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Globalization and Latin America's 'Digital Gap': The Andean Community of Nations (CAN)

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ABSTRACT

The Andean Community of Nations (CAN) and others countries in Latin America (LA) as any less developed countries (LDCs), are located by inception, on the wrong side of the 'digital gap'. Therefore, these countries confront an enormous challenge from the network revolution which is unfolding. Globalization represents a new paradigm composed of integrated and interdependent economies. The Globalization Index (GI) determines the rank of the countries within the model. This Index is composed of several variables in which economic integration, and technology, among others, plays a very important role in countries' classifications. Currently a diminishing trend of FDIs is preponderant in the region and this affects the knowledge-based society, and also the efforts to make these countries members of the new paradigm Globalization.

INTRODUCTION

[3], stated that globalization is the tendency of firms to augment their sales, ownership, and manufacturing facilities to new markets located abroad. The research literature is consistent with the definition of globalization. Among others [5] agreed that the term globalization refers to a new paradigm in which the world economy is more integrated and interdependent. The corollary is that the world is becoming more homogeneous and the borders, political and geographic, are fading out [2]. Therefore, this integration demands new methodologies and mechanisms to allow countries to perform their new roles within this emerging framework. A preponderant element in this new array is the convergence of computer-base power and telecommunications. These parameters are inter-related to computing infrastructure, new communication technology and governmental policies that will make the old telecommunication model, a monopoly, obsolete, and therefore, a new paradigm will evolve that makes this technology accessible to everyone through a new system that promote and encourages competition within the private sector [13]. Also, convergence is taking place with computing and telecommunication demonstrates the importance of the development of this sector and the socioeconomic impact on the economic perspective, and to the stimulus of economic growth [11].

[6], classified countries using a Globalization Index (GI), the latter determines the rank of the country as more global country. Sixty-two countries that represent 85 percent of the world's population compose the sample used. The Index is epitomized by 13 variables grouped in four baskets: 1) economic integration, 2) personal contact, 3) technology, and 4) political engagement. Economic integration is represented by trade, foreign direct investments (FDIs) and portfolio capital flows, and income payments and receipts. Personal contact consists of international travel and tourism, international telephone traffic, and cross-border transfers. Technology is characterized by number of Internet users, Internet hosts, and secure servers, and political engagement by number of memberships in international organizations, U.N. Security Council missions in which each country participates, and the quantity of foreign embassies hosted by the countries. The ranking for the year 2003, shows Ireland as number one, Switzerland number two, and the United States as eleventh. Ireland has large investments in high-tech, and information technology. Its Internet infrastructure still is growing, and the number of secure servers has increased from 337 to 500 in 2002. Also it has been the most talkative country in the world that included a heavy domestic and international traffic. The above is unequivocal proof of the high correlation that exists between technology, a parameter of the new paradigm, and access to new markets that will be the corner stone of globalization.

According to [6], one variable is economic integration, in Latin America (LA) and the Caribbean economic integration is extant. Numerous regional and multilateral agreements are present such as: The Andean Community of Nations (CAN) composed of: Bolivia, Ecuador, Colombia, Peru, and Venezuela. MERCOSUR: Brazil, Paraguay, Uruguay, and Argentina. The Group of Three (3): Colombia, Mexico, and Venezuela, and the CARICOM, composed by English speaking countries (Islands) within the Caribbean Basin [15]. [8], stated that from the economic perspective the outcome is trade and, therefore stimulus to economic growth. Foreign direct investments (FDIs) can greatly contribute to a host country's economy providing the required factors of production above are present, making the countries more competitive within the globalization framework. [16] Emphasized that the most important occurrence in the location of the FDIs is the support or impediment exercised by the institutions in the host country.

Another important factor within the GI is technology characterized among other parameters by Internet users, and Internet Hosts. In LA the growth rate of the Internet has been the highest in the world, and the number of users has increased 14 fold within the 1995 to 1999 period [20]. The literature defines Teledensity as the number of main telephone lines for every 100 inhabitants, excluding wireless access. This term is also used as a parameter to measure the level of telecommunication infrastructure of any country. A review of the literature also shows the existence of high correlation between Teledensity and economic development, and a negative one between Teledensity and population size has been found [7].

Purpose of the Paper

Globalization is a new paradigm within the world's economies. The less developed countries (LDCs) such as in LA, the Andean Community of Nations (CAN) are marginal to such model as a consequence of the "digital gap". The quest of the paper is to demonstrate some of the variables that compose the GI that negatively would affect this geographical region to acquire the necessary rank within the paradigm framework to be considered a global country.

BACKGROUND

Based on [6] GI the four main realms will be analyzed: economic integration, personal contact, technology, and political engagement, and within them the variables that compose them. Technology and FDIs represent the primary factors, because both are interrelated, and have high correlation with computer base power and telecommunication convergence. Economic integration is extant in LA and the Caribbean Basin, not only under the model of regional agreements, but also as multilateral ones. By the year 2000, LA's regional agreements CAN and MERCOSUR, without considering other regional pacts with Chile have a potential market of 310 million consumers [17]. Chile's contribution alone is 15.2 million potential customers. The latter represents a very

large concentration of population very well suited to be penetrated and to be converted in a market expansion. [12], stated that under the scheme of regional integration, theoretically, an unrestricted no trade tariff or barriers to a high flow of goods, services, and investment among the countries will be originated. From the economic perspective, the outcome is greater comparative advantage to the countries and, consequently, stimulus to economic growth. Also a high correlation exists between economic growth and the demand for capital, technology, and management resources. In the telecommunications domain the development of new technologies have performed a critical role in the process. Cellular phones and cable television are, among others, new technologies imbedded in the new paradigm. As a result more people are interconnected and better informed. In Venezuela and Paraguay there are more cell phones than conventional ones [20]. The privatization of the communication industry within the telephony sub-sector in LA has increased the parameters that reflect Teledensity. Therefore the domestic and international telephone traffic has grown accordingly. [9], stated that the privatization and deregulation of the communication sector act as an incentive to bring to the LDCs foreign direct investments that not only provide the financing required to develop the industry, but also provide the know-how embedded therein. It is critical to accentuate the fact that to attract these investments a well-defined legal and political framework must be in place. The only way that these countries located on the wrong side of the 'digital gap' could be evolved within the technology environment rests on foreign sources of funding. At the same time, the developed countries (DCs) could augment and/or expand their markets investing their financial resources and technology in LA [9].

The flow of information has been present as an integral part of activities related to production, trade, and investments, among others. Therefore, historically a strong correlation exists among economic and networking development. Also the latter plays a very important role in the development of modern social and institutional structures [21].

The amount of investments in projects to be developed by MNEs during the next 5 years in LA and the Caribbean that was announced between January 2001 and April 2002 is $31.896 billion. The services sector takes 80% of the total, the oil and gas 15.7%, and the manufacturing sector 4.3% [19]. Regarding the European Union (EU), the amount of FDIs toward LA has increased from $1.6 billion in the quinquennial 1990-95 to $19.5 billion in 1996-99. Also LA captured 13.5% FDIs outside of the EU, and 6.5% of the ones generated in the EU [19].

Another variable in the GI is political engagement; the countries that composed the region are members of all international organizations and maintain political and commercial relationship with all the countries of the globe. It is necessary emphasize the fact that recently presidential elections have brought to the governments a cadre of leadership that is inclined to the left and considers privatization and liberalization primordial components of a new socio-political and economical model called 'neo-liberalism'. The leadership thinks that the model will only benefit the DCs, the same way that Globalization does. These political issues have generated a diatribe of opinions, and unstable political climate no conducive to the attraction of foraneus investments.

During the year 2001, the flow of FDIs toward CAN has diminished considerably, and there are no signs of improvement for the year 2002 (Table1, Charts 1 & 2). This is not only applicable to new investments but also to mergers and acquisitions. The receding of FDIs is attached to the end of economic reforms especially the privatization of State enterprises in the realm of energy and basic services, and there is also the relevance of China's attraction to FDIs as a powerful incentive to the redirection of them [19].

DISCUSSION

The year 2001shows almost no privatization, acquisitions and mergers were reduced to a minimum due to the fact that only a few large entities remain within the State ownership, especially in the hydrocarbon sector in CAN's country members such as Colombia and Venezuela. Within the telecommunication sector, the most important one concerning this discussion are the new concessions in the wireless sub-sector of Venezuela. Telecom Italia Mobile (TIM) with presence in Bolivia, Venezuela, and Peru, among other LA countries, will invest another $200 million in Peru to reach one half billion dollars in the wireless telecommunication sector [1]. Also the economic growth in the LA countries is almost nil due to a regional financial crisis, the poor performance of the LA countries' currency, and the political instability generated by the "lefties" and populist governments of the region. As proof, the second quarterly reports of the Spaniards banks: Santander Central Hispano, and Banco Bilbao Vizcaya Argentia (BBVA) for the year 2002 will be affected greatly. LA provides between one-fifth, and one-half of the income of these banks [4].

In 1998, only 1 percent of the population of LA and the Caribbean were connected to the Internet. It is necessary to emphasize the fact that the region has shown the most rapid growth in the world. Today due to FDIs, and the implementation of policies that attract them, 84 percent of the telecommunication infrastructure is digital and completely automatic. Within the wireless sector, the first quarter of 2001, 70 million subscribers existed. E-commerce usage in the region is less than one fifth of subscribers of the Internet that is still at incipient levels [18]. There is also a high correlation between Internet connectivity and the Gross Domestic Product (GDP) of countries, but governments of LDCs should be responsible for the utilization of their political power to create the necessary mechanisms so the mass population will be able to have access to the benefits provided by technology, and, consequently be constituents of the knowledge-based society [10].

The flow of FDIs has contributed in an almost incommensurate manner to the economic growth and development of the member countries of the CAN not only in the realm in which they were invested but, as a sequel in the regional economy as a whole. The GDP index is affected due to the fact that the positive effects of FDIs are present in diverse elements of production. Emphasis should be placed on the high correlation between Teledensity and GDP, among others, indexes stated in the research literature [14]. The caveat resides in some factors that should be present for the FDIs to work; political stability, improvement in education and developing of the human resources with the managerial skills necessary to perform their function, macroeconomic stability, liberalized trade regimes and the political and legal framework required to attract foraneus investments [10].

Table 1 and Chart 2 depict the growth rate of FDIs into the CAN. Year 1997 shows the highest amount of FDIs $12938 million (Chart 1) with a rate of growth equal to 0.49, after this peak, the trend becomes negative. The latter depicts large disinvestments caused by, among other factors, the ones described above as the caveat. The consequence of this trend is a diminishing of the GDP and Teledensity that will affect interconnectivity especially in a region of scarce economical resources. Another negative factor is the lack of critical mass necessary to accelerate the process of access to the 'net'. All this plays an important role against convergence, which is a relevant parameter in the knowledge-society [14].

Table 2, shows the rate of connectivity in member countries of the CAN during the period 1995 to 2000. The numbers are based on Internet Hosts per 10,00 inhabitants and using as reference a world benchmark (WBM). During the year 1995, all of the country members were at low-level. By the year 2000 only two countries Colombia and Venezuela move to the median position, the others Bolivia, Ecuador, and Peru remain at low-level in comparison to the world countries. As Table 2 depicts, only Venezuela moves from below WBM to expected value based in GDP income per capita. At year 2000, the growth rate of FDIs is still positive after that the data declines to a negative position (Table 1 and Chart 2). The lack of external source of funding will affect economic development and growth. As a corollary, the knowledge-based society will come to a phase of stagnation [14].

The consequences of the stagnation regarding the knowledge-based society in LCDs countries such as the CAN will widen the 'digital gap', and prevent the latter to conform the variables that compose the Global Index. Therefore LDCs will not be participants in the new paradigm globalization in which telecommunication convergence plays the most important role.

CONCLUSIONS

The GI [6], ranks only three of the five countries that composed the CAN: Colombia is ranked 55, followed by Peru 59 and Venezuela 60. Ecuador and Bolivia do not have any rank. It is necessary to mention that the first ranking position belongs to Ireland, the last one, 62, to Iran. Switzerland is ranked number 2 and the United States is ranked as 11. To establish a comparison among the countries mentioned above, some of the variables such as: rank (A), economic integration (B), technology (D), telephone (K), Internet users M), and Internet Hosts (N) will be used.

	A	B	D	K	M	N
Ireland	1	1*	16	1*	24	16
Switzerland	2	5*	7*	2*	11	10*
United States	11	50	1*	16	4*	4*
Colombia	55	48	44	28	45	41
Peru	59	55	31	30	37	44
Venezuela	60	52	37	28	37	44

* top 10 in the category

Venezuela ranked last of all the LA countries, its dropped from 57th to 60th place. The country's decline in 2001 was due to the temporary drop in oil prices and the FDIs plummeted. One positive aspect is the fact that in LA the number of wireless telecommunication subscribers grew 33 percent (more than 86 million people) in 2001, or double the world growth rate [6].

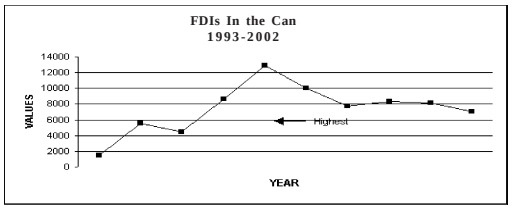
The aforementioned demonstrate the difficulties for countries located at the wrong side of the digital gap such as the country members of CAN to be participants in the new paradigm of globalization. Unless the DC implement, in conjunction with international organizations, i.e., the United Nations (UN), supranational policies to create the environment necessary for the LDCs to be in compliance with the parameters that would qualify them as global countries, the LDCs will continue to be unable to participate fully and develop their economies to the full extent. The research literature states that the negative effects caused by not being global will exponentially condemn these countries to continue to exist sub-optimally.

Table 1. Fdis In The Can

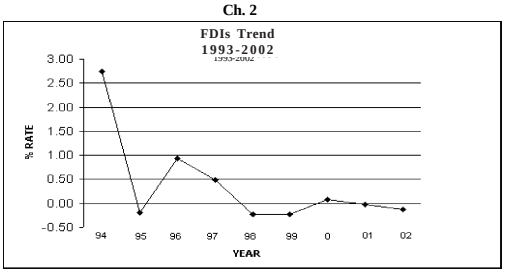
(million $) - Source: CEPAL

	93	94	95	96	97	98	99	2000	2001	2002
BOLIVIA	125	147	391	472	728	952	983	693	647	721
COLOMBIA	719	1298	712	2784	4753	2032	1336	1905	2386	1864
ECUADOR	474	576	452	500	724	870	648	720	1330	1335
PERU	687	3108	2048	3242	1697	1880	1969	662	1063	1943
VENEZUELA	-514	455	894	1676	5036	4262	2789	4357	2684	1200
	1491	5584	4497	8674	12938	9996	7725	8337	8110	7063
GROWTH RATE		2.75	-0.19	0.93	0.49	-0.23	-0.23	0.08	-0.03	-0.13
TOTAL FDIs (million $)	***1491***	***5584***	***4497***	***8674***	***12938***	***9996***	***7725***	***8337***	***8110***	***7063***

Ch. 1



Ch. 2



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