THE IMPACT OF LEADERSHIP ON INNOVATION MANAGEMENT

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ABSTRACT

The study sought to evaluate the predominant leadership styles, the leadership effectiveness, and the relationship between leadership effectiveness and innovation management of a group of executives of several organizations. To identify the predominant leadership styles, as well as the leadership effectiveness of the 400 involved executives, it has been used an instrument available in the market. To compute the innovation management performance, an existing model, the Value Innovation Model, has been applied leading to the value innovation index for each one of the 48 involved organizations. To investigate the relationship between leadership effectiveness, taken the average value per organization, and the value innovation index, it has been used the linear regression statistics computing the linear correlation coefficient between the before mentioned variables. The study has uncovered lack of flexibility regarding the leadership styles, presenting styles of selling and sharing ideas as dominants. The study also showed that the leadership effectiveness of the involved executives was at a moderate level. Finally, the research pointed out a high positive relationship between leadership effectiveness and innovation management success, measured by the value innovation index.

Key-words: leadership style, leadership effectiveness, innovation management, value innovation index.

INTRODUCTION

Employees will be the essential resources of twenty-first century organizations. These employees can be categorized into several generations (ZEMKE and FILIPCZAK, 2000), each with special motivation needs. Kuzins (1999) suggests that managers and leaders need to understand people, whatever their age. They need to find out their skills, strengths, and whatever motivates them. In short they have to recognize that everyone is different and deal with each employee as an individual in a comprehensive way – physical, mental and spiritual planes, particularly the spiritual plane taking into consideration the personal values profile of the individuals, once it is causal for the explicit behavior of them (BRUNO and LAY, 2007), and, on the other hand, it has a positive relationship with the organizational effectiveness (SIKULA, 1971).
On the other hand there are some important considerations that the leader of tomorrow will be confronted with: a) the phenomenon of unemployment, as a consequence of the extraordinary fast development of mechanization and automation, and the economic apparatus centered in the idea of currency stability, which instead of absorbing all the units of human energy creates a growing number of idle hands, and, even worse, brains; b) the phenomenon of research – who can say whither our combined knowledge of the atom, of hormones, of the cell and the laws of heredity will take us?; and c) the need for true union, that is to say full associations of human beings organically ordered, which will lead us to differentiation in terms of society; it should not be confounded with agglomeration which tends to stifle and neutralize the elements which compose it.

Therefore, responsible influence, leadership centered in collective objectives, coherence and fecundity, are the four criteria to be pursued in developing the leaders of tomorrow. Summarizing we need to put into practice the ideas presented by Nanus (1995) in his book Visionary Leadership, that is to say, an organization's senior leaders need to set directions and create a customer focus, clear and visible values, and high expectations, which should balance the needs of all stakeholders; ensuring the creation of strategies, systems, and methods for achieving excellence, innovation, and building knowledge and capabilities, including the development of leadership.

Finally, the democratization of the concept of leadership, and at the same time, as an activity, primarily focused on people and their needs, as proposed by Safty (2003), is a must.

Leadership

The objective of this topic is not to review all the literature on leadership. On the contrary, it will be explained why a particular leadership model, namely Situational Leadership, has been chosen. Situational Leadership was developed by Paul Hersey and Kenneth H. Blanchard (1969) at the Center for Leadership Studies. Apart of trait and attitudinal approaches to leadership, Hersey-Blanchard tridimensional leader effectiveness model was selected as more appropriate due the fact it was designed to measure three aspects of leader behavior which were suitable to answer the research questions of the study. These three aspects of leader behavior are: a) style, b) style range or flexibility, and c) style adaptability or leadership effectiveness.

A person's leadership style involves some combination of task behavior and relationship behavior. The two types of behavior, which are central to the idea of leadership style, are defined as follows: a) task behavior – the extent to which leaders are likely to organize and define the roles of the members of their group, and b) relationship behavior – the extent to which leaders are likely to maintain personal relationships between themselves and members of their group.

The effectiveness of the leaders, on the other hand, depends on how appropriate their leadership style is to the situation in which they operate. This appropriateness comes from the matching of leader style and follower task relevant maturity, or task readiness. Readiness in Situational Leadership is defined as the extent to which a follower demonstrates the ability (knowledge, experience, and skill) and willingness (confidence, commitment, and motivation) to accomplish a specific task (HERSEY, BLANCHARD and JOHNSON, 2001).

A proposed framework for rating innovation management

Having reframed the company's strategic logic around value innovation, senior executives must ask at least four questions in order to pursue a new value curve:

Which of the factors that our industry takes for granted should be eliminate? Which factors should be enlarged well above the industries´ standard? Which factors should be reduced well below the industries´ standard? What factors should be created that the industry has never offered?

To assure profitable growth one need to answer the full set of questions, rather than one or two.

Value innovation is the simultaneous pursuit of radically superior value for buyers and lower costs for organizations (KIM and MAUBORGNE, 1999).

How can senior executives promote value innovation?

No single measurement will ever describe a companies´ stocks and flows of value innovation. Just as financial accounting look at a number of indexes – return on sales, return on investment, cash value added, to name a few – to paint a picture of financial performance, value innovation accounting needs to look at corporate performance from several points of view. On the other hand, what might be a key indicator for one company could be trivial for another, depending on the segment conditions.

Yet the existence of so many possible measurements creates the risk that companies will use too many of them, cluttering their corporate dashboard with instrumentation and, in the end, learning nothing important because they know so much about what is not important.

Therefore, three principles should guide a company in choosing what to measure:

- keep it simple – shoot for no more than a dozen measurements,
- measure what is strategically important – in this domain there are no simple recipes, the capacity to learn from experience and to conduct critical analysis is essential, and
- measure activities that produce value innovation – lots of stuff that companies measure is only sketchily related to value innovation.

In any way, a navigation tool, like a model, may help a lot in driving a company for high growth. Yet, a navigation tool should not only tell you where you are but also show you where you should be going.

In order to perform this, **the Value Innovation Development (VID) Model** is suggested (Bruno, 2006).

The VID model is a comprehensive approach to market and value innovation – based corporate management, on two levels, enablers (essential conditions) and processes (customer oriented), aiming at assuring a strategic and articulated logic across the company businesses, designed to increase its market value, achieved through the interaction of technology, market and organization abilities.
The model is based on the evaluation of nine major dimensions divided in two groups:

- essential conditions – encompassing "strategy", "processes", "organization", "linkages" and "learning" (TIDD,BESSANT and PAVIT, 2001) ; and
- customer-oriented processes – involving the processes of "understand" markets and customers, "create" superior customer offerings, "gain" profitable customers, and "retain" profitable customers (KOTLER and KELLER, 2006).

In the **strategy** dimension there are no simple recipes for success, the important point is the capacity to learn from experience and having critical analysis ability. The strategy may be defined by putting targets on the actual scores of each one of the nine dimensions proposed on the VID model.
In order to succeed companies also need effective implementation mechanisms, also called **processes**, to move innovations from idea or opportunity through reality. These processes involve systematic problem-solving and work best within a clear decision – making framework which should help the company to stop, as well as, to continue development depending on how things are going. Also are required skills in project management, risk management and parallel development of both the market, and technology streams.
In the **organization** dimension there is the fact that innovation depends on having a supporting organizational context in which creative ideas can emerge and be effectively deployed. Organizational conditions are a critical part of innovation management, and involve working with structures, attraction and relation of human capital (reward and recognition systems), and communication patterns.
Within the dimension of **linkages** it is meant the development of close and rich interactions with the external environment – markets, suppliers of technology and other relevant players to the business.
Finally, developing innovation management involves a **learning** process concerned with creating the conditions within which a learning organization can begin to operate, with shared problem identification and solving, and with the ability to capture and accumulate learning about technology and management of the innovation process. These five dimensions together constitute what in the VID model is called **enablers**.
In order to create an overall picture regarding the **enablers** a closed instrument was developed involving the five before mentioned dimensions. For each one of these dimensions some statements were developed in order to enable a judgment using a score varying from "o" (not true at all) to "5" (very true) (see Appendix 1).
This instrument will lead us to an average score for the enablers.
The second group of dimensions is related to the customer-oriented processes, which has to do with the value-added orientation. Let's explore these dimensions a little deeper.
In order to **understand** markets and customers the following investigations should be done:

- data collection and integration,
- customer data analysis, and
- customer segmentation.

Regarding to **create** superior customer offerings the following aspects should be analyzed:

- products/services offers and prices,
- communication and branding, and
- multi-client ownership/affinity partnership.

As far as **gain** profitable customers, the following elements must be considered:

- multi-channel management,
- e-commerce, and
- sales force automation

Finally, in order to **retain** profitable customers, the following assessments should be conducted.

- Customer service/customer care,
- Loyalty programs, and
- Customer satisfaction.

In order to create an overall picture regarding these **processes** a closed instrument was developed involving the before mentioned four dimensions. For each one of these dimension some statements were developed in order to enable a judgment using, again, a score varying from "0" (none) to "5" (ideal) (see Appendix 1).
This instrument will enable us to have an average score for **processes**.
The advantage of the model is that it will lead us to compute what is called the **value innovation index** (VII) by multiplying the final scores for enablers and process. This index maximum score will be "1", once the enablers and process values are taken as relative figures. This maximum score means that the organization (imaginary company) reached perfection, as far as managing innovation is concerned, it covers the total area.
Figure 1 presents the conceptual framework of the model.

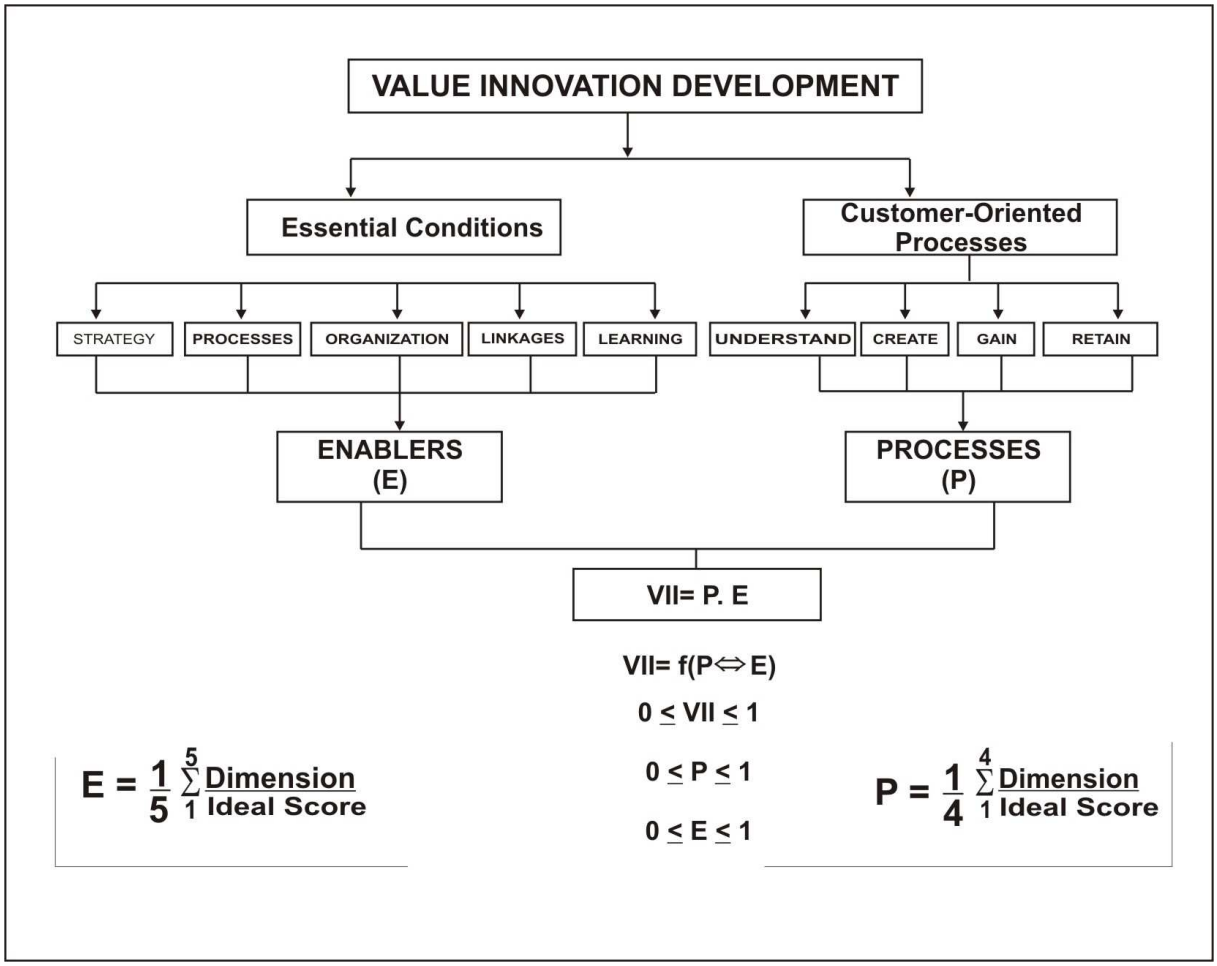

Figure 1 – Value Innovation Development Model Framework
Source: Bruno (2006).

The value innovators scored high in the value innovation index, not necessarily developing new technologies but in pushing the value they offer customers to new frontiers. They are **pioneers** in their industries.
At the other extreme are the **settlers**, business with value curves that conform to the basic shape of the industry. The settlers VII score is generally low.
The **migrators** lies somewhere in between. Such businesses extend the Value Curve of the industry by giving customers more for less, but they don't alter its basic shape. They have moderate VII scores.
Figure 2 shows the graphic interpretation of the model, where the scores of nine imaginary companies (A to I) were plotted.

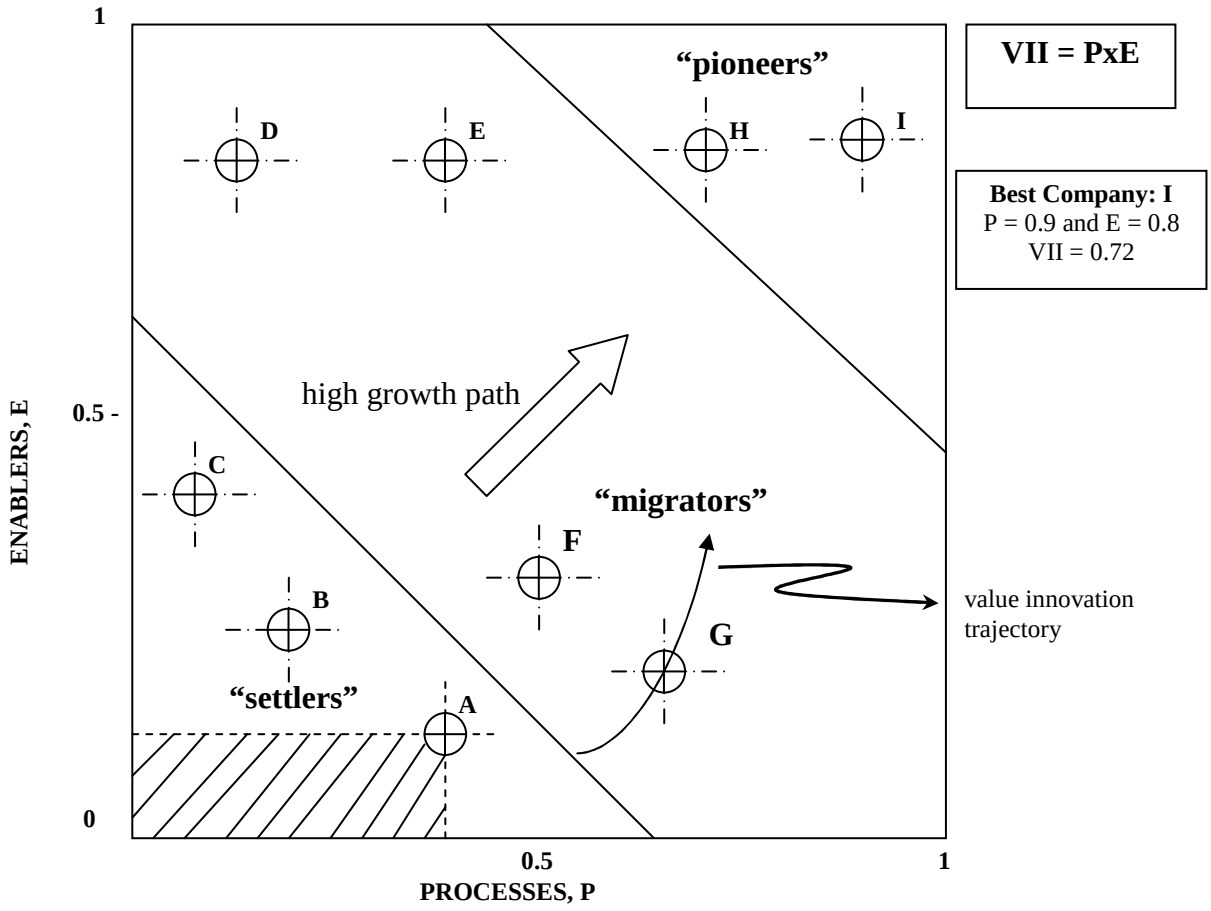

Figure 2 – Value Innovation Development Model
Source: Bruno (2006).

Analyzing the chart, company (or business unit) "A" is the worst case, typically a settler, while "I" is a winner company (or business unit), typically a pioneer.
Another advantage of using such a model, is the fact that the responses to the closed instruments' specific dimensions may reveal significant room for improvements in enablers and processes, as is depicted in Figure 3, which shows a gap per considered dimension.

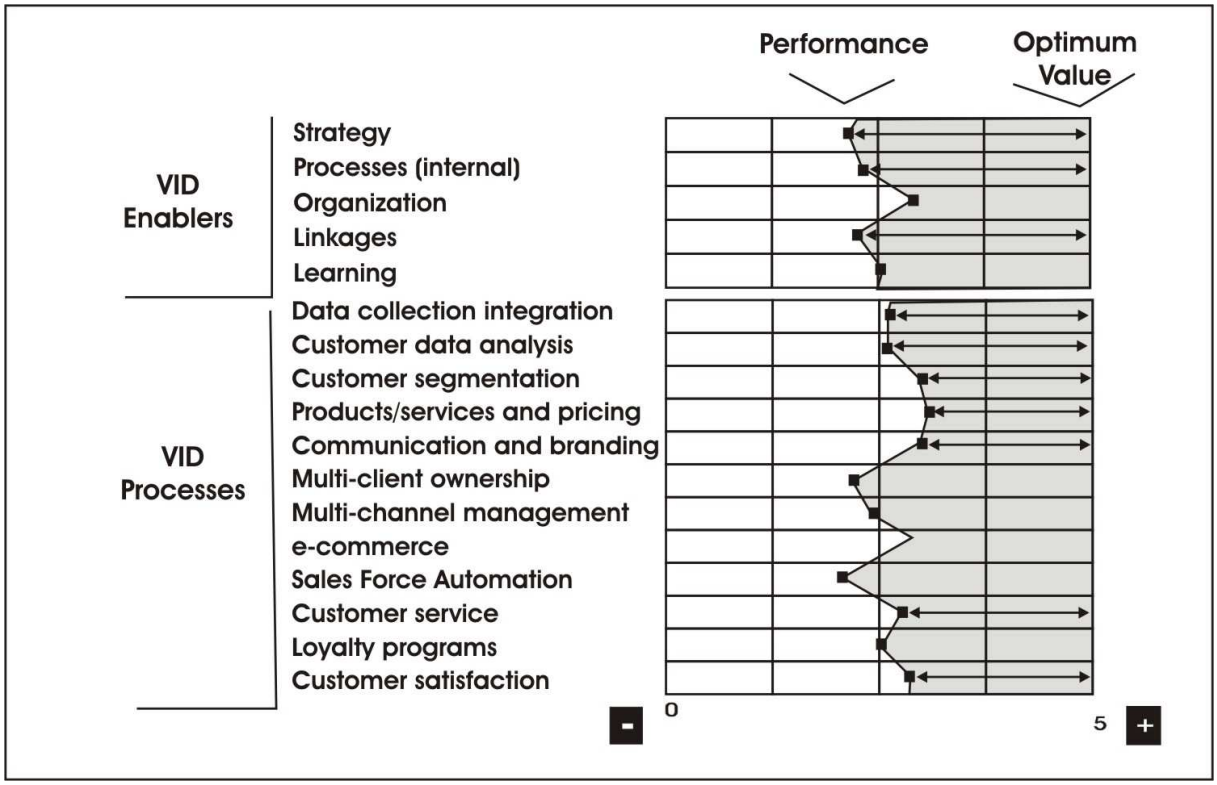

Figure 3 – Gap analysis by dimension
Source: Bruno (2006).

The self-assessment of own performance in each dimension of the Value Innovation Development model will show the company's current profile. A useful exercise for a management team pursuing growth is to plot aside the current profile a planned one, following the logic of a new positioning of the company (or business unit) at the pioneer – migrator – settler map, defining, therefore, a possible value innovation trajectory, aiming at the "pioneer" area of the model.

Research Questions
The study sought to answer the following research questions:

1. What is the predominant leadership style of the executives involved in the research?
2. What is the leadership effectiveness of these executives?
3. Is there a relation between leadership effectiveness and innovation management performance?

METHODOLOGY

Sampling

It has been randomly selected 400 executives involving 48 organizations operating in Brazil and South America, encompassing medium and large size ones. Most of them were organizations in the fields of consumer electronics, vehicles, health care, paper and packing, mechanical and electrical components, transportation and logistic, virgin media, telecommunications, white goods, service, energy, IT, super markets, clothes, shoes, graphics, departmental stores, office material, individual protection equipment, and cell phones. The majority of the executives were Brazilians (366) and some foreigners (34), being 142 females and 258 males with ages varying from 28 up to 48.

Data Gathering

To measure the leader behavior the Situational Leadership Model has been taken into account and the LEAD (Leader Effectiveness and Adaptability Description) instrument, developed at the Center for Leadership Studies (Hersey and Blanchard, 1965), has been used. The three aspects covered by the model are: a) style, b) style range, or flexibility, and c) style adaptability, or leader effectiveness. The LEAD self has been used, and it yields four ipsative **style** scores and one normative **adaptability** (**leader effectiveness**) score. This kind of instrument needs to be statistically validated in terms of items and reliability only once. According to the Center for Leadership Studies (Hersey and Blanchard, 1965), the 12 item validities for adaptability score ranged from 0.11 to 0.52, and 10 of the 12 coefficients (83%) were 0.25 or higher. Eleven coefficients were significant beyond the 0.01 level and one was significant at the 0.05 level.

The reliability of the LEAD self was moderately strong. In two administrations across a six-week interval, 75% of the managers maintained their dominant style and 71% maintained their alternative style. The contingency coefficients were both 0.71 and each was significant at the level 0.01. The correlation for the adaptability scores was 0.69 at the 0.01 level.

To analyze a possible relation between the average executives' **leadership effectiveness**, per organization, and the **value innovation index**, the Value Innovation Development Model (Bruno, 2006) has been considered and the VII – Value Innovation Index has been computed per organization, and, then the linear correlation coefficient was calculated taken into consideration the set of paired data involving the before mentioned variables per organization, therefore the computation involved 48 pairs.

FINDINGS AND ANALYSES

To answer the two research questions regarding leadership the data were summarized in two groups: leadership style range or flexibility, and leadership style adaptability or leadership effectiveness.

Table 1 shows the profile of the Brazilian executives sample regarding leadership styles.

Table 1
Profile of Leadership Styles of a Sample (400) of Executives

Style	Frequency Distribution (%)
S1 – Telling	16.2
S2 – Selling	48.2
S3 – Participating	28.6
S4 – Delegating	7.0

Source: Research Data.

As depicted in Table 1 this sample of executives is perceived as using predominantly styles S2 - Selling and S3 - Participating. So they tend to do well working with people of average levels of readiness.

However, they face difficulties to handle discipline problems and work with groups at low level of task maturity or readiness. This finding matches with the researches conducted by Hersey (2003) all over the world.

The results of leadership style adaptability, or leadership effectiveness are shown in Table 2. They have been grouped in quartiles covering a response interval from 0 to 36.

Table 2
Summary of Leadership Effectiveness of a Sample (400) of Executives

Score Interval (scale end 0 and 36)		points	Leadership Effectiveness Level	Frequency	
				Absolute	Relative (%)
27	To	36	High	23	5.8
18	To	26	Moderate	370	92.4
9	To	17	Low	7	1.8
0	To	8	Very low	0	0

$X^2 = 874.78 > X^2_{crit.} = 11.3$; df = 3; $p \leq 0.01$
Source: Research Data.

As depicted in Table 2 the null hypothesis was rejected since the computed one-way chi-square of 874.78 was larger than the tabled (critical) value of 11.3 with three degrees of freedom at the 0.01 level.

As shown in Table 2 this sample of executives has predominantly a moderate level of leadership effectiveness. This result was expected in any way because, according to previous researches (HERSEY, 2003), people in work settings usually fall into moderate readiness level.

In order to verify if there was a relation between executives' leadership effectiveness – LE and innovation management performance, the Value Innovation Index (VII) and the average executives' leadership effectiveness (LE) were computed and the linear correlation coefficient involving the LE and the VII was calculated. Table 3 presents the computations regarding the 48 organizations involved in the research.

Table 3
Value Innovation Index and Leadership Effectiveness

Nbr.	SECTOR		E	P	VII	LE
1	Health Care	O 1	0.44	0.08	0.03	15
		O 2	0.55	0.24	0.13	18
		O 3	0.65	0.24	0.15	19
		O 4	0.62	0.40	0.24	23
2	Paper & Packing	O 5	0.63	0.45	0.29	27
3	Mechanical Parts	O 6	0.30	0.05	0.02	16
4	Electrical Parts	O 7	0.45	0.65	0.30	20
		O 8	0.71	0.39	0.27	26
5	Transport/Logistic	O 9	0.29	0.49	0.14	16
		O 10	0.56	0.65	0.36	23
		O 11	0.53	0.50	0.26	21
6	Consumer Electronics	O 12	0.34	0.25	0.08	15
		O 13	0.65	0.55	0.36	24
		O 14	0.60	0.65	0.39	25
		O 15	0.65	0.65	0.42	27
7	Vehicles	O 16	0.48	0.70	0.34	18
8	Virgen Media	O 17	0.49	0.22	0.11	15
9	Info Technology	O 18	0.63	0.62	0.39	28
		O 19	0.60	0.69	0.41	29
		O 20	0.63	0.77	0.49	23
		O 21	0.62	0.37	0.23	15
10	Service	O 22	0.62	0.58	0.36	24
		O 23	0.58	0.50	0.29	23
		O 24	0.58	0.76	0.44	27
11	Physical Distribution	O 25	0.54	0.62	0.33	25
12	Car dealer	O 26	0.59	0.37	0.22	19
13	Language School	O 27	0.63	0.40	0.25	20

14	Banking	O 28	0.61	0.52	0.32	23
		O 29	0.64	0.71	0.45	26
11	Supermarket	O 30	0.56	0.40	0.22	15
		O 31	0.79	0.57	0.45	25
12	Telecom	O 32	0.57	0.40	0.23	21
		O 33	0.57	0.54	0.31	23
		O 34	0.61	0.40	0.24	22
13	Clothes	O 35	0.64	0.56	0.36	24
		O 36	0.76	0.62	0.47	25
14	Shoes	O 37	0.73	0.40	0.29	23
		O 38	0.69	0.77	0.53	25
15	Graphics	O 39	0.63	0.40	0.25	23
		O 40	0.57	0.40	0.23	23
16	White Goods	O 41	0.65	0.45	0.29	18
17	Software House	O 42	0.58	0.59	0.34	24
18	Construction Material	O 43	0.54	0.50	0.27	19
19	Hotel Chain	O 44	0.58	0.75	0.43	27
20	Office Material	O 45	0.71	0.79	0.56	28
21	Protection Equipment	O 46	0.69	0.25	0.16	15
22	Fabrics	O 47	0.56	0.40	0.22	17
23	Departmental Store	O 48	0.65	0.35	0.23	19

O = Organization, E = Enablers, P = Market-Oriented Process, LE = Leadership Effectiveness, and VII = Value Innovation Index
Source: Research Data.

Considering the variables **leadership effectiveness** and **value innovation index** of the 48 organizations, the result was a **linear correlation coefficient of +0,80**, showing a high degree of positive relation between the two variables (SCHMIDT, 1975).

In order to have an overall idea of the performance of a composite organization (F), regarding Enablers (E) and Customer-Oriented Processes (P), the average scores involving the five enablers and the four customer-oriented processes aspects were taken into consideration, and Figures 4 and 5 were constructed with the data collected from the 48 organizations.

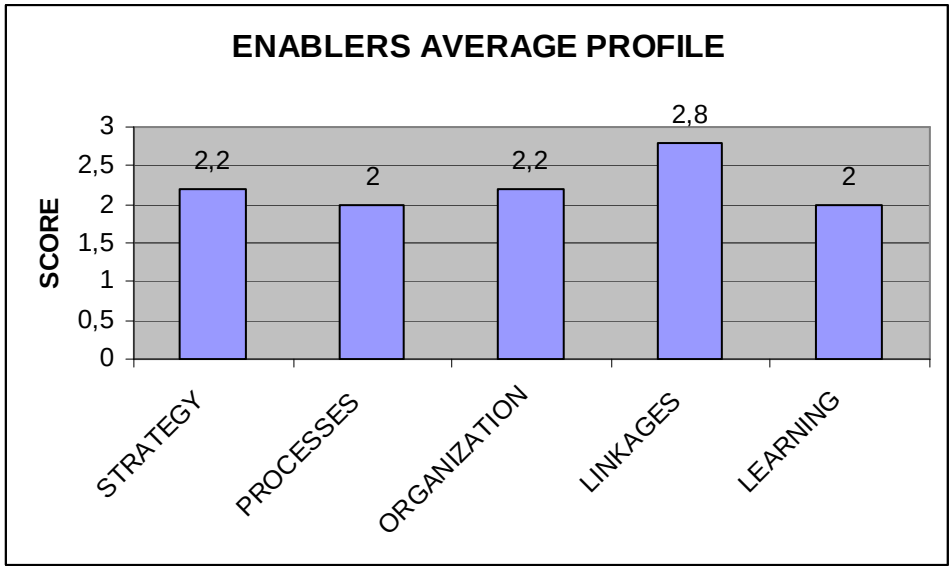

Figure 4 – Enablers Average Profile of the Composite Organization (E = 0.46)
Source: Research Data.

As can be seen in Figure 4 there was plenty of space to improvements once the scale interval is zero to 5, and the best score was 2.8 (linkages). The worst cases involving the biggest gaps are internal processes to implement innovations and learning. The variable E was computed and the value found was 0.46.
On the other hand Figure 5 shows a slightly better situation, presenting as worst case the ability to gain profitable clients or customers. The variable P was computed and the value found was 0.60. Therefore the Value Innovation Index of the composite organization was VII = P x E = 0.27

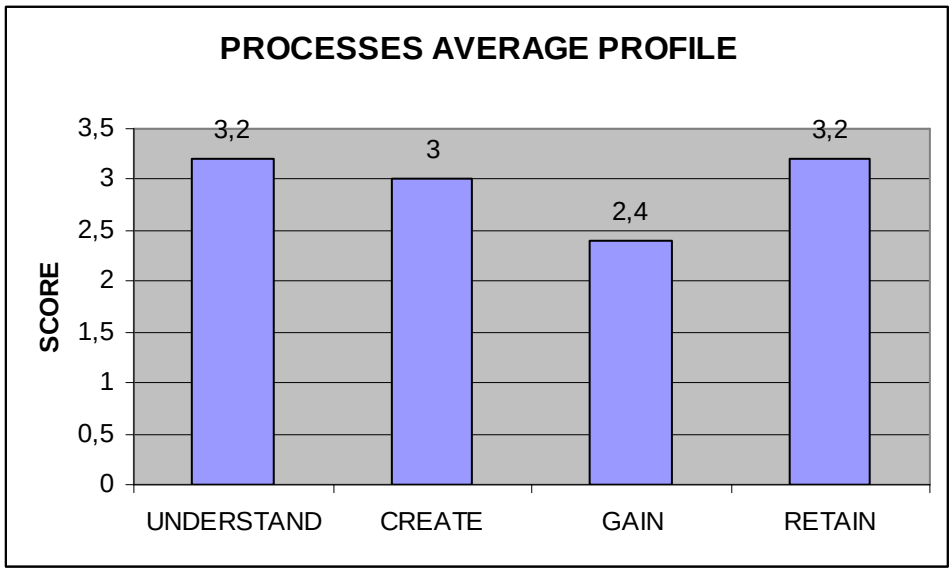

Figure 5 – Customer-Oriented Processes of the Composite Organization (P = 0.60)
Source: Research Data.

Figure 6 presents the positioning of the composite organization (F) on the Value Innovation Model graph.

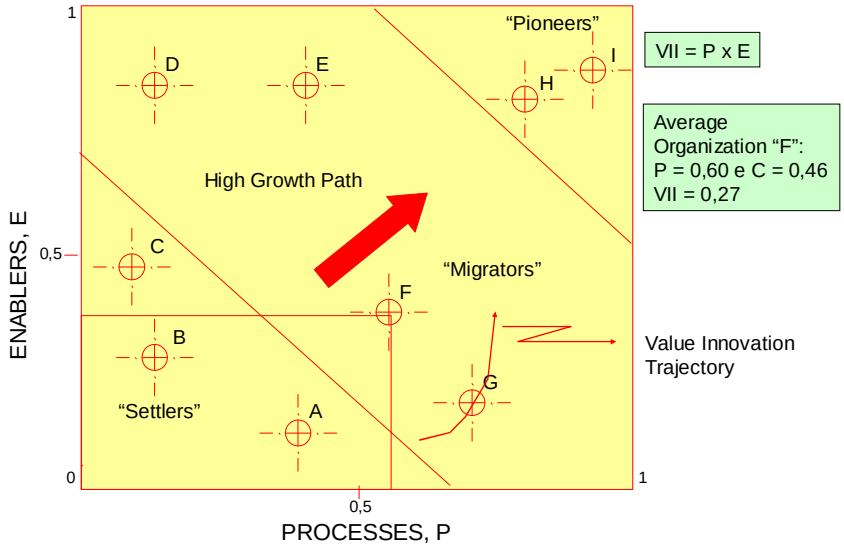

Figure 6 – Positioning of the Composite Organization (F)
Source: Research Data.

As can be seen in Figure 6 the Value Innovation Index of the composite organization (F) was VII = P x E = 0.27. This means plenty of opportunities to improvements, once F is near the settlers area and defines on the graph an area that is only 27% of the total possible one. These improvements can be derived from the gaps presented on Figures 4 and 5.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following conclusions were reached based on the research:

1. The results of leadership style flexibility and leadership effectiveness lead us to the conclusion that this group of executives needs to receive training in terms of leadership skills, once they need to have more flexibility of styles and to be able to use the appropriate style depending on the situation. Previous studies (HERSEY, BLANCHARD and JOHNSON, 2001) suggest that by having this new profile this group of executives will be able to lead their organizations towards better results through an innovative approach, enhancing the probability of a sustainable longevity.

2. Once the study uncovered the high positive relation between executives' leadership effectiveness and innovation management performance, would be highly recommended in leadership development efforts to take into consideration a critical analysis on innovation initiatives. As a consequence, society will have leaders with a more comprehensive view of the world, assuring, therefore, more appropriate decisions.

3. The results on innovation management has shown a modest value as far as innovation management is concerned, therefore it is important for the organizations reinforce training and development of all employees in terms of creativeness development, as well as definitions of better operational processes which involve everybody in the process of improving continuously the organizations in all aspects innovations are possible.

Recommendations

General

A certain number of initiatives should be taken to improve the development of leaders aiming at the establishment of a new society:

a) to address issues such as leadership in society's educational efforts as from the early childhood in order to prepare the new generations for the responsible practice of a leadership primarily focused on people and their professional and personal needs;

b) the hour of choice is now ; in order to assure that 2/3 of mankind, with poor quality of living, will receive a fast and effective attention from the leaders of today and tomorrow, we need to speed up the process of the democratization of the concept of leadership, that is to say, we need to make leadership accessible to people from all disciplines, all ages and everywhere; and

c) let all of us stimulate and support such organizations as the United Nations (UNESCO) and all the educational system worldwide in continuing to multiply and flourish in terms of projects and decisions towards the human society development, assuring convergence of the business world, the political institutions, and the civil society; however, we must realize that this will only be possible if all the parts

involved are agreed on the basic values and purposes underlying their projects and decisions (actions) – true union (heart to heart) will be a must.

Specific

The samples used in the study were rather small, therefore any extrapolation from the results of the research must be done with caution.

In future studies of the same nature a 360 degree appraisal, as far as leadership style, style flexibility and leadership effectiveness are concerned, would be highly recommended.

Additional researches of the same nature involving bigger sample sizes and conducted in other cultures are highly recommended.

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APPENDIX 1
INSTRUMENTS TO MEASURE VALUE INNOVATION

VALUE INNOVATION DEVELOPMENT
MODEL ENABLERS ASSESSMENT (E)

Instructions

This self-assessment instrument focuses attention on some important areas of innovation management. Below you will find statements which describe "the way we do things around here" – the pattern of behaviour which describes how the organization handles the question of innovation. To the right of each statement circle the score between 0 (= not true at all) to 5 (= very true). Do it for all statements involving all dimensions.

Strategy		**Scores**					
1.	Our innovation strategy is clearly communicated so everyone knows the targets for improvement	0	1	2	3	4	5
2.	People have a clear idea of how innovation can help us compete	0	1	2	3	4	5
3.	People know what our distinctive competence is – what gives us a competitive edge	0	1	2	3	4	5
4.	We look ahead in a structured way (using forecasting tolls and techniques) to try and imagine future threats and opportunities	0	1	2	3	4	5
5.	Our top team have a shared vision of how the company will develop through innovation	0	1	2	3	4	5
6.	There is top management commitment and support for innovation	0	1	2	3	4	5
7.	We have processes in place to review new technological or market developments and what they	0	1	2	3	4	5

	mean for our firm's strategy						
8.	There is a clear link between the innovation projects we carry out and the overall strategy of the business	0	1	2	3	4	5

Internal Processes		**Scores**					
9.	We have processes in place to help us manage new product development effectively from idea to launch	0	1	2	3	4	5
10.	Our innovation projects are usually completed on time and within budget	0	1	2	3	4	5
11.	We have effective mechanisms to make sure everyone (not just marketing) understands customer needs	0	1	2	3	4	5
12.	We have effective mechanisms for managing process change from idea through to successful implementation	0	1	2	3	4	5
13.	We systematically search for new product ideas	0	1	2	3	4	5
14.	We have mechanisms in place to ensure early involvement of all departments in developing new products/processes	0	1	2	3	4	5
15.	We have a clear system for choosing innovation projects	0	1	2	3	4	5
16.	There is sufficient flexibility in our system for product development to allow small 'fast-track' projects to happen	0	1	2	3	4	5
Organization		**Scores**					
17.	Our organization structure does not stifle innovation but helps it to happen	0	1	2	3	4	5
18.	People work well together across departmental boundaries	0	1	2	3	4	5

19.	People are involved in suggesting ideas for improvements to products or processes	0	1	2	3	4	5
20.	Our structure helps us to take decisions rapidly	0	1	2	3	4	5
21.	Communication is effective and works top-down, bottom-up and across the organization	0	1	2	3	4	5
22.	Our reward and recognition system supports innovation	0	1	2	3	4	5
23.	We have a supportive climate for new ideas – people don't have to leave the organization to make them happen	0	1	2	3	4	5
24.	We work well in teams	0	1	2	3	4	5

Linkages		**Scores**					
25.	We have good 'win-win' relationship with our suppliers	0	1	2	3	4	5
26.	We are good at understanding the needs of our customers/end-users	0	1	2	3	4	5
27.	We work well with universities and other research centres to help us develop our knowledge	0	1	2	3	4	5
28.	We work closely with our customers in exploring and developing new concepts	0	1	2	3	4	5
29.	We collaborate with other firms to develop new products or processes	0	1	2	3	4	5
30.	We try develop external networks of people who can help us – for example, with specialist knowledge	0	1	2	3	4	5
31.	We work closely with the local and national education system to communicate our needs for skills	0	1	2	3	4	5
32.	We work closely with 'lead user' to develop innovative new products and services	0	1	2	3	4	5

Learning		**Scores**					
33.	There is a strong commitment to training and development of people	0	1	2	3	4	5
34.	We take time to review our projects to improve our performance next time	0	1	2	3	4	5
35.	We learn from our mistakes	0	1	2	3	4	5
36.	We systematically compare our products and processes with other firms	0	1	2	3	4	5
37.	We meet and share experiences with other firms to help us learn	0	1	2	3	4	5
38.	We are good at capturing what we have learned so that others in the organization can make use of it	0	1	2	3	4	5
39.	We are good at learning from other organizations	0	1	2	3	4	5
40.	We use measurement to help identify where and when we can improve our innovation management	0	1	2	3	4	5

Scoring Instructions (E)

Dimensions / Scores	Strategy	Internal Processes	Organization	Linkages	Learning
Totals					
Avg. (Totals ÷ 8)					
Relative Score (AVg. ÷ 5)					

Final Score:

$$E = \frac{1}{5} \sum_{1}^{5} \text{Relative Score}$$

$E =$ $\quad (0 \leq E \leq 1)$

VALUE INNOVATION DEVELOPMENT
MODEL CUSTOMER-ORIENTED PROCESSES ASSESSMENT (P)

Instructions

This self-assessment instrument focuses attention on some important phases of "the way we hear the voice of the consumers around here" – the pattern of behaviour which describes how the organization handles the question of market research. To the right of each statement circle the score between 0 (= not doing well at all) to 5 (= doing very well). Do it for all sub-dimensions involving all dimensions.

"Understand" Markets and Customers		**Scores**					
1.	Data collection and integration	0	1	2	3	4	5
2.	Customer data analysis	0	1	2	3	4	5
3.	Customer segmentation	0	1	2	3	4	5

"Create" Superior Customer Offerings		**Scores**					
4.	Product/service offer and price	0	1	2	3	4	5
5.	Communication and branding	0	1	2	3	4	5
6.	Multi-client ownership/affinity partnership	0	1	2	3	4	5

"Gain" Profitable Customers		**Scores**					
7.	Multi-channel management	0	1	2	3	4	5
8.	E-commerce	0	1	2	3	4	5
9.	Sales force automation	0	1	2	3	4	5

"Retain" Profitable Customers		**Scores**					
10.	Customer service/customer care	0	1	2	3	4	5
11.	Loyalty programs	0	1	2	3	4	5
12.	Customer satisfaction	0	1	2	3	4	5

Scoring Instructions (P)

Dimensions / Scores	Understand	Create	Gain	Retain
Totals				
Avg. (Totals ÷ 3)				
Relative Score (AVg.÷ 5)				

Final Score:

$$P = \frac{1}{4} \sum_{1}^{4} \text{Relative Score}$$

$$P = \qquad (0 \leq P \leq 1)$$