EDUCATION MANAGEMENT PROCESS IN EMERGING COUNTRIES

F. Sciarelli[1], A. Rinaldi[2]

[1]University of Naples 'L'Orientale' (ITALY)
[2]University of Rome Unitelma Sapienza(ITALY)

Abstract

'Education is the key to unlock the golden door of freedom.'

George Washington Carver

We believe that education should have a primary goal: to train people being aware and free.

As most of the literature demonstrates, social and economic factors are the main drivers of development: data show us that where education is poor, the basic health standards are not met, population lives on a low income, development is slow and unequal.

We started our research by analyzing the human development in Asia (India, Philippine, Myanmar) [1] and in Africa (South Africa, Ethiopia and Benin) [2], with a particular focus on the development of education. We analyzed the performance of each of the six countries in the field of education by using indicators such as mean years of schooling and government expenditure in education.

Then, we carried on an analysis of the education development actors and the education development programs [3].

This analysis showed us that the effectiveness of the individual teaching method is strongly influenced by cultural, social, religious and economic factors. The same education system may be perfect in one area and totally unusable in another area.

Therefore, the attention must be shifted from the educational method to the education process.

The need for managing the process of education proves to be as the very core of the elaboration of our model.

The model is based on the hybridization of different approaches (economic, management, logic framework approach…) and uses a two-way approach. It is also divided into three phases that are temporally differentiated and highlights as the strategic analysis is a pillar of management process.

These three phases represent three fundamental steps, namely: the identification of the problems, the identification of the solutions and the planning, the implementation of peculiar (or standard) education system.

In conclusion, it is clear from our work that the prospect of building a country's education system needs to be largely modified.

Getting started from the awareness of information, analyzing those coming directly from the territory, and considering the real issues is certainly more complex and more expensive than borrowing a Western-inspired model. Choose to achieve results that go beyond the UN literacy rates set in the Sustainable Development Goals (SDGs), but that may be more effective in each specific area (always considering the ultimate goal of building a population that is aware and free), is a countertrend.

Designing an education model that tends to deliverable and evaluable results shows a great attention to the real functioning of the system and not only to the approval of the international community, which is also crucial for developing countries.

The in-depth analysis of the peculiarities, the problems emerging from the territory, the possible solutions in the short, medium and long term, as well as the design of a strategic path for the achievement of the objectives and the commitment of human and economic resources requires: a consistent motivation; the vision of education as a primary element of every balanced and sustainable development process such as the Overall Development; the political foresight to wait

for many years for the results and the sincere search for change because, as Nelson Mandela said, 'Education is the most powerful weapon that can be used to change the world'.

These steps allowed us to create an Education Management Process, that is a Macro Management Strategic Model for the education in the weak areas.

Keywords: Education Management Process, Development, Macro Management, Education in emerging countries.

1 INTRODUCTION

We believe that education should have a primary goal: to train people being aware and free.

This is the perspective from which this work starts, shifting the need for education from the method to the achievement of the results.

The effectiveness of the individual teaching method is strongly influenced by cultural, social, religious and economic factors. The same education system may be perfect in one area and totally unusable in another area. The attention must be shifted from the educational method to the education process. We analyzed the performance of six countries (in Asia, India, the Philippines, Myanmar and in Africa South Africa, Ethiopia and Benin) in the field of education by using indicators such as mean years of schooling and government expenditure in education. The need for managing the process of education proves to be as the very core of the elaboration of our model, that must be adapted to the peculiarities of every country (or even of every region, if we consider such big countries as India).

We identified strategic analysis as the key tool of the process, even if we consider the many different teaching models adopted in the world, each of them valuable and to be considered in the perspective of achieving results by respecting the peculiarities of each area. Strategic analysis [4] has the difficult task of defining the problems to overcome the learning block in the process of programming a country's education system.

Lack of learning even in a transforming country can be determined by a number of reasons such as: scarcity of school structures; religious or cultural reasons (just consider the Malala campaign for female education in Pakistan); economic issues (in many emerging countries, children and teenagers must work to contribute to the family budget); social or racial issues (some private school are not accessible to everyone); political issues (education may be a threat for regimes). Understanding what are the issues that do not allow a population to learn is the basis for creating a country's educational system: it is crucial to imagine the feasible solutions and the ways they can be implemented so to achieve the results that will enable the construction and the governance of a self-development process. In this process of understanding, NGAs (Non Governmental Actors), such as foundations, NGOs, associations, universities are essential, since they are not linked to political power and they are closely related to local communities. These actors become the keystone of the success of the education process.

A second step in the education process, after analyzing the weaknesses of the system and their causes, includes the definition of the results that are to be achieved, that will be the basis for the planning and the implementation of the education process as well as of the short, medium and long term monitoring.

The process of building a country's education system is therefore based on three main phases: the recognition of the problems and the definition of the objectives; the identification of the actors and the solutions; and the implementation of the identified solutions.

The analysis of the current situation of the education system of a country is essential to figure out which path the process should be set on.

2 METHODOLOGY

To achieve these goals it has been necessary to conduct a substantial and careful analysis of the actors of development, that we carried on through numerous interviews with UN, UNDP and WB representatives. Thanks to the help of the interviewees we had access to a large number of UN, UNDP and WB databases, including the internal reports and statistics, the internal queries, papers etc.

In a second phase, we analyzed all the strategic plans and development programs for each of the three Asian countries - India, Philippine and Myanmar. To do this, we contacted government officials who, together with the international actors involved, gave us access to their strategic plans for the last 30 years.

Finally, all the World Bank, UNICEF, etc. data have been analyzed and processed (these data are available online and in the databases above) regarding, smog the other things, the use of IT tools. In addition, we conducted about 200 interviews with a random sample of ordinary citizens of the three countries. In India, 100 interviews were held in the presence, while in other countries they were administered through social networks and the help of territorial universities. At the same time, we analyzed the existing bibliography on the development of disadvantaged areas and the various planning and management tools for territorial development both in the field of the traditional Management and Project Management tools and in the field of those related to the Logic Framework Approach and the Result Based Management.

3 RESULTS

3.1 Education Development

Education of human resources and their management is a fundamental tool of development.

Unfortunately, extensive time series are not available, but most of data substantially show that all the countries that we have analyzed lack a wide education strategy and that territorial inequalities in education are still strong between rural and urban areas and between male and female.

The situation of the countries analyzed though, in absolute value, makes it still very hard for the education sector to evolve.

Table. 1 Mean Years of Schooling (of Adult) [2]

	1990	2000	2010	2011	2012	2013	2014
Benin	1.6	2.6	3.2	3.2	3.2	3.2	4.4
Ethiopia	N.A.	1.5	2.2	2.4	2.4	2.4	N.A.
India	3.0	3.6	4.4	4.4	4.4	4.4	N.A.
Myanmar	2.4	3.0	4.0	4.0	4.0	4.0	N.A.
Philippines	7.1	8.0	8.9	8.9	8.9	8.9	N.A.
South Africa	6.5	8.8	9.6	9.7	9.9	9.9	N.A.

The average years of school attended in India in 2013 are 4.4, against the expected value of 11.7. The same numbers of years are expected even in the Philippines (11.7), but the country has an average school attendance of 8.9 years. Burma shows the lowest data among the three Asian countries, with only 8.6 years of schooling and less than half of attended years on average.

Ethiopia and Benin present discouraging data, even if their values are increasing. It is sufficient to observe the average years of school attendance, which in the first case is 2.4 and in the second one is 3.2 years. This suggests that there are large areas in both countries where education lacks.

South Africa however, has an average schooling attendance of almost 10 years, certainly better, but still not at an international level.

In Spain, that is an high human development country for education, schooling attendance is 11.7 years, in Norway it is 12.6 years, while in the United States it is 12.9 years (the highest value in the world).

The Primary School Participation Ratio in South Africa is equal to about 90%, in India about 83%, in Ethiopia equal to about 64%, in the Philippines to about 63%, and equal to about 58% in Myanmar. The discordant data is presented, however, by Benin for which UNICEF [3] identifies a primary school attendance of about 70%.

The scenario completely changes when studying the data on secondary education. In fact, in Ethiopia and in the Philippines the attendance rate decreases to 16%; in Benin and in Myanmar it is about 45%; in India is 50%.

Benin, which is anguished with the plague of youth labor, presents a young women literacy of about 30% of the female population, while the male rate rises to nearly twice as much.

The data of Ethiopia still remain at a very low level, even though the government's education strategy set the objective of spreading a universal primary education in the country.

So, even if the Ethiopian and the Beninese governments seem to be aware of the importance of education in the development process of the country, the implementation of their programs (also due to the bureaucracy) is often too slow and could require some kind of external support.

In Ethiopia, indeed, even the school is poor, such as the rest of the country.

In South Africa, students who graduate from secondary school and are qualified for admission to the University increased by 56%, from 110,000 in 2009 to 172,000 in 2013. The MTSF (MediumTerm Strategic Framework) has set the goal of achieving 250,000 students by 2019.

In India, the Twelfth Plan addresses the strategies dedicated to the education sector as an important element for development. The Sarva Shiksha Abhiyan (SSA) and the RTE have hugely increased basic education. India, in fact, has a good literacy rate (near to 90%), whereas territorial illiterate tribal areas and discrimination against women is still present and still very strong; to face these issues, central and local governments are implementing specific programs.

In India, schooling is becoming more and more important: the ones who go to the university will be able to find a job, so families invest in their children, also hoping that, once they will be working, they will be able to help back the whole family.

The data of the Philippines is connected to the cost and loss of income that a family faces for children who attend the secondary school.

National government in Myanmar implemented specific policies, through the FESR on Higher Education, and this is probably making the difference.

The Ethiopian Government in 2008 started trying to improve the quality of education through the School Improvement Program launched under the General Education Quality Improvement Program (GEQUIP). This program intended to improve the students' performance through the creation of a conducive school environment, improving the school facilities and using tutorial classes.

Also the Plan Décennal de Developpement du Secteur de l'Education (PDDSE) and the MTSF of South Africa, with the construction of Funga Lushaka Bursary for teachers, emphasizes the necessity of a quality adjustment of the national education system.

Even India invests in programs to increase retention and attendance to secondary school, and to improve its quality.

There are multiple factors that come into play in this, including quality of education, employment opportunities, and the necessary environment in order to create or expand productive employment.

Instead, Benin presents a decrease of the per capita spending on education, despite the attention of the governmental and bilateral plans for this sector.

The analysis of the expenses for the education of the six countries is not easy as data are fragmented and quite obsolete.

In the case of expenditure on GDP, Table 1 shows that there are no available data for Myanmar, while the Philippines presented a low value (3.4) in 2013. Data for India show an increasing trend, reaching 3.8% in 2012. For what concerns the African countries, we can see a decrease of expenditure in Benin (from 5.0 in 2010 to 4.4 in 2014), in Ethiopia (from 5.5 in 2011 to 4.5 in 2013) and in South Africa (from 6.4 in 2012 to 6.1 in 2014). But in the same time we can see a substantial increase in the last fifteen years.

Table. 2. Government Expenditure.

	1990	2000	2010	2011	2012	2013	2014
Benin	N.A.	13.5	26.1	N.A.	25.0	22.3	22.2
Ethiopia	N.A.	14.9	26.3	29.7	30.5	27.0	N.A.
India	N.A.	17.5	11.7	13.7	14.1	N.A.	N.A.
Myanmar	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Philippines	N.A.	15.2	N.A.	N.A.	N.A.	20.3	N.A.
South Africa	N.A.	N.A.	18.0	18.9	20.6	19.2	19.1

Data: World Bank

Table. 3. Government Expenditure on Education (% on total expenditure)

	1990	2000	2010	2011	2012	2013	2014
Benin	N.A.	2.9	5.0	N.A.	4.9	4.6	4.4
Ethiopia	N.A.	4.0	4.5	5.5	5.6	4.5	N.A.
India	N.A.	4.3	3.3	3.7	3.8	N.A.	N.A.
Myanmar	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Philippines	N.A.	3.3	N.A.	N.A.	N.A.	3.4	N.A.
South Africa	5.3	5.4	5.7	6.0	6.4	6.0	6.1

Data: World Bank

The government expenditure on total expenditure confirms the trend of spending, because South Africa, Ethiopia and Benin show a slight decrease from 2012 to 2013, but a substantial increase, even if small from 2000 to 2013.

The costs that the government is bearing in the field of education, as a percentage on the total expenditures of the government, are growing for India (14.1% in 2012) and for the Philippines (15.2% in 2000 and 20.3% in 2013). Unfortunately, data on Myanmar aren't available.

Another dimension that needs to be studied is Government expenditure per student PPP, which is provided by UNESCO. Government expenditure per student may be considered as a proxy for the government's engagement in education.

In Table 4, Ethiopia shows the lowest value: in 2012, it is about $ 98 per student.

Expenditure in Benin is more than twice the level observed in Ethiopia in 2008 and in 2015 it reached $ 217.7.

In 2012, government expenditure per student in was $ 2,315.3, while in 2014 it rose to $ 2,279.2.

Burmese data unfortunately are unavailable and the latest ones related to public spending in the Philippines refer to 2008 ($ 461.2). Government expenditure per student in India in 2012 was ($ 435.1), while in 2013 it was $ 480.7.

In Europe, the values are much higher. Indeed, Spain's public spending for student grew from $ 1,497.6 in 2008 to $ 6,138.0 in 2012, while slightly declined in 2013 ($ 5,866.7).

Norway, whose HDI is the highest in the world, shows very high values of expenditure in education: $ 12,591.0 in 2012 (in Ethiopia it was $ 98) and $ 13,585.8 in 2013.

The highest public spending per student in the world is in Switzerland: $ 14,935.01.

Table 4. Government expenditure per student PPP.

Government Expenditure per Student PPP$					
	2008	2012	2013	2014	2015
Benin	206.0	231.0	221.4	217.0	217.7
Ethiopia		98.1			
India		435.1	480.7		
Myanmar					
Philippines	461.2				
South Africa	1 733.8	2 315.3		2 279.2	
Spagna	1 497.6	6 138.0	5 866.7		
Norway	10 987.5	12 591.0	13 535.8		
Switzerland	9 448.8	14 025.5	14 935.0		

Data: www.unesco.org

The distance among these children is even wider, in terms of satisfaction of their basic needs and perspectives for the future. Why so much inequality?

All the data examined so far show us principally that the six countries surveyed consider the other elements of human development, that are health and education, as complementary or even instrumental for economic development.

This idea, although mitigated in some plans, although covered by various sectoral programs, although recognized as a limit, permeates all the strategic systems of these six countries. The strategies that are realized in the two sectors are often due to the need for compliance with the

[1] http://data.uis.unesco.org/index.aspx?queryid=190

trends of the international community, which also requests the achievement of specific sector objectives.

The rapid expansion in the access to education is a necessary but not a sufficient condition to ensure that population may have the knowledge and the skills that will enable them to follow a longer and more productive development path [5]. Many factors come into play in this: quality of education, employment opportunities, and the environment where productive development may be created and expanded.

The six examined countries, therefore, in different measures, are still far away from the fourth Sustainable Development Goal (Ensure inclusive and quality education for all and promote lifelong learning), considering both the participation rates to education and to quality.

From the countries we studied, which are very oriented towards the achievement of economic development, it is clear from the strategic approach recounted so far, that the education is a point that is identified as nodal, because it is complementary to economic development and, therefore, to human development.

In a world where trade is more and more globalized, inequalities are rising. Who is engaged in the education in each country? What do organizations do? And what could be done (and currently is not)?

3.2. The education management process

As many studies on the development of deprived areas highlight, a lack of development should be explained and faced by linking structural causes to temporary causes [6]. Territorial inequalities are determined by resources, human factors, beliefs, religion and these are the issues that many governments may find harder to be managed, since they arise from local culture and traditions, while it might be easier to manage economic variables.

The economic growth of a nation should be balanced and should tend to persist over time [7], respecting thus the tangible and intangible resources of the countries. But the human development to which a country must strive not only has to be balanced and sustainable, but it must also be free.

As most of the literature, we are also convinced that economic and social growth must be founded on the culture of a country, its traditions, its religion, yet never forgetting to link these characteristics of the country to the perspectives of the internationally globalized markets.

The mistakes that have been made in the past and that were mostly related to the assumption that a development model could be universal and applicable to any context, can no longer be reproduced. Today it is necessary that the model of development of a country is linked to its distinctive traits, its history, its social, cultural and economic development, and created by the country itself. International cooperation, according to the old methods, has no reason to exist. The tangible and intangible foreign resources should be used for creating an independent development, not a welfare state that continues being dependent on foreign aid.

Funds and international skills may be the key factors to start the development process, but they must be temporary.

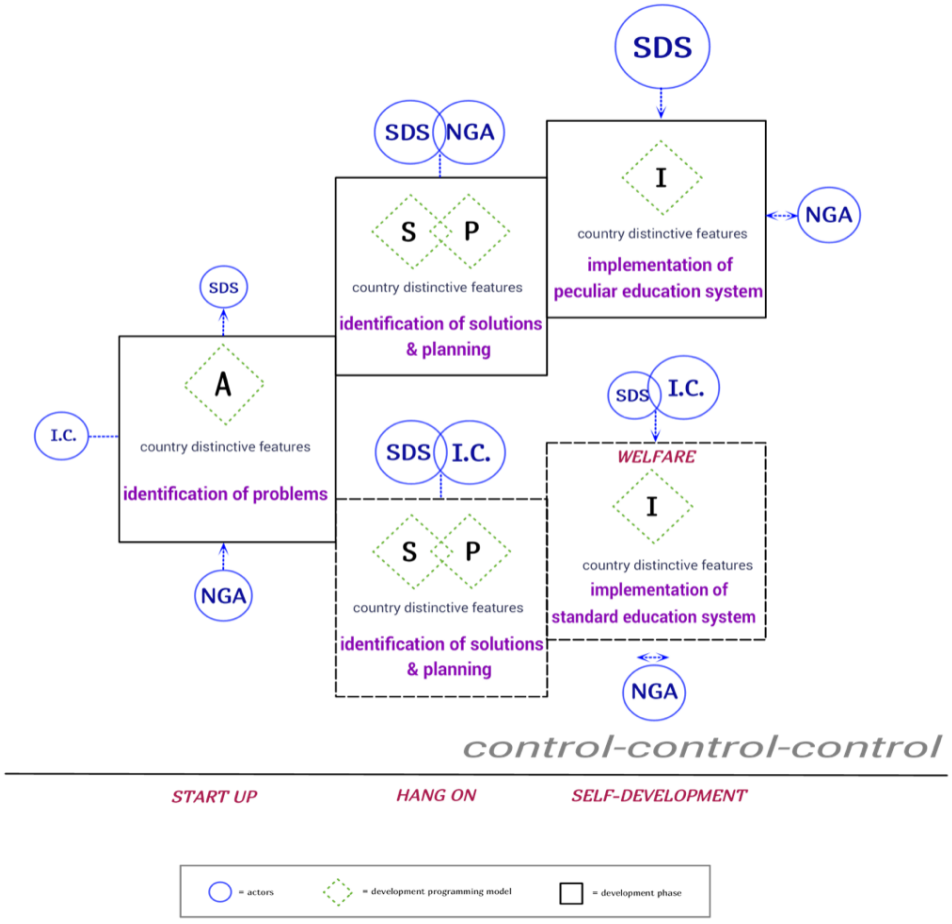
An adequate strategy of growth should be the key element of the development process of the country. As an enlightened parent helps his child on the growth path to grow him such as an independent individual, in the same way the international community must support the country in the early stages of development and then allow it to walk on its own feet and also determine the direction of its path.

We do not intend to give a universal solution, but we want to provide a method which can be used in all the situations, so that each country can formulate its own education strategy and implement it without too much effort.

This can be done by introducing a hybridized methodology between economics and management that uses tools that make the approaches synergistic with traditional Project Management [8], the Logic Framework Approach [9] and the Result Based Management [9], so as to allow each country to plan and manage their own education development process.

A Developmental State is one with sufficient organization and power to achieve its developmental goals, the ability to provide consistent economic guidance and rational and efficient organization and the power to back up its long- range economic policies. In this sense, it can even be viewed as a model of development that nonetheless differs from a minimalist state or other species of interventionist state such as the regulatory state and the welfare state. In the literature, it is also contrasted with weak states (that bow to the pressure mounted on them by the business or political elite) or predatory states (that tends to be extractive and exploitative of public resources for private purposes). This requires the state to have the capacity to control domestic in sighting and build consensus among the populace on the national developmental agenda by drawing attention to the long-term benefits to all.

Figure 1 - Education management process



A Sustainable Developmental State, in simple terms, must be a state that tends to be a strong player in the three dimensions of economy, health and education of a nation, trying to put together economic, social and human development.

More than a model of education, what we suggest it is a tool box for a growth path that can be used to achieve the desired stage of development. We are introducing, therefore, the Education Development Model.

The characteristics of the Education Management Process are then given by: the consideration of education development as a key element [10]; the hybridization of different approaches; a two-way approach, both Top Down and Bottom Up; the division into three phases temporally differentiated; the strategic analysis as a pillar of development; the decreasing of the dependence of national governments on international public actors (Development Matrix Actors), that characterizes the

implementation of national autonomy; and the need for countries to define their own unique education process.

The planning and management process of education that we bring to the attention of the scientific community is divided into three steps: Start Up, Hang On, Self Development.

These three phases represent three fundamental steps, namely the identification of the problems, the identification of the solutions and the planning, the implementation of peculiar (or standard) education systems.

3.3. Three steps of education management process

3.3.1. Start up - Identification of problems

The first step that is of utmost importance, being the one that can determine the next steps, is the identification of the problems through an in-depth strategic analysis.

At the end of the analysis, conducted through well-known tools such as SWOT, PEST and remodeled VRIO, the objectives of the education system are defined. Achieving the result as the ultimate end of the education process also modifies the structure of the plan of the process itself, making central programming tools such as the Result Based Management.

Strategic analysis mainly involves NGAs that hold most of the real and uninhibited information with respect to the international community, whose data, often being supplied by governments, are very fluctuating.

NGAs, together with governments and with the help of the international community, have the task of defining the aspects of investigation and then, thanks in particular to the information on the territory given by the NGAs, they can identify the problems and the results to be achieved.

Non-governmental actors can thus provide information to governments and together they are able to identify real problems. Good definition of problems is the basis for a good choice of solutions.

At this stage, NGAs have the main role as the key information holders, while the government and the NGAs jointly have a secondary role in gathering information, defining problems, and finding target results. The international community has a purely advisory role.

3.3.2. Hang on - identification of solution and planning

Two scenarios may occur in the second phase of the education model. The state, at the end of the first phase, makes a decision and, therefore, takes a direction, choosing whether to partner with local NGAs or the international community to find solutions. This choice will then lead the country towards a peculiar or standardized education system in which the Western model somewhat set the rules.

The key management phases in this step are the strategic and the planning ones. The most significant tools at this stage are the hybridized ones between project management, result based management and logic framework, such as the work breakdown structure, the resource breakdown structure, the GANTT diagram, and some typical problem solving tools.

3.3.3. Self-development - implementation of a peculiar education system

If the government chooses to link mainly to local NGAs, it will certainly tend to a tailor-made education system. The role of the NGAs at this stage will then be to assist the government in the implementation and dissemination of the solutions, that will have to be made in full agreement with local government and in an official manner.

Useful tools are certainly the basics of management, such as the human resource management, the communication, the agreements management, and the management control.

3.3.4 Welfare - implementation of the standard education system

If the government opts to remain attached to the international community, it is pushing for the implementation of a standardized system that may find obstacles in the on-site implementation due tho a lack of the participation of the population. In this case, the NGAs will work in parallel with the government itself, determining the already mentioned model of the parastate.

In the field of education, the monitoring and control function is a medium-long term procedure.

4 CONCLUSIONS

In conclusion, it is clear from our work that the prospect of building a country's education system needs to be largely modified.

Getting started from the awareness of information, analyzing those coming directly from the territory, and considering the real issues is certainly more complex and more expensive than borrowing a Western-inspired model. Choose to achieve results that go beyond the UN literacy rates set in the Sustainable Development Goals (SDGs), but that may be more effective in each specific area (always considering the ultimate goal of building a population that is aware and free), is a countertrend.

Designing an education model that tends to deliverable and evaluable results shows a great attention to the real functioning of the system and not only to the approval of the international community, which is also crucial for developing countries.

The in-depth analysis of the peculiarities, the problems emerging from the territory, the possible solutions in the short, medium and long term, as well as the design of a strategic path for the achievement of the objectives and the commitment of human and economic resources require: a consistent motivation; the vision of education as a primary element of every balanced and sustainable development process such as the Overall Development; the political foresight to wait for many years for the results and the sincere search for change because, as Nelson Mandela said, “Education is the most powerful weapon that can be used to change the world”.

REFERENCES

[1] F. Sciarelli, A. Rinaldi, Development Management of Transforming Economies, London: Palgrave Macmillan, 2017.

[2] F. Sciarelli, A. Rinaldi, Development Management of Transforming Economies, London: Palgrave Macmillan, 2017.

[3] UNICEF statistical data

[4] J. Thompson, Strategic Management, Toronto: Thompson, 2002.

[5] P. Glewwe, Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes, *Journal of Economic Literature*, vol. 40, no. 2, pp. 436-482, 2002.

[6] P. Romer, Human capital and growth: Theory and evidence, *Carnegie-Rochester Conference Series on Public Policy*, vol. 32, pp. 251-286, 1990.

[7] S. Anand, S. M. N. Kanbur, The Kuznets Process and the Inequality-Development Relationship, Journal of Development Economics, vol. 40, no. 1, pp. 25-52, 1993.

[8] H. Kerzner, Project Management: A Systems Approach to Planning, Scheduling, and Controlling (8th ed.). New Jersey: Wiley, 2003.

[9] A. Stroppiana, Progettare in contesti difficili, Milano: Franco Angeli Editore, 2009.

[10] D. Alesani, Result Based Management, in Management of international institutions and NGOs (E. Missoni, D. Alesani eds.), Oxford: Routledge, 2014.

[11] A. B. Krueger, M. Lindhal, Education for growth: Why and for whom?, Journal of Economic Literature, vol. 39, no. 4, pp. 1101-1136, 2001.