

## **S2 Triple Helix study**

### **S2.5 Triple Helix evaluation: indicator systems**

**The multiple historical hermeneutics of ideology of the counters and analysts of information systems from the point of view of postmodern capitalism, Sabato's Triangle and Triple Helix as a strategy for encouraging innovation**

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#### **Summary**

The main objective of this paper is to elucidate the multiple connotations that exist in ideology in modern capitalist society. So in this sense, a quick overview of the thoughts of Mannheim, Edgar Morin, Althusser, Marx and Dobb is performed. Accountants and analysts, information systems must understand that a vision of these major ideologies will assist to better negotiate with their peers. In other words, they can better understand this as a competitive advantage in the global economy and lead their companies to obtain better rates of profitability, productivity and profitability, which is the desire of shareholders owners. With this in mind, we analyzed the impact of the thoughts of Karl Mannheim, Oskar Lange, Karl Marx, Maurice Dobb, Edgar Morin, all to be able to elucidate clearly and objectively the main ideas that the accountants and analysts information systems can dominate with their ideologies and professional practice various capitalist countries which are England, Germany, United States of America and several others, including actors were different and severe bouts of high-risk management. The important thing to note is that the crises have shaken the belief in the consolidation of capitalism worldwide. In the postmodern age is crucial, the argument of "Triple Helix" as a reference to model the environment as a professional. The "blades" are formed by the regulatory sector of government, the sector of professional bodies and universities, laboratories and research centers. More comprehensive than "Sabato Triangle", the argument of the "Triple Helix" proposes, in general, the actors of the innovation system roles are not rigid, it is proposed that they are also prepared to take the lead in actions aimed at achieving technological innovation, hence the importance in these environments of intense synergy among social actors in order to strengthen the proposition of technological innovations for the sector of management, will be analyzed by factor analysis of the cities of São Paulo, Brazil, where accountants and systems analysts play a crucial role in corporate governance.

**Keywords:** Ideology, Accountants and Analyst Information Systems, Triple Helix, Corporate Governance; Cities of State of São Paulo.

#### **1. Introduction**

Ideology is the science of the formation of ideas in the abstract; system of ideas, religious or political beliefs. The aforementioned definition of ideology, taken from a dictionary of that level, is too simple, so we should start directly to the study of the ideology of the ruling any one at any time. So, we will first discuss ideology considered from the concept point of view, and then we will discuss the topic itself.

With respect to the methodology employed, the theoretical part will be treated academically, with quotes and clashes of views between sociologists, while the second part is an exploratory study of the use of factor analysis. Due to the great disparity between the variables used in the area of professional performance, we conclude that only an analysis outcomes with all the variables used in the research could provide a solution in which factors that are difficult to interpret, may generate homogeneous groups of variables, drawing independent factors or orthogonal to each variable used in the study, we used the method of principal components analysis (Principal Component Analysis) (PCA), and the criteria for Varimax rotation to obtain a more comprehensive interpretation of factors

#### **2 Research Problem: definition, concepts and methodology**

States Mannheim *"For most people, the term ideology is intimately linked to Marxism, an association that determines in large measure their reactions to the term ... However, despite Marxism have contributed greatly to the initial placement of the problem, so to speak, as their meaning are in the story much more remote than Marxism, and as long as it arose, new meanings of the word have emerged, taking independently of it."* For this classic, there are two different meanings of the word: the individual (when we are skeptical of ideas and representations made by our opponent) and the total. The difference of meaning lies in the fact that ideology, in particular design is only part of the statement of the opponent (with respect to content), while the total design already exists a transcendental interpretation (beyond what was said, an analysis covering the type of subject's life). Another difference is the level of activity: design as particularly prevalent in the psychological (they reside primarily individual interests), the total prevalent in noological (ignoring, therefore, the motivations).

As the total and particular concepts can be distinguished from one another based on their differences in meaning, so the historical origins of these two concepts can also be differentiated although, in reality, are always intertwined. This is what will be seen in the next section.

Please note that, in fact, Karl Mannheim contributed - a lot - for the construction of an interpretive research method, discussing the methodological issues and the development of a method of analysis of world views, called the documentary method and this method is a theoretical and practical analysis of sociological hermeneutics as a tool for the insertion of the counter and systems analyst in social contexts, understanding and concept of world views and collective orientations of a group, their actions and forms of representation. In this sense, the documentary method transcends the level of intuitive or deductive analysis and instigates the construction of analytical instruments able to map and shape everyday experiences, in need of theoretical reflection. In short, the accountant and analyst information systems by means of documents, standards, and procedures fixed shapes the flow of power in organizations, business and society, especially as an element of domination, an overlord, say. This is the formation of a new social class.

About Karl Mannheim, it is worth noting that his first book, *Ideologie und Utopia (Ideology and Utopia)*, is considered his most important writing. In this work, Mannheim argues that every act of knowledge is due not only aware of purely theoretical but also of many elements of nature rather than theoretical, from social life and the influences and desires that the individual is subject. According to this author, the influence of these factors is of utmost importance and its research should be the object of a new discipline: sociology of knowledge. Each phase of humanity would be dominated by a certain kind of thinking and a comparison of several different styles would be impossible. At each stage appear conflicting tendencies, is pointing to conservation, is to change. Joining the first tends to produce ideologies and adherence to the second tends to produce utopias. Other important investigations include studies of Mannheim on the relationship between thought and action. His contribution to planning theory and to the characterization of mass societies and is especially prominent concepts that are of great value to analysts, accountants and information systems, IE, he must learn to organize, command, control, planning, coordinate. Scan and post-scan the mind. As methodology this paper used

SPSS - Statistical Package for Social Sciences - software in the analysis and processing of statistical data in various areas of knowledge and applications. With SPSS we can create, define, modify and perform crosses of variables, generating all charts and verify the existence of associations and / or correlations between variables, perform analysis of variance, factor analysis and correspondence analysis, non-testing parametric linear regression, cluster analysis, time series.

### **3. State of art. Literature Review: the concept of ideology in historical perspective**

"The disbelief and suspicion that everywhere men show by their opponents at every stage of historical development, can be regarded as immediate precursors of the concept of ideology. But only when the unbelief of man to man, more or less evident at every stage of human history, it is explicitly recognized and methodologically, can one properly speak of an ideological coloration in the statements of others. That is, man is by nature an be misleading, but the ideology itself creates life when they come to consciousness their low instincts. Continuing: "Only when we seek, more or less consciously, to discover the source of their untruth in a social fact is that we are doing a proper ideological interpretation. We treat the notions of our ideological opponents as not only when they are considered as more lies when we calculated and their behavior in a total uncertainty we face as a social function where you are. The design of a particular ideology is, therefore, it is intermediate between a pole, a simple lie, and the other, the error, which is the result of a conceptual apparatus distorted and defective. Refers to a sphere of errors that psychological, rather than deliberate mistakes are not intentional, but unavoidable and accidental result of some causal factors. Following this line of reasoning, the theory of the Idols, English Bacon, can be seen as a forerunner of the modern conception of ideology, because the idols were sources of error, and assigned to anyone (human nature or particular individuals or society tradition), are obstacles in the path of true knowledge. In the same line of reasoning, and applying the theory of the Idols in our society, we have that there is a major factor in modern ideology, which are the media. According to Edgar Morin, the "ideology" of religion begins to lose its real basis, as spreads ratifications content imaginary (saints, cults, cathedrals).

According to the story line was probably the deal with everyday political affairs, for the first time, gave critical consciousness and sense to the man, given the ideological element of his thought. The diversity of forms of thought

among men is also sociological. Machiavelli, following his strictly rational thought, has the specific task of relating the changing opinions of men with the changes in their interests. All this at a time, according to Hume, it was assumed that men were given to pretend and deceive their fellow men. In addition, there is the fact that man always believes more readily as you prefer, and it is always easier to pray and fight for the goal to be achieved.

The unmasking that occurs in the particular design should not be confused with the more radical skepticism and critical analysis more pervasive and destructive that in the ontological levels and noological (character design total). But you can not separate them completely. The same historical forces that cause continuous changes in one sphere, also act on the other. At first, psychological illusions are constantly undermined, with the last, ontological and logical formulations of world views and ways of thinking are dissolved in a conflict between the two parties. This will be seen below.

#### **4. Particular conception of the total design ideology**

*"While conflicting parties lived in the same world and try to represent him, even occupying opposite poles, or as a feudal combat with another faction, it would be inconceivable a deeper mutual destruction. This disintegration of intellectual unity is only possible when the basic values of the contenders are worlds apart. At first, the course of this disintegration increasingly pervasive, the naive disbelief turns into a particular notion of systematic ideology, however, remains on the psychological level. However, the rising bourgeoisie, bringing with it a new set of values, not content with a place confined within the old feudal order. It represented a new economic system, accompanied by his way of explaining the world, finally moved the existing ways to interpret and explain the world "*

Further analysis of the factors that led to the total conception of ideology, Mannheim points, first, the role of philosophy (as an interpreter ultimate and fundamental flow of the contemporary world). This cosmos flow should in turn be seen as a series of conflicts that arise from the nature of mind and their responses to the continuously changing structure of the world. In the ontological unity and medieval-Christian aims of the world, followed by the subjective unity of the absolute subject of the Enlightenment: consciousness itself.

*"The next stage occurs when you see the historical perspective the concept altogether, but supra-temporal, ideology"*

Now the folk spirit comes to represent historically different elements of consciousness that Hegel integrates into a spirit world. From there, experiences of everyday life are no longer accepted at face value, and meditated in all its implications and referred to its basis.

The last and most important step in creating the total design of ideology has also arisen from the historical and social process. When the class took the place of folk or nation, as a bearer of consciousness evolving historically absorbed the notion that the social structure and its various intellectual forms vary with the relations between social classes.

#### **5. The ideology in more concrete level and the contribution of the triple helix**

*"As men become aware of social relations, ideas born in his mind, ideas that represent the form in which they become aware of these relationships, ideas are born equally legal and religious, moral and political, philosophical, scientific and artistic, in basis of which men judge social relations. We, these ideas, social ideas and a systematic whole, give the name of ideology "*

Besides ideology, there is another component called Social Psychology (sum of ideologies, therefore, the attitudes of social groups present). To these two we call abstract notions of social consciousness (which does not exist without a particular mode of production); called superstructure, together with the economic base, is the social formation (historical fact with objective existence).

Now, ideology is no longer an abstract entity, the incomprehensible, would exist and be part of our daily life. This process of ratification is to be felt in us through the ideological apparatuses, which will be seen below.

#### **6. Ideology for Althusser (the first component of the triple helix)**

Althusser attempted to clarify aspects of the functioning of the superstructure and how it intervenes in the economic base (which determines the total content). The state makes sense only because of their being with class (es), division (s) or covenant (sub) classes. This explains, in part, the class struggle for state ownership.

The state is composed of the repressive apparatus (which has a monopoly on violence) and the ideological apparatus (which acts in the reproduction of the means of production). The relations of production are antagonistic in a class society, and ideology concerns the reproduction of the labor force, their qualifications and subject to the ruling class. The ruling class controls more easily repressive apparatus, because the nature of the state is to ensure the ruling class appropriation of the surplus. And the struggle for possession of the ideological apparatus is vital in the path of a class on the rise.

Althusser's thesis, concerning ideology, states that the imaginary relation of men to their real conditions of material existence of ideology, which exists in equipment and in their practice. This thesis criticizes the Marxist theory, according to which the end of capitalist alienation would be the end of "opacity" (mystification of consciousness), and social relations following would be transparent. This opacity is the set of effective representations to the social structure determined.

## 7. Ideology by Dobb (the second component of the triple helix)

The very ideology is related to the "*false consciousness*" Hegel, which serves to hide the man's vision of itself and its conditions of existence, but is not taken in this direction, but in view of the historical relativity of ideas.

The ideology is or implies a philosophical position, with historical condition of a theory that appears only after the fact. Thus, ideology becomes a complete system of thought or coordinated set of beliefs and ideas that form a structure (or group) level, related concepts, to get the concepts, analysis, applications and more specific conclusions and individuals.

## 8. Back to the classics: the ideology of Marx and professional contemporaries (the third component of the triple helix)

Marxist analysis of ideology criticizes the system of Hegel, that philosophy is not related to history: can not criticize the material means. The assumptions of Marx are the production and its background, and the Marx them for intranational and international relations, which depend on the development of productive forces and the division of labor. The latter two variables are the different types of appropriation of the means of production and work products. This base material derived from the social structure and state, and the conduct of the man comes thought. Who creates the ideas and, therefore, the ideology, are men, such as active and have been conditioned by a given stage in the development of productive forces. Therefore it is not consciousness that determines social being, but the social being that determines consciousness.

During the pre-history, human consciousness was animal, with the need to maintain relationships with other people, man becomes aware that living in a society. From this and the genesis of consciousness, we have that consciousness is linked to the division of manual and intellectual work. This awareness is antagonistic to the productive forces and relations of production. And ideology is always appropriate to the current production mode.

To understand the ideology, it is necessary that it is historically placed and thought out. The initial position of Marx is that ideology is not only the bourgeoisie think. She (the ideology) needs to be reattached to its core (the social division). The society can not exist if not forge a unity. And therein lies a criticism: the separation between object of knowledge 'and' real object is fragile, by refusing to Marx's method (to build their categories, theoretically retains the movement that ranges from abstract to concrete, and hence the real abstraction that gives the history), Althusser rejects the logic of Hegelian influence on Marx (negation of negation) and the historical and dialectical materialism of Marx. But this abstraction is in fetishism.

The contradictions of the historical bloc reveal the ideological level, remnants of the old mode of production and seeds of the future or the new historical bloc. But the superstructure is determined by the current mode of production that tends to prevail because of the relevance of the ideological apparatus, the main organs are the propagators School and Church.

The pedagogical relationship depends on the historical moment and involves the continuous active relationship between philosopher and cultural environment. The philosopher want total freedom of expression that occur or not, depending on the historical moment. And in a moment of transition, when the ruling class not the possession of the ideological apparatus, it ceases to be dominant.

## 9 - The Triple Helix: a factorial study in some cities in the State of Sao Paulo, to evaluate the professional accountants and systems analysts. Findings, contributions and implications.

### Variables of the study of chosen cities

CNE	Creation of new jobs
TLEC	Tax of commercial electric linkings
TLEI	Tax of industrial electric Linkings
VPA	productive value Added
ICM	Logistic tax for transportation
RCM	Risk for competitiveness
SM	Rendering of services in establishments in a city

NEV	Retail number of establishments
NEAT	Number of wholesale establishments
NEPA	Number of establishments of food production
NEAUP	Auto and auto parts number of establishments
NEI	Number of industrial establishments
NEIA	Number of establishments of the nourishing industry
NMTL	Number of establishment of the metallurgic industry
NMEC	Number of establishment of the mechanics industry
NETM	Number of establishment of extraction and transformation
NECV	Number of establishment of footwear and clothes of the industry
SLI	Wages in the industry
VPI	Value of the industrial production
VTI	Value of the transformation industry
TRS	Total of the sales in services
TRC	Total of the commercial sales
NQV	Chemical and pharmaceutical businesses
PCOANL	Accounting professionals and analysts of systems in the city

**The following groups of variables were formed for analysis:**

GROUP I	Indicates growth or decline municipal: TCNE, TLEC, TLEI, TSMR, and TIRS.
GROUP II	Characteristics of the studied cities in the State of São Paulo for the region: TVPA, TICM, TRMC, and TCQV.
GROUP III	Indicates concentration in traditional branches of economy: TICV, T CPA, TIPA, TCVE, and TEIM.
GROUP IV	Indicates growth or decline, commercial and industrial: TMIL, TMEC, TCAT, TCVP, and TTRC.
GROUP V	Indicates intense industrial activity: TSLI, TVPI, TVTI, and TNEI.

For each group defined in the previous session we have  $X_j$  with  $j$ th data patronized.

Each component  $X_j$  is generated from a linear combination of  $q$  factors, unrelated or observed ( $q = 2$ ), plus an error, i.e,

$$X_1 = \lambda_{11} f_1 + \dots + \lambda_{1q} f_q + e_1$$

(I)

$$X_p = \lambda_{p1} f_1 + \dots + \lambda_{pq} f_q + e_p \quad (q < p)$$

$f_1, \dots, f_q$  common factors

$e_1, \dots, e_p$  specific factors and errors.

$\lambda_{jk}$  is called the  $j$ th load resulting in  $k$ th common factor.

Where:

$$E \sim f = 0, E \sim e = 0, \text{Var}(\sim f) = I_q$$

$$e \text{Var}(e) = \psi = \text{diag} \{ \psi_1, \dots, \psi_p \},$$

Where  $\psi_j$  specific variance, and  $f$  are not correlated.

Remarks:

- (i)  $\text{Cov}(X_j, f_k) = \lambda_{jk}$ ,
- (ii)  $\text{Cov}(X_j, X_j') = \lambda_{j1}\lambda_{j'1} + \dots + \lambda_{jp}\lambda_{j'p}$ ,
- (iii)  $\sigma_{jj}^2 = \text{Var}(X_j) = \lambda_{j1}^2 + \dots + \lambda_{jp}^2 + \lambda_{j\psi}^2$ ,
- (iv)  $\sigma_{jj}^2 - \lambda_{j\psi}^2 = \lambda_{j1}^2 + \dots + \lambda_{jp}^2$  result  $j$ .

**By factor analysis, we have:**

$$X = \lambda_{11}f_1 + \dots + \lambda_{1q}f_q + e_1 \quad \text{(I)}$$

$$X = \lambda_{p1}f_1 + \dots + \lambda_{pq}f_q + e_p \quad (p < q)$$

$f_1, \dots, f_q$  **common factors**

$e_1, \dots, e_p$  **Specific factors or errors**

$\lambda_{jk}$  **Load**

The importance of factors in the cities was measured by means of factor scores by estimating the parameter vector B in the following expression:

$$f = XB + e \quad \text{(II)}$$

Not knowing the values observed in f, it is possible to estimate B, seminarian by linear regression, are estimated as the covariances between fe X, and covariance matrix of X, so we have:

$$B_T = A^T (AA^T + \psi)^{-1} \quad \text{(III)}$$

The importance of the  $k^{\text{th}}$  factor in the first city is estimated by:

$$= \sum_{j=1}^P x_{lj} B_j \quad \text{(IV)}$$

$x_{lj}$  is the value of standardized  $j^{\text{th}}$  data in  $l^{\text{th}}$  the first city, then we obtain the following results factor:

**findings,**

**With more than two factors for each group of variables, we express 70% of the total variance of factor**

Group 1	Factor 1 Relevance Municipal services sector.
	Factor 2 Creation of new local enterprises.
Group 2	Factor 3 Creating wealth in the city.
	Factor 4 Level agribusiness.
Group 3	Factor 5 Degree of development of retail.
	Factor 6 Degree of development of the food industry, footwear and clothing ..
Group 4	Factor 7 Degree of development of the wholesale and logistics.
	Factor 8 Degree of development of mechanical engineering and metallurgical site.
Group 5	Factor 9 overall level of professionalism of accountants and systems analysts.

**Explanation of 70% of the total variance, maximum two factors**

GROUPS		POSITION OF CITY YEAR 2000	POSITION OF CITY YEAR 2007
/10	Agribusiness.	Barretos, S.J. do Rio Preto Vista, Araçatuba, Sorocaba, Marília.	S.J. do Rio Preto, Araçatuba, Marília, Cândido Mota.
2/10	Industrialization dynamic, high level of employment.	São Carlos, Santa Bárbara, Porto Ferreira.	Rio Claro, Porto Ferreira.
3/10	Area predominantly commercial, logistical centers of agribusiness.	São José do Rio Preto, Itapetininga.	Botucatu, Assis, Mogi-Mirim.
4/10	Areas in decline.	Apiaí, Salto, Itapeva, Ribeirão Bonito.	São Simão.
5/10	Areas of recent development.	Itapetininga, Tupã, Marília.	Bebedouro, Lençóis Paulista, Presidente Prudente, Jaboticabal.
6/10	Poor areas, but the level of stable employment.	Assis, Bebedouro, Itapeva, Lençóis Paulista, Ribeira.	Jaú, Águas da Prata, Cabreúva.
7/10	Areas of logistics centers of traditional industries.	Mogi-Guaçu, Rio Claro.	Birigui, Bauru, Franca, Ribeirão Preto.
8/10	Areas prone to impoverishment.	Andradina, Atibaia.	Andradina, Ribeira.
9/10	Commercial areas, recently developed, traditional industry, logistics pole ..	Presidente Prudente, Ribeirão Preto, Bauru, Itu, São Simão.	Lins, Novo Horizonte, Descalvado, São Simão.
10/10	Areas of expansion for professional accountants and systems analysts, logistics service centers ..	Americana, Jundiaí, Piracicaba, área metropolitana de São Paulo	Itu, Jundiaí, Sorocaba, Atibaia, Itapetininga, Porto Feliz, Bragança Paulista, Campinas, Piracicaba, São Roque, Tietê, Piracaia, Cabreúva, Indaiatuba, Santa Bárbara, São Pedro, Salto, Rio das Pedras, Laranjal, Americana.

## 10. Analysis of results

1/10: 27.Itapira.

2/10: 11.Tietê, 22.Franca, 29.Serra Negra, 67.Ibitinga.

3/10: 9.Piracicaba, 17.Salto, 20.Americana, 37.Mogi Guaçu, 40.Sertãozinho, 42.Orlândia, 49.Limeira, 76.Matão, 77.Barra Bonita, 2.Jundiaí, 18.Rio das Pedras, 14.Indaiatuba, 31.São Carlos, 35.Araras, 1.Itu, 15.Santa Bárbara, 26.Amparo.

4/10: 33.Ribeirão Preto, 39.São José R.Preto, 68.Bariri, 112.Ourinhos, 79.Catanduva, 114.Pres.Prudente, 28.S.João da B.Vista.

5/10: 25.Casa Branca, 65.Dois Córregos, 72.Taquaritinga, 73.Nova Europa, 75.Boa Esperança, 82.Pindorama, 93.Cafelândia, 113.Palmital, 118.Regente Feijó, 61.Guairá, 60.Monte Azul.

6/10: 6.Porto Feliz, 7.Bragança, 19.Laranjal, 30.São Simão, 31.Cajuru, 32.Socorro, 124.Itararé, 97.Tupã, 80.Novo Horizonte, 66.Ribeirão Bonito, 102.S.Cruz R.Pardo, 85.Penápolis, 105.São Manoel, 41.Cravinhos, 63.Brotas, 69.Itápolis, 70.Bocaina, 74.Dourados, 92.Avanhandava, 96.Andradina, 78.Sta. Adélia, 5.Itapetininga, 86.Pirajuí, 4.Atibaia, 34.Mococa, 101.Avaré, 104.Piraju, 110.Assis, 111.Cerqueira, 116.Cândido Mota, 117.Pres. Venceslau, 43.São Joaquim.

7/10: 45.Serra Azul.

8/10: 84.Piratininga, 88.Avaí, 94.Garça, 98.Pereira Barreto, 109.Salto Grande, 115.Chavantes, 119.Itapeva, 36.Patrocínio, 57.Santa Rita, 107.S.Pedro do Turvo, 120. Capão Bonito, 126. Apiaí, 122.Iporanga, 123.S.Miguel Arcanjo, 125.Ribeira, 103.Bofete, 13.Cabreúva, 106.Itatinga.

9/10: 10.São Roque, 24.Batatais, 48.Araraquara, 52.Descalvado, 53.Pirassununga, 54.Jaboticabal, 56.Barretos, 62.Itirapina, 71.Pederneiras, 81.Mirassol, 83.Bauru, 87.Lins, 89.Araçatuba, 90.Birigui, 95.Marília, 99.Botucatu, 108.Agudos, 8.Campinas, 50.Rio Claro, 3.Sorocaba, 64.Jaú, 21.Mogi Mirim, 91.Promissão,100.Lençóis, 58.Bebedouro.

10/10: 23.Águas de Lindóia, 35.Igarapava, 38.Ituverava, 44.Morro Agudo, 46.Águas da Prata, 47.Pontal, 16.São Pedro 59.Porto Ferreira,12.Piracaia.

## 11. Conclusion

Contributions as far as can be seen from the above text, it is necessary that the accountant and systems analyst or information manager leader can negotiate in antagonistic environments par excellence, ie, there is always a dichotomy, a division embodied in concentration income at its apex, thus determining the separation between top and bottom. In other words, it is necessary that the accountant and systems analyst - agents of change - in taking advantage of these concepts embodied above can take off from the dominated class - if he is - and settle down in the ruling class, if possible, bearing in mind that the main goal is to minimize the social imbalances between capitalist enterprises on the one hand, and between workers on the other.

The role of EU integration in Latin American development was proposed in 1968 by George Sabato (then Director of the Atomic Energy Commission of Argentina) based on the arguments: to achieve greater efficiency in the use of new technologies, to export goods with higher added value, and Indeed S & T are catalysts for social change.

According to Sabato, for the integration of science and technology in the development process would require the coordinated action of 3 key elements of contemporary society: the government, the production structure and infrastructure of science and technology. The geometric configuration of these elements became known as the Sábato triangle, where the state occupies the apex (Plonski, 1995). Sabato forecasts of the main difficulties were the joint horizontal infrastructure (S & T and production structure), which acquires a character even more important if we look at the experiences that were held in Brazil in recent years have found problems in its consolidation and implications .

Some incubators and technology parks which originally engendered the ideas of small entrepreneurs, now charge for services and rents rooms at market prices, increasingly restricted their assistance in favor of incumbents in the market.

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### 13. Appendix

First-region strongly attracted to the capital of the State of Sao Paulo, with high standards of governance set up by accountants and systems analysts

**1.Itu, 2.Jundiaí, 3.Sorocaba, 4.Atibaia, 5.Itapetininga, 6.Porto Feliz, 7.Bragança Paulista, 8.Campinas, 9.Piracicaba, 10.São Roque, 11.Tietê, 12.Piracaia, 13.Cabreúva, 14.Indaiatuba, 15.Santa Bárbara, 16.São Pedro, 17.Salto, 18.Rio das Pedras, 19.Laranjal, 20.Americana.**

Second-region largely agricultural area, strong influence of accountants, small influence of analysts in the governance system

**21.Mogi-Mirim, 22.Franca, 23.Lindóia, 24.Batatais, 25.Casa Branca, 26.Amparo, 27.Itapira, 28.S.João da Boa Vista, 29.Serra Negra, 30.São Simão, 31.Cajuru, 32.Socorro, 33.Ribeirão Preto, 34.Mococa, 35.Igarapava, 36.Patrocínio Paulista, 37.Mogi-Guaçu, 38.Ituverava, 39.S.J. do Rio Preto, 40.Sertãozinho, 41.Cravinhos, 42.Orlândia, 43.S.Joaquim da Barra, 44.Morro Agudo, 45.Serra Azul, 46.Águas da Prata, 47.Pontal.**

**Third-region** region highly developed in industry, commerce and services, with growth of the performance of systems analysts in governance

48.Araraquara, 49.Limeira, 50.Rio Claro, 51.São Carlos, 52.Descalvado, 53.Pirassununga,  
54.Jaboticabal, 55.Araras, 56.Barretos, 57.Santa Rita, 58.Bebedouro, 59.Porto Ferreira,  
60.Monte Azul, 61.Guairá, 62.Itirapina.

**Fourth region**-developing region, there is little influence of meters or systems analysts in governance

63.Brotas, 64.Jaú, 65.Dois Córregos, 66.Ribeirão Bonito, 67.Ibitinga, 68.Bariri, 69.Itápolis,  
70.Bocaina, 71.Pederneiras, 72.Taquaritinga, 73.Nova Europa, 74.Dourado, 75.Boa  
Esperança, 76.Matão, 77.Barra Bonita, 78.Santa Adélia, 79.Catanduva, 80.Novo Horizonte,  
81.Mirassol, 82.Pindorama.

**Fifth region** formed by very different cities on your profile and underdeveloped corporate governance

83.Bauru, 84.Piratininga, 85.Penápolis, 86.Pirajuí, 87.Lins, 88.Avaí, 89.Araçatuba, 90.Birigui,  
91.Promissão, 92.Avanhandava, 93.Cafelândia, 94.Garça, 95.Marília, 96.Andradina, 97.Tupã,  
98.Pereira Barreto.

**Sixth region**- Little development in the area of governance, little influence of professional accounting, not noticed the influence of systems analysts

99.Botucatu, 100.Lençóis, 101.Avaré, 102.Santa Cruz do Rio Pardo, 103.Bofete, 104.Piraju,  
105.São Manoel, 106.Itatinga, 107.S.Pedro do Turvo, 108.Agudos, 109.Salto Grande,  
110.Assis, 111.Cerqueira César, 112.Ourinhos, 113.Palmital, 114.Presidente Prudente,  
115.Chavantes, 116.Cândido Mota, 117 .Presidente Venceslau, 118.Regente Feijó.

**Seventh-region** region late, no notion of governance in human resources.

119.Itapeva, 120.Capão Bonito, 121.Itaporanga, 122.Iporanga, 123.S. Miguel Arcanjo,  
124.Itararé, 125.Ribeira, 126.Apiaí