



## EMNCS – LESSONS ON THE WAY TO AN INNOVATION-BASED DEVELOPMENT. SETTING THE BACKGROUNDS

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### **Abstract:**

*The main focus of (the two parts of) this article is on the emerging countries and their development paths. Particularly, it emphasizes on the role and contribution of innovation (of all kinds, in all its forms) for multinational companies from emerging economies (EMNC); the entire research endeavor is placed under the auspices of the knowledge-based society – the one that makes knowledge the ultimate source of power, enabling entities to use and potentially multiply it at the same time at global scale. Analyzing the situation of some emerging economies (starting from their best ranked multinationals), the article draws some empirical and theoretical conclusions on the ways knowledge and innovation could become determinants of progress beyond national boundaries.*

**Key words:** EMNC, Competitiveness, FDI, Innovation, NICI

### **1. Introduction The new economic geography of globalization – the changing context of EMNCs**

Development and competitiveness represent two major concerns for the strategic decision-makers at any level. The new features and tendencies that nowadays dominate the global economy, together with the tremendous diversity of the global players and the myriads of interconnections that condition their evolution force them to broaden the perspectives and be innovative, in order to succeed.

Additionally, the emerging economies and their multinational companies face a whole (new/different) plethora of challenges of their own. But the biggest threats for them could become their greatest opportunities, because by leveraging their intellectual capital – broadly defined by Stewart (1999) as knowledge asset which is able to be used to create wealth – through unique, idiosyncratic and synergistic strategies – they could both become (globally) competitive and develop in the same time. And this seems to be a lesson that the global winners (both countries and companies) of the nowadays' "global race" for competitiveness and development have properly learned and successfully applied.

The (economic) world is (indubitable and irreversible) dramatically and rapidly changing nowadays; this is a truism. But the motivators of this change, the impact and consequences of these changes, or the new configurations and rules that are about to shape are anything but trivial under these circumstances characterized by extraordinary complexity and intense volatility. The ***new economic geography of globalization*** reveals some changes and tendencies that all the actors of the global scene must be aware of, properly analyze and optimally integrate into their decisions in order to succeed (in terms of competitiveness and development).

Dunning (2006), the reputable specialist in international business, has captured the main features of the process – defined by him as ***20/21 globalization*** – in order to differentiate it from the previous forms (Table 1).

**Table 1. Some key features of 20/21 globalization**

|  |
|--|
| Market liberalization  |
| <ul style="list-style-type: none"> <li>- As affecting transition economies (and (some) developing economies)</li> <li>- As affecting all economies</li> </ul>  |
| Technological advances   |
| <ul style="list-style-type: none"> <li>- Transport and communications (leading to increased speed, lower cost, improved quality)</li> <li>- Other</li> </ul>   |
| Ideological changes (cf. pre-1980 period)  |
| <ul style="list-style-type: none"> <li>- Reconfiguration of (dominating) belief systems and mindsets of several societies</li> <li>- A more intensive focus on the human (cf. the physical) environment</li> </ul> |
| Relative growth of alliance capitalism and network relationships   |
| <ul style="list-style-type: none"> <li>- Intra firm</li> <li>- Inter firm</li> <li>- Inter-organization (e.g. between governments, NGOs and firms, etc.)</li> </ul>  |
| Learning experiences / trajectories of past  |
| Emergence and growth of new players on world economic stage (especially China and India)   |
| New importance attached to the institutional structure of societies as a determinant of economic success   |

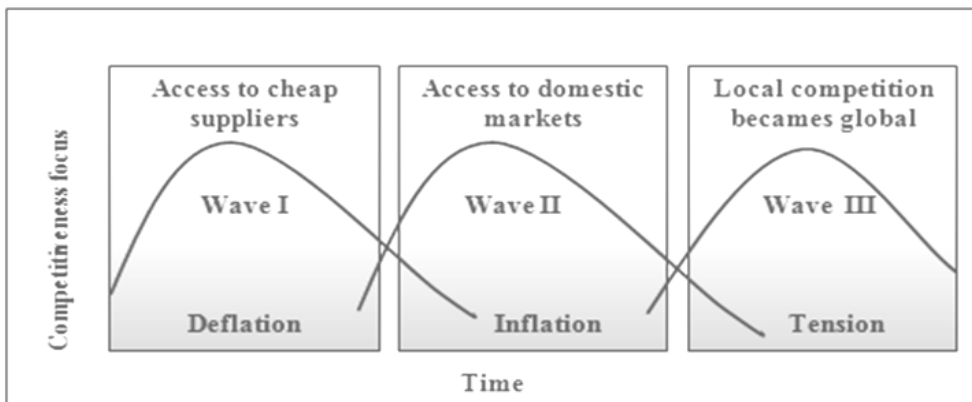
(Source: Dunning, 2006)

Some already define this new phase as ***globality***, which “*is not a new and different term for globalization, it’s the name for a new and different global reality in which we’ll all be competing with everyone, from everywhere, for everything. (... That’s because...)* Today we look forward and see a new era emerging. We call it *globality*, a different kind of environment, in which business flows in every direction. Companies have no centres. The idea of foreignness is foreign. (...) Western business orthodoxy

*entwines with eastern business philosophy and creates a whole new mind-set that embraces profit and competition as well as sustainability and collaboration” (Sirkin, H.L., Hemerling, J.W., Bhattacharya, A.K., 2008).*

The same idea (slightly extrapolated in terms of time) is differently expressed by Garelli (2008), who captured the changes by emphasizing on the idea of waves – able to shape a new riverbed for the global economy. His hypothesis is that the foundations of the global economy – placed, until recently, on the well-known Triad (USA, Europe, and Japan) are nowadays much diluted and so money, work, the mind power and technologies can be accessed by almost anywhere on the globe. The three waves of globalization that Garelli has identified (Figure 1) are accompanied by three different determinants and types of competitiveness: *“In an early stage, global companies entered emerging markets mainly to lower their costs of supplies. Today, their roles are shifting and they are key players in the development of emerging nations, which are eager to build their infrastructure and develop their domestic consumption. But tomorrow, global companies will have to compete with the home-grown companies and brands that are being born and bred in today’s emerging nations. Emerging markets are becoming emerging powers. The partners of today will become the challengers of tomorrow” (Garelli, 2008).*

**Figure 1. The three waves in globalization and competitiveness**



(Source: Garelli, 2008)

The **changing patterns of the global economy** (Ogrea and Herciu, 2010.a) are quite obvious, if taking a look (Table 2) at the figures revealed by CEBR World Economic League Tables for 2014 and (at their projections for) 2024 (CEBR, 2014). Although the “Top 3” looks the same, the differences as concern the estimations on the GDP growth reveal significant discrepancies: while US’s GDP is estimated to raise by 155.17% between 2014 and 2024, China’s GDP is estimated to raise by 266.99% and Japan’s GDP is estimated to raise by 115.16% in the same period of time. As regards the next seven positions of the “Top 10”, the dynamics are even more spectacular: CEBR forecasts a raise by 266.18% of the India’s GDP, by 175.94% of

the Brazil's GDP and by 145.75% of the Russia's GDP. On the other hand, CEBR bets on the following "Top 10" of world economic league for 2029: China, US, India, Japan, Brazil, Germany, UK, Korea, France, Russia – which seems to validate all the above mentioned forecasts.

**Table 2. CEBR World Economic League Tables for 2014 and 2024**

| 2014 |                |        | 2024 |                |        |
|------|----------------|--------|------|----------------|--------|
| Rank | Country        | GDP    | Rank | Country        | GDP    |
| 1    | United States  | 17,528 | 1    | United States  | 27,199 |
| 2    | China          | 10,028 | 2    | China          | 26,774 |
| 3    | Japan          | 4,846  | 3    | Japan          | 5,581  |
| 4    | Germany        | 3,794  | 4    | India          | 5,313  |
| 5    | United Kingdom | 2,828  | 5    | Germany        | 3,953  |
| 6    | France         | 2,827  | 6    | Brazil         | 3,899  |
| 7    | Brazil         | 2,216  | 7    | United Kingdom | 3,645  |
| 8    | Italy          | 2,127  | 8    | France         | 3,039  |
| 9    | India          | 1,996  | 9    | Russia         | 2,816  |
| 10   | Russia         | 1,932  | 10   | Korea          | 2,564  |

(Source: <http://www.cebr.com/reports/world-economic-league-table-2015/>)

From all the features that were just revealed, the main focus of this article is on the **emerging countries and their development paths** – emphasizing on the role and contribution of **innovation** (of all kinds, in all its forms) for **multinational companies from emerging economies**; the general context is given and the approaching framework is offered by the **knowledge-based society** – the one that makes knowledge the ultimate source of power, enabling entities to use and potentially multiply it at the same time at global scale.

Among the emerging countries, **BRICs** have emerged as a group of particular interest – due to their development paths; there is more than a decade since Jim O'Neill has first introduced to us the BRIC countries – Brazil, Russia, India and China (O'Neill, 2001). Starting by emphasizing the 20 leading economies in the world relative to the year 2000 (United States, China, Japan, India, Germany, France, UK, Italy, Brazil, Russia, Canada, Mexico, Spain, Korea, Indonesia, Australia, Taiwan, Turkey, Thailand, Netherlands), he argued that a new approach has to emerge when talking about the world economy, based on some major shifts which has took place lately and will also occur into the near future, changing radically the whole economic picture. Goldman Sachs has also developed a first long-time scenario which has become a referral in this field: *Dreaming With BRICs: The Path to 2050* (Wilson and Purushothaman, 2003). Here, *The largest economies in 2050* were forecasted to be:

China on the 1<sup>st</sup> position, USA on the 2<sup>nd</sup>, India on the 3<sup>rd</sup>, followed by: Japan, Brazil, Russia, UK, Germany, France and Italy.

But who are these countries and why are they important? *“The BRICs matter because of their economic weight. They are the four largest economies outside the OECD (Organization for Economic Co-operation and Development, the rich man's club). They are the only developing economies with annual GDPs of over \$1 trillion”* (The Economist, 2010). Into a study developed a few years ago for the European Commission, it was set that *“the BRICs’ common features include large territory and population, low income levels but also fast economic growth resulting in the emergence of a prosperous local middle class. (...) Beyond their common features the individual BRIC countries are rather heterogeneous, posing quite different challenges and calling for specific policy responses on the side of their partners”* (Havlik et al., 2010).

One of the most visible contributions of the **emerging countries** to the global economy is their presence – through the **multinational companies** originate within them – into **global rankings** made by prestigious institutions and/or publications such as UNCTAD (Top 100 non-financial transnational corporations, Top 100 non-financial transnational corporations from developing and transition economies), Forbes (Forbes Global 2000), Fortune (Fortune Global 500) or Boston Consulting Group (BCG Global Challengers).

Since their first announcement in 2001, the evolution of BRIC countries was, indeed, extraordinary, but their potential future decline would be much more dramatic in effects as long as *“emerging-market countries provided the dynamic growth engine to drive the world economic expansion in the past decade. In 2000, the BRIC's share of global GDP was 8%; by 2010 this share increased to 25%. A significant portion of the world's GDP growth during that decade was fuelled by the BRICs. This suggests that a BRIC slowdown now will be more detrimental to the world economy than it would have been in the not so distant past”* (Azzarello and Putnam, 2012).

The economic theory in the area of international business offers a possible solution in order for this situation not to happen – the **new development paradigm (NDP)**. But also it requires a new kind of practical approach – of the **investment development path (IDP)** – capable to assimilate and internalize the above mentioned shifts and tendencies that take place within the new economic geography of globalization – in order to integrate them into appropriate strategies for development and competitiveness.

## **2. NDP and IDP – basic theories explaining the current evolutions while predicting new ones**

The **new development paradigm** appears to be the most appropriate answer to the challenges that the globalization process rises nowadays. In order to identify the implications of the new development paradigm on the determinants of international business, Dunning (2006) emphasized on what he identified to be the limits of the old

development paradigm: “*The key propositions of the old paradigm of development (OPD) were based on the underlying premise that, as a group, the goals and characteristics of the developing countries were fundamentally similar to those of developed countries except that the former were in an earlier stage of their development process! Furthermore, it was believed that the best way to advance the material living standards of the poorer countries – usually proxied by gross national product (GNP) per head – was for them to replicate the institutions and economic policies of the wealthier nations, which, it was assumed, had helped the latter to grow and prosper in the first place*” (Dunning, 2006).

But the foundations of the new paradigm, as Dunning conceptualizes it, rely on the fact that *globalization*, as it is today, has brought with it some major changes that require the rethinking of the entire economic theory that was dominant until recently.

According to Dunning (2006), within the framework of the new development paradigm: the *objectives of development* “*are likely to be multifaceted and context specific. In addition, they need to be viewed dynamically (viz. over time), and to embrace the (alternative) processes, policies and strategies by which development is achieved*”. On the other hand, the *determinants of development* “*will be dependent, first, on the resources (R), capabilities (C) and market opportunities (M) created, accessed or utilized by the main wealth creating organizations in society.*” As Dunning has emphasized, most of the ODP researchers limited their perspective on development here. But, in addition to this value chain, “*careful and explicit attention needs to be given to the quality, content and origin of institutions, and the instruments and mechanisms by which they are initiated and enforced*” (Dunning, 2006).

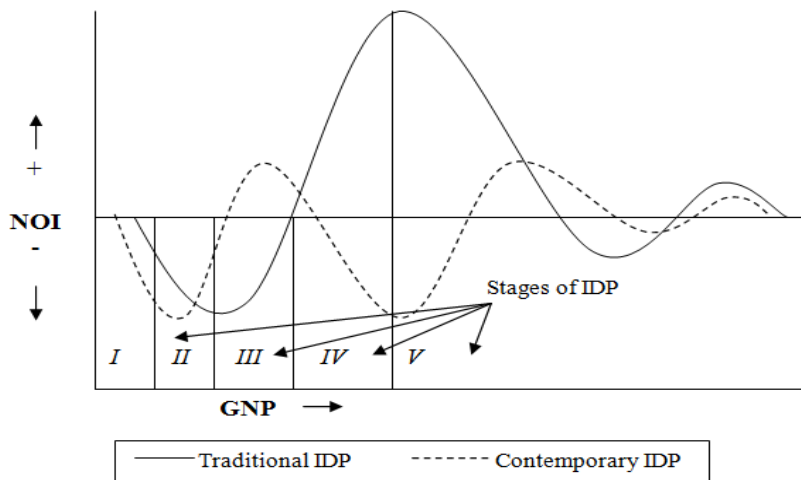
Thus, the multiplying of the referential framework make the approaches much more difficult, but in the same time it offers new perspectives on a country's and/or company's way towards development, as premises for correct results, that are much more adapted to the new realities and perspectives of the global economic world. **Innovation**, the generic source of competitive advantage and competitiveness – at all levels, in all of its forms and by all of its determinants – must be increasingly recognized as a crucial incentive for development within the knowledge-based society of nowadays.

The new paradigm of development opens the door to the Narula and Dunning (2009) theoretical model known as the **investment development path** (IDP). This model (Figure 2) envisages the contributions of MNCs to (economic) development and captures different changes regarding MNCs: the nature of MNCs and their subsidiaries, the ways that MNCs have interacted between them and to other actors of the global scene; in the same time, a lot of changes occurred regarding the influence of MNCs on economic development – especially of the emerging countries. Probably the most critical issue affecting IDP according to the two authors was that each country follows its own and unique investment development path, and the phases that it goes through the IDP are, at their turn, unique and specific.

The categorical conclusion of the IDP was emphasized as follows: “*the link between MNEs and development is an indirect one: Where inward MNE activity results*

in positive externalities, and when domestic firms have the capacity to usefully internalize these externalities, and if the non-firm sector supports domestic capacity building, there will be industrial development. The alleged growth of outward MNE activity from developing countries also raises similar concerns: outward MNE activity does not necessarily imply reverse knowledge transfer between (or indeed systematic links with) the foreign operations and the home country, or indeed that these knowledge flows will have a non-negligible effect on the home country.” (Narula and Dunning, 2009).

Figure 2. The Investment Development Path (IDP)



Not drawn to scale; for illustrative purpose only

NOI = net outward investment

(Source: Narula and Dunning, 2009, <http://www.merit.unu.edu>)

The detailed framework that Narula and Dunning (2009) have developed illustrates the temporal dynamics between MNCs and development by offering a suggestive image on the spillover effects that the two dimensions of the analyzed binomial (MNCs and development) generate on each other. Table 3 captures the most relevant dimensions that characterize IDP and are of interest for this article: the **balance of inward and outward FDI**, the **characteristics of outward MNCs activity**, the **O advantages of firms** (from the OLI Dunning’s eclectic paradigm), and the **preferred modality of international business (IB) activity**.

Table 3. Stages of the IDP

|  | <i>Stage I<br/>Natural<br/>resource<br/>based</i>                          | <i>Stage II<br/>Investment driven</i>  | <i>Stage III<br/>Innovation driven</i>  | <i>Stage IV and V<br/>Increasing knowledge<br/>and service intensity;<br/>knowledge economy</i>  |
|--|--|--|---|--|
| <i>Balance of<br/>inward and<br/>outward FDI</i>       | Little IFDI and negligible OFDI; low intra-industry trade and investment   | Increasing IFDI and limited OFDI; low intra-industry investment, increasing intra-industry trade   | OFDI increasing faster than IFDI; increasing intra-industry trade and investment  | Substantial I and O; O often exceeds I; substantial intra-industry trade and investment; balance between I and O fluctuates: around net zero or positive level of in/outward FDI   |
| <i>Characteristics<br/>of outward MNE<br/>activity</i> | No outward FDI – strategic investments and capital flight.                 | Little outward FDI. Mainly Resource- and market-seeking investment in other developing countries; some 'escape' investment to developed countries; mostly regional greenfield investment; natural resource investment; light manufacturing employing established technologies. | Growing outward FDI; All kinds of investment including efficiencyseeking and some asset augmenting investment; mass-produced differentiated consumer goods, e.g. electrical products, clothing; more service investment, e.g. construction, banking | Increasingly efficiency-seeking and asset-augmenting investment; regional and global; more M&As and alliances; investment in knowledge-intensive sectors, e.g. ICT, biotechnology, and high value-added services, e.g. consultancy; restructuring of global value chains |
| <i>O advantages of<br/>firms</i>                       | Few domestic firms with O-adv.   | Ability to produce low-cost, standardised products, or those based on natural resources of home country  | Strong domestic industries; Ability to differentiate products and/or adapt to local consumer tastes; some limited product and process innovation  | Strong created-asset O-adv. of domestic firms; Substantial Oa + Ot; increasing importance of Oi; coordination of the internal and external network of the MNE; importance of open innovation   |
| <i>Preferred<br/>modality of IB<br/>activity</i>       | Imperfect markets and peripheral nature imply either trade or FDI linkages | Tendency for firms to prefer more equity ownership to protect proprietary knowledge and to control markets, and more licensing activity  | Increasing use of cooperative and/or contractual relationships to manage the external network of the MNE; focus on 'core competence' with extensive use of outsourcing  |  |

(Source: adapted from Narula and Dunning, 2009, <http://www.merit.unu.edu>)

### 3. From development to competitiveness – on knowledge and innovation bases

Generally speaking, there are a lot of interdependencies between **globalization, development and competitiveness**: while globalization is the general framework, the ever changing context of „doing businesses”, the search for (global) competitiveness has become a *sine qua non* for the even survive of companies, on one hand, and for the development of countries, on the other hand (Ogrea and Herciu, 2010.b).

The World Economic Forum (WEF) is widely recognized to represent a significant milestone on the map of interests regarding **development** and the



determinants of **competitiveness** at global scale. It annually develops and releases a *Global Competitiveness Report* – that ranks countries and their competitiveness based on a composite index of development (through the *Global Competitiveness Index GCI*).

According to the WEF, GCI is a composite indicator based on 12 pillars. It conventionally assigns higher relative weights to those pillars of competitiveness that are more relevant for an economy within a certain stage of development. That means that, although all the 12 pillars of competitiveness count to a certain level – for every country and every stage of development – the relative weight of each one depends on the stage of development that defines a country on a certain moment. In order to put this concept into practice, WEF has grouped the 12 pillars of competitiveness into 3 sub-indexes, each of them being critical for a certain stage of development: *basic requirements subindex* (institutions, infrastructure, macroeconomic environment, health and primary education) – key for **factor-driven economies**; *efficiency enhancers subindex* (higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size) – key for **efficiency-driven economies**; *innovation and sophistication factors subindex* (business sophistication, innovation) – key for **innovation-driven economies**.

The interrelations between *competitiveness and development* (Table 4) are explained by WEF as follows (WEF, 2012): „*In line with the economic theory of stages of development, the GCI assumes that economies in the first stage are mainly **factor-driven** and compete based on their factor endowments – primarily low-skilled labor and natural resources. Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the **efficiency-driven** stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. Finally, as countries move into the **innovation-driven** stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and/or unique products, services, models, and processes*” (WEF, 2012).

**Table 4. Subindex weights and income thresholds for stages of development**

|                                  | Stages of development     |   |                                   |   |                                   |
|----------------------------------|---------------------------|---|-----------------------------------|---|-----------------------------------|
|                                  | Stage 1:<br>Factor-driven | Transition<br>from stage<br>1 to stage<br>2 | Stage 2:<br>Efficiency-<br>driven | Transition<br>from stage<br>2 to stage<br>3 | Stage 3:<br>Innovation-<br>driven |
| GDP per capita (US\$) thresholds | < 2.000                   | 2.000-<br>2.999                             | 3.000-<br>8.999                   | 9.000-<br>17.000                            | > 17.000                          |
| Weight for basic requirements    | 60%                       | 40-60%                                      | 40%                               | 20-40%                                      | 20%                               |

|  |     |        |     |        |     |
|--|-----|--------|-----|--------|-----|
| subindex   |     |        |     |        |     |
| Weight for efficiency enhancers subindex         | 35% | 35-50% | 50% | 50%    | 50% |
| Weight for innovation and sophistication factors | 5%  | 5-10%  | 10% | 10-30% | 30% |

(Source: WEF, 2012)

The target represented by the third stage of development – that characterizes an **innovation driven economy** – is obviously very ambitious and difficult to achieve for a lot of countries – including for some of those recognized as rapidly developing economies (home countries for the new global challengers (EMNCs) emerged from them). But there is a bright side full of opportunities here: countries such as BRIC, South Africa (the country that brings the capital letter S to BRICS) or Mexic – and their respective EMNCs – have demonstrated their ability to valorize the knowledge-based opportunities of both the new economic geography of globalization and the knowledge-based society) – by adopting particular innovative strategies that have enabled them to break the wall of their former status and to rapidly climb the ladder of development.

The concept of **intellectual capital (IC)** is mostly used (by academia and the practitioners as well) when referring to companies and their “*new wealth*” (Stewart, 1999) – in terms of: “*human capital - the tacit knowledge embedded in the minds of the employees; structural capital - the organizational routines of the business; and relational capital - the knowledge embedded in the relationships established with the outside environment*” (Bontis, 1999). Thereby, the firm’s IC represents “*a stock of knowledge and capabilities that is unique to its learning and experience (...and which) is continuously refreshed through new learning at various levels: the individual, the work group, the organization, and the network of organizations of which firm is a part*” (Choo and Bontis, 2002).

As Stewart (1999) argued, “*in an economy based on knowledge, intellectual capital – the untapped, unmapped knowledge of organization – has become a company’s greatest competitive weapon. It is found in the talent of the people who work there; the loyalty of the customers it serves and learns from; the value of its brands, copyrights, patents and other intellectual property; the collective knowledge embodied in its cultures, systems, management techniques, and history. But these vital assets are nowhere found on a balance sheet, only rarely managed, and almost never managed skilfully*”. Although, “*intellectual capital has ascertainable monetary value, provides a firm with a competitive edge, and enables it to differentiate itself from its competitors*” (Brown et al., 2005).

If we look at the concise definition that Ulrich (1998) gave to IC: “*intellectual capital = competence x commitment*”, but also at the assertion that “*IC is instrumental in the determination of enterprise value and national economic performance*” (Petty and Guthrie, 2000), it is clear that IC is more than a firm-related concept (and concern); it is equally important at country level.

According to Edvinsson and Stenfelt (1999), the "IC of a Nation includes the hidden values of individuals, enterprises, and institutions, communities and regions that are the current and potential sources for wealth creation". Therefore, the intellectual capital of nations is "a concept that applies the principles of intellectual capital measurement and management on a macro-economic level, in such a way that it helps to give direction to future economic developments (...) The main motivation for measuring the intellectual wealth of a nation is to get insight into the relative advantage of countries" (Andriessen and Stam, 2005). Furthermore, "the compelling reasons for valuation and measurement of intellectual capital and knowledge assets include understanding where value lies in the company and the sectors of the national economy, and for developing metrics for assessing success and growth of companies and economies" (Malhotra, 2001).

As Bontis (2004) argues, because the "hidden values (... that define IC) are the roots for nourishment and the cultivation of future wellbeing, (...) it is essential to have a mapping system to describe the intellectual capital of nations and to systematically account and follow the evolution of such intellectual capital development". Consequently, the National Intellectual Capital Index (NICI) has emerged as the mainly used indicator of the level of innovation in each country.

When have compared 40 countries based on their NICI indexes, Lin and Edvinsson (2010) have based their endeavor on the assumption that "national intellectual capital mainly consists of five types of component capital - human capital, market capital, process capital, renewal capital and financial capital"; therefore, the NICI variables and their respective indexes are shown in Table 5:

**Table 5. NICI variables**

| <b>Human capital index (HCI)</b> | <b>Market capital index (MKI)</b> | <b>Process capital index (PCI)</b> | <b>Renewal capital index (RCI)</b> | <b>Financial capital index (FCI)</b> |
|----------------------------------|-----------------------------------|------------------------------------|------------------------------------|--------------------------------------|
| Skilled labor                    | Corporate tax                     | Business competition               | Business R&D                       | Log of GDP                           |
| Employee training                | Cross-border                      | environment                        | spending                           | per capita                           |
| Literacy rate                    | venture                           | Government efficiency              | Basic research                     | adjusted by                          |
| Higher education                 | Culture                           | Intellectual property              | R&D                                | PPP                                  |
| enrolment                        | openness                          | right protection                   | spending/GDP                       |                                      |
| Pupil-teacher ratio              | Globalization                     | Capital availability               | R&D researchers                    |                                      |
| Internet                         | Transparency                      | Computers in use per               | Cooperation                        |                                      |
| subscribers                      | Image of                          | capita                             | between                            |                                      |
| Public expenditure               | country                           | Convenience of                     | universities and                   |                                      |
| on education                     | Exports and                       | establish mew firms                | enterprises                        |                                      |
|                                  | imports of                        | Mobile phone                       | Scientific articles                |                                      |
|                                  | services                          | subscribers                        | Patents per capita                 |                                      |

(Souce: Lin and Edvinsson, 2010)

In these circumstances, NICI (as integrate value of all its sub-indexes) is a quite accurate measure of the level of IC within a country (at a certain time and given a particular set of conditions), while reflecting that country's inclination towards an innovation based development (and competitiveness) and allowing comparisons with other countries in the same time.

#### **4. Conclusions**

The current context of doing business within the global environment – defined by, and which defines at its turn, the *new economic geography of globalization* – has determined significant changes regarding the centers of power (including the multiplication of their numbers and of their determinants): (a). *diachronically*: from *countries* (through public policies and administrative decisions) to *firms/companies* and especially *multinational companies* (within the process of analyzing and explaining the waves of economic development, competitiveness and globalization); (b). *synchronously*: from *center* to *peripheries* – with the increasing importance of the *networks nodes* (determined and favored by the technological advances promoted by the knowledge-based economy) and/or from the *Triad* to countries such as the *BRIC(S)*.

By this perspective, the generated effects concern: (a). the emergence and development of networked multinational companies and of regional clusters of development (within an economy and between countries) – as result of the interdependencies between the trinomial development – competitiveness – multinationals; (b). the fact that multinational companies have developed multiple (and sometimes regional and/or global) competencies – through valorizing spillover effects and linkages, as well as technological advances; (c). the growing importance given to the strategies for economic development in developing countries and transition economies, together with the transformation of some into benchmarks for development and competitiveness.

The (more pronounced) *economic dynamism*, which allows and favors the integration of some theories and/or practices that were incompatible in the past, is contributing also to the emergence and development of some new theoretical concepts and practical models of evolution at micro and macroeconomic level that should be taken into account when develop a strategy (no matter its scale – firm/company, region, national): (a). *globalization – regionalization – localization – globo-calization*: concepts and processes that seem to be contradictory, but that occur simultaneously and develop complementary; (b). *economic development – social and human development – new development paradigm*; (c). *competition – cooperation – co-opetition*: strategies assumed all together and in the same time in order for multinationals to follow some antagonist and/or complementary competitiveness and development goals; (d). adaptable and variable configuration structures and strategies of multinational companies – not exclusively based on FDI (as in the “old times”) but also on some refined forms of cooperation.

These changes are able (or have the vocation) to: (a). determine the transition from the policies of catching-up to the status of global challengers (the case of BRICS countries for instance); (b). reconcile conflicting interests within MNCs (of shareholders, governments, civil society and other stakeholders); (c). reveal and manage multiple structures, relations and impacts (between multinational companies, development and competitiveness).

## **5. References**

- Andriessen, D. and Stam, C. (2005), "Intellectual Capital of the European Union", *7th McMaster World Congress on the Management of Intellectual Capital and Innovation*, Ontario, Canada.
- Azzarello, S. and Putnam, B. (2012), BRIC Country Update: Slowing growth in the face of internal and external challenges. CME Group. 25 July. <http://www.cmegroup.com/education/files/ed133-market-insights-bric-2012-8-1.pdf>
- Bontis, N. (2004), "National intellectual capital index: the benchmarking of Arab countries". *Journal of Intellectual Capital*, 5(1), 13-39.
- Bontis, N. (1999), "Managing organisational knowledge by diagnosing intellectual capital: framing and advancing the state of the field". *International Journal of Technology Management*, 18(5-8), 433-462.
- Brown, A., Osborn, T., Chan, J. M., & Jaganathan, V. (2005). Managing intellectual capital. *Research-Technology Management*, 48(6), 34-41.
- Centre for Economics and Business Research (CEBR) (2014), World Economic League Table 2015. December 26. <http://www.cebr.com/reports/world-economic-league-table-2015/>.
- Choo, C. W., & Bontis, N. (2002), *The strategic management of intellectual capital and organizational knowledge*. Oxford University Press.
- Dunning, J.H. (2006), "Towards a new paradigm of development: implications for the determinants of international business", *Transnational Corporations*, Vol. 15, No 1, April, pp. 173-227.
- Edvinsson, L., & Stenfelt, C. (1999), "Intellectual capital of nations-for future wealth creation". *Journal of Human Resource Costing & Accounting*, 4(1), 21-33.
- Garelli, S. (2008), *The new waves in globalization and competitiveness*, IDM World Competitiveness Yearbook, <http://www.worldcompetitiveness.com>
- Havlik, P. et al, (2009), *EU and BRICs: Challenges and opportunities for European competitiveness and cooperation*, *Industrial Policy and Economic Reform Papers No. 13*, Enterprise and Industry Directorate-General, European Commission.
- Lin, CYY. and Edvinsson, L. (2010), *National intellectual capital: A comparison of 40 countries*, Springer New York Dordrecht Heidelberg London.
- Lopes, I. and Martins, M. R. (2006), "The New Business Models in the Knowledge Economy: the Strategic Way to Value Creation", *The Electronic Journal of Knowledge Management*, 4(2), 159-168.
- Malhotra, Y. (2001), "Knowledge assets in the global economy: assessment of national intellectual capital". *Knowledge management and business model innovation*, 8(3), 232-249.
- Narula, R. and Dunning, J.H. (2009), *Multinational enterprises, development and globalisation: Some clarifications and a research agenda*. United Nations University – Maastricht

- Economic and social Research and training center on Innovation and Technology.  
<http://www.merit.unu.edu/publications/wppdf/2009/wp2009-023.pdf>
- Ogrea, C., Herciu, M. (2010), "Changing the Patterns of the Global Economy—the Emergence and Evolution of the BRIC Countries". *Studies in Business and Economics*, 5(2), 100-110.
- Ogrea, C., & Herciu, M. (2010), "Globalization and the dynamics of competitiveness—a multilevel bibliographical study". *Studies in Business and Economics*, 5(1), 126-138.
- O'Neill, J. (2001), *Building Better Global Economic BRICs*, in Global Economics Paper No: 66, GS Global Economics Website, available online at <http://www2.goldmansachs.com/ideas/>
- Petty, R., & Guthrie, J. (2000), "Intellectual capital literature review: measurement, reporting and management". *Journal of intellectual capital*, 1(2), 155-176.
- Sirkin, H.L., Hemerling, J.W. and Bhattacharya, A.K. (2008), *Globality. Competing with everyone from everywhere for everything*, The Boston Consulting Group, Inc., Headline Business Plus, London.
- Stewart, T. (1999), *Intellectual Capital: The New Wealth of Organizations*, New York: Currency Doubleday.
- The Economist (2010), *The BRICs. The trillion-dollar club*, Apr 15th
- Ulrich, D. (1998), "Intellectual capital = competence x commitment". *MIT Sloan Management Review*, 39(2), 15.
- Wilson, D. and Purushothaman, R. (2003), "Dreaming With BRICs: The Path to 2050", *Global Economics Paper No: 99*, GS Global Economics, Commodities and Strategy Research.