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Economic development and social capital in Sao Paulo state, Brazil

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Economic development and social capital in Sao Paulo state, Brazil

Paula Regina de Jesus Pinsetta Pavarina¹

ABSTRACT:

The aim of the study is to analyze the representative variables of the stock of social capital available in the São Paulo State's counties, Brazil, according to the theory and methodology proposed by Robert Putnam. It describes some representative elements of social capital in the counties of São Paulo (the most developed state of Brazil) using proxies to represent association, civism and trust among people. Associative life is reflected on the presence of organizations and entities that contribute to the socialization of individuals, favoring human interrelations. The civism can be seen in electoral participation and mass Medias. On the absence of a variable that could better describe the trust criminality is used as a proxy to lack of trust. Additionally this research discusses some problems related to variables that are theoretically described as proxies of social capital but were discharged due to statistical, methodological or conceptual problems. Using principal components factor analysis six factors were obtained to represent the social capital in the state of São Paulo, explaining 58.5% of the total variance of the 22 variables used in analysis. This study attests the existence of positive relation between the variables that represent different forms of social capital, according to the proxies used, and the variable that represents development – Human Development Index (HDI-M) in São Paulo state counties.

KEY WORDS: social capital, economic development, Brazil

JEL CLASSIFICATION: Z13; O11; O18.

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The importance of the state of São Paulo for the Brazilian economy is observed in different pointers: the contribution to the added value industrial or the exportations, the tax collection and the volume of generated jobs. However, the analysis of the State is made by concentrating the referring data to the metropolitan region around the capital and the country. Implicit to this comparison it is the hypothesis of that all the provincial regions are homogeneous. However, this area encloses almost 600 cities, with characteristics and endowments of different resources and would be an excessively simplification to consider it as one and without an excellent analytical potential.

The analysis most detailed of the cities and regions of São Paulo finishes by evidencing the coexistence of different economic structures, as well as social, cultural and human organizations. The multiple existing faces of the economic heterogeneous economy in the state of São Paulo are, generally, related to the historical aspects or different endowments or supplies of capital traditionally related with the economic growth: natural, physical/financial and human capitals. It fits to stand out the clarifying in economic terms, still unexplored potential, of the social interactions, the organization formation and the civic and associative participation of the individuals of a region. The restriction to the traditional considerations on this subject opens space for the incorporation of elements that also allow the inquiry of the effect of the social interactions and of the civic life in the municipal economy. This work looks for, therefore, to investigate which the contribution of the social capital to the growth and development of the state of São Paulo, on the basis of the theoretical recital proposed by Robert Putnam (Putnam, 1993a). It is explored, then, the hypothesis of that the differentiated dynamism of the São Paulo economy could be related with the organization of its agents in groups of collective action - formal and informal unions, cooperatives and other syndicates.

1. Development, economic growth and the social capital

The neoclassic theories are generally restricted to the three initial components of the economic growth systemized by Stern (1991): (I) accumulation of capital (understanding in this rubric physical and financial capital); (II) human capital (formal and informal qualification); and (III) research, development and innovation. Although the author has

related the growth with abilities and knowledge, he suggests that such vision can be expanded, incorporating other elements, such as (IV) management capacity and industrial organization (that would have the property to increase or improve the product); (v) infrastructure; and (VI) allocation of products in the productive sectors.

Stern (1991) calls the attention to the infrastructure paper. Observing beyond the availability of transports, basic communication or services, the importance of social infrastructure is salient. This concept surpasses the traditional idea of human capital or of individual qualification, to include aspects related to the interrelation between the economic agents, when effectively the exchanges are promoted. In this aspect, the author considers negative that the dishonest behavior of the individuals or the excess of bureaucracy can lead to the inefficient allocation of the resources and to the costs rise, contributing for the economic growth. In posterior paper, Stern (2002) reiterates once more the importance attributed to infrastructure, detaching the propitious investment climate as one of the main strategies for development promotion. This involves political, institutional and behavioral aspects of the economic agents – as much in the present time as in the future, since they determine the risk/return of the investments.

Part of the infrastructure mentioned by Stern (1991; 2002) can be understood under the form of the available social capital to the country or region. The understanding of the elements that can be considered as social capital is related to the diffusion of Robert Putnam ideas that defines it as “features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated action” (Putnam, 1993a:167). In his works the decurrently interpersonal relations of horizontal and voluntary associations between the individuals, are analyzed as the union of agents with the same status and power, in contrast with the vertical organizations that congregate people by means of hierarchy relations and power. The social interaction decurrently from there would facilitate the coordination and the cooperation between the agents, aiming at the member’s benefit of network associations.

From the original ideas of Putnam, the importance attributed to the social capital led to the debate of its role for the promotion of the economic growth. Grootaert (1998), from World Bank, mentions the social capital as the fourth category of capital in the production function of economic growth, together with the natural capital (natural resources), human capital (“degrees of nutrition, health and education of the population”) and physical capital (infrastructure and industrial goods, also including the financial capital). Wise (2001:55), considers in contrast, that social capital as the technology, modifies the entire production

function, increasing the productivity of all the other inputs. Moreover, Kliksberg (1999:87), from Inter-American Bank of Development, considers the capitals human and social as responsible for the “bigger percentage of the economic development in the nations in ends of 20th century and indicates that [social capital is] the decisive keys of technological progress, competitiveness, sustainable growth, good government and democratic stability”. Coleman (1990:304) also agrees with the vision regarding the positive aspects of the presence of social capital to a society, standing out that if the “physical capital and the human capital facilitate productive activity, and social capital does so as well”. Moreover, the existence of social capital facilitates the attainment of certain goods that would not be gotten in its absence or could more only be gotten with a higher cost.

Increasing evidence in the literature shows that social capital can, in fact, generate impacts in the economy. Putnam (1993b:4), the author who initially approached such relation, mentions that the “social capital is coming to be seen as a vital ingredient in economic development around the world”, being an important element for economic development in developing countries as well as in modern developed economies. Perhaps the main result gotten by his work (Putnam, 1993a:155-156) is the fact of that the spontaneous sociability, that is, the formation of networks of horizontal association between the individuals comparatively explains the economic success of the north of Italy when compared to the south of the country, better of the proper economic factors. Growth and economic development would have stronger relations with the previous supply of social capital than with other economic determinant factors. The author concludes that “regions with a relatively industrial economy in 1970 had not necessarily been the industrial regions a century earlier” and in contrast “the regions characterized by civic involvement in the late twentieth century are almost precisely the same regions where cooperatives and cultural associations and mutual aid societies were most abundant in the nineteenth century” (Putnam, 1993a:162).

Grootaert (1998:2-3) also shares the thought that social capital affects the macroeconomic behavior: “there is growing evidence that social capital, under any of the three definitions, can have an impact on development outcomes — growth, equity, and poverty alleviation”. He explains that eventual differences concerning development found in a country with similar supplies of physical, natural and human capital to another one depends, in last instance, on the supply of social capital and the public policies. In societies that possess high supplies of social capital, “not only have stronger incentives to innovate and to accumulate physical capital, but are also likely to have higher returns to accumulation of human capital” (Knack & Keefer, 1997:1253).

To the historical causes and the input endowments it is needed to add social capital that is available in each of São Paulo municipality in order to inquiry of the potential role of social interactions, organizational formation and the civic and associative participation in the economic life.

2. Measuring social capital in São Paulo state

The choice of proxies that synthesize the social capital in the municipalities of São Paulo state is based on the existence of theoretical rules; because of the existence of a few empirical inquiries on the representative variables of social capital turns this research more exploratory than confirmatory. Synthetically, social capital is reflected in the existence of collective organizations and clubs that contribute for the sociability of inhabitants (associationism), in the possibility of the population involvement in local collective subjects (civism), and in interpersonal trust. The nature of the research, as well as the qualification of the variables used as proxies of social capital becomes necessary three presuppositions: (I) considering the existence of associative and civic organizations, it is supposed that the participation of the community effectively occurs; (II) the existence of any associative or civic manifestation in a city is considered better than its non existence; and (III) the bigger the amount of determined manifestation of associationism, civism or trust is, better the city. These three hypotheses guide the results and the conclusions of this paper, because it is impossible to analyze qualitatively the existing manifestations of social capital in São Paulo state.

The following variables are considered as proxies of the associationism in the cities of São Paulo state:

- a) Total number of cultural groups (AGRUCULT):** total of groups/ associations of scenic and visual arts, music, literature and cinema, as data from São Paulo (2001).
- b) Number of sporting associations (ASDESP):** total of sporting associations as well as other activities related to the collective leisure, based on Annual Relation of Social Information – RAIS (Brasil, 2002).
- c) Number of philanthropic entities (FILANTR):** total of beneficent and social assistance entities, as enrolled in “National Board of Social Assistance” (CNAS), as Brasil (2003).
- d) Total number of existing cooperatives (COOPS):** as data of the Yearbook of the Brazilian Cooperatives (Anuário do Cooperativismo Brasileiro, 2002).
- e) Total number of facilities destined to the sociability (EDCONV):** total of social communitarian centers, youth centers, cultural clubs for elderly, artisans and professional

qualification. Database used is Foundation State System of Data Analysis (Fundação Sistema Estadual de Análise de Dados – Seade, 2003b).

f) Total number of cultural facilities (EQCULT): cinemas, theaters, cine-theaters, audiences, libraries, museums, cultural centers, as data of São Paulo (2001).

g) Existence of samba groups ('escola de samba') (ESCOLSAM): permanent samba groups, with more than five years of existence, as (Fundação Sistema Estadual de Análise de Dados – Seade, 2003b).

h) Existence of scout groups (ESCOT): presence of scout groups, according to the database available at Union of the Boy Scouts of Brazil (União dos Escoteiros do Brasil, 2003).

i) Existence of Masonry clubs ('Grande Oriente') (GOSP): presence of Masonry clubs in the cities, as personal communication with the institution.

j) Number of religious associations (CHURCHES): total of temples or religious organizations, as data of Brazil (2002).

k) Existence of Lions Club (LIONS): presence of Lions Club, according to the database available on the Lions Club website (2003).

l) Number of associative organizations politics (ORGPOL) and professionals (ORGPROF): existing organizations, as data of Brazil (2002).

m) Percentage of agricultural producers that are part of associations (PRODASOC), cooperatives (PRODCOOP) and unions of producers (PRODSIND): information based on Pino et al. (1997).

n) Existence of Rotary Club (ROTARY): according to personal information.

The variables used as proxies of civism represent on the existence of means of mass communication and the political participation of voters. These variables demonstrate the possibility of involvement with communitarian aspects of the municipality and the awareness political degree of people. These variables are:

a) Percentage of affiliated voters in political parties (AFILIAC): as data proceeding from personal communication with the Electoral Superior Court.

b) Existence of mass communication (JOURNAL and RADIO): considering the existence of local journal and local radios in the city, based on São Paulo data (2001).

c) Percentage of votes in political parties (VOTLEGEN) in the municipal elections for the councilman position: based on Electoral Superior Court data (2003).

Considering the impossibility of using a representative measure for trust, it is used, in contrast, an approach for the existing lack of trust in each city. The chosen variable is the number of police occurrences of larcenies (CRIMPATR), registered by Seade (2003a).

The central focus of this work is the perception of the existing relations between the supply of social capital and the development growth of São Paulo and for in such a way, one indicator is, the “Human Development Index” (“Índice de Desenvolvimento Humano Municipal Humano” – IDH-M). The IDH-M is calculated as the simple average of three attributes considered essential for personal development: access to financial resources; and education and health conditions. In this paper data came from United Nations Program for Development (Programa das Nações Unidas para o Desenvolvimento – PNUD, 2003), based on data of 2000.

Some information is not available for all the municipalities; some due to inexistence of answer and others suggest mistakes in comprehension, collection or typing. There was also carried through the detection of outliers. The criterion for univariate detection is the ± 4 standard deviations (in standardized variables), that resulted in 43 cities considered outliers. In order to detect outliers according to multivariate criteria, we analyze the distances of Mahalanobis ($D^2/\text{degrees of freedom}$), at significance level of 0,001, resulting in 27 discrepant cities. It is opted to only consider an outlier those cities identified according to both criteria. One also understands that in the set of outliers can be cities that present some peculiarity or proper characteristic, without representing, however, a statistical outlier. In this analysis were not included 9.76% of the total municipalities of São Paulo state and the others 582 cities (= 582 comments) were submitted to factor analysis.

3. The method of factorial analysis²

Factor analysis is a set of statistical methods of multivariate analysis, destined to reduction and summary of data. This methodology makes possible to understand the regularity and order of phenomena, adding several variables and determining ‘standards’ of occurrence between them. It still becomes possible the transformation of these variables, generally correlated between themselves, in a lesser number of variables not correlated called ‘factors’. Thus, the problems related to the multicollinearity between the variables finish, once the factors are linear combinations, however orthogonal, of the original variables.

The process of factor analysis makes possible to analyze a great number of data, understanding the inter-relations or correlations between the considered variables. This process generates a set of factors, more concrete, that are synthetic representations of the original set of variables. The factor analysis allows the election of a lesser number of

² More information regarding the process of factor analysis can be obtained on Hair et al. (1998), Malhotra (2001) and Sharma (1996).

variables that are more important for the understanding of the set of variables, in view of its relevance. On the other hand, this methodology becomes possible the synthesis of the original variables in a lesser number, in a way that the variables created keep the original characteristics of the previous ones or with the minimum loss of original information. It preserves the essential characteristics of the original variables, simplifying their understanding in subsequent calculations.

4. Results

In order to be submitted to the factor analysis, the variables to be adequate to it. Two procedures are used in such a way: the Bartlett test of sphericity and the measure of sampling adequacy of Kaiser-Meyer-Olkin (statistics KMO). The first tests the null hypothesis that the matrix of correlations does not present significant values for the correlations between the variables, based on a qui-square transformation of the determinant of correlation matrix (Malhotra, 2001); for the data considered in this work, the value obtained in this test is 3,492.5204, with 231 degrees of freedom, significant at 1% level. The second test compares the values of the coefficients of correlation (between each pair of variables) with the coefficients of partial correlation (considering its interference of the excessively changeable ones); in this research, the test KMO is 0.87548. Thus, based on these two tests we concluded that the factorial analysis is, in fact, an appropriate process to synthesize the representative variables of social capital in São Paulo state.

After the adequacy study of the data one must, according to Hair et al. (1998), determine a method of factor extraction; the used in this paper is called principal component analysis. It is recommended when we intend to extract the minimum number of factors responsible for the greater percentage of total variance of analyzed variables (Malhotra, 2001).

We extract the factors that can represent, in synthetic way, the total set of variables. The choice of the number of factors to be extracted on the basis of the method of principal component analysis does not follow rigid rules. Considering eigenvalues higher than the unit, six factors are extracted that explain 58.5% of the total variance of the variables; this criterion is considered “more adjusted, when the number of variables meets between 20 and 50” (Hair et al., 1998:103).

We choose the varimax process of orthogonal rotation, which objective is to generate factorial loadings that approach to the values -1 or +1 (representing high correlation, negative or positive, between the factor and the variable) or next to zero (meaning lack of correlation

between the factor and the variables), minimizing the number of variables with high loadings on one same factor. The results are shown in Table 1. Considering the quantity of municipalities analyzed in this paper (582), it is possible to consider factor loadings above 0.30 as indicative of relation between the factor and the variables (Hair et al., 1998:111-112).

The first factor (F1) answers for 25.4% of the total variance of the variables. They are positively related to the manifestations of associationism represented by the existence of samba groups, scout groups, Lions and Rotary and Masonry clubs. This factor also encloses the variable that represent the existence of radios and journals, considered manifestations of civism, as well as the percentage of votes in political parties. The variable that synthesizes trust, the number of larcenies, is also positively related to this first factor.

Table 1. Factor loadings matrix.

Variables/factors	F1	F2	F3	F4	F5	F6
CRIMPATR	0,69064	-0,20690	-0,02376	-0,08747	0,10754	-0,01646
ESCOLSAM	0,65324	-0,07543	-0,09026	-0,04904	0,03781	0,08584
ESCOT	0,73822	0,03254	0,00420	-0,12640	-0,01709	-0,10593
GOSP	0,64866	-0,25873	0,01755	0,02433	0,12904	-0,04271
JORNAL	0,52589	-0,45626	0,03669	0,09902	0,24551	-0,10923
LIONS	0,68025	-0,19390	0,13673	0,15489	0,11522	-0,10304
RADIO	0,52982	-0,30635	-0,04070	0,15443	0,23630	0,01512
ROTARY	0,58185	-0,35432	0,12747	0,16601	0,17860	-0,13893
VOTLEGEN	0,41868	-0,35547	-0,14189	-0,37424	-0,16920	-0,04449
AFILIAC	-0,30211	0,67762	-0,03208	-0,08381	-0,09695	0,08779
EDCONV	-0,18896	0,64085	0,03825	0,04295	-0,01705	0,12982
IGREJAS	0,07009	0,54027	0,01667	0,51368	-0,10158	-0,10981
ORGPOL	-0,34650	0,72609	0,00827	0,07599	-0,07653	0,09249
PRODASOC	0,00193	0,06855	0,85526	-0,08204	0,00346	0,03929
PRODCOOP	-0,18074	0,10449	0,77164	0,21443	0,16590	0,02285
PRODSIND	0,15746	-0,13339	0,76589	-0,00942	-0,00001	-0,00431
ASDESP	0,16248	-0,30711	0,07316	0,58868	-0,01697	0,23201
FILANTR	-0,07067	0,10806	-0,01187	0,75506	0,05111	-0,08872
COOPS	0,12787	-0,18682	0,07483	0,07346	0,75773	-0,00341
ORGPROF	0,23362	0,00720	0,05182	-0,05003	0,78246	0,00697
AGRUCULT	-0,01580	-0,00044	0,01476	0,04639	0,00168	0,84945
EQCULT	-0,14504	0,26942	0,03748	-0,05001	-0,00016	0,72009

The existence of any one of the five associative organizations positively related to this factor depends, eminently, on the reunion of a group of people: we can not have a samba group, nor scout group constituted by only one person. The decision regarding the participation in each one of these groups is not purely personal, but those who are part of it are considered 'members' of the association or tied to it in some way. It exists, therefore, certain duties or compromises, in different levels, concerning the participants in a Rotary or Lions or Masonry clubs, scout groups or samba groups. It is a positive characteristic of this factor the reunion of such different entities as the samba groups, Lions, Rotary and Masonry

clubs. In the last three ones, adhesion occurs by indication and depends on the approval of the current partners, even so it is excellent the role of these organizations for the sociability of their members and the support to the accomplishment of beneficent activities. In contrast, the existence and the participation in samba groups are less formal, and, are for São Paulo (2000, volume II:45) “one of the biggest signs of the national culture”.

F1 factor is also positively related to the existence of journals and radios. The presence of mass communication in the city is, according to Putnam (1993a), the remark of interest of the citizens in communitarian subjects. The existence of both Medias depends on the interest of the local population, readers and listeners, since a radio or journal does not exist without interlocutors. The two variables do not express, however, neither the amount, nor the quality, not even the hearing of radios, but only their presence. The simple existence of mass Medias is considered an advantage because it facilitates access to information.

Another component in this first factor is the variable that represents the votes in political parties in the municipal elections. The democratic right to choose the governors is considered one of the manifestations of the degree of civism of the citizens. Putnam (1993a:94) considers that the percentage of votes in political parties – and not in a specific candidate – represents an approach of the civism, once it demonstrates the interest of the voters for partisan ideals, instead of personal preferences in choosing their candidates. The vote in political parties is practiced by the minority of São Paulo voters, but the inclusion of the variable VOTLEGEN, becoming positively related to the other enclosed variables in this first factor, seems to confirm the hypotheses of Putnam (1993a) considering it as a virtue of civic regions.

The first factor also contains policy occurrences on larcenies. It is possible, then, that the civism and the associationism are occurring in municipalities where the lack of trust is not impeditive or, in contrast, occur despite of the lack of trust between people, either because they are already ‘accustomed to it’ or developed mechanisms of protection or prevention of dishonest or dangerous behaviors. It seems that the imperfections in public security are not intimidating or diminishing the potential of association or patriotism in the cities. On the other hand, this observation can be considered very negative, therefore, instead of congregating efforts to diminish the reliable lack, the residents in the São Paulo cities are finding substitute for it, by means of the individual protection.

The second factor (F2), responsible for 10.1% of the total variance, includes two variables related to the politics, both with positive signals: the affiliations to political parties and the number of political organizations. It is probable that the existence of political

organizations is influencing the participation of the voters of São Paulo cities: in those localities where we can find organizations and they in fact act, people can have more contact with the partisan ideals and be felt motivated to become affiliated they to it. Beyond the variables related to the political involvement of the voters, the factor also includes the number of facilities destined to the sociability and the number of churches per capita in São Paulo municipalities. In contrast of those enclosed in the first factor, in these associations it is not necessary 'affiliation' of their members: nobody is 'member' of a church, in the same way that one is associated with the Rotary or the Lions clubs.

In turn, the third factor (F3) responds for 6.8% of the total variance of the variables, involving those related to the percentage of agricultural producers affiliated to associations, cooperatives and unions. This factor synthesizes the adhesion to representative entities of a specific set of professionals – the agricultural producers. Although the economic purpose for the affiliation to a cooperative, association or union, it is noted the established confidence relation between the partners and among the partners and the members of the board. Thus, sometimes, more than financial profits, the cooperative or association has in its associates and the confidence deposited in the board the main asset for its survival. Putnam (1993a) does not exclude the cooperatives and associations in his analysis, once he treats them as 'horizontal' organizations, where the participants have the same political status. Concerning the unions, Putnam (1993a:106) alert that in those countries where the unions are obligatory, the affiliation to them is "essentially involuntary, and thus has little civic significance". In the specific case of agriculture producers the association to a is made voluntarily and that is why it was considered.

The fourth factor (F4) is responsible for 6.1% of the total variance of the variables and includes the philanthropic entities and the existing sporting associations. The two variables enclosed by this factor, in contrast with the previous one, are not directly related to the economic objectives. The existence of philanthropic entities demonstrates the will and the capacity of organization of the people, who works to materialize the desire to construct a philanthropic entity in social, health or education areas. These organizations are not as informal as the listed religious entities in the second factor. The establishment of these philanthropic institutions does not bring immediate economic advantage, however its existence can measure that in the city residents are concerned with the philanthropy and not only with individual problems. The entities destined to sports practices also facilitate interpersonal relationship between different people, without the objective of establishing economic bonds. According to São Paulo (2000, volume II:73), physical activities, either as

amateur or professionally “is one of the best forms to approach the people”. The existence, at least, of sports facilities can be a reasonable approach of the existing social capital in the city; because in such a way demonstrates initiatives of public and private sector to stimulate physical activities in groups.

Similar to the third, the fifth factor (F5), responsible for 5.3% of the total variance, is also directly related to the economic interests, since it congregates the variables related to the number of cooperatives and professional organizations. These two institutions represent the professionals of certain category, collaborating on the reinforcement of commercial and productive relations. As already commented, although it exists, in fact, direct economic advantage to the associates of a cooperative, is the confidence relations that make possible its survival in the long run. In the same way it occurs with the professional organizations: representation does not exist if there is not confidence between those who is part of them.

The sixth factor (F6), responsible for 4.8% of the total variance, includes the cultural facilities and the associations/cultural groups. Perhaps those municipalities that count on proper physical structures for the development of artistic or cultural activities can be opening space for the establishment of the groups. Putnam (1993a) stands out the importance of the cultural spaces in the development of the social capital. He still detaches the negative effect of the ‘privatization’ of the leisure, that is, individual leisure moments (as television or hearing music at home). This process causes a tendency in not developing the sociability. The reclusion at home isolates the families of sociability and, in this direction, Putnam acts as a lawyer for the entities that allow the interrelation between the individuals in cultural or sportive aspects. The participation in this kind of association develops the cooperation spirit, as well as the sense of common responsibility concerning the collective enterprises. The participation in choral, musical or folklore groups does not have the only objective of fame and financial success (although it can be a future consequence) but the personal satisfaction.

Defined the six factors that are indicate the existence of social capital in São Paulo, the following step is the calculation of factor scores (according to linear regression method), that is, the linear combinations of the indicative variables of each factor, attributed to each one of the 582 cities. The scores represent the six different manifestations of the social capital for each city. According to the objective of this paper it was conducted a regression analysis using stepwise method, once it allows the introduction of variables one by one, according to criteria of significance in F test (value 0,05 for entrance and 0,10 as maximum limit of significance for exit of variable).

The first adjusted regression uses as dependent variable the value of the IDH-M and as independent variables the six factorials scores calculated for the São Paulo municipalities. Table 2 synthesizes the results and the Table 3 the coefficients of the regression.

Table 2. Coefficients of multiple linear regression and test F – dependent variable: IDH-M.

Coefficient/ test	Valor
R multiple	0,67360
R ²	0,45374
R ² adjusted	0,44899
Standard error	0,02470
Test F	95,52315
Significance of test F	0,0000

Table 3. Coefficients of linear multiple regression – dependent variable: IDH-M.

Variable	Regression Coefficient	Beta	Test <i>t</i>
Constant	0,778104		759,256
F1	0,018633	0,559912	18,166
F4	0,007951	0,238940	7,752
F3	0,006173	0,185496	6,018
F5	0,005311	0,159583	5,178
F2	-0,005077	-0,152553	-4,949

Note: significance level of test *t* is 0.001 and the variables are presented according to order of entrance in the regression

Values presented in Tables 2 and 3 show that five of the six variables that represent the factors (or the factorials scores calculated for the 582 São Paulo cities) had presented the significance required in test F. In this regression are part factors F1, F4, F3 and F5, whose coefficients present the positive signal as waited and the F2 factor, that present negative coefficient of regression. Only the sixth factor, related to the number of institutions and cultural groupings, is not part of the regression adjusted for the IDH-M, because it surpasses the significance level.

Value obtained for the coefficients of determination (R²) and adjusted determination for degrees of freedom (adjusted R²) is 0.45374 and 0.44899, respectively. These values indicate that around 45% of the dispersion of values presented for the IDH-M is explained by the five variables that represent factorials scores. These coefficients are significant statistically. The values confirm the importance of the social capital in the explanation of the different development of the cities of São Paulo state.

5. Conclusions

The contribution of this paper is to certify the existence of positive relation between the variables that represent manifestations of social capital, in accordance with the proxies chosen, and those that synthesize the economic development in São Paulo state. These observations generate subsidies so that attitudes and activities that stimulate and strengthen the associationism, the civism and the trust, are carried through in municipal or regional levels.

It is necessary, however, to present the limitations of this research, with the additional objective to motivate the accomplishment of future works. When opting to analyze municipal data, this research counts on practical difficulties, because it needed databases similar to a census – that could reach the total of cities. Such fact makes that the variables are analyzed in quantitative terms, since it is impracticable the qualitative analysis of social capital manifestations in all São Paulo cities. That is why the three assumptions early described were needed: effective participation of the townspeople occurs in the associative and civic organizations; existence of any associative or civic manifestation is considered better than its nonexistence; and that the biggest the association, civic and trust manifestations better will be the city. Although these hypotheses are not equivalents to a qualitative analysis, they are considered as substitute.

Perhaps the main limit of these conclusions is concerned about the ‘standby’ character of this research. It concluded the existence of positive relation between social capital and economic development, without any possible explanation about the origins or the behavior of these elements throughout the time. It can be evidenced that, on the basis of the variables used in the research, there is a relationship between social capital and development. Nothing more can be concluded, neither the relation of causality between these aspects – if the social capital precedes the growth development or is a consequence of it.

It is justified, however, this analysis of development because of the relative immobility of social capital. In the short run, the evolution of the variables that represent social capital do not have significant alterations. Even though Putnam (1993a) stands out that in the construction of institutions time is measured in decades and in developing rules of reciprocity and systems of civic participation the process is even more delayed. Perhaps, the comparison of social capital over time can be harmed by the proper nature of the chosen variables to represent it. This observation, however, does not take off the relevance in analyzing the role of the social capital throughout the time

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