational learning: organizational learning seen as an adaptation, as assumption sharing, as developing knowledge of action-outcome relationships, and finally as institutionalized experience in the organization. In the first approach, organizational learning seen as a process of adapting the organization to its environment, the idea of organizational learning is rooted in the organization's experience and history, and organizations adjust their objectives according to their experiences and those of other companies. The structure of organizations depends on external factors, in particular the uncertainty and complexity of the environment (Burns & Stalker, 1961). In this perspective, companies operating in a stable environment put in place bureaucratic and centralized structures with an intensification of formalization procedures. However, companies in an unstable and complex environment apply decentralized structures with fewer formalities.

## Conceptual framework and research hypotheses

The model of our research is represented in Figure 1. The complexity of the business climate in Algeria contributes considerably to the stability of the environment by reducing as much as possible new entrants to the market. Our model postulates that stability of the environment greatly supports learning by exploitation, concentration on existing activities; and negatively affects learning by exploration, research of new knowledge and insights. In addition, the same environmental stability and lack of competition supports firms to apply bureaucratic structures, abusive norms and procedures, which in turn constrain exploration activities and naturally support recurrent activities, learning by exploitation.

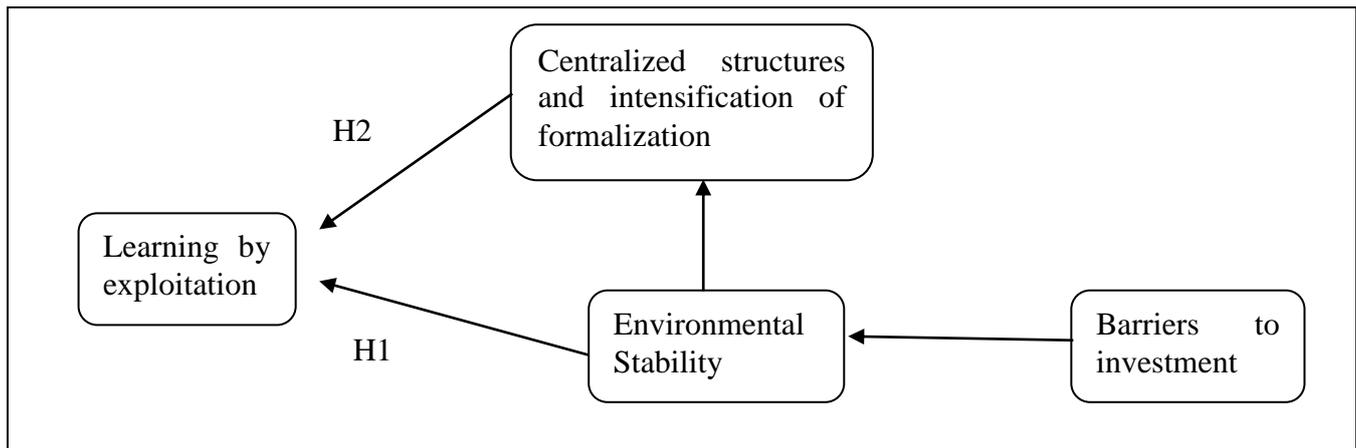


Figure 1: Research Model

## Principal concepts

### Notion of environment

The external environment includes elements that can have a direct or indirect, positive or negative incidence on the company. These elements concern economic, technological, sociological, cultural, demographic and ecological conditions as well as the behavior of markets and competitors. The environment of an organization can range from stable to dynamic. The dynamic environment refers to the rate of change and the degree of instability of factors in an environment (Li & Simerly, 1988). It has been defined in reference to technological change and the instability or unpredictability (Miller & Friesen, 1983). The dynamism of the environment refers to the rate of change and the degree of instability of the environment, which is characterized by intense competition (Dess & Beard, 1984). Increased competition greatly affects learning patterns and business performance, and stimulates innovation (Zahra & Bogner, 2000). On the other side, stable environment is characterized by lack of competition and the sustainability of the life cycle of products and technologies. Thus, environmental stability can be detrimental to organizational learning insofar as the quantity of stimuli is insufficient and the changes are too insignificant to cause forms of learning (Hedberg, 1981).

### Learning by exploitation versus learning by exploration

The organization can choose to invest in an existing technology, activity that has a link with what she has mastered; or it may choose to invest in research activities for new processes, discovery new opportunities and insights. Exploration refers to actions and activities related to

research, risk-taking, experimentation, flexibility, discovery and innovation. Exploitation refers to refinement, selection, production, efficiency, selection, implementation and execution. March (1991) argues that organizations engaged in exploration, excluding exploitation, are liable to be penalized by experimentation without taking many of its advantages; while organizations that engage in exploitation, excluding exploration, are likely to find themselves trapped in a sub-optimal equilibrium. Companies are therefore obliged to make a balance between exploration and exploitation. Based on recurring activities, the organization can develop routines in which it encodes its experiences. As a result, organizational routines can be seen as contrary to a learning process of looking for new ways of operating. March (1991) argues that when they are adopted to simplify organizational functioning, routines will impede the exploration process.

To sum up these two axes of the literature, the dynamic environment and the stable environment, learning by exploitation and learning by exploration; we expect that companies pursuing exploratory innovations operate in dynamic environments. Whereas, in stable or less dynamic environments, we expect that companies perform existing activities. Therefore, our first hypothesis is presented as follow:

H1: The obstacles to organizational learning in Algerian companies are due to the stability of environment and the lack of competition.

### **The concept of decentralization and centralization of decision-making**

The decentralization of decision means that the decision-making power is distributed outside the top of the hierarchy. The concept of decentralization within an organization has been theorized to support organizational learning.

Decentralization allows an organization to explore new solutions. Jansen, Van Den Bosch, & Volberda (2005) found in an empirical study that decentralization increases innovation and exploratory activities. By investigating in different structures, Fang, Lee, & Schilling (2009) have determined in a simulation that isolated groups with inter-group linkages promote organizational learning. Bunderson & Boumgarden (2010) found that team structures characterized by decentralization and flexibility increase learning because they increase the sharing of information and reduce conflicts. As to centralization of decision-making, it refers to the place of authority and refers to the extent to which decision-making is concentrated in an organization (Aiken and Hage, 1968). Centralization narrows the channels of communication and reduces the quality and quantity of ideas and knowledge for solving problems (Nord & Tucker, 1987). In addition, it reduces the likelihood that unit members will seek innovative solutions (Atuahene-Gima, 2003). As innovation requires the resolution of non-routine problems and goes beyond existing knowledge, centralization of decision-making is likely to reduce innovation and exploration new opportunities.

### **Formalization**

Formalization is the extent to which rules, procedures, instructions and communications are formalized or written (Khandwalla, 1977). The systematic use of rules and procedures impedes experimentation and problems solving (March & H.A, 1958). Formalization acts as a frame of reference that limits exploration efforts and directs attention to the limited aspects of the external environment (Weick, 1969). It focuses on existing knowledge. Thus, formalization constrains innovation.

In sum, centralization of decision-making and the intensification of formalization procedures multiply the exploitation of a company's existing activities and reduce innovation and exploration of new ideas (Jansen, Van Den Bosch, & Volberda, 2005). Therefore, our second hypothesis is presented as follows:

Hypothesis 02: the blocking of organizational learning in the Algerian companies emanates from the centralized structures, the organizational rigidity and the intensity of formalization.

### **Research methods**

The sample of the research consisted of private firms in the Bejaia region of any category operating in all business sectors. Accordingly, based on the KOMPASS database, a sample of 107 firms was drawn.

Survey method was used to collect the data from the selected sample. A survey method was conducted using a self-administered questionnaire. 107 copies of the questionnaire were distributed and 103 were retrieved. Self-administered questionnaires enabled us to reach a large number of potential respondents. Also, among its advantages absence of influence and more flexibility for the respondents since they could decide when to fill out it. The questionnaire was measured using a Likert scale. A Likert scale is a scale of judgment by which the interviewee expresses his degree of agreement or disagreement to the question put to him. The scale contained seven response choices that allowed the degree of agreement to be nuanced. Finally, during the questionnaire retrieval, an interview was held to discuss the answers that had been given to us.

### **Variables and measures**

#### **Environmental stability**

Six items were used to confirm that firms operated in a stable environment. Four were validated by (Birkinshaw, Hood, & Jonsson, 1998): 1) The market in which your business operates, products and services do not really change. 2) Customer demand is certain. 3) The competitors' behavior is certain, that is, possible. 4) The market in which your business operates, Sales promotion and price warfare do not appear frequently. The two other items, which came from us, were: 5) The market in which your business operates is characterized by lack of competition. 6) There are few competitors in the market in which your company operates.

#### **Learning by exploitation**

Learning by exploitation is linked to the implementation and execution of recurrent activities. To this end, seven items were asked, and validated by (Jansen, Van Den Bosch, & Volberda, 2005): 1) We frequently refine the provision of existing products and services. 2) We regularly implement small adaptations to existing products and services. 3) We introduce improved, but existing products and services for our local market. 4) We improve our

provision's efficiency of products and services. 5) We increase economies of scales in existing markets. 6) Our unit expands services for existing clients. 7) Lowering costs of internal processes is an important objective.

### **Learning by exploration**

Learning by exploration means experimenting new ideas and innovation. Six items were asked, and validated by (Jansen, Van Den Bosch, & Volberda, 2005): 1) We invent new products and services. 2) We experiment with new products and services in our local market. 3) We commercialize products and services that are completely new to our unit. 4) We frequently utilize new opportunities in new markets. 5) Our unit regularly uses new distribution channels. 6) We regularly search for and approach new clients in new markets.

### **Centralization of decision-making**

Four items were submitted to the directors: 1) A person who wants to make his own decisions would be quickly discouraged. 2) Even small matters have to be referred to someone higher up for a final decision. 3) Unit members need to ask their supervisor before they do almost anything. 4) Most decisions people make here have to have their supervisor's approval (Hage & Aiken, 1967; Dewar, Whetten, & Boje, 1980).

### **Formalization**

Similarly, to confirm that Algerian companies apply formalization procedures, four items were presented to the directors: 1) Whatever situation arises, written procedures are available for dealing with it. 2) Rules and procedures occupy a central place in the organizational unit. 3) Written records are kept of everyone's performance. 4) Written job-descriptions are formulated for positions at all levels in the organizational unit (Desphande & Zaltman, 1982).

### **Analysis and results**

Multivariate statistical tests factor analysis and regression analysis were employed in analyzing data and testing the two hypotheses of the research.

The data on scale items measuring key variables were subjected to factor analysis, Particularly in Principal Component Analysis (PCA). Principal component analysis was carried out using IBM SPSS Statistics 19 software to extract the factors under each variable we identified above. Using the Varimax rotation helps reduce the number of items to a significant set of items that underlie each variable to test two hypotheses.

### **Hypothesis 01**

#### **Principal Component Analysis (PCA)**

The data on the six-item scale that measured the variable environmental stability were subjected to Principal Component Analysis (PCA) and has generated a single component with an eigenvalue greater than 1 that explained 82.228% of the total variance (table total variance explained). The component had six items, and they all displayed good loading (table 01). In addition, environmental stability scale reported a Cronbach Alpha of .955 (table 2) indicating a very high level of reliability. Therefore, all items were selected to test the hypothesis.

Construct	Loading
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The market in which your business operates, products and services do not really change.	.964
Customer demand is certain.	.875
The competitors' behavior is certain, that is, possible.	.928
The market in which your business operates, Sales promotion and price warfare do not appear frequently.	.902
The market in which your business operates is characterized by lack of competition.	.884
There are few competitors in the market in which your company operates.	.884

Table 01: Component Matrix.

Table 02: Reliability Statistics.

Cronbach Alpha	Number of elements
.955	6

On the other hand, the principal component analysis of the data on the six-item scale that measured the variable exploration also revealed a single component with an eigenvalue greater than 1, which explained 78.311% of the total variance (table total variance explained). The results of the principal component analysis, after rotation using the Varimax method, of the variable exploration were presented in the table 03. All the items of variable exploration were retained to test the hypothesis since they all had a loading exceeding 0.50 (Hair, Tatham, Anderson, & Black, 1998) and a Cronbach Alpha 0.941 (table 04) indicating a very high level of reliability.

Table 03: Component Matrix.

Construct	Loading
We invent new products and services	.657
We experiment with new products and services in our local market	.924
We commercialize products and services that are completely new to our unit	.969
We frequently utilize new opportunities in new markets	.942
Our unit regularly uses new distribution channels.	.888
We regularly search for and approach new clients in new markets.	.898

Table 04: Reliability Statistics.

Cronbach Alpha	Number of elements
.941	6

### Hypothesis test

Our regression model is presented as follows:  $Y = B_1 X_1 + \varepsilon$ .

Where  $B_1$  was the parameter that was estimated,  $Y$  was dependent variable exploration,  $X_1$  was independent variable environmental stability,  $\varepsilon$  represented the model specification error, that is, all the phenomena which explained the obstacles to exploration, and which did not relate to the stability of the environment.

The table of correlations showed that there was a very negative correlation between the variable environmental stability and the variable exploration  $r = -0,518$  with a very high level of significance  $p = .000$ , which meant that there was a 1% chance that this relationship would not be validated. On the other hand, we observed a very positive correlation between the variable environmental stability and the variable exploitation with a very high level of significance  $p = .000$  as well.

In the Coefficients table, the standardized regression coefficient Beta was -0.518. Our equation could therefore be written: Exploration = - 0.518 stability of the environment, which meant that whenever the stability of the environment increased by 1%, the exploration of new technologies regressed from -0.518 %, Thus, our first hypothesis is confirmed. In addition the student test was -6.090 and it was very significant  $p < 0.01$ . Therefore, we could reject the hypothesis that the relationship was observed in the sample was due to chance, in other words

the variable stability of the environment had a very negative and very significant effect on the variable exploration.

In the Table of Model summary, R square was 0.269, which meant that 26.9% of the variation of the dependent variable exploration could be explained by the variation of the independent variable environmental stability. Obviously, R square represented a small value. This was due to the lack of variables in our model to estimate accurately the impediments to exploration, existence of omitted variables.

Table 05: Coefficients<sup>a</sup>

		Model	
		1	
		(Constant)	environmental stability
Unstandardized Coefficients	B	-4,621 E <sub>-16</sub>	-,518
	Std. Error	,085	,085
Standardized Coefficients	Beta		-,518
T		,000	-6,098
Sig.		1,000	,000
Correlations	Zero-order		-,518
	Partial		-,518
	Part		-,518

Dependent variable: Exploration.

Table 06: Correlations

		environmental stability	Exploration	Exploitation
Pearson Correlation	environmental stability	1,000	-,518**	,920**
	Exploration	-,518**	1,000	-,492**
	Exploitation	,920**	-,492**	1,000
Sig. (1-tailed)	environmental stability		,000	,000
	Exploration	,000		,000
	Exploitation	,000	,000	
N	environmental stability	103	103	103
	Exploration	103	103	103
	Exploitation	103	103	103

\*\* P < 0.01; N= 103

**Hypothesis****02****Principal Component Analysis (PCA)**

Principal Component Analysis of the data of the independent variables centralization and formalization generated two components whose eigenvalues were greater than 1 and explained 62.889% of the total variance (table total variance explained). The table Component Matrix after Rotation showed that all items were above the minimum acceptable level of 0.50 (Hair, Tatham, Anderson, & Black, 1998). Therefore, they were retained for the second round. However, the table showed the movement of the first item to the first component, which is formalization. Hence, the new variables were formalization including items 1, 5, 6, 7, 8; and centralization including items 2, 3, 4. The scale of the variables formalization and centralization reported a Cronbach Alpha of .753 (table 08) which indicated a high level of reliability.

Table 07: Component Matrix after rotation.

Construct	Loading	
	1	2
A person who wants to make his own decisions would be quickly discouraged	.713	-.156
Even small matters have to be referred to someone higher up for a final decision	-.191	.621
Unit members need to ask their supervisor before they do almost anything		.794
Most decisions people make here have to have their supervisor's approval	.455	.709
Whatever situation arises, written procedures are available for dealing with it	.733	-.156
Rules and procedures occupy a central place in the organizational unit	.776	.222
Written records are kept of everyone's performance	.881	.137
Written job-descriptions are formulated for positions at all levels in the organizational unit	.721	.455

Rotation method: Varimax with Kaiser Normalization.

a. The rotation converged in three iterations.

Table 08: Reliability Statistics.

Cronbach Alpha	Number of elements
.753	8

The dependent variable exploration is already illustrated above.

**Hypothesis test**

Our regression model was presented as follows:  $Y = B_1 X_1 + B_2 X_2 + \varepsilon$ .

Where  $B_1$ ,  $B_2$  were the parameters to be estimated.  $Y$  was the dependent variable exploration,  $X_1$  and  $X_2$  were independent variables that were respectively formalization and centralization.  $\varepsilon$  represented the model specification error, that is, the set of non-explicit information in the model. In our case,  $\varepsilon$  referred to all phenomena of the obstruction of the exploration process not related to the centralization of the decision and formalization procedures.

The table of correlation showed that there was a very negative correlation between the variable exploration and the variable formalization ( $r = -0.897$ ;  $p = 0.000$ ) and it was very significant. Also, a moderately negative correlation between the variable exploration and the variable centralization which was also very significant ( $r = -0.262$ ,  $p = 0.004$ ). At the same time, the table coefficients in the last colonne, VIF, showed that there was no multicollinearity effect between the variables centralization and formalization.

The table coefficients presented the results of the regression of the independent variables formalization and centralization on the variable exploration. In the table, we noted that the  $B_1$  was  $-0.897$ , and  $B_2$  was  $-0.262$ . Our initial equation could therefore be written: Exploration =  $- 0,897$  formalization -  $0,262$  centralization which meant that whenever concentration or centralization of decision-making and formalization procedures in Algerian firms increased from 1%, the exploration process or the search for new technologies was down by 1, 159%, which confirmed our hypothesis.

In our case, the two variables formalization and centralization had a p-value of 0.000, which meant that the relationship had a 99% chance of being true. Also the table ANOVA showed that the f test translated a good level of significance, which validated the model.

In the table model Summary, the R square was 0.873, which meant that 87.3% of the variation in the variable exploration could be explained by the variation of the variables formalization and centralization. The R square translated a very good ability to explain or predict the model.

Finally, the Durbin-Watson test indicated a value of 2.535; we could say that the residuals were not correlated, and that the regression model was validated. On the other hand, the observation of the graphs showed that there was a very small difference between the regression line and the points. The residuals confirmed the normality of their distribution, which led to the conclusion that the prediction was valid.

Table 09: Coefficients<sup>a</sup>

		Model		
		2		
		(Constant)	Formalization	Centralization
Unstandardized Coefficients	B	9,456 E -17	-,897	-,262
	Std. Error	,035	,036	,036
Standardized Coefficients	Beta		-,897	-,262
	t	,000	- 25,192	-7,355
Sig.		1,000	,000	,000
Correlations	Zero-order		-,897	-,262
	Partial		-,897	-,262
	Part		-,897	-,262
Collinearity statistics	Tolerance		1,000	1,000
	VIF		1,000	1,000

Dependent variable: Exploration.

Table 10: Correlations

		Exploration	Formalization	Centralization
Pearson Correlation	Exploration	1,000	-,897**	-,262**
	Formalization	-,897**	1,000	,000
	Centralization	-,262**	,000	1,000
Sig. (1-tailed)	Exploration		,000	,004
	Formalization	,000		,500
	Centralization	,004	,500	
		Exploration	103	103
		Formalization	103	103
		Centralization	103	103

\*\* P < 0.01; N= 103

**Conclusion**

In this paper, we examined the influence of environmental stability, which was necessarily due to the complexity of the business climate; the centralization of decision-

making and formalization on the learning capacities of Algerian companies. The results of the regression analysis supported hypothesis 1, that is, the stability of the environment had a very negative effect on learning by exploration. This confirmed Hedberg' (1981) idea that argued too much stability could be detrimental to organizational learning insofar as the quantity of stimuli was insufficient to bring about forms of learning. Moreover, the analysis of bivariate correlations showed that there was a strong positive correlation between environmental stability and learning by exploitation, which consisted in developing routines. On the other hand, there was a very negative correlation between environmental stability and learning by exploration. Thus, it confirmed March's (1991) proposition that those routines prevented the exploration process. This explained why Algerian companies did not cause innovations.

The structures of the organization were considered dependent on the stability and complexity of the environment. As the Algerian environment was stable and lacked competition, companies applied bureaucratic structures, abusive standards and procedures. Indeed, the results of the regression analysis supported hypothesis 2, that is, the centralization of decision and the intensification of formalization had a negative effect on the learning by exploration. This confirmed Atuahene-Gima' (2003) idea that centralizing the decision reduced the likelihood that members of the unit would seek innovative solutions. As a result, formalization constrained innovation.

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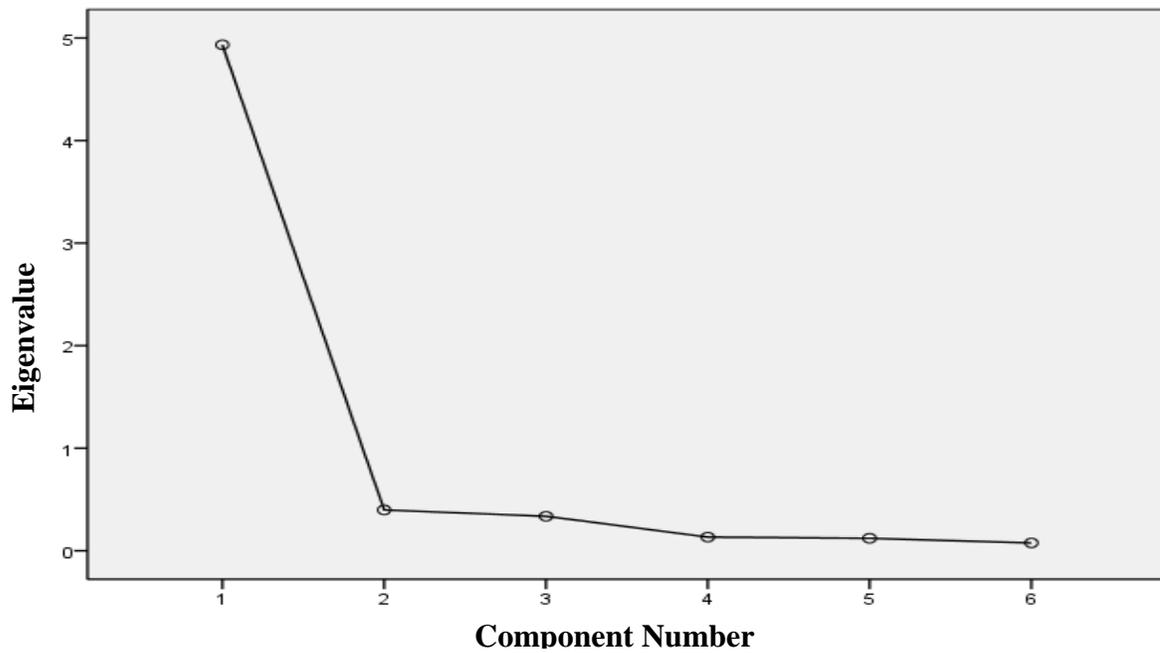
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**Appendix**  
**Principal Component Analysis (PCA)**  
 Environmental stability

Component	Initial Eigenvalues			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	4,934	82,228	82,228	4,934	82,228	82,228
2	,398	6,638	88,866			
3	,336	5,606	94,472			
4	,133	2,221	96,694			
5	,122	2,028	98,722			
6	,077	1,278	100,000			

**Scree Plot**



Learning by exploration

**Total variance explained**

Component	Initial Eigenvalues			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	4,699	78,311	78,311	4,699	78,311	78,311
2	,678	11,298	89,610			
3	,282	4,703	94,313			
4	,177	2,954	97,267			
5	,118	1,962	99,229			
6	,046	,771	100,000			

**Scree Plot**

Centralization of making-decision and formalization

**Total variance explained**

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	3,449	43,117	43,117	3,449	43,117	43,117	3,190	39,875	39,875
2	1,582	19,772	62,889	1,582	19,772	62,889	1,841	23,014	62,889
3	,925	11,559	74,449						
4	,677	8,467	82,915						
5	,496	6,201	89,116						
6	,448	5,599	94,715						
7	,289	3,614	98,329						
8	,134	1,671	100,000						

**Component Number**

**Hypothesis testing**  
**Model 1**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std.Deviation
The market in which your business operates, products and services do not really change.	103	5	7	6,22	,671
Customer demand is certain.	103	5	7	6,21	,800
The competitors' behavior is certain, that is, possible.	103	5	7	6,16	,801
The market in which your business operates, Sales promotion and price warfare do not appear frequently.	103	5	7	6,19	,805
The market in which your business operates is characterized by lack of competition.	103	5	7	6,14	,829
There are few competitors in the market in which your company operates.	103	5	7	6,26	,766
We invent new products and services	103	1	5	2,13	,825
We experiment with new products and services in our local market	103	1	3	2,05	,821
We commercialize products and services that are completely new to our unit	103	1	3	1,99	,798
We frequently utilize new opportunities in new markets	103	1	4	1,97	,845
Our unit regularly uses new distribution channels.	103	1	4	2,08	,871
We regularly search for and approach new clients in new markets.	103	1	3	2,21	,775
We frequently refine the provision of existing products and services	103	4	7	6,07	,877
We regularly implement small adaptations to existing	103	4	7	6,09	,876

products and services	103	4	7	6,05	,922
We introduce improved, but existing products and services for our local market	103	4	7	6,10	,880
We improve our provision's efficiency of products and services	103	5	7	6,11	,851
We increase economies of scales in existing markets	103	4	7	6,03	,880
Our unit expands services for existing clients	103	4	7	6,03	,934
Lowering costs of internal processes is an important objective.	103	-1,70809	1,14137	,0000000	1,00000000
Environmental stability	103	-1,34980	1,384381	,00000000	1,000000000
Exploration	103	-1,50595	1,16173	,0000000	1,00000000
Exploitation	103				
Valid N (listwise)					

**Model Summary<sup>b</sup>**

	Model
	1
R	.518 <sup>a</sup>
R Square	,269
Adjusted R Square	,261
Std. Error of the Estimate	,859438968
Change Statistics	R Square Change
	F Change
	df1
	df2
	Sig. F Change
Durbin-Watson	,054

a. Predictors : (Constant), Environmental stability

b. Dependent variable: Exploration.

**Model 2**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std.Deviation
A person who wants to make his own decisions would be quickly discouraged	103	1	7	5,85	,964
Even small matters have to be referred to someone higher up for a final decision	103	2	7	5,74	1,137

Unit members need to ask their supervisor before they do almost anything	103	2	7	5,80	1,207
Most decisions people make here have to have their supervisor's approval	103	1	7	5,49	,979
Whatever situation arises, written procedures are available for dealing with it	103	1	7	5,65	1,242
Rules and procedures occupy a central place in the organizational unit	103	1	7	5,83	1,106
Written records are kept of everyone's performance	103	2	7	5,90	1,015
Written job-descriptions are formulated for positions at all levels in the organizational unit	103	3	7	5,81	,841
We invent new products and services	103	1	5	2,13	,825
We experiment with new products and services in our local market	103	1	3	2,05	,821
We commercialize products and services that are completely new to our unit	103	1	3	1,99	,798
We frequently utilize new opportunities in new markets	103	1	4	1,97	,845
Our unit regularly uses new distribution channels.	103	1	4	2,08	,871
We regularly search for and approach new clients in new markets.	103	1	3	2,21	,775
Exploration	103	-1,45996	1,27386	,0000000	1,00000000
Formalization	103	-3,17361	1,42325	,0000000	1,00000000
Centralization	103	-2,80399	1,63553	,0000000	1,00000000
Valid N (listwise)	103				

**Model Summary<sup>b</sup>**

	Model
	2
R	.934 <sup>a</sup>
R Square	,873
Adjusted R Square	,871
Std. Error of the Estimate	.35961329

Change Statistics	R Square Change	,873
	F Change	344,365
	df1	2
	df2	100
	Sig. F Change	,000
Durbin-Watson		2,535

c. Predictors : (Constant), Centralization, Formalization.

d. Dependent variable: Exploration.

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89,068	2	44,534	344,365	,000 <sup>a</sup>
	Residual	12,932	100	,129		
	Total	102,000	102			

a. Predictors: (Constant), Centralization, Formalization.

b. Dependent Variable: Exploration.