

INTRA-BRICS HUMAN CAPITAL DEVELOPMENT AND THE RULE OF LAW

Elvis Tankwa Ngatat
Regional Economics and Corporate Law
Koguan Law School of Shanghai Jiao Tong University
No.1954 Hua Shan road shanghai 200030
Email: engatat@yahoo.co.uk

ABSTRACT

The typical aim of this research is to examine the important participant or promoters of human capital development within the intra-BRICS countries using family and technology level data and the implication for competitiveness and structural transformation. The ideological facts demonstrated how families are playing significant roles to develop human capital and how government are assisting or can do more to improve human capital development. Then I analyzed data of the BRICS countries with the trend in enrolment rates and graduate educational attainment within the BRICS countries with a positive correlation between educational quality perception and teaching styles. Part of my principal aim was to make clear the validity of human capital accumulation, as by an example, my experiment shows that in the modern world, it is skills, abilities, experience and training acquired that gains the labor market and better earnings whether female or male which is contrary to Mincer J. research. I found out that with the lack of the rule of law, human capital development was seriously lacking behind with students and teachers having difficulties in expressing findings because of strict rules imposed on the education systems. Through empirical observation and historical facts, I argued that the BRICS countries need to improve their rule of law in their countries so as to extend human capital development. Human capital has been observed to have significant competitiveness and growth and simultaneously facilitating the transformation from dependence on industrial and technical education sector with employment. The positive externalities that are associated with human capital development address inclusive, sustainable education and training policy from governments within the Intra- BRICS countries. I found negative impact on the lack of rule of law to human capital development.

Key words: human capital development, Intra- BRICS countries, rule of law, Social Security, transformation.

Introduction

The research of family investment in human capital by *Mincer J. (1958)*. They discovered that families or a social unit living together with a primary purpose of establishing knowledge for human capital will reach their ultimate goal, they expressed that the time established for human capital development is quite significant and positively correlated with the scale of intensity and amount or quality of technological sophistication required in the process of production of goods and services. The uprising of technology addresses the important for improvement in quality of human ability and skills.

I defined Human Capital Development as, it is the know-how required by individuals to perform respective duties or labor with the main purpose of economic output in a given period of time. I am focusing on how human capital is developed and the factors that influence human capital development starting from the initial to modern economic perspective and the impact brought by this modernization. I have in mind that the advancement of technology, the environmental and competitive challenges and the terrifying global economic have huge impact on human capital development in the modern society.

I strongly argued that primary and secondary educations are now regarded as basic education that one must pursue so as to be accepted to the society or for these levels of people to suit into the modern society. Families must be thinking of any level or training after secondary education if investment is their goal. In most country now, secondary and mostly primary educations are free and for some rich nations up to the University level is free. With the readings of *Jacob Mincer (1958)* "Family Investments in Human Capital" I am advancing the ideological of their research and the most difficult part is to link this with the rule of law.

We argued that for the modern society very early childhood education is not necessary because of the availability of modern technologies, educative toys like animal or others and knowledgeable games with parents assisting will prepare the child for the required level that is anticipated necessary for the next level, unless the child is going there for fun and acquaintances which is helpful but not necessary, for early childhood education in (1958) during the research of *Jacob Mincer*, which is different from that of today because parents can educate their kids with educative cartoons at home to save early childhood school fees for after the junior grades education, because the successive management of time and resources on meaningful activities by families to promote early childhood creativity will not only be short term beneficial but long term and might define the future abilities of the child.

The perspective of this research is not only focusing on financial investment in human capital development but the necessary elements needed to build and develop human capital that will match the labor market and reduce unnecessary expenditure by families, if parents spent time teaching their kids at early childhood understanding the necessary skills and abilities possess by

their kids they might assist in categorizing what courses or majors their kids are good at and immediately start trying to help them develop those skills, this will not only save time but will be way beneficial to the future of the kids.

I argued the fact that differential allocation of time and of investments in human capital is generally sex linked as stated in the research of Mincer. If we are sure that A and B are good at Math there will be no differential allocation of time and of investments in sex linked. If during early childhood education parents realized that their children A and B or girl and boy are good at Math or possess the skills and abilities of Math and help them focused on building up these skills and abilities that they possessed. The investment will be equal to both A and B and if A and B later became Math professors they will all earn the same amount of money, I did not experience any differential link between sex linked if they possessed the same abilities and skills what I experience was that there was a huge different from human capital investment and earnings with different skills and abilities.

I explored influenced of discrimination of genders by parents or employers, parents treated their kids equally whether a girl or a boy and were more ready to do anything to help any of their kids that showed more interest in education whether a girl or a boy and employers or the labor market were way more about the skills and abilities possess by employees and female employees could be promoted to any position based on their skills and experience. My experiment and observation proves that some women were earning more than some men and that human capital accumulation was not determined based on type of sex, families were more keen on kids that were performing well in school whether a girl or a boy and were highly expecting more returns from such kids.

The act of narrating strategies and personal competencies was analyzed that, it was focused on managerial competencies or on the ones that promote innovation *Kabanoff and Keegan (2008)*. Individual competencies are classified as the significant distinguishing quality of that individual that is capable of producing an intended result or performance at work. The significant function of the family as a social institution is the building and influencing of human capital of children for long period of time and even longer because of the growing demands of technology *Jacob Mincer (1958)* .

The Roman's ideology of the rule of law is that everyone is subjected to the law not exempting the judicial and legislation systems themselves and even the emperor that the law should serve justice not serves by arbitrary decisions of individual government officials. The rule of law comes with many definitions the united nations defined it as : a principle of governance in which all person , institutions and entities , public and private , including the State itself , are accountable to laws that are publicly promulgated , equally enforced and independently adjudicated , and which are consistent with international human rights norms and standards .

It requires , as well , measures to ensure adherence to the principles of supremacy over law , equality before the law , accountability to the law , fairness in the application of the law , separation of powers , participation in , decision-making legal certainty , avoidance of arbitrariness and procedural and legal transparency (UN 2004) .

I am expressing that the rule of law centered special importance or significance on transparency, without transparency the development of human capital will be very difficult or very weak, for instance, the basic or initial and the only primary way to develop human capital is via education and training, even talented individuals require training and education to elevate their skills to a matured level, without transparency there will be corruption and fraud in the education system that have a negative impact at a long run term. The lack of the rule of law will hinder the process of human capital development or the quality of human capital development because high quality teachers or professors will not be hired but unqualified relatives and citizens that will bribe their way to these positions will be hired so by weakening the effort and process of human capital development. Good example is the case of Chilean high school students strike in 2011-2013 for better quality of education and transparency.

Researchers analyzed that demand has been classified to be affiliated with the interval of time and required substantial financial resources to build a high quality or developed a sustainable human capital. They likewise signaled that the most favorable or desirable investment in human capital of any individual in the family requires attention not exclusively to the human and financial capacity in that family but also to the prospective utilization of the capital which is being periodically accumulated over time . Families do not merely invest and accumulate resources in human capital of their members rather it is expected with lots of hopes that this type of investment will yield to the future of the labor market with efficient utilization of the human capital developed.

The earnings of individual will fairly depend on the amount of skills and knowledge acquired by the individuals and determine by the labor market. After I have done data analysis and focused on the positive impact on human capital development on individuals and families healthiness and prosperous within the BRICS countries, I found out that there are significant differences that pace the human capital progressing within the BRICS countries. For instance, for the period of 2013, the conclusive in a process or progression of primary enrolment of sub-Saharan Africa ratio was 77% as compared to 90% in South Asia with gross junior-grade enrolment ratio of sub-Saharan Africa was 41% as compared to 63% in South Asia and gross tertiary enrolment of sub-Saharan Africa ratio was 8% and 21% in South Asia *World Bank (2015)*.

I likewise tried to compare the competitiveness of education among the BRICS countries and I found some differences in government's functioning. Some of the government of the BRICS countries encouraged a higher participation in education by providing tuition-free education up to high school level , I found out that sub-Saharan Africa governments were providing just a primary or basic level tuition-free education .

Kumar expressed that as the worldwide structure of production continues to change from more difficult challenges and demanding high quality knowledge and skills, the labor market will be more competitive. Insufficient level of human capital restricts technological advancement focusing to adapt to the global challenging production and with the upward trend in globalization *Goedhuys (2006)*, developing higher quality of human capital is necessary for the BRICS countries to meet the competition in global economies.

I stressed that for nations to have good governance and better GDP they need highly qualified development of human capital and likewise to promote the growth of private sectors. I likewise focused on the significant of the rule of law on human capital development with data analyzing and comparison I found out that the lack of rule of law will cause a lot of loss of knowledge along the line of acquiring skills and education which is significantly harmful to the economy.

I found out that the education acquired by students of countries that lack the rule of law was focused on one side of the wall and was not decentralized because of the avoidance of many sensible topics with more focused on a particular section instead of broader thinking and diversifying concentration will weaken the human capital development. At the core of this research I explained the role of the rule of law to good education and productive workforce.

The two essential questions that categorized this research are: what can be done to promote human capital development? How does the rule of law impact the development of human capital? We have structured this research article in 3 parts. Starting with introduction part one, facts on human capital development within the BRICS countries are part two. Part 3, Literature Review and discussions on methodology and data collection, and we have empirically analyzed human capital promoters, followed by an examination of the implications for competitiveness and structural transformation and then conclusion.

2. Facts and data analysis on Human Capital Development within the BRICS countries

China ranked number 91 of human development index (HDI) indicating progress as compare to the previous years with 0.004 increased and total of 0.719 in 2013 and was ranked as high human Development country (UN 2013). Russia ranked number 57 of human development index (HDI) indicating lesser progress as compare to China, with increase of 0.001 while China had 0.004 increase and a total of 0.778 in 2013 and was ranked as high human Development country (UN 2013). Brazil ranked number 79 of human development index (HDI) indicating more progress as compare to Russia, an increase in 0.002 and Russia 0.001 increase and total in 0.744 in 2013 and was ranked as high human Development country (UN 2013).

South Africa ranked number 118 of human development index (HDI) indicating more progress as much as China, an increase in 0.004 and China 0.004 increased and total of 0.658 in 2013 and was ranked as Medium Human Development country (UN 2013). India ranked number 135 of human development index (HDI) indicating progress as compare to Russia, an increase of 0.003 and Russia 0.001 increase and total of 0.586 in 2013 and was ranked as medium human development country (UN 2013).

Figure1 Demonstrates human development growth rates of the BRICS countries, this data analysis shows that Russian human development growth rate has been decreasing since 1980s that is consecutively while almost all the other countries in the world have been making progress consecutively or might decrease once in a while like that of south Africa as shown in figure 1, South African human development decreased sharply in 2005 then increased sharply in the following year. But Russia is amount the very high human development countries and the only country amount the BRICS countries that have reached that level, figure 1 focused only on human development growth rates.

South African and the whole African countries and some other countries in the world considered junior grade level of education as human development promoters, I explained that high school level should be encouraged by all governments because after this stage of education, they can enroll to professional schools for instance, teacher training colleges to become primary school teachers. This is very common in South Africa and other African countries. Table (1) Illustrates the secondary school enrollment within the BRICS countries there were no any data available for Brazil.

I used another alternative of human capital accumulation perspective by examining and focusing on the amount of Scientific and technical journal's papers published by the BRICS countries which is highly considered as a human capital accumulation in a very advanced level. Table 2, shows the amount of Scientific and technical journal's papers published by the BRICS countries from 2005 – 2011. The statistics indicate that China is leading the group with almost five times publication than any other country in the group followed by India then Russia, Brazil and South Africa.

Using the Scientific and technical journal's papers published by the BRICS Countries, I used it to analyze their human capital accumulation competent. Looking for reasons and factors that clearly define the scope and structure of competitive advantages of corporation which revealed how the individual competencies are resources that contribute to firms to yield profits and maintain their competitive level and improve the economic growth their country.

Though China is leading with scientific and technical publication articles within the BRICS countries, Norway came first in the world with such publication. Scientific and technical publication articles might indicate human capital accumulation and the innovation and advancement of technology. Figure 2, illustrates the number of scientific and technical publication articles of the BRICS community from 2005- 2011.

3. Literature Review

The most recent literature debate on human development capital points out that human development capital is the most important development in a nation that will foster economic growth rate, it likewise points out that human development capital has a very strong effects on economic growth rate.

UNICEF (2005) determined the existence of some obstructions facing piteous families in their efforts towards improving human capital of children. For instance, some of the obstructions that make human capital progress difficult were family's income, educating or schooling costs, uneducated parents, piteous schooling infrastructure, disability of children and cultural ideology.

The best educational policies to ensure educational development for human capital wellbeing is to commerce from the initial stage to higher levels, and for the improvement of human capital, certain elements must be addressed such as the demand and supply restraints to education. *Overseas Development Institute (2011)*.

I argued that health plays a very significant role in human capital accumulation in fact, health comes first before the others, without good health people will never be able to perform well in school or in any other activities, my idea is supported with the research of *Strauss and Thomas (1998)* who worked on documents and concluded that the improvement in health and nutrition improves productivity, good education performances and family incomes.

Researchers postulate that calorie consumption in developing countries increases the benefits of labor market. After the analyzing of the important of good health, it was found that a scope of labor productivity profits has been determined by scientific observation associating with calorie consumption in developing or poor countries, *Ranis and Stewart (1995)*.

The research of *Birdsall, Ross and Sabot (1995)* analyzed that or introduces a conditional clause that if statistical-distribution of wealth in Brazil were having equal quantity or value as that in Malaysia, school enrollments among piteous children would have been 40% more prominent. It was demonstrated that the development of education is associated with the advancement of technology in India and that higher education level have been demonstrated to improve innovation in businesses in Sri Lanka *Deraniyagala, S. (1995)*.

Research statistics showed that education and health have serious impacts on the economic development and less education population is caused by poverty for instance, the research of *Behrman and Wolfe (1987)* showed evidence of the impact of women's education on family health and nutrition. A study that was carried out to investigate the relation between schooling, income difference and poverty in Latin America in 1980s was found that 25% of employees' income was accounted on education level; the outcome was that education has strong impact on income equality *Psacharopolous (1992)*.

It is true that family's income is significant for both economic growth and social stability in a nation and likewise favor human capital accumulation and advancement of education. A research of 14 African nations showed a negative correlation between female schooling and fertility in most of the 14 countries, primary education was found having strong negative influences in almost half of the countries *Birdsall, Ross and Sabot, (1995)*. *Schultz (2000)*, in his research on developing countries found the correlations between height and income on data from Ghana, Cote d-Ivoire, Brazil, and Vietnam.

For a quite effective human capital development both government and individuals' expenditures are required, which likewise foster economic growth and promotes government human development. In the research of *Ravallion (1997)*, they found out that most of the effects of economic growth on human capital development are probably involve government budgetary considerations. Statistics from some economic researchers show that life expectancy, literacy, and GDP are significant components of Human Development promoters and with most emphasis made on political freedom and income inequality.

Formula for simple regression testing of the differential of sex linked in employment

$$P = (\ln \sqrt[3]{s^x} + \ln \sqrt[3]{e^x} + a + t-1) / 4 \quad (1)$$

Where:

$a > 0$, $x = 1 \dots n$ and the variable of (a) changes when assumed the percentage.

Where (p) is performances and (Ins) is skills (x) is the power rate of (Ins) and (Ine), and (a) is ability then t-1 is time use to perform work for both men and women.

$$Y^* = (a_{i+1})\beta + \varepsilon_i \quad (2)$$

Where:

$i = 1 \dots n$, $Y = 1$ if $Y^* > 0$ and Y might be $= 0$ if Y^* is otherwise. (a) represent the income of families or assistance of government to develop human capital. Y^* represent the BRICS countries. (ε) is $-N(0,1)$, and β is maximum likelihood.

In table 3: I assumed that the conditions of employment of both women and men were the same in the BRICS countries that is why the results of the effects were the same and positive 0.625** showing that both women and men will earn the same salaries if they have the same qualifications and experiences. The impact s of the government were both negative and positive 0.742* and -2.475* indicating that the governments of these countries were assisting more on human capital development in urban areas than in rural areas. I tested the health issue and it was both negative and positive 0.495* and -2.475* showing that if there are health issues in these countries it will affect the abilities and skills of the people and it was positive because health issues were less and having lesser impact on human capital development among the BRICS community.

The results of Table 4, were as follows: the higher the figures show serious positive impact on the variable. The results of primary education within the BRICS community were impressive with serious positive impact of 0.978**. China and Russia have serious positive impacts on junior-grade level with 0.978**, India is average with 0.463** and Brazil and South Africa

were lower with 0.347** but positive. Technology has serious impact on the BRICS community of human capital development. There is lack of access to international information in both China and Russia which have negative impact to human development. The environment has negative impact on human development in both India and South Africa; India with it might be because of cultural reasons and South Africa might be because of high crime rate reasons and human development for female in India has negative impact.

Conclusion

I found out that in developed world high school graduates level are the most desirable level of education and the main strategic threshold in human capital development which I am proposing the same to all developing countries to adopt this system. I concluded that high school level of education is the most prominent and sustainable source of human development promoters, hence, countries should encourage high school level of education because it has a sustainable and long term benefits.

The rule of law should be implemented by all the countries of the BRICS so as to foster their Human Capital Development which will promote their economic growth. I found out that the rule of law reduces corruption and strengthen the rules and regulations schools thereby increasing human capital development.

Table 1 : Secondary school enrollment for BRICS countries in percentage(%)

Years	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Countries:													
South Africa	86	88	89		91	94	92	94	95	98	102	111	
China	58	60			67	71	75	79	83	87	89	92	
Brazil													
Russia			92		83	83	83	83	85	92	95	97	
India	48	51	52	55	56	59	62	61	65	69	71		

Source : The World Bank

Table 2 . Scientific and technical journal articles, number of scientific and engineering articles published in the fields: physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering and technology, and earth and space sciences.

Years	2005	2006	2007	2008	2009	2010	2011
Countries:							
South Africa	2,395	2,643	2,808	2,916	2,864	2,975	3,125
China	41,604	49,575	56,811	65,301	74,034	79,991	89,894
Brazil	9,897	10,800	11,891	12,909	12,307	12,530	13,148
Russia	14,425	13,562	13,954	13,970	14,057	13,500	13,151
India	14,635	16,743	18,203	18,988	19,924	20,882	22,481

Source : The World Bank

Table 3: simple regression

	Brazil effects	Russia effects	India effects	China effects	S. Africa effects
Women	0.615**	0.615**	0.615**	0.615**	0.615**
Men	0.615**	0.615**	0.615**	0.615**	0.615**
Governments	0.742* (-2.475*)	0.742* (-2.475*)	0.742* (-2.475*)	0.742* (-2.475*)	0.742* (-2.475*)
health	0.495* (-2.475*)	0.495* (-2.475*)	0.495* (-2.475*)	0.495* (-2.475*)	0.495* (-2.475*)
Culture	(-4.95*)	(-4.95*)	(-4.95*)	(-4.95*)	(-4.95*)
Geography	(-2.95*)	(-2.95*)	(-2.95*)	(-2.95*)	(-2.95*)

Table 4: Estimation effects of variables

Variables		Brazil Impacts	Russia Impacts	India Impacts	China Impacts	South Africa Impacts
Primary education	150	0.978**	0.978**	0.978**	0.978**	0.978**
Junior-grade	150	0.347**	0.978**	0.463**	0.978**	0.347**
High School	150	0.167*	1.002**	0.557**	0.834***	0.005***
University	150	0.071**	0.835*	0.139**	0.835***	0.071*
technology	150	yes	yes	yes	yes	yes
wealth	150	0.022**	0.028***	0.044**	0.056**	0.014**
rule of law	150	0.25**	-1.791**	0.007**	-4.684	0.334**
access to information	150	yes	no	yes	no	yes
GDP	150	yes	yes	yes	yes	yes
environment	150	yes	yes	no	yes	no
Female education	150	yes	yes	no	yes	yes
Male education	150	0.048**	0.079**	0.046**	0.082**	0.043***
F-stat		0.479	0.681	0.748	0.821	0.053
R ²		0.219	0.084	0.216	0.226	0.221
No. of Observation		55,456	66,780	46,897	78,908	60,789

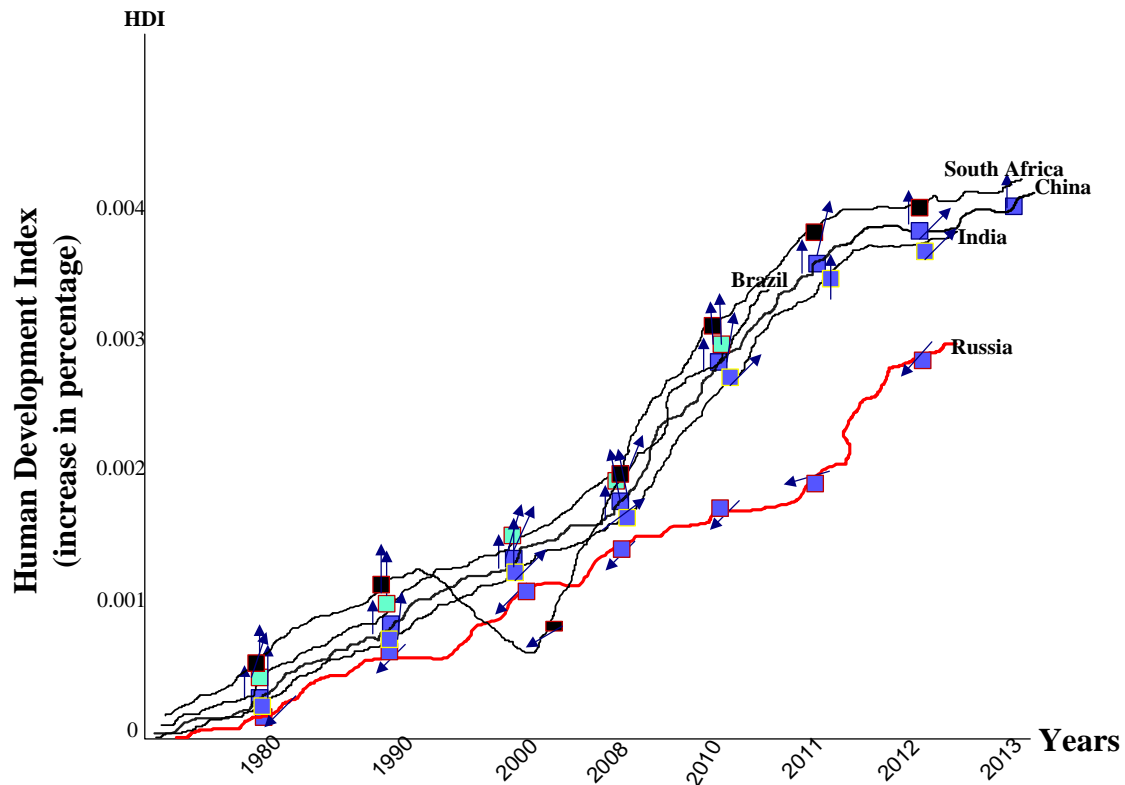
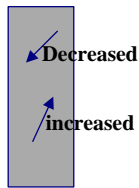


Fig.1 demonstrates the HDI growth of the BRICS



Source:UNDP

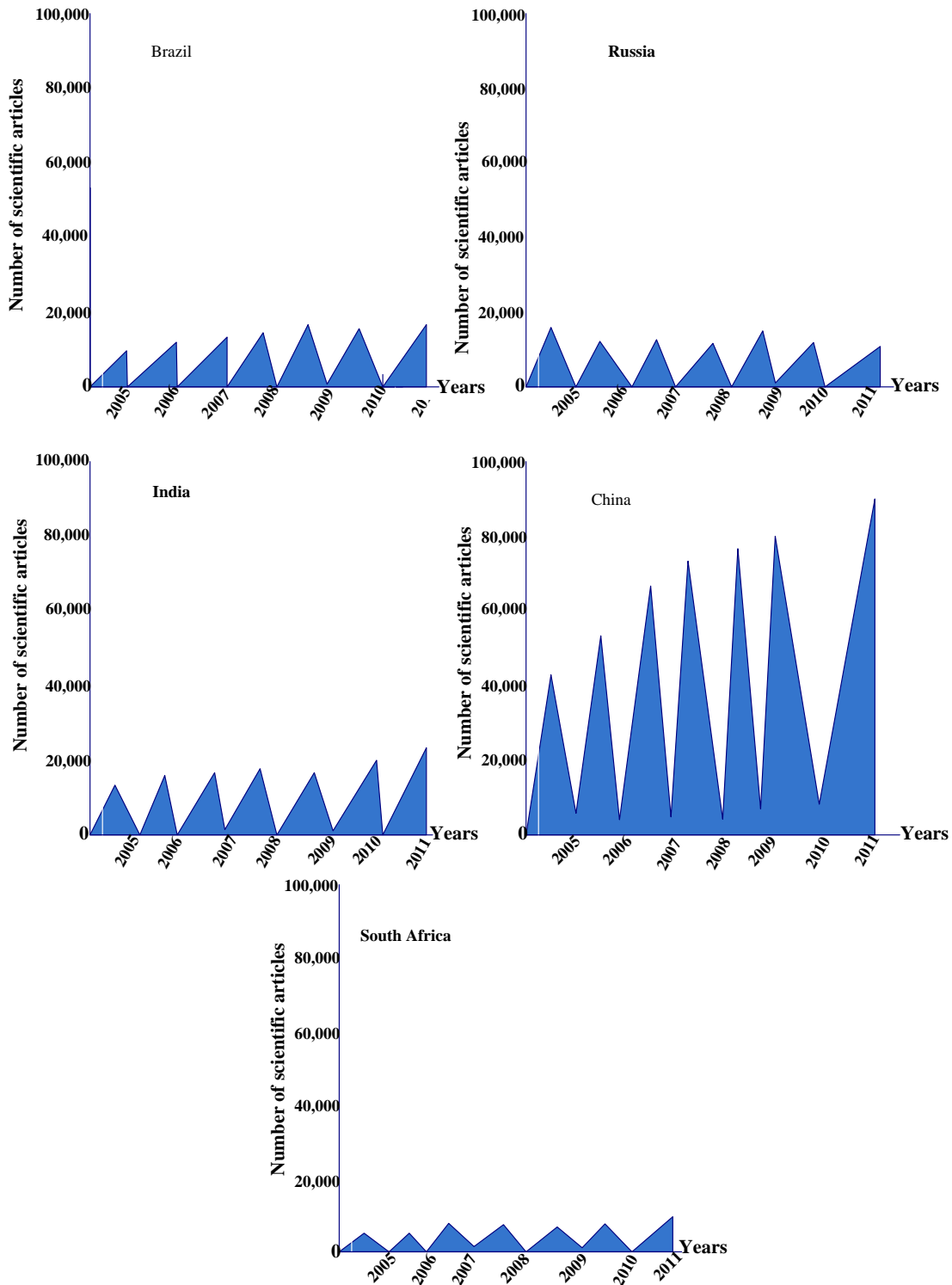


Figure 2. Number of scientific and technical articles published by the BRICS countries

Source : World Bank

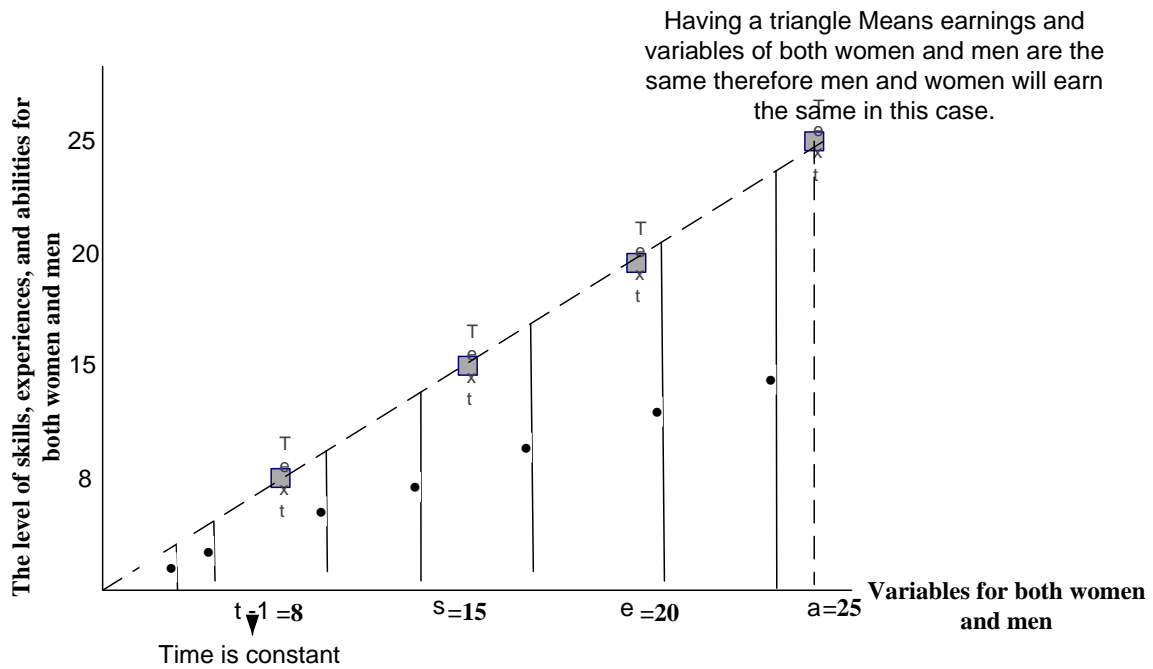


Figure 3. illustrates the earnings of both women and men when the have equal level of education and experiences.

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