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Reforming education in developing economies of the world: major issues of educational reform in China and Russian Federation

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Abstract

Reforming education has been a major challenge for the politicians, academicians and business world in many countries as well as many national and international organizations especially in the last two decades of the 20th century. The trends in education have changed since 1980s with globalization, neo-conservative political views, education as a source for human capital for market economy development especially in the developed western countries whereas the former socialist countries started experiencing a chaotic situation followed by systematic changes to adapt themselves to the global trends and to find a seat in the future of newly shaping world. Countries like China and Russian Federation, which are estimated to be the important counterparts of the USA and EU in the future polarized world, have been experiencing radical socio-economic reform processes to secure their seats in the new world order. The reforms in the field of education have been among the hottest issues with regard to the economic burdens of reforms and the change of the national, traditional values during the change processes. This paper aimed at analyzing the major issues on the agenda of the educational reform in China and Russian federation in the last decades with special focus on administration and finance of education systems, by reviewing major articles, journals, policy documents and reports published by the scholars, governmental, non-governmental, national and international organizations. The findings of the paper pointed out that the political and economic backgrounds of these countries were similar but the ways they followed for reforming education were quite different because political and economic situations affecting education systems.

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Keywords: Decentralization; China; educational administration; education reform; finance of education; globalization; Russian Federation.

Introduction

Reforming education has been a major challenge for the politicians, academicians and business world in many countries as well as many national and international organizations especially in the last two decades of the 20th century. Since the 1980's, when the neo-conservative political views predominantly felt in the western world, major capitalist countries like USA and UK started reforming their educational systems in line with the market economy and education as a source for human capital development. On the other hand, after the decline of the socialist block the former socialist countries started experiencing a chaotic situation followed by systematic changes not only to protect themselves from the heavy pressure of globalization but also to find an effective place for themselves in the newly shaping world. Countries like China, India and Russian Federation, which are estimated to be the important counterparts of the USA and EU in the future polarized world, have been experiencing radical socio-economic reform processes to secure their seats in the new world order. The reforms in the field of education have been among the hottest issues with regard to the economic burdens of reforms and the change of the national, traditional values during the change processes.

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It is generally accepted that improving the performance of education systems is necessary for socioeconomic development, economic competitiveness, equality among different groups in societies, better functioning of the governmental institutions, democracy and human rights. Although every country seeks for precautions to improve their systems, education reforms are not always approved or implemented so willingly due to different and mainly for political reasons. Karlsen argues the political hurdles that education reforms tend to encounter and shows that in a significant number of cases, there has been successful adoption of education reforms. He further points out following political obstacles for better accomplishments of the reforms: “1) concentration of cost and diffusion of benefits; 2) deficient ministerial commitment levels ... 3) insufficient societal demand for reform ... and 4) institutional features that magnify the power of veto groups.” (Karlsen, 1999).

As it will be discussed later, the cost and benefit relationship, especially about the financial aspect of the reform, is one of the main issues shaping the evolution of the reforms, which forces the governments to think twice as the returns of education is not to come very soon and it creates a politically sensitive situation in the economically deprived countries. The politicians tend to invest in short term benefits in such cases and the demand of society for educational reform may also be shaped by these economic and political decisions of the governments.

At the administrative level, one of the major issues of the reforms is the decentralization of the systems to enable the communities to decide about their very own problems at the local level. Hanson, (1998) discusses the term “decentralization” with regard to concepts such as deconcentration, delegation, and devolution and come out with three kinds of decentralization:

1. Deconcentration (transfer of tasks and work but not authority),
2. Delegation (transfer of decision-making authority from higher to lower levels, but authority can be withdrawn by the center),
3. Devolution (transfer of authority to an autonomous unit which can act independently without permission from the center).

As it is seen from three definitions above, the phenomenon of decentralization might have different meanings according to the context it is used. In general it refers to “a dynamic relationship between the center and periphery. The center and periphery can be seen as the ends of a continuum and also as relative concepts depending on the context (Mintzberg, 1983). Hanson also offers a general definition: “Decentralization is defined as the transfer of decision-making authority, responsibility, and tasks from higher to lower organizational levels or between organizations” (Hanson, 1998).

The economic and political situation of the countries define the type of decentralization they prefer during delegating the powers from center to periphery: periphery is not always welcome with the new decision making powers when they are not equally supported with financial powers. There is genuine concern that the emphasis on educational decentralization and diversity is creating greater inequities and contributing to a narrowing of educational choices and opportunities. Today the education system faces an increase in social stratification, a differentiation among educational institutions, and the emergence of a system of paid education services. All these developments are making education less accessible to low-income citizens (Chowdhury, 2003).

This study aims at analyzing the reform efforts in People’s Republic of China (China) and the Russian Federation (Russia), comparatively since the 1980’s, reviewing the major issues with special focus on management and finance of education systems. Having similar economic and political backgrounds and transforming the administrative systems from a strict central government controlling everything in the country into a more decentralized system allowing the local people to participate in decisions made these two countries the subject of this paper. To this aim, major articles, journals, policy documents and reports published by the scholars, governmental, non-governmental, national and international organizations have been reviewed and analyzed.

The major findings in this study may be summarized as follows: both countries started the education reform first to support the economic reforms in 1980s; in the second period of the reforms education reform was taken separately to develop human capital in the country and the quality of education and the skills of the citizens became more important. In the last period of the reforms an overall analyses of the past experiences guided the governments for the future policies and implementations. Although the political and economic backgrounds of these countries are similar the ways they followed for reforming education were quite different mainly because of the presence of Chinese Communist Party (CPC) in China who kept control even when transforming the system into a market oriented one. The overall political and economic changes in these countries and the global trends in education were other factors influencing the decisions during reforming periods.

1. Main Indicators

Both China and Russian Federation has socialist background with different interpretations of Marxism, and the educational systems were characterized by state monopolism, centralized management, and submission to the Marxist-Leninist /Maoist ideology. With regard to literacy, access to education and equity the Russian Federation inherited a fairly well-developed, mature education system from the former Soviet Union. The Soviet school system proved to be very effective in solving specific problems related to eradicating illiteracy, expanding the network of educational institutions, training a work force, forming the scientific and technical

potential of the country, developing national/ethnic educational systems, and ensuring that education was accessible. Most school-age children had access to general education and literacy was almost universal (Chowdhury, 2003). World bank report also supports this argument: the historical strength of Russian education was its commitment to equity and access, regardless of ethnic background, gender or geographical location (Canning, Mook & Heleniak, 1999). Although not fully achieved the same success China may also be said to have done well with regard to literacy, access to school and equity despite its huge country and high population.

Table 1. Main indicators (population, economy and education) for China and Russian Federation (CIA World Factbook, 2008)

	China	Russian Federation
Area (sq km)	<i>total</i> : 9,596,960	<i>total</i> : 17,075,200
Population (July 2008 est.)	1,330,044,544	140,702,096
Age structure:	<i>0-14 years</i> : 20.1% <i>15-64 years</i> : 71.9%	<i>0-14 years</i> : 14.6% <i>15-64 years</i> : 71.2%
Literacy: (age 15 and over can read and write)	<i>total population</i> : 90.9% <i>male</i> : 95.1% <i>female</i> : 86.5% (2000 census)	<i>total population</i> : 99.4% <i>male</i> : 99.7% <i>female</i> : 99.2% (2002 census)
School life expectancy (primary to tertiary):	<i>total</i> : 11 years <i>male</i> : 11 years <i>female</i> : 11 years (2006)	<i>total</i> : 14 years <i>male</i> : 13 years <i>female</i> : 14 years (2006)
Education expenditures:	1.9% of GDP (1999)	3.8% of GDP (2005)
GDP - real growth rate:	11.9% (2007 est.)	8.1% (2007 est.)
GDP - per capita	\$5,400 (2007 est.)	\$14,800 (2007 est.)
GDP - composition by sector:	<i>agriculture</i> : 11.3% <i>industry</i> : 48.6% <i>services</i> : 40.1% (2007 est.)	<i>agriculture</i> : 4.7% <i>industry</i> : 39.1% <i>services</i> : 56.2% (2007 est.)
Ethnic groups:	Han Chinese 91.5%, Zhuang, Manchu, Hui, Miao, Uyghur, Tujia, Yi, Mongol, Tibetan, Buyi, Dong, Yao, Korean, and other nationalities 8.5% (2000 census)	Russian 79.8%, Tatar 3.8%, Ukrainian 2%, Bashkir 1.2%, Chuvash 1.1%, other or unspecified 12.1% (2002 census)
Religions:	Daoist (Taoist), Buddhist, Christian 3%-4%, Muslim 1%-2% <i>note</i> : officially atheist (2002 est.)	Russian Orthodox 15-20%, Muslim 10-15%, other Christian 2% (2006 est.)
Administrative divisions:	23 provinces, 5 autonomous regions, and 4 municipalities	46 oblasts, 21 republics, 4 autonomous okrugs, 9 krais, 2 federal cities and 1 autonomous oblast

For better assessment of the situation it might be useful to review the main indicators for these countries. China is the biggest country in the world with her population whereas Russian federation has almost the twice size of China's land. China has slightly younger population than Russia where population growing older and population growth rate is negative.

Although the growth rate of China surmounts Russian Federation, the GDP per capita of Russian Federation has almost tripled that of China. When considered the GDP composition by sector, Russia is more service oriented (56%) whereas China is more industry oriented (48%) country, agriculture is the smallest sector contributing the GDP formation in both countries.

As for the education expenditures Russian federation also doubles the amount of China though both are significantly low when compared with the OECD countries who "as a whole spend 6.2% of their collective GDP on educational institutions at the pre-primary, primary, secondary and tertiary levels" (OECD, 2008). Both the literacy levels and school life expectancy are relatively high in both countries with better results for Russian Federation (literacy as high as 99, 4% and school life expectancy 14 years).

Finally, from the perspectives of ethnic, religious and administrative structures both countries have rich diversity. Each region or province in these countries may be considered as a different country with its own administrative, ethnic (religious), economic structures which causes difficulties in administration and planning of the educational systems and reforms as well. As it will be discussed later, the economic differences among regions also play an important role in designing the educational reforms.

The literature about the reforms in China and Russian Federation generally indicates three different phases of reform after the 1980s till early 2000's. Here we will not focus on the previous periods such as the cultural revolution in China but rather try to analyze the developments in the last decades with regard to educational administrations. In both countries the reforms are shaped by the transition from the centrally planned economies to the economic structures of market economy due to the "weaknesses in this system tailored to the needs of a centrally planned economy" (Chowdhury, 2003). For Russian Federation the transition has not only been made from the Soviet school system characterized by state monopolism and centralized management but also from the Marxist-Leninist ideology as Borisenkov puts it, "to a system of education that has been integrated into the world educational space, a system that is in accord with the principles of humanism, openness, an orientation toward quality, a system that lays the foundation for the

knowledge society” (Borisenkov, 2007). The above statement shows that the educational policy in Russia has been transformed from the very foundations with more powers delegated to the local authorities and multichannel financing of education. Similarly, China has also been experiencing a transition from the centrally planned to market economy and educational system but rather in a different way from Russian Federation.

2. China

On the other hand China’s change has been different from the Russian experience, though on the same path to market economy and global educational trends. Instead of the radical restructuring of the system of education which has caused complexities, “painfulness, and profound contradictions (Borisenkov, 2007) China took a way more controlled by the state and the Communist Party of China (CPC). Rather than reactive implementations in the late 1980’s and early 1990’s in Russia Chinese authorities preferred gradual transformations in the system imposed by the changes in the global educational trends and markets. Leung sees the educational reform (decentralization measures in China) as a consequence of the market-oriented economic reform that started in the late seventies (Leung, 2004). According to Hawkins too, Chinese reform actually takes its roots from the economic reforms of the 1970’s, which “was soon discovered that the educational system was woefully inadequate to contribute to the new economic opportunities” (Hawkins, 2000). The CPC convened a conference in May of 1985 to discuss the issues and “a series of general policy guidelines meant to begin a process of educational reform and gradually align the educational system with the newly emerging marketization of the economy (Hawkins, 2000). This may be considered as the beginning of the first phase of the educational reform in China which will be followed by the further reform initiatives and important policy documents such as “Program for China’s educational reform and development” in 1993, and “From a Country with a Large Population to a Country with Sound Human Resources” in 2003 (Dongpoing, 2005; Hawkins, 2000; Leung, 2004).

In the first phases of the Chinese reform the policy documents focused on linking education to economic reforms, implementing the nine-year compulsory educational system, decentralizing finances and management, increasing vocational and technical education, and increasing the number and quality of teachers. Decision of the CPC Central Committee issued in May 1985 “*Reform of China’s Educational Structure*” stated the major challenges in front of the Chinese educational reform such as: too rigid government control of schools and inefficient management; need to devolve authority to lower levels; multiple methods of financing. In particular the document stated:

- devolution of authority for the nine-year compulsory system should be gradual, based on a regional approach in the order of: coastal cities, developed interior regions and cities, and less developed interior;
- "the power for administration of elementary education belongs to local authorities"
- secondary schools will establish tracking, either toward higher education or vocational-technical education combined with some devolution of authority and financing;
- the central level (State Education Commission - SEC) will continue to monitor the process and provide basic guidelines but "subordinate units" will have more power and bear financial costs (quoted in Hawkins, 2000).

It is clear from this document that the reform process would more focus on decentralization (devolution) of administrative and financial authorities and central government would have more monitoring responsibility. It also foresees multiple financing of education which paved the way to private schools in China.

The following decade saw the implementation of these policies which resulted in another major document in March 1993: the State Council (State Education Commission. After the restructure of the State Council in 1998, the State Education Commission became the Ministry of Education) issued the new policy statement “*Program for China’s educational reform and development*”, which clearly shifted the focus from being principally concerned with economic development and marketization, to human resource development. State Education Commission acknowledges that despite previous reforms China’s economy remains backwards, inefficient, and non-competitive, largely because of the low educational level of China’s workers. Also the major problems remained with the institution of the nine-year compulsory educational system, the fight against illiteracy, and the over-centralized management and financial structure of education despite previous educational reforms. The document further notes that the state schools will be in focus but the establishment of community sponsored schools will be encouraged. Non-state operation of schools by groups and individuals (along with overseas donations) is also to be allowed but only in the context of existing government laws and regulations (Hawkins, 2000). In this period, the reform documents of the Ministry of Education (then State Education Commission) defined six methods for funding precollegiate education: 1) Urban and rural educational surcharges levied by local governments; 2) Contributions from industry and social organizations; 3) Donated funds from community organizations and individuals; 4) Tuition fees from students; 5) Income from school-run enterprises; and 6) Central authorities (State Education Commission, 1994).

Despite the fact that broader space is recognized for local authorities and schools to take responsibility for the management and finance of basic education, the "state" remains arbiter of rules and regulations. This also brings out the fact that there were "virtually no laws governing education" before 1991. "Now laws and regulations have been drafted at both the central and local levels" (Hawkins, 2000). In addition to the policy papers, early 1990's also witnessed the establishment of the legal basis of education with new laws and regulations such as "Law of compulsory education" (1991) covering 30 provinces, autonomous regions and municipalities and a series of laws regarding teachers, the handicapped, community-run schools, vocational and technical education, higher education, educational finance, fund-raising, and science and technology in 1993 (State Education Commission, quoted in Hawkins, 2000).

The results of the educational policies and implementations in the 1990's and early 2000's were discussed and a research report on China's future education and human resources issues in 2003 by the Ministry of Education: "*From a Country with a Large Population to a Country with Sound Human Resources.*" The Ministry of Education organized scholars, experts, research institutions, and government organs in education, economics, population control, laws, finance, and agriculture to compose a large research report on education (Dongpoing, 2005). This report sets major objectives of the Chinese education until 2050. To summarize:

- 1) until 2010, the gross entrance rate of senior high school education will rise from approximately 40 percent to over 70 percent..... until 2010 will be a "key period for development."
2. From 2010 to 2020, nine-year compulsory education will reach the world's most advanced level, and the gross entrance rate of senior high school education will rise to approximately 85 percent.
3. From 2021 to 2050, China will universalize twelve-year compulsory education with high standards for better quality. The gross entrance rate for higher education will rise to 50 percent. (Dongpoing, 2005).

Apart from achieving the universal literacy and nine-year compulsory education two other issues debated in China were the decentralization of management and finance of education and establishment of private (non-government) schools.

Table 2 Objectives of China's Educational Development in the Next Fifty Years

Objective	2001	2010	2020	2050
Population coverage rate of nine-year compulsory education (%)	85	95	99	—
Junior secondary school graduates entering senior high schools (%)	53.6	75	100	—
Gross entrance rate of senior secondary schools (%)	53.6	73	85	100
No. of students at school	26,010	41,000	42,000	—
Gross entrance rate of higher education (%)	13.3	23	40	55
No. of undergraduates in colleges and universities	13,000	26,000	33,000	38,000
No. of graduates in colleges and universities	500	1,600	2,000	—
Average years of education of workforce	7.99	9.6	11.0	13.5
Workforce that have received higher education (%)	4.66	10.54	19.30	44
Education funds in GDP (%)	2.87	6.6	7.2	7.8

Source: Chinese Education and Human Resource Issues Reporting Group, *From a Country with a Large Population to a Country with Sound Human Resources* (Beijing: Higher Education Press, February 2003).

Hawkins discusses the China's decentralization as a devolution, a transfer of authority (particularly financial) and decision-making from higher to lower levels "but it is less clear whether this is a complete devolution or more of a delegation of authority. Decentralization in China appears to have characteristics of both. The center keeps close watch on the changes that have taken place and in a corporatist political economy, with a single dominant party retaining Maoist and Leninist aspects, it is unlikely that a genuine devolution of authority can take place. (Hawkins, 2000).

Writers like Bray and Cheng discussed the motives for decentralization in education as principally fiscal and considered within the framework of economic reforms in the 1980's. Cheng notes, "... in the case of China, improvement of the quality of the modern school has not been a primary motive for decentralization." (Cheng, 1994). Hawkins draws parallels with a corporate and the government system in China. The county functions somewhat as the corporate headquarters, the township as the regional headquarters, and the villages as companies within the larger corporation. Each is a profit center, fiscally independent and expected to maximize its performance. The Maoist framework has thus been adapted to account for economic liberalization and local decentralization

Oi argues that the Maoist system was adapted to decentralization and fiscal reform which urged the local governments to become entrepreneurial. It created a different system from other Leninist states in transition, and "China evolved into a distinctive decentralized form that, when coupled with proper incentives, allowed its local officials quickly to play an entrepreneurial role" (quoted in Hawkins, 2000). Unlike the Russian Federation and other Eastern European countries, townships and villages became fiscally independent profit centers and expected to maximize their performance.

On the other hand, misrepresentation of local people in local institutions and the lack of funds were the main drawbacks of decentralization in China. Bahl notes that the "biggest difference between China and the decentralized systems of the west is the absence of popular representation. Local councils must be popularly elected and local chief officials must be locally appointed for the efficiency gains from decentralization to occur (Bahl, quoted in Hawkins, 2000). In China, the success of decentralization was linked to the economic well-being of the regional-local managements and the richer areas were doing well when the poorer ones needed the involvement of the state to cope with the financial burdens. As a result of imbalances between regions and localities, central government started recentralization by removing some of the tax authorities from the local governments in 1994. Cheng, argues that this does not mean that the central government will completely subsidize education but on the contrary, "now local governments must be even more creative in finding alternative sources for funding schools, which in fact may produce a more genuinely decentralized system." (Cheng, 1994).

Table 3 Main indicators of Chinese education (World Bank, 2008 b)

Access, Coverage and Efficiency			
	Total	Male	Female
Gross Intake in Grade 1 (%)	88	88	87
Primary Gross Enrollment Ratio (%) (5 years)	111	112	111
Primary Repeaters (% of primary cohort)	0.3	0.3	0.2
Primary Drop Out Rate (%)	1.6	1.5	1.6
Primary Completion Rate (%)
Expected Primary Completion Rate (%)	97	98	96
Number of Primary Age Children Out of School (thousands)	613	224	389
Primary Gender Parity Index (GER ratio) ^a	0.99		
Secondary Gross Enrollment Ratio (%) (6 years)	76	75	76
Lower Secondary (%) (3 years)	98	99	98
Upper Secondary (%) (3 years)	55	54	56
Vocational and Technical (% of secondary enrolment)	15.1	0.1	0.2
Secondary Gender Parity Index (GER ratio) ^a	1.01		
Tertiary Gross Enrollment Ratio (%)	21.6	21.8	21.3
Tertiary Graduates in Science (% of total graduates)	7.2		
Labor Force with Secondary Education (% of labor force)
Labor Force with Tertiary Education (% of labor force)

Dongpoing sees the "inadequate education funds" as the simple fact as the cause of the problems and disorder of China's education. Inadequate education funds not only led to a large number of dropouts in rural areas but also had a negative effect on teaching activities.

Privatization of the educational institutions was another core issue to support the reforms. In the early years of educational reforms privatization was growing slowly but it did not lead the growth and change that is occurring. Rather, government at the local level, counties, townships and village enterprises are acting as the real entrepreneurs and change agents. In 1992, the principal of "creating a favorable environment for the emergence of private education" was endorsed at the 14th Congress of the CPC but it was not before December 2002 that the Standing Committee of the National People's Congress passed the "Private Education Promotion Law of the People's Republic of China," which proposed the guideline of "vigorous encouragement, forceful support, correct guidance and lawful management" and confirmed that private schools could generate "reasonable returns" (Dongpoing, 2005).

The terminology used by the government for the term "private" also gives some hints about the nature of the reform in China. Official documents use the terms like "minban," "non-state run" or "schools run through the energies of society" instead of "private schools." (Hawkins 2000, Dongpoing, 2005). Although it is not easy to differentiate between *minban* (run by citizens) and private schools, distinction between them and government schools is that *minbans* or private initiatives are basically self-supporting schools using different funds like tuition, overseas support, enterprises, etc.).

In addition to the government or state-run primary and secondary schools, which constitute the largest educational sector, it was estimated that there were more than 40,000 private schools in China in 1994. In 2002, private schools held 1.83 percent of the

primary school students, 0.9 percent of the regular high school students, and 1.25 percent of the vocational secondary school students. Private initiatives represent a small percentage of all schooling in China but they are also important in the rural areas where “government cutbacks have resulted in setbacks for the educational reform efforts initiated in 1985 and 1993”. Lin (1997) emphasizes that they are “an alternative to the low quality and high cost of government schools and are playing a significant role in realizing the nine-year compulsory education policy in rural areas” (Lin, quoted in Hawkins 2007; Dongpoing, 2005).

The discussions about the decentralization and the privatization of educational institutions were much hotter in higher education but since this study deals with only the basic and secondary education, issues related to higher education management and finance are not discussed here. But the overall investment in education in China has been an important problem and harshly criticized by international authorities, too, like Katarina Tomaševski, special reporter on the right to education of the UN High Commission on Human Rights. She criticized China for sparing only 2% GDP for education, which is one-third of the level recommended by the UN. China ranked among the lowest in the world with funds for public education. Besides the government budget accounted for only 53% of the total education expenditure which leaves the burden on the families and other sources of private funding.

Dongpoing also points out the low levels of public investment in China’s education, especially in rural and the less developed western and coastal regions of China. “After tax reform in rural areas, the collection of education funds was put to an end and the debt could not be repaid. In many places, creditors blocked local government buildings, sealed off school gates, and even violently beat up teachers and principals. In Tuanfeng County, Hubei, alone, twenty-one schools were shut down.” According to him, dropouts have been increased due to poverty and quite a number of rural areas do not have the basic conditions necessary for compulsory education due to insufficient funds. “The sampling survey in schools in western rural areas conducted by the State Education Department Research Center indicated that among those schools, 37.8 percent do not have enough desks and stools; 22.3 percent have unsafe classrooms or offices; and about 32.5 percent do not have enough funds to buy teaching aids, ink, chalk, and other supplies (Dongpoing, 2005).

He further supports his arguments with references to James Heckman, Nobel laureate in economics and economist at the University of Chicago, who pointed out that despite prominent economic achievements, China’s human capital investment was below the average world level and even below the levels of some developing countries. Also “The 2003–2004 Global Competitiveness Report” issued by the World Economic Forum in 2003 warns that China’s growth competitiveness ranked number 14 among 102 countries and regions, down four places compared with 2002. In the same report, China ranked 25th according to the macroeconomic index, a fairly good position, but 65th according to the technology index and 52nd according to the public institutions quality which dragged China’s ranking lower (Dongpoing, 2005).

3. Russian Federation

It is possible to draw parallels between the Russian and the Chinese reform efforts regarding the previous experiences, i.e. state’s monopoly in the administration of the schools and the dominant communist ideology in the content of education. They both wanted to reform their educational systems to be compatible with the global education systems and to serve the needs of the markets. What made the distinction between these countries is the presence (and dominance) of the CPC in China who controlled the whole process and interfered when necessary, as discussed in the previous part whereas the situation in Russia was quite different with newly forming political and economic forces to be reviewed in this part.

As already mentioned, Russian Federation inherited a fairly well-developed education system from the former Soviet Union, which was very effective in solving specific problems such as illiteracy, access to education, network of educational institutions, training a work force, forming the scientific and technical potential of the country, and developing national/ethnic educational systems. “By the early 1960s, for example, the level of training of the graduates of Soviet secondary schools was one of the highest in the world in regard to the natural science cycle and mathematics. It remained that way until the late 1970’s” (Borisenvkov, 2007). The main drawbacks of the system, on the other hand according to Borisenvkov, were its being a servant for the ideological shaping of the generations, of a single acceptable communist worldview and the materialistic understanding of the world. When this worldview started to decline in Soviet states with 1980’s, the contradictions in the society reached their pinnacle and the Soviet society, and the school system, was at appoint of no return.

The very first policies and implementations were the direct application of some western policies in Russia and the denial of the past system without proper analyses of the situation in the country. Without retaining the accomplishments of the Soviet system of education and to throwing its shortcomings, the early years of reform in 1980’s were more chaotic than a reform process, away from the principle of complementarity and continuity.

While analyzing the transformation of educational system in Russia, Borisenvkov (2007) identifies three stages from 1980’s until early 2000’s: “the stage of freedom that bordered on anything-goes and led to the destruction of the former system; the stage of relative stability and well-reasoned decisions; and the stage of stronger and more rigorous administrative decisions” (Borisenvkov, 2007).

The first period comprises the aftermath of the collapse of the Soviet system (late 1980s to the mid-1990s). This is the time the joy of reform, renewal and freedom when all the new institutions and policies were introduced into country, such as lyceums, colleges,

gymnasiums, and alternative schools, and providing fee-based educational services etc. In early 1990's there were over 100 such schools operating on the basis of their own syllabi and various profiles of instruction whereas in 1988, there were no such things as colleges, lyceums, and gymnasiums in Russia (Borisenkov, 2007).

These schools were not only new to the system in Russia but also had their own content of education. Uniformity of the previous system was also broken by introduction of different variants of the syllabus for secondary schools. The schools were offered experimental plans in the 1990–91 school year, the decision of the Ministry to get away from the school uniformity was welcome but at some point resulted in the loss of control over the development of the school network (Borisenkov, 2007).

And at the top of all of them was the worsening overall economic situation in early 1990's which made conditions even more complex especially the financing of the educational institutions. Borisenkov states that even the minimal financial needs of education were only met by 47%, and the salaries of schoolteachers were not always paid. The legal foundation of the decentralization process was also set up and much of the education sector was decentralized under the 1992 *Education Act*, with a view to enhancing efficiency and accountability. With this law, responsibility for general education and school finance was entrusted to regional (oblast) and local (rayon) authorities. However, this "rapid decentralization attempt proved to be poorly designed: it lacked the commensurate transfer of resources and never spelled out the extent of government responsibility" (Chowdhury, 2003).

The reform attempts in the 1980s and 1990s weakened by mainly three obstacles according to Chowdhury (2003): the financial transfers from the federal to regional governments have decreased, both in absolute and relative terms; many regions with ethnic minorities sought to establish their own education systems and launch their own education reforms, creating dissonance between key elements of the federal and regional approaches; and teachers' and educators' real incomes have declined, and as a result many qualified managerial and teaching staff have left schools for better paying jobs elsewhere.

The second period starts in the second half of the 1990's when the idea of the stable development of education replaced the reform of education. The reform efforts in the previous period were reviewed and the positive changes were reinforced instead of continuing the reforms without looking back. It was more clear that education required "concerted spiritual effort oriented toward self-determination and self-awareness" under the new historical conditions instead of pure external transformations and these efforts could only be carried out with the "state's psychological and financial support".

Table 4 Main indicators of Russian education (World Bank, 2008 c)

Access, Coverage and Efficiency			
	Total	Male	Female
Gross Intake in Grade 1 (%)	100	101	100
Primary Gross Enrollment Ratio (%) (4 years)	96	96	96
Primary Repeaters (% of primary cohort)	0.6	0.6	0.6
Primary Drop Out Rate (%)	1.3	5.7	5.3
Primary Completion Rate (%)	94	93	94
Expected Primary Completion Rate (%)	93	98	97
Number of Primary Age Children Out of School (thousands)	337	189	148
Primary Gender Parity Index (GER ratio) ^a	1.00		
Secondary Gross Enrollment Ratio (%) (7 years)	84	85	83
Lower Secondary (%) (5 years)	80	80	80
Upper Secondary (%) (2 years)	91	94	88
Vocational and Technical (% of secondary enrolment)	17.0	0.2	0.1
Secondary Gender Parity Index (GER ratio) ^a	0.98		
Tertiary Gross Enrollment Ratio (%)	72.3	61.4	83.4
Tertiary Graduates in Science (% of total graduates)	5.4		
Labor Force with Secondary Education (% of labor force)	35.1	48.4	35.1
Labor Force with Tertiary Education (% of labor force)	58.5	42.5	58.5

Like in the case of China, critical examination of the transformations of Russian education in the 1990's showed that the state's focus on education is necessary for sustainable reforms and changes not only for financial or management issues but also issues related to content such as: the aims and values of education, citizenship education etc. which had been ignored in the previous period for freedom. A national, Russian humanistic ideology of training, formulation of a national doctrine of education, and approval of a federal program for the development of education are the basic quests of the system during the second period (Borisenkov, 2007).

Despite the positive steps taken in this period especially financial problems remained as the major obstacle in front of the central and regional authorities. A study of the World Bank demonstrated that there were deeper disparities between the rich and poor regions as well as inefficient use of scarce resources in these regions. Higher levels of expenditure in richer parts did not necessarily translate into higher educational outcomes, whereas Russia's poorest regions are now struggling to maintain even the most basic educational services (Canning, Mook, & Heleniak, 1999):

Compulsory education, like other functions of the regions, is supported (in the case of "receiving" regions) by federal transfers from central government to the regions. Federal transfers have fallen, however, during the 1990s -- both in real terms and relative to what the regions themselves spend. Furthermore, in most cases these transfers are not earmarked but take the form of general block grants which regional authorities can allocate as they see fit, and there is evidence that education is not always given high priority.

The study shows that nationally, the number of teachers grew three times as fast as students (13.5 student per teacher in 1996) in rural schools the situation is as worse as 3-5 students in classes. This is deteriorated with teachers' salaries, frequently paid in arrears and so meager that they are an impediment to recruiting and retaining good teaching staff.

Another important problem the study points out is the financial management of the funds at regional and local levels: regional (local) governments often lacked the capacity to direct their own expenditures; most schools did not have their own bank accounts which reduced the accountability of school administrators for the private funds mobilized; and school directors and education administration staff in local governments lack management, particularly financial management skills (Canning, Moock, & Heleniak, 1999).

The third period of the Russian educational reform starts with early 2000's and shaped with the productive analysis of the reforms and efforts to focus on the most urgent needs of the system of education; the new period saw systematic efforts to solve the problems. From 2000 to 2002, a number of documents were adopted that related directly to the content of education (Borisenkov, 2007). "Federal Program for the Development of Education for 2001 to 2005," "National Doctrine of Education in the Russian Federation," "Basic Directions in the Social and Economic Policy of the Government of the Russian Federation Over the Long-Term Future," and "Conception of the Modernization of Russian Education for the Period Up to 2010" are the major documents providing normative and legal base of educational reform. , that education has become a priority of state policy.

These documents also accept that insufficient level of secondary education (both general and vocational) to respond to the needs of the market and changing conditions in the country. Russia. The Ministry of Education took important steps to set up state and civic structures of administration on the federal level: the Council of Regional Directors of Education, the Federal Council for General Education, councils on the economics of education and educational law, and so on. In renovating general secondary education progress was achieved by implementing the "Conception for the Modernization of Russian Education."

In 2003, the Ministry of Education transferred the main portion of the financing of the general education schools from the municipal to the regional level to stabilize their financial and economic situation which caused a burden for the local authorities. Actually there is concern that the emphasis on educational decentralization causes some problems like greater inequities and narrowing of educational choices and opportunities, especially among the regions with disparities. Chowdhury points out the increase in social stratification, a differentiation among educational institutions, and the emergence of a system of paid education services, which make education less accessible to low-income citizens. Of the country's 89 regions, 16 now spend at least a third more per student on compulsory education than the 18 regions at the bottom of the spending scale (Chowdhury, 2003).

The "Conception of the Modernization of Russian Education for the Period to 2010" also attests to the urgency of the task of formulating state educational standards to serve as the basis for the subsequent adoption of "normative per-capita" financing of educational services, to improve the quality and accessibility of education for students from low-income families, via the adoption of targeted social stipends. The World Bank study also demonstrated the introduction of "normative financing" formula on trial basis in Samara Region for the efficient use of the oblast subventions given for education. Samara refers to this new system as essentially a capitation system whereby "money follows students." (Canning, Moock, & Heleniak, 1999).

1. Conclusion

This study aimed at reviewing the reform efforts in the two developing countries of the world regarding the management and finance of the education systems. The issues discussed here did not deal with the other main fields of education which are complimentary to the management of the systems in this issues such as: educational programs, materials and equipment; assessment and measurement new teaching methodologies, individualized approaches in learning, classroom management; teacher training, educational administrators' training and so on.

Table 5. Reform periods and major issues

	China		Russian Federation	
Phase 1	Period 1980s	Nature of reform Education reform to support of economic reforms	Period late 1980s to the mid-1990s	Nature of reform stage of freedom that bordered on anything-goes and led to the destruction of the former system
Phase 2	1993 ->	legal foundations of reform, human resource development,	late 1990s	the stage of relative stability and well- reasoned decisions
Phase 3	2003 ->	Comprehensive work and specific targets for the future of education	2000 ->	stronger and more rigorous administrative decisions, legal foundations of reform

The analyses of the findings show that both countries have experienced major periods while reforming their education system after 1980's though in different ways. Although they both had similar ideological backgrounds with monopoly of the central governments, China's CPC kept control of the reform process whereas Russian system was more chaotic with a sense of freedom that bordered on anything-goes and led to the destruction of the former system (Table.3).

The global educational and administrative trends also affected both countries and decentralization was the main policy to solve the financing problems of the system which turned out with some lessons that decentralization should be accompanied with delegation of financial powers and representation of communities at local levels to get the most benefit from it. Besides, decentralization itself may be harmful than useful if not well planned and central governments may act as a regulator and distributor of resources to cope with the regional disparities. Therefore, in the second period of reforms both countries had to re-centralize financial management of the education systems.

The third level of the reforms showed that both countries drew some lessons from the previous periods. The experience of early mistakes and successes helped the governments to discuss their policies thoroughly with academics, experts, politicians and official from various institutions to set their future targets profoundly.

Although the political and economic backgrounds and the objectives of the reforms in both countries were similar, the ways they followed for reforming education were quite different because of the political and economic situations and changes.

This study showed that the major lessons from the experiences of both countries regarding the management of education system include two main aspects: first, a sound financial system with contributions from local and central levels should be established to guarantee the continuity of change and innovation in the system. In such a system the central government controls the adequate distribution of resources among regions, whereas the regional – local authorities will be responsible for fund raising and allocation within their localities. The efficiency of the system should be supported by (financial) management trainings for the local administrators.

Second, monopoly over education by the central governments or any other authority does not let liberal thoughts to grow in countries which will foster the countries' political, economic and social systems. People are more creative and find new ways of learning and doing when they are free. Therefore the governments should encourage an open education system accessible for all and owned by all which makes education an undertaking of citizens rather than of governments or education authorities.

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