HRD in a multipolar world: An introductory study

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Abstract: In the last two decades, the economic and political world was radically transformed. At the start, in the 1980s, the USA and the USSR ruled, in a bipolar context. But, after the fall of the Communist regimes, in the 1990s, a different form of world power sharing emerged, in which the USA, the European Union and Japan were the major players. That change was evident from the documents that were made by those political powers (i.e. the Lisbon agenda on human resource development (HRD)), which in itself contained a forecast of the world situation in 2010. However, life is by nature unpredictable, and the unforeseeable changes happen all the time. And, in the last decade, several main players emerged in the world scene, namely Brazil, Russia, India, China, the Arab World and Africa. In consequence, at the present moment, the world economy exists around at least 9 main players, 3 old and foreseen and 6 new and not foreseen. It is the author’s opinion that this societal transformation should be addressed by the HRD community, because HRD scholars must study the more national relevant cases in a world that is changing very fast. Accordingly, in this paper, the author tries to make a rather introductory study in which he/she tries to define the basic economic variables for the HRD markets, namely demand, supply, need, equilibrium, investment, stock, flow, and return, for the USA, Japan, Brazil, Russia, India and China. The author uses the last available data, even if we tried to put the analysis in a historical perspective. The author concludes that several very different forms of situations exist in the HRD markets of those very important political entities.

Key words: HRD market; HRD policies; USA; Japan; European Union; BRICs

1. Introduction

In the year of 2009, the world lives in the Globalization Era. After the Fall of the Berlin Wall, it seemed that the United States would become the unique global superpower. But the events of the last decade proved that idea very wrong. Indeed, nowadays (June 2009), we may consider that there are 9 major players existing in the world, namely: the USA, the European Union (EU), Japan, Brazil, India, Russia, China, the Arab World and Africa. Furthermore, it is also well understood that in 2008 the major assets that support economic growth are “soft” assets, namely “knowledge” and “human resources”. These assets give dimension to the strength economies, which have other “non soft” assets like energy, physical capital or financial capital. In fact, nowadays it is well known that the level of income of countries and their growth rates are intimately related to the level of “knowledge” and “human resources”, which countries possess.

However, we do not know any study, which compares the major players of the world economy in terms of HRD. Therefore the objective of this paper will be to analyze the HRD markets of the most important economic powers. This goal is obviously a bold one, given the dimension of the task ahead. Data are not easily available. In this context, because of the lack of data, the author will not address the EU case, the African case and the Arab World case (see Discussion). The author will restrict the analysis to six cases, namely the USA, Japan, Brazil,
HRD in a multipolar world: An introductory study

India, Russia and China.

This objective could easily generate a book with one chapter dedicated to each of the 6 cases, plus one in which comparisons would be made. But for doing that the author would need much time and space (see Suggestions for further studies). And as any major work needs to be initiated by a small study, as any major painting is initiated by a small draft, the author proposes to do an introductory study in this paper.

In consequence of what was previously said, the research questions of this paper are the following:

(1) What are the basic elements that characterize the HRD market in the six major players of the world market?

(2) Are there any historical elements that should be taken into account while making that analysis?

In the author’s viewpoint, the research founds its justification in the fact that if we gain a clear picture of the different HRD settings in the world major players, we will obtain, simultaneously, a good picture of how HRD exists in the world and a good picture of the relation between HRD and the socio-economic development of countries. Those two “images” so to speak, would help considerably do define the best HRD policies for different settings.

2. Theoretical background

2.1 Concepts

This paper will be made using two basic concepts: the concept of HRD and the concept of market of HRD.

The author will use a very simple definition of HRD. For us, the concept of HRD relates to every single policy which aims at improving the situation of the HR (Bannock, et al., 2005). Those policies may be private, public or third sector. And for us, HR is a very large concept, which encapsulates all the characteristics of individuals that may make them earn money, including education, training, experience, skills, competences, abilities, motivation, resilience, health, beauty, and others (Bannock, et al., 2005). Furthermore, the author considers that each of those characteristics represent a sub-part of the HRD market of a region at a given point of time.

The concept of market is defined using basic economic analysis. The market is composed by demand, supply, equilibrium, stock, investment, need, flow and returns. In particular, regarding this paper, the author made an adjustment of the basic economic theories, to the HRD market. Therefore, the definitions of the basic elements of the HRD market that the author will use are described in Table 1.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Production of HRD by the society</td>
</tr>
<tr>
<td>Demand</td>
<td>Used or desire of HRD by organizations</td>
</tr>
<tr>
<td>Equilibrium</td>
<td>Relation between supply and demand of HRD</td>
</tr>
<tr>
<td>Need</td>
<td>Benchmark to developed countries</td>
</tr>
<tr>
<td>Investment</td>
<td>Expenses in HRD</td>
</tr>
<tr>
<td>Stock</td>
<td>Actual level of HR capabilities (schools, training centres)</td>
</tr>
<tr>
<td>Flow</td>
<td>International migrations of HR capabilities</td>
</tr>
<tr>
<td>Returns</td>
<td>Impact of HRD investments in society</td>
</tr>
</tbody>
</table>

The following notes should be made to Table 1:

(1) Supply is related to the provision of HRD by society because there are organizations, like companies,
training centres, schools and universities, which are on one side of the market and that produce the HRD components effectively. That production may be formal or informal. We may also add that when the individual is making his/her self learning, or is investing in its own health or beauty, he/she may be also producing HRD. When the supply is made by the public sector, it generates active public policies. However, the public intervention in the market may also be made in other ways, namely using funding to other organizations or making special legislation. The rationale behind the supply of HRD is to meet demand. The demand of HRD is in itself justified because HRD should be a worthy investment for the individuals, the organizations and the countries that demand it. Also, the provider should make its own cost benefit analysis and should consider that the investment in HRD is worthwhile in its own point of view. Finally the provision of HRD should be justified at least in social terms.

(2) Demand is essentially made by the organizations (private, NGOs, public) that want HRD to exist. However, we may also say that some demands are made by the individuals. The demands are justified by some rationale linked with cost benefit analysis. HRD is beneficial for the individuals in terms of wages, employment, unemployment (Bjorklund, 1994), for the organizations in productivity, product quality and social climate (Bartel, 1995) and for nations in terms of income, welfare, social justice, equality, even democracy, peace and social stability (Tomé, 2004).

(3) The match or mismatch between the supply and the demand of HRD is called the equilibrium or disequilibria of HRD. The match may exist for a given moment, and for a given part of the HRD market. In case of mismatch, the market is bound to become balanced by the public intervention or by some form of self regulation.

(4) the author defines the need for HRD as the level of HRD that should exist in the market, for the country or region in question to become one of the top economies in the world. This analysis is made supposing there are some stable relations worldwide between the levels of HRD and the levels of economic and social development.

(5) The investment in HRD is defined by the expenses made by companies, individuals and countries on HRD.

(6) The investment should increase the stock of HRD. That stock is measured by the actual level of people who possess the attributes defined as constituents of HRD in a given country. Those constituents were defined above as the parts in the HRD, namely: education, training, experience, skills, competences, abilities, motivation, resilience, health, beauty, and others.

(7) Given that a country has international relations with other countries, something like a flow of HRD, it may be perceived in the economic activity.

(8) All investments are only justifiable by the returns that are derived from that investment. In this case, the economics returns of HRD may be seen in terms of wages, employment, productivity or exports; the organizational returns of HRD may be seen in terms of competences, skills, motivation, social ambience, product quality (Kirkpatrick, 1998). The problematic of the evaluation of returns in HRD as compared with other fields like IC and KM has been analysed recently (Tomé, 2009).

2.2 Theories

The author will assume that HRD operations are explained by economic and sociologic theories.

In theories which concern the economic, the author will base Becker (1993), Mincer (1962) and Schultz (1971) in the 50s, 60s and 70s of last century. It is well understood that since Adam Smith, all the classical economists until Keynes defended the importance of HCT in the economy. The HCT considers that HRD operations should aim at increasing the situation of the individuals and companies involved, and also of the
regions, in which those individuals and companies exist. The increment in the situation should be measured in terms of wage rate, employment probability, product quality, exports and other important variables as national income. It is important to notice that HRD is characterized to have a positive externality in some level. Therefore the social impact of HRD operations is higher than the sum of the private impacts of HRD operations. The problem with the HCT theory is that it may seem to be too simplistic. Therefore some other theories have complemented the HCT theory, such as the dual market theory (Paul, 1989; Chapman, 1993; Reynolds, Masters & Mozer, 1986), the screening theory (McConnell & Brue, 1989; Paul, 1989; Spence, 1975), and the Marxist theory (McConnel & Brue, 1989; Bowles & Gintis, 1977).

In theories which concern sociological, however, the author thinks that many existing alternative theories are like the branches of a tree in order to explain HRD, namely Taylorism, the Human Relations School, the Sociotechnical School, and also Joan Woodward’s and Michel Crozier’s work. Finally, the author thinks that it is very important to consider the analysis related to the third industrial revolution. All those theories complement each other and are useful to understand which HRD policy should be done, and in what context. Both the economic and sociological theories provide guidelines to understand the 8 components of the HRD as described in Table 1.

2.3 Methods

There are three main types of methods with which it is possible to describe the markets of HRD, as the author defined the concepts section: statistical, stochastic and historical methods.

2.3.1 Statistical methods

As statistical methods, the author considers the definition of a set of proxy variables which might correspond to each one of the constituents of the HRD market as defined in Table 1 and already explained. Table 2 includes a sketch of those variables.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Possible proxies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Level of educational and training related activities in the country measured in physical terms</td>
</tr>
<tr>
<td>Demand</td>
<td>Level of HRD activities</td>
</tr>
<tr>
<td>Equilibrium</td>
<td>Joint analysis of national values of supply and demand in the country</td>
</tr>
<tr>
<td>Need</td>
<td>Gap between the national levels of supply and demand and those of the most developed countries at the time</td>
</tr>
<tr>
<td>Investment</td>
<td>Percentage of GDP spent in education, and training</td>
</tr>
<tr>
<td>Stock</td>
<td>Number of schools and training centres in the country and their capacity</td>
</tr>
<tr>
<td>Flow</td>
<td>Investment abroad or from abroad in schools and training centres</td>
</tr>
<tr>
<td>Return</td>
<td>Rate of return of HRD investments measured in terms of wages rate, employment probability, product quality, etc.</td>
</tr>
</tbody>
</table>

In the following sections, the author will present broad statistics for the 6 global players listed (USA, Japan, Brazil, Russia, China and India) for these eight variables.

2.3.2 Stochastic method

The stochastic methods aim at explaining the causes of economic events. The biggest difference between statistical methods and stochastic methods is that the former describes the market and the latter explains the market. Stochastic methods are developed using a set of equations. In the present case, the idea would be finding an equation of the form:

\[ Y = A + BX + e \]  (1)
in which \( Y \) is the constituent of the market and \( X \) is its determinant. \( B \) represents a set of constants which reflects the influence of \( X_i \) in \( Y_i \). So, this very simple equation could and should be used regarding the first seven constituents of the market (demand, supply, equilibrium, need, investment, stock and flow). The author would create a net of economic relations which would explain the market of HRD and not only describe it, as it happens with statistical methods.

Furthermore, in particular, in the case of the returns, the equation has the following formula:

\[
Y_r = A + BX + CHRD + e
\]  

(2)

in which \( Y_r \) represents the returns; \( X \) is the control variable; \( HRD \) is the variable representing the investment in HRD, and \( B \) and \( C \) are constants to be defined. In this case, the equation is called impact equation (Heckman, Lalonde & Smith, 1999). Also regarding this particular case, the participation in HRD may be endogenized, using the following rule of entry (Heckman & Hotz., 1988):

\[
HRD(*) = D + EW + f
\]  

(3)

In this equation, new \( W \) represents the determinants of participation in HRD activities. \( HRD(*) \) is a latent variable which represents the participation status of the individual according to its characteristics. This latent variable is important because some selections bias (Burtless, 1995) in the HRD market. In this paper, the author will not perform any stochastic study, but the author will report some studies that were already made by other authors.

2.3.3 Historical analysis

Following Tomé (2008), the author considers the market of HRD as deep social roots, and that the emergence of HRD in countries is a very complex social process. In first place, it is important to understand that the political evolution of countries is defined by several steps; namely: (1) colony, (2) dictatorship and troubled democracy, (3) established democracy, (4) integration/globalisation. In second place, it is very interesting to note that the levels of HR and HRD activities tend to increase sharply in the last two phases of the evolution. In third place, it is very interesting to note that when a country begins to rise in the tables that represent economic development, this raise is accompanied by a process of democratisation and by a process of investment in HRD. Therefore, HRD, development, globalization and democracy are facts that are intimately linked with each other in world terms. This happens because HRD is needed for development in one hand, and because HRD represents a certain democratisation of power. Finally, as HRD is a key to external success and for development, HRD investments became essential at a sustained level. All that result in the fact that HRD enhances development, which is related with democracy and international economic integration. One should expect a strong relation between these four factors when analyzing the world economy major players.

2.4 Previous studies

We know about some published work that is important to consider making this paper, as the following:

(1) On HRD and HRM (Ignatovic & Svetlik, 2003);
(2) On the differences about social situations between countries (Esping Andersen, 1990; Ferrera, Hemerijck & Rhodes, 2000);
(3) On the differences about HRD evaluation between countries (Heckman, Lalonde & Smith, 1999; Tomé, 2004; Tomé, 2009).

2.5 Data and cases

In this section, the author will analyze in the six cases we mentioned, namely the USA, Japan, Brazil, India, Russia and China. According to the eight variables, we used to define the model. The author will use statistical
data with proxies of those variables as defined in Table 2. Those data have been already published in international databases like those of the United Nations, the World Bank, the OECD and also the mentioned countries National Institutes. The author will mention stochastic models when we know them.

2.5.1 The USA
(1) Historical analysis

The USA is a new country in historical terms, but crucially it is rather old in HRD terms. The USA proclaimed its independence in 1776, and had to endure the phase of troubled democracy until the 1880s, with the civil war. Afterwards, democracy was stabilized and the USA suddenly becomes a global superpower country, a position that they still hold. In HRD terms, the investment in education began very early in the United States, due to the Dutch and British influence, and to the protestant religion. Furthermore, in the beginning of the 20th century, the USA was the place where put the sociological theories of labour in place. Since 1920s, the USA had a system of education and training, which was both quantitatively general and qualitatively strong. That system was only to be developed after the World War II, when in America the human capital theory was coined. By the same time, the Federal Government began to fund huge training programs (Lalonde, 1995). The private investment in education and training was also huge, done by companies, private universities and individuals. By its large, in world terms, the USA is always a case of high skills equilibrium. The idea of the USA as the “land of opportunity” was also coupled with the idea that in the USA both the rule of law and the competences of individuals and organizations shaped the daily life of everyone. The USA went through the revolutionary in the sixties, the economic crisis of the seventies as the top world nation in HRD. When, in the eighties, the world began to change and the knowledge era become a fact, the USA, adapted quickly. The USA has some of the most advanced schools and companies that use and provide HRD. It means that all through its history, the USA was very advanced in the HRD market.

(2) Statistical analysis

According to the last available data, the USA has an extremely affluent situation in the HRD market. The level of supply of HRD is high, counted by the number of secondary and university courses made each year in the country. Additionally, thousands of training courses are also performed every year in the country. At the same time, private companies, public institutions, NGOs as well as private citizens also demand intensively HRD activities, such as secondary studies, university studies and training courses. Also, the level of investment in HRD in the USA expressed in money terms is very high and that investment generates a very high level of HRD stock. These four facts mean that in the HRD market, some sort of equilibrium of high level exists in the USA. This high equilibrium exists even if it is well known that the USA absorbs qualified migrants from other countries. The need felt in the USA, regarding the HRD market, is related to the urgency of keeping the economy prosperous in and not to the idea of catching up with the world leaders; anyway the USA economy has an important level of inequality and HRD could be the way of eliminating some part of that unbalance (United Nations, 2009). These unbalances are the consequence of the Liberal type of Welfare State existing in USA.

(3) Stochastic analysis

Finally, USA is the country for which more studies have been made concerning the impact of the HRD activities. The known studies have pointed to the positive effects of education, training, competences and experience on the economy (Heckman, Lalonde & Smith, 1999).

2.5.2 Japan
(1) History

The Japanese investment in HRD began in Meiji Dinasty, in the 19th century, when primary schools were
introduced. At that time, Japan was not a democracy. But it became one after World War II and at that time, the Japanese economy was getting already to become one of the international leading players. From then on, compulsory education has nine years, and most children continue to have three more years’ education. Also most of the high school graduates finished university. Furthermore, Japan is, since World War II, famous for its on-job-training system, which evolves around the concept of lifelong training, lifelong jobs and lean thinking. That system was made within a conservative welfare state (Ferrara, et al., 2000). Indeed in the eighties, and with the third industrial revolution, Japan became the second largest world economy, using adapted Taylorism and lean thinking theories to the new technologies. The Japanese success was based on its export sector.

(2) Statistics

Japanese HRD market is very strong, in all aspects, and very self sufficient.

Some similarities exist with the American case: Japan has a very high level demand and supply of HRD (ILO, 2008; United Nations, 2008), which results in a very high level of equilibrium, and in a need related to the urgency of continuing among the best and not to be caught up. Evidently, the investment in HRD in Japan, made by the public sector, the companies and the individuals is very high. The investment in HRD is also maintained by a very high level of HRD facilities, which can be considered to describe the stock of HRD. But some strong differences also exist between the two countries: Japanese investment is generated by the conservatives Japanese type of welfare state; Inequalities in Japan are not high comparing with world standards (United Nations, 2008) and they are maintained at a low level comparing with the HRD system; In Japan, the flow of HRD is very small, and this happens because the Japanese culture, language and industrial organization are extremely particular. In fact, it is Japanese who go abroad more than the foreigners who enter Japan or Japanese companies.

(3) Stochastic analysis

We are not aware of many studies relating HR variables to microeconomic situations of companies and individuals in Japan. However, among macroeconomic variables, the relation between the high level of HRD and the high level of income and economic success in Japanese society is well documented (Bonfour & Edvinsson, 2004).

2.5.3 Brazil

(1) History

Brazil was independent from the Portuguese in the 1820s, and was a monarchy until the 1880s. Democracy was only definitively established in the 1980s, after almost a century of political turmoil turbulent series of military coups. Economically, Brazil was an agricultural economy for many years, where some big companies’ characteristics of the Second Industrial Revolution existed. HR investments in Brazil were small all over the countries’ economic history. And until recently, basic education and training became social rights to be enforced, with the Lula da Silva presidency. Some private funded training programs existed, like SENAI, which created a “labour force elite”.

(2) Statistics

Available statistics show that in Brazil the supply of HRD is still low (United Nations, 2008). But at the same time, the demand by companies of HRD is also low (ILO, 2008). In consequence, Brazil has what we may call equilibrium of low level regarding HRD. That situation means that Brazil has a big need of HRD if the country becomes one of the most developed countries. Accordingly to this general idea, the investment in HRD in Brazil is small, and the stock of HRD is also not high, even if we are considering a country with 200 millions huge disparities that exist between its inhabitants (United Nations, 2009). However, recently some intense flows have been existing, mainly consist of citizens who migrated from Brazil to Europe (mainly Portugal) in search of a
safer and richer place to live.

(3) Stochastic analysis

Few studies have been made on the use of HRD in Brazil, but they seem to confirm the idea that HRD is beneficial to the economy and the society (Regnier, et al., 2001; Bonfour & Edvinsson, 2004).

2.5.4 Russia

(1) History

Russia is a very special case, because during the communist regime significant investments in HRD were made. However the profitability of those investments was very limited by the type of economic regime that existed in the URSS. Almost all the economic activities were made in the Comecon, which resulted that when the Communist regime felt apart, those countries were not competitive in the world stage. Therefore a transition and an adjustment had to be made, and HRD requirements changed dramatically. Even so, the high level of education of the Russian labour force inherited from the communist era is an important economic asset for Russia.

(2) Statistics

In Russia, the supply of HRD activities is more, but the demand for those activities is not comparable (United Nations, 2009; ILO, 2008). This implies that there is no equilibrium in the HRD market, but rather a marked unbalance which is solved by unemployment, migrations and under-qualified jobs. The investment in HRD in Russia is high, and the stock of HR is also high. However the flux of HRD is also very important, namely considering the current migration to Western Europe and the USA. Finally, as Russia is struggling to have welfare indicators comparable to the USA and Japan, the need of HRD is still considerable, in particular in the demand side. The transition process should permit that Russian companies could use the HR available in the Russian society.

(3) Stochastic analysis

We are not aware of any microeconomic study relating the investment in HRD and the level of HRD in Russia to the economic performance of Russian companies and organizations. However we know some similar studies in the field of knowledge management and intellectual capital which derived positive results (Tsouviga & Tulugurova, 2007). Russia is one of the countries in relation to that the macroeconomic effects of HRD have been calculated and the returns found have been positive (Psacharopoulos & Patrinos, 2002). Finally, Russia has also been included in a set of countries for which the returns of IC and knowledge have been computed (Bonfour & Edvinsson, 2004), and it has been clear that the Russia economy is somehow lagging behind USA and Japan. The same situation has been found when the (non stochastic) indicator of the World Bank was computed (World Bank, 2008).

2.5.5 India

(1) History

India is an extremely complex country, and it is also known as the “Indian sub-continent”. India exists since the antiquity, but only got independence sixty years ago, after the British rule. Indian transition to democracy was not a pacific one, and killings of some of the most prominent politicians were common. But in the last two decades, democracy somehow stabilized. In particular in the last two decades, the investment in HRD increased, and India became more and more integrated in the economic world and more and more powerful in global.

(2) Statistics

India’s supply of HRD is increasing, but it is low in world terms (United Nations, 2008). At the same time, the demand of HRD by India’s companies is also small (ILO, 2008). This situation would represent the case of the “low skill, bad job trap” (Snower, 1994) and it would happen because on one hand, companies don’t make risk investments when they don’t think they will have the required labour force available, but on the other hand,
ordinary people don’t invest in education when they are extremely poor and when they don’t foresee whether they will have qualified jobs after the end of their education. This situation is important not only in economic terms but also in social terms because HRD could be a way of solving India’s big and increasing inequality problems (United Nations, 2008). As the stand of investment in HRD is small and is unbalanced, the stock of HRD is also small and unbalanced.

3) Stochastic analysis
We are not aware of stochastic studies on the impact of HRD in India. But the macroeconomic studies available point the fact that the lack of HRD is a cause of India’s economic problems.

2.5.6 China

(1) History
The Chinese case represents another very special situation. China began investing massively in HRD when the country began to be integrated in the world economy.

(2) Statistics
The supply of HRD in China is quantitatively high but qualitatively low (United Nations, 2008; ILO, 2008). The investment in HRD has been increasing in recent years, and in consequence, the stock of HRD was also increased. Internal migrations in China are more important than external migrations.

(3) Stochastic analysis
We are not aware of stochastic studies on the impact of HRD on China. But the available macroeconomic studies (United Nations, 2008; Bonfouir & Edvinsson, 2004) illustrate the point that HRD has had an impact on China’s economic successes in the last two decades.

3. Discussion

In this paper, the author did not discuss the EU case, because from our point of view, the EU is a much more complex case than all the others that were presented, because the EU incorporates within its borders several forms of welfare states (Ferrarra, et al., 2000). The author also did not include Africa because HRD investments assumed to be still at a very low level in Africa nowadays. That fact is one of the major economic problems of the African continent and it is not helped by the AIDS epidemic. Finally, the author did not analyze the Arab world due to lack of data.

4. Conclusions

The author concludes that several different situations exist regarding the HRD market, in the major players in the world economy that has been analysed:

(1) One case of a leader country, based on a liberal welfare state, with considerable unbalances, but also a very big level of openness, and a remarkable capacity of innovation, namely the United States;

(2) One case of another leader country, based on a conservative welfare state, with much fewer unbalances, but also a much closed country;

(3) One case of an emerging country, in which the supply of HRD is small, and some fluxes exist to balance the market, namely Brazil;

(4) One case of an emerging country, in which the supply of HRD is high but migrations are important to balance the market, namely Russia;

(5) One case of an emerging country in which the supply of HRD is increasing and the balance is achieved
through internal migration, namely China;

(6) One case of an emerging country in which the bad job, low skills trap still exists, namely India.

As all the limitations of an introductory study, this paper uses 6 cases, out of the possible 202 countries, and the author tries to make the paper using basic statistics and already published data.

This paper will be the first step in the construction of a “World Guide on HRD”. That guide would be done in several steps. Firstly, a detailed study of the 6 entities addressed would be presented in this paper; Then, the study would extend to other world countries, and regions like the EU. The countries could be chosen by several criteria: dimension, geographical area, political regime etc; Finally, in about five to ten years time, “World Guide of HRD” would achieve using contacts from different countries to build that mosaic. For each country and region, the first type of analysis would be statistical (answering to the question what is) and the second stochastic (answering to the question “why”). We consider doing updates of the Atlas and making it available to the public using a web-tool.

References:

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