

Mirosław Jurdeczka

Warsaw School of Economics

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Transition Economy of Vietnam: A New Horizon of Opportunities

Abstract

The aim of this article is to present the possibilities for future development of Vietnam's economy, as it currently represents the model of a transitional economy. In the first section of the chapter the history of economic reforms is presented, as well as the current economic situation.

The second part of the article focuses on the National Innovation System as a catalyst for stimulating growth and cooperation enabling a more innovative type of economy. This chapter presents the theoretical role of government-based institutions in bridging between academia and business actors to create a more innovative environment. In the third part of this paper a number of selected threads to the general development of Vietnam's economy are presented. The final findings highlight the utmost importance of government institutions in developing the right environment within the country for the development of an innovative economy, but also in creating vital connections at international level that are needed for technology and know-how transfer.

Keywords: *national innovation system; Vietnam; entrepreneurship; transition economy*

1. Introduction

The aim of this chapter is to analyze the economic situation of Vietnam since the Đổi Mới reforms took place, as well as to hypothesize about the possibilities for further economic development by evolving towards a knowledge economy.

Vietnam's economy is categorized as a transition economy; such economies are moving from closed-market command structures to open-market capitalistic systems. Vietnam's history of transition is a successful one: currently the country's population is better educated and has a higher life expectancy than most countries at a similar per capita income. The present horizon of Vietnam's development seems to be full of possibilities, but, nevertheless, there is a price to pay for the current fast growth. Environmental pollution and a lack of innovative enterprises are the most discernible problems. Another issue lies in the underdeveloped network of institutions that could bridge together business and academia, crucial for empowering an innovative industry. This could be the most important piece in putting together a comprehensive plan for the future development of Vietnam, especially if one considers the possibility of further disruptions from climate change, which Vietnam should prepare for, due to its geographical location and natural predisposition.

Despite the fact that Vietnam, in comparison to other fast-growing countries, managed to avoid a large increase in inequality, the differences between the rich and the poor are still significant.

To maintain the current fast growth of the economy as well as to guarantee further social inclusion, Vietnam has to invest in innovative solutions. One of those may involve the creation of a National Innovation System (NIS) which in turn can allow further technology transition through international agreements. This paper also aims to provide some theoretical proposals for developing a more innovative economy of Vietnam that can guarantee sustainable growth and social inclusion.

In the first section, the current economic situation of Vietnam is analyzed, as well as the historical aspect of Vietnam's economy growth since the crucial *Đổi Mới* reforms. Both statistical data and theoretical aspects of applied policies are presented.

The second section emphasizes the importance of implementing the National Innovation System in a developing country with the aim of building an innovative economy, with special remarks about Vietnam's possible future.

The last part of this paper discusses the possible threats to the development process of Vietnam, in order to highlight the gravity of the current situation Vietnam has found itself in, as well as the urgency for development of the National Innovation System as a counter measure to those threats.

2. Vietnam – A Powerhouse in the Making

Vietnam's geopolitical situation has not been an easy one ever since it gained independence from the French government. The subsequent events of civil war, instability in the region and border disputes further affected the development of Vietnam. Furthermore, there is the issue of the Vietnamese political system, whose socialistic character resulted in isolation on the international political and economic scene. This in turn resulted in an internal situation that required a drastic change, and that change came in the form of the *Đổi Mới* reforms, which opened Vietnam to the international market and helped to develop a robust catching-up economy. Those reforms were drastic, but at the same time subtle enough to gain the acceptance of the political elites. The most crucial aspect was patience, as the reforms required time to bring the desired effect of increased wealth and prosperity.

2.1. *Transition economy characteristics*

Transition economies are economies that are moving from strictly closed-market structures to open-market capitalistic systems. During this process of transition, domestic companies are forced to compete with not just new local entrants, but also with well-developed international companies. This puts further pressure on restructuring the internal model of enterprises along with their ownership structure. Furthermore, customers in transition economies are increasingly sophisticated and demanding, thereby putting additional pressure on the local market to provide more innovative products. In such conditions, most of the local companies fail to compete with new entrants due to the lack of technological, managerial, and marketing abilities, which are crucial to meet customers' growing requirements, not to mention gaining competitive advantage on the international market (Wendy, Schaffer and Seabright 2004, pp. 5–10).

As a response to the growing competition and high costs of obtaining technology and knowledge, local companies resort to international joint ventures (IJVs). This cooperation can help with rapidly acquiring such capabilities from foreign partners. Foreign companies perceive IJVs as a viable and fast way of new market entry: in some cases IJVs are the only possibility of entry into transition economies. Usually that is because of high trade barriers which make exporting difficult, institutional weak-

nesses (e.g. lack of proper law, numerous permits, bureaucracy); additionally, ownership restrictions often disallow the possibility of wholly owned subsidiaries. On the positive side, IJVs may help international companies gain the first mover advantage in the local market by quickly gaining local market knowledge, position and contacts with the host government (Tsang, Nguyen and Erramilli 2004, pp. 82–85).

On the other hand, countries with quasi-capitalistic structures, which just recently have begun their transition to an open market economy, tend to restrict the access to their domestic market. This is due to the fact that local companies cannot compete with foreign investors in terms of knowledge, technology and human resources. Thus, joint ventures are being forced upon companies as the only option to gain market entry. This policy has been very popular in the People's Republic of China, since this allows local companies to catch up with the world leaders in terms of technology and gain relatively cheap access to knowledge. Unfortunately, this kind of behavior has nothing to do with transparent open market competitiveness and several IJVs have been plagued by IP theft and local government meddling in to the IJV's code of conduct (Shen, Wu and Ng 2001, p. 17).

Similarly to other transition economies, Vietnamese companies are increasingly resorting to joint ventures with foreign companies in the hope of finding a shortcut for higher development. As previously mentioned, foreign investors may perceive a joint venture as a positive solution to balance the risks related to cultural distance, regulatory requirements, and political instability. Additionally, this provides relatively quick and easy access to new markets with high requirements for quality goods. One has to admit that the general motives for forming IJVs are relatively well-established. What still needs attention from scholars are the key factors that actually contribute to a successful implementation of IJV's in a long-term relation (Shen, Wu and Ng 2001, p. 17).

2.2. The Đổi Mới reforms – a new horizon of opportunities

The now famous reform, launched in 1989, amounted to a bold attempt to rearrange the economic situation, to turn a closed market economy into an open one by economic shock therapy, at a time when this theory was still being tested on the former socialist countries in Central Europe.

The general reform package was focused on increasing real interest rates which made both borrowing and lending rates positive in real terms. The practice of covering the government expenditure deficit by increasing the money supply had been curtailed, which made the government budget more realistic to handle. Those decisions had a significant effect on local authorities, as well as the state-owned enterprises (SOEs). The SOE's situation was further dealt with by a specific form of privatization efforts along with using joint ventures with foreign companies in order to restructure the economy (Ronnås and Ramamurthy 2001, pp. 1–3).

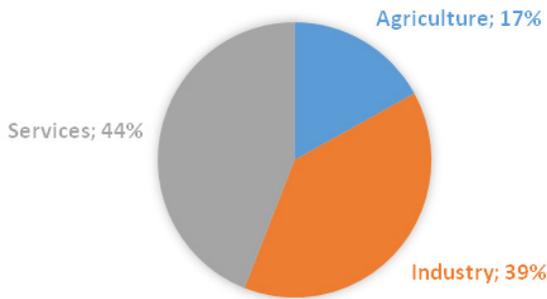
As mentioned above, the reforms took the form of shock therapy, which included one of the most extreme devaluations of the Vietnamese currency, the dong, i.e. from 425 to 4,500 dong per US dollar. This approach was also aimed at curbing the currency black market and bringing competitive labor costs to compete with the neighboring countries. This was also connected with reducing trade barriers. Those reforms had an immediate effect on the state of the economy, as well as the budget of the country. The hyperinflation that was crippling the economy was brought to a halt, the trade barriers reduction allowed citizens to access basic goods that were missing before, additionally small businesses thrived mainly in fast moving consumer goods. This in turn propelled the economy with an additional influx of wealth and helped indirectly to curb poverty (Ronnås and Ramamurthy 2001, pp. 1–3).

The effects of those reforms were very noticeable to the outside world, and this allowed Vietnam to easily attract foreign investments. As Vietnam started adopting a more open market solution, its isolation on the international scene was gradually being lifted. Examples of that include the lifting of the 1994 US embargo, and the granting of ASEAN and AFTA membership in 1995. In the long run, this allowed Vietnam to open its first stock exchange market in 2000, and – after several negotiation meetings – be granted membership of the World Trade Organization (WTO) as early as in 2007 (World Bank Group 2016).

The reforms were no doubt a success for the development of Vietnam's economy. The issue that is most troubling came not from the economic performance, but from the psychological impact those reforms created. Vietnamese officials came to the conclusion that the groundwork for development had been laid out through those reforms and the only thing that was left was to fine tune them for continuous performance. As the current situation shows, further extreme reforms are needed to ensure

the next decades of growth and development (Ronnås and Ramamurthy 2001, pp. 1–3).

Additional evidence showing how much of a shock these reforms were, is the fast pace at which inflation was brought to a halt: within 5 years from the period of 1990–1991 the inflation rate fell from 67% to just 5% during 1996–1997. What is more, there has been a significant shift from the agriculture role in the economy. The reforms had a small impact initially on the share of agriculture in Vietnam’s GDP as in 1991 it contributed about 39% and in 1996 it was still slightly above 32%. There was a more significant problem in that period. The employment rate in agriculture outpaced any other sector of the economy (Ronnås and Ramamurthy 2001, pp. 1–3). But with time, as investment in manufacturing rose, the role of agriculture fell to the current 17%.



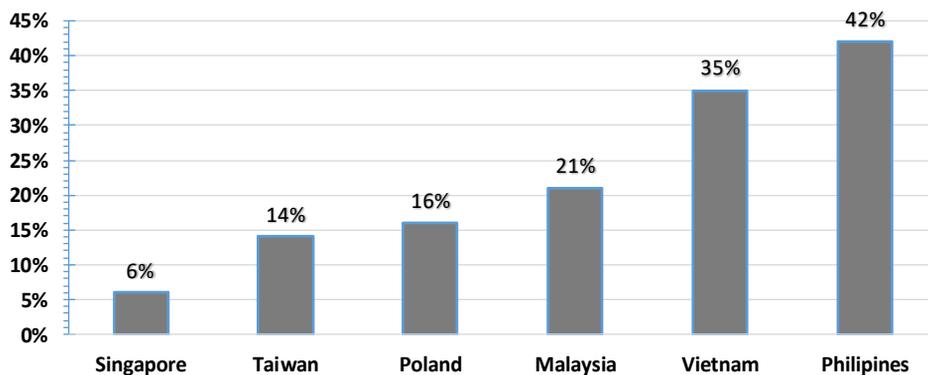
Graph 1. Gross Domestic Product (GDP) composition, by sector of origin

Source: Central Intelligence Agency, USA.

As illustrated in Graph 1, Vietnam has moved away significantly from agriculture as the main provider of wealth for the nation. The large percentage taken by industry also implies that the country is facing a rapid growth period in its typical style, as demonstrated by many other Southeast Asian countries. The manufacturing sector along with heavy industry will have to make room for more specialized production that will require a highly-skilled workforce, that is if Vietnam’s transition towards a knowledge-based economy proves successful.

Despite the fact that those shock reforms enabled Vietnam to thrive and generate very strong growth annually, there were areas in which the reforms failed. As noted by others, the increase in foreign direct invest-

ments had relatively low impact on employment and income generation. Furthermore, small and medium enterprises (SMEs) had a relatively small impact on new employment generation. This, coupled with bureaucratic problems in obtaining grants for entrepreneurial activities, curbed the local opportunities for self-employment. This reflects the central government policy towards SOEs and the IJVs. As the government is still trying to restructure its ownership of many companies, it can also be observed that it favors the growth of its own SOEs instead of supporting independent SMEs. What is interesting though, is the fact that those state-owned enterprises account for a significant portion of the industrial production, but generate little employment. This could be seen as a very efficient restructuring of highly inefficient and overstaffed SOEs, in itself this is a very positive development. Nevertheless, the central government has to rethink its strategy for the future as SMEs are the driving force of employment, and it is crucial to create a business environment that enables them to thrive. This can come at the cost of some SOEs (Ronnås and Ramamurthy, 2001, p. 31).



Graph 2. Percentage of total consumer expenditure spent on food in 2015

Source: United States Department of Agriculture, Economic Research Service, Food Expenditures 2015.

Graph 2 presents the other side of the Vietnamese success story: despite a fast-developing economy, the citizens of Vietnam spend about 35% of their general income on food and basic products. This in turn limits the possibility of coming out of poverty, and investment in education. What is more, if this trend continues, Vietnamese society will be locked into

this problematic situation. In countries that do move from a labor-intensive economy toward a capital-intensive economy, the population not only spends less on food and basic needs, but also can begin to invest. This in turn can be connected to the feasibility of the SMEs in Vietnam: if more citizens are able to save funds for future investments, the economy of the country can continue its fast-paced development. This is a typical problem for a country whose economy is nearing a crucial intersection. If the central government decide put further effort into connecting the country's economy with the general trend of pursuing knowledge-based industries, along with conducting research and development, its development-oriented efforts will prevail; if not, the economy will further be dependent on labor-intensive production, which will stop in the long run the ability to compete and develop, especially as the automation revolution is becoming a reality.

One of the possibilities for enabling the knowledge-intensive and capital-intensive economy in a developing country is by connecting with international actors. Looking at the examples from other Asian countries, like South Korea, Taiwan or mainland China, one can perceive similar patterns. This connection can be established by two main factors. One is attracting foreign direct investments (FDI), which bring not just the needed capital, but also new technology. The other factor by which countries can establish a linking bridge with international actors is international joint ventures (IJVs). This is a very useful solution for the local companies to gain new capital, transfer technology, and, what is more important, to learn know-how. Thanks to IJVs the local labor force can further develop its skills.

Table 1. Foreign direct investment projects in Vietnam licensed in the period of 1988–2015 by year and terms

Years	Number of projects	Total registered capital (Mill. USD)	Implementation capital (Mill. USD)
1991	152	1284.4	428.5
1995	415	7925.2	2792
2000	391	2762.8	2398.7
2005	970	6840	3300.5
2010	1237	19886.8	11000.3
2014	1843	21921.7	12500

Source: Adapted from UNESCO Institute for Statistics 2017.

The challenge to Vietnam lies in overcoming the apparent stagnation of FDI investments. As Table 1, shows after a period of fast growth in FDI, recent years have shown a disturbing trend of slowdown. While FDI funds are still being allocated in Vietnam, the pace at which this is happening is slowing down, which should in turn be a wakeup call for the central government to react. The central government has the possibility to clear up bureaucracy and join a number of international alliances related to new technology proliferation.

3. National Innovation System – A Bridge for an Innovative Economy

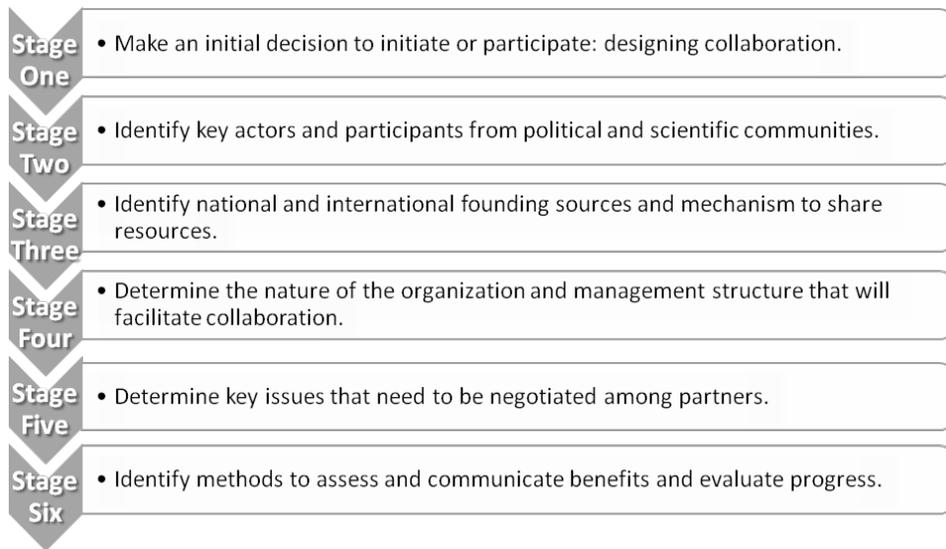
The focal point of innovation and knowledge diffusion that leads to economic growth relies on several aspects. The OECD stresses that one of the most important facts is that, more and more, innovations and progress rely on the interaction and cooperation between the business sector and academia. The OECD also makes mention of an additional fact regarding innovation that might seem rather obvious to some scholars, yet it is of crucial value to the whole national innovation system, that is the value of human resources, quality personnel is what drives innovation. In the present economic situation, most labor is allocated to the service industry within which manufacturers of different kinds do form bonds because of their interest in – as the OECD expressed – the knowledge-intensive services (OECD 1999, p. 9).

The National Innovation System, according to the OECD, is the most relevant because of the largely complex country-specific interactions which provide a suitable innovation climate and enable sub-regional and international technology and workforce flow with significantly growing attention to collaboration between different actors inside NIS (OECD 1997a, pp. 7–8).

There is no clear definition – the idea of NIS implemented in practice may differ significantly between countries as well as regions (both at local and at sub-regional levels) as well as between industries. It is clear that scholars also present varying approaches to NIS. Freeman gives his core definition of NIS as a network of institutions of both public and private sectors interacting with one another, thereby allowing for innovation to prosper and enrich the economy by technological and process diffusion. To this view, Lundvall – another prominent proponent in relation to NIS studies

– would add a distinction between a narrow and a broad definition of NIS. The narrow part would be related to R&D performers, such as universities, and science parks. Whereas his broad definition of NIS would include all aspects and actors that take part in searching for new knowledge, enhanced learning and innovative development, it would implement the whole socio-political system (Archibugi, Howells and Michie 1999, p. 3).

Innovation is usually an effect of complex interactions between numerous, different actors and institutions – as mentioned earlier in this section as well as in the OECD report, change does not occur in a linear fashion, but through interaction and feedback loops within the system. Those actors and institutions may take the form of links between research institutions, science parks, universities and private-sector companies; personal exchanges; co-publications; cross-patenting; or just by purchases of technology or know-how (OECD 1997b, pp. 9–12).



Graph 3. Steps in planning a cohesive innovation system

Source: RAND Corporation 2002.

As presented in Graph 3, RAND suggests the governmental institution’s focus on facilitating innovation and enhancing networking among the private sector and academia ought to be planned in order to reflect the needs of the whole nation, the science community, entrepreneurs and the market organizations.

To better highlight the importance of the National Innovation System, the below quote emphasizes the need for, and urgency in, building such network of connections, which seems particularly important for all newly developed and developing countries that are heavily focused on gaining their competitive advantage in the knowledge-based economy.

"[...] countries that fail to build capabilities enabling them to participate in the evolving global networks of knowledge creation risk falling further behind in terms of competitiveness as well as economic and social development." (UNCTAD 2005, p. 99)

The NIS in this example model is shaped by a system of organizations and institutions that distribute resources, knowledge and capabilities, enabling the creation of new knowledge and additional capabilities aimed at enabling the process of new value creation in the economy. In a way, this may be described as an institutional mechanism of economic growth and change (Kastele, Potts and Dodgson 2012, pp. 1–4).

One of the most important factors in general social development is the empowerment of women. This can be observed by lifting many barriers both related to education and professional development. The exact extent of barriers is related not just to the current level of development of a country, but also to cultural factors. Vietnam in this case presents a rather positive image, as barriers in obtaining higher education for women are virtually non-existent.

Table 2. University and college education by items, university and college in Vietnam (selected years)

Variables (in thousands)	Years			
	1995	2000	2005	2015
Students	..	899.5	1387.1	2118.5
Students – Public	297.9	795.6	1226.7	1847.1
Students – Non-public	..	103.9	160.4	271.4
Students – Male	714.5	1033.9
Students – Female	672.6	1084.6
Graduates	..	162.5	210.9	353.6
Graduates – Public	58.5	149.9	195	308.7
Graduates – Non-Public	..	12.6	15.9	44.9

Source: Adapted from UNESCO Institute for Statistics 2017.

As illustrated in Table 2, the government started further monitoring of student enrolment over the years. As the numbers show, there is an equal possibility for both sexes to obtain higher education. This is crucial in enabling the possibility for further development of human resources which are crucial for the knowledge-based economy.

What is more, the government of Vietnam has been raising the budget allocation for educational purposes steadily over the past several years. The central government is also trying to boost education by a series of programs; one in particular *National Education for All* in 2003 resulted in a 20% increase in the government's education budget – one of the highest in Asia according to the Oxfam report.

3.1. Developing education capabilities to enable the knowledge-based economy

Vietnam is taking advantage of the recent trend in increased mobility of students in general in the region of Asia. This can be particularly seen at the doctorate level of students, which also implies the increased mobility of scientists. This was also presented in the UNESCO study in which students from Central Asia along with their peers from Arab nations and Western Europe were far more likely to study abroad than students from other regions of the world. Furthermore, the UNESCO Institute for Statistics noted that Central Asian students were especially more likely to study abroad during their tertiary education, thereby surpassing the African nations. Those trends are being used by developing nations in Asia to further advance their human resource level by helping doctoral students to study abroad. The Vietnamese government is actively sponsoring the doctoral training of its citizens overseas. This is a very important issue for the central government as it is aiming to achieve a goal of growing the faculty of Vietnamese universities by 20,000 new PhD holders by 2020 (UNESCO 2015, p. 34).

This has to be connected with efforts at keeping and advancing knowledge from foreign firms which invest in Vietnam. If Vietnam is aiming at competing with its neighbors in the region in terms of highly skilled workforce, the spill-over effects from transnational corporations have to be boosted, by doing so the local companies partake in this general trend of growing professional staff (UNESCO 2015, p. 52).

The proportion of doctoral students pursuing a degree abroad varies from country to country. To illustrate this, a country like Saudi Arabia has

more doctoral students enrolled abroad than domestically. The outbound mobility ratio of tertiary students in Saudi Arabia sits at a record high of 109%. Vietnam takes second place in this ranking with the ratio of 78.1% in 2012, which corresponds to about 4 900 students enrolled abroad and 6 200 domestically (UNESCO 2015, p. 77).

Table 3. Share of female tertiary graduates in four specified fields in selected developing countries in 2013

Country	Science	Engineering	Agriculture	Health & welfare
Nepal	28.4	14.0	33.3	57.0
Philippines	52.1	29.5	50.7	72.1
South Korea	39.0	24.0	41.1	71.4
United Arab Emirates	60.2	31.1	54.1	84.6
Vietnam	n/a	31.0	36.7	42.3

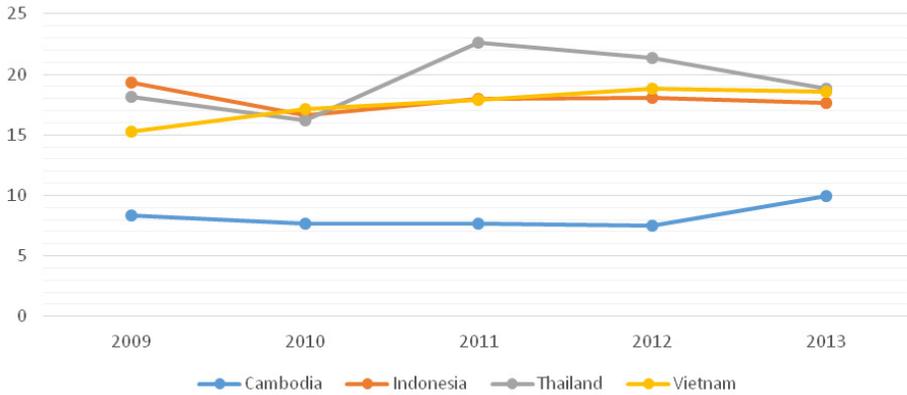
Source: Adapted from UNESCO 2015.

As shown in Table 3, only 31% of those pursuing a PhD in engineering are women, but there is a steady pattern of growth of interest in this field (UNESCO 2015, p. 93).

Furthermore, the percentage of women being employed as researchers in the business sector is at about 38% while it is still gradually growing. This is a higher percentage than for instance a more mature economy like Poland represented with its score of about 20% (UNESCO 2015, pp. 96–97).

Collaborative projects are also being carried out in the field of renewable energy, biotechnology, atomic energy and education. The Vietnamese government's efforts in obtaining more advanced technology included a series of meetings with Russian Federation officials. This resulted in a series of concrete agreements to initiate projects in the field of navigation technologies, agricultural biotechnology, energy and pharmaceuticals. An agreement was also reached in 2011 on the development of nuclear energy in Vietnam using Russian technologies and equipment (UNESCO 2015, p. 361).

As Graph 4 shows, in the recent years for which data is available, Vietnam has been keeping up its pace of investment in education. It should be, however, emphasized that more investment is needed in order to further capitalize on its human resource capabilities. Those investments should be mainly focused on building an external network for academia to obtain knowledge and experience from more developed countries, especially those with extended NIS networks.



Graph 4. Expenditure on education as a percentage of total government expenditure across all sectors in the period 2009–2014

Source: Adapted from UNESCO Institute for Statistics 2017.

3.2. Accessibility of credit and advisors for SMEs

As is typical of most South-east Asian countries, Vietnam’s economy mainly consists of small and medium-sized enterprises (SMEs). To be precise, about 98% of all companies in Vietnam are SMEs, the other 2% consist of state-owned enterprises and foreign TNCs with an additional small number of IJVs. The SMEs’ role in the economy is crucial as they contribute about 48% of Vietnam’s GDP, and employ about 77% of the total labor force available (Nguyen, Gan and Hu 2015, pp. 34–36).

This proves further that SMEs have a crucial role in social and economic development. The issue for Vietnam’s further development of SMEs is that most of those entities are micro companies. This is due to poor credit availability and lack of institutional support that could enable SMEs to engage in more capital-intensive production, further development of technology or, what is more important, to focus on R&D related investments. One can easily observe that the shortage of supporting institutions is the most urgent problem to address. This is related to the fact that most of the surveyed SMEs are run by managers lacking knowledge and education, which further results in the company lacking a strategy for future growth. The management quality of a company has crucial implications for the possibilities of further growth and low risk aversion.

Moreover, this also implies that the employees of such companies have limited possibilities to enhance their skill sets (Nguyen, Gan and Hu, 2015, pp. 34–36).

Such problems could be easily dealt with by establishing institutions dedicated to assisting SMEs in building their human resource capital, along with upgrading the managerial skill sets. Furthermore, this could also address the second issue that is crippling the development of SMEs in to more powerful players, which is the lack of capital. This is a core concept of developing the Vietnam's National Innovation System by spawning a range of institutions and connecting the whole network of academia, business and advisor institutions.

This problem consists of two major factors, one being the state of accounting requirements in Vietnam. Because of this, a significant number of Vietnamese SMEs are not properly conducting their financial documents. This in turn results in banks withholding credit availability for them as they cannot conduct a throughout check of the financial stability of such enterprises (Nguyen, Gan and Hu 2015, pp. 38–43).

As studies suggest, the mere presence of banking institutions in more rural areas does not help directly in credit accessibility. The key factor is the risk aversion and heavy reliance on an informal network of lenders. The informal system of relations known as *guanxi* (in Chinese) or *quan he* (in Vietnamese) could work out positively, especially in harnessing long-term mutual benefits, and cultivating trust and personal relationships (Yeung and Tung, 1996). This informal system may be even more important to urban low wage employees than rural ones, as the rural low wage earners may reduce purchasing by using self-produced products to mitigate the effect of negative market shocks. Furthermore, if such low credit accessibility represents the average level for all SMEs in Vietnam, the credit accessibility must be far lower in more rural parts of Vietnam, or simply outside of Ho Chi Minh City and Hanoi.

The credit availability for households has implications for formal self-employment and further strengthening of SMEs in Vietnam. The informal network of lenders is more popular in the rural areas where the probability of borrowing has been recorded as higher than their counterparts in cities, as social relationships tend to be stronger in smaller rural communities. What is more, citizens in urban areas have greater access to government subsidized credit funds, which in turn affects the need for using informal lenders. What has been proven is that the distance be-

tween households and a banking institution has a serious impact on the borrowing possibilities, which in turn allows for further informal lending growth. This affects the type of credit that is being pursued by households. Those loans are used mainly for current consumption not for future investments. This in turn affects the overall possibilities for improving social welfare (Doan and Tuyen 2015, pp. 175–198).

The government of Vietnam's most urgent issue to attend to lies in improving the rule of law that would improve more than just credit availability, as this issue is related to inefficient links between households and the registration system itself. It is estimated that about 5 million Vietnamese citizens do not possess a permanent registration in their place of residence, which in turn limits their access to such services like health, education and the above-mentioned credit. This further highlights the issue of social inclusion, especially in more rural areas (World Bank Group 2016, pp. 282–283).

4. Discussion of Selected Risks for Innovative Development

The main risk for the NIS creation lies in the political sphere, since Vietnam's ruling party only adopted the *Đ i M i* reforms due to a critical situation within Vietnam's economy. It was a bold chance to reconnect the country with international markets in order to improve the quality of life for its citizens. This may imply that the political establishment could opt for prolonging the current status quo, as it serves the short-term goal of creating wealth for the general population. Out of this may arise issues with social inequality and a social divide which is rising rapidly. On the other hand, such a hesitant approach could put Vietnam in a very unfavorable situation in the future as a latecomer to the general innovative economy; thus, its local businesses would face some heavy barriers and enormous challenges to become competitive internationally.

In general, latecomers are affected by three major disadvantages:

- first movers have an advantage in the market in the form of early captures of consumers and developing brand recognition;
- first movers have a competitive advantage in the form of pre-emption, for instance the capture of key resources;
- first movers possess the advantage of the learning curve effect.

Additionally, latecomers face a bigger problem with attracting a highly-skilled workforce as well as the higher costs of adopting new technology, which, for instance, can take place through licensing deals with market leaders in more well-established markets.

It is crucial to remember that the ruling party has been trying to change this problematic situation. The Communist Party of Vietnam's (CVP) solution relied on the fact that by possessing such immense power in establishing a new rule and enacting it, there was a possibility to quickly reshape the internal situation. However, using vast governmental power to deliver strategic decisions at the enterprise level, this strategy had one major drawback: it undermined the possibility of a bottom-up movement towards rearranging the status quo by local authorities (Witt and Redding 2014, pp. 284–285). Despite that, the CVP managed to integrate Vietnam into the international market by joining the World Trade Organization (WTO) in 2007 as a member. The central government tried to further quicken the pace of adjusting the national economy, this was marked by the launching of Public Administration Reform (PAR) in the years 2001–2010. The main aim was to cut red tape and streamline the framework by putting further emphasis on decentralization. This, along with ambitious plans of further SOEs reforms, could develop more effective and accountable state administration. Unfortunately, not only did the SOE's reform lag behind the party's scheduled goals, but also the general goals of the reforms were beyond reach. The problem with streamlining decision-making by using decentralization is related to the fact that in order to achieve any compromise on important issues, local authorities required a lengthy process of negotiations. This was highlighted by an additional factor – the central and local institutions do not cooperate extensively enough, coordination of their agendas seem largely undeveloped, a typical problem while taking such decentralization efforts. This has been addressed by the central government's further insistence on decentralization, which led to localism (Witt and Redding 2014, pp. 284–285).

This led to an ever-growing problem of favoritism and corruption, which seems to be the problem gripping many developing nations. If not addressed properly, this could spiral completely out of control. This has already taken its toll as Transparency International indicates in its yearly ranking: in 2016 Vietnam scored 33 out of 100 points placing it at 113th out of 176 countries that were measured. It is a significant problem for Vietnam because in the period of 2008–2010 it scored 27 points and in

the period 2012–2015 Vietnam scored 31 points (Transparency International 2016), proving that efforts aimed at restructuring the Vietnamese economy take a significant amount of time. Still, some progress is being made, but unfortunately such a slow pace may not be enough to enable a bright future for Vietnam.

The repercussions related to climate change may still be the most damaging for Vietnam if it does not seize the new economic opportunity that lies in innovative sectors of the economy. The manufacturing revolution that still seems to be prevalent in Vietnam may in fact bring this nation even closer to its own peril. The labor costs do provide an incentive for foreign multinationals to locate low skilled manufacturing in the country, but this brings additional risks of pollution.

Vietnam's last two decades of fast transformation showed the nation managed to curb poverty and social exclusion significantly. This growth, however, resulted in completely new and highly complex challenges for both government and society. As the fast development continues, the central government is struggling to keep tabs on all the important issues within the country. As the Non-Government Organizations (NGOs) enter the country, further streamlining policy towards them is necessary, both in order to allow them to succeed in helping the society, and, additionally, in creating further trust in government institutions dedicated to serving its citizens (Taylor et al. 2012, pp. 6–8).

The main problem that NGOs are facing in Vietnam is their appeal to citizens. Some do perceive them as quasi-government institutions with unclear motivations. In case of research institutions this seems particularly interesting as they receive vast amounts of funding from the government itself. This situation blurs the line of what exactly NGOs stand for and who has influence over them. A more transparent approach is needed in order to further strengthen the image of NGOs the vast majority of which are focused on mainly charitable work in remote parts of the country, without which many citizens would suffer (Taylor et al. 2012, p. 7). For instance, due to the geographical location of Vietnam, the country's southern regions are the most exposed to the effects of climate change. This issue has been one of the most crucial for civil society organizations in Vietnam. The only major agents in addressing climate change mitigation and adaptation are NGOs. The additional issue being that NGOs are mostly clustered in two major cities in Vietnam: Hanoi and Ho Chi Minh City (HCMC). The intriguing part is in the fact that despite the central government lacking

abilities in creating a wide network of agents related to NIS, the NGOs have a strong networking focus. As resources, both financial and human, are scarce, the level of cooperation between NGOs is a powerful message showing that there is a cultural understanding towards a more connected institutionalized society. About 92% of NGOs in Hanoi and 90% of NGOs in HCMC declared that they frequently meet with similar organizations to strengthen cooperation (Taylor et al. 2012, pp. 17–22).

It is imperative to remember the results of a recent study on the potential impacts of sea level rise on 84 coastal developing countries. The study shows that sea level rise as high as 1-metre would affect approximately 5% of Vietnam's land area, at the same time affecting the lives of 11% of the population. This would have an additional disruptive impact on Vietnam's situation, as the study suggests that it would affect 7% of agriculture and furthermore reduce the country's GDP by 10%. The projections for 3 and 5-metre sea level rise scenarios for Vietnam are described as "catastrophic." The study suggests that out of the 84 coastal developing countries it had analyzed, Vietnam would rank among the top 5 most affected countries (Dasgupta et al. 2007).

Vietnam's government did adopt a policy framework for disaster management, i.e. the Second National Strategy and Action Plan for Disaster Mitigation and Management 2001–2020. This Strategy is aimed at increasing awareness and participation and minimizing loss of life and assets. However, despite its general preventative aim, The Second National Strategy is devised principally to address the short-term scenarios of climate change rather than respond to the future. Moreover, the strategy also focuses on emergency response and reconstruction rather than risk prevention and adaptation. There is also a marked lack of integration between disaster risk reduction policies and wider policies for rural development and poverty reduction. This connects the climate change issue with the still undeveloped ties between the government and civil society. NGOs have a great opportunity to help Vietnam's population with the general attempt at preparing itself for the challenging future of climate change, as well as addressing some crucial poverty related issues (Government of Vietnam 2001).

The undeveloped tie between the central government and NGOs is troubling as it both stagnates the grass roots movement and additionally stops innovative and entrepreneurial actions taken by individuals. Most troubling is the continuing lack of a clear legal framework for NGOs

which creates an uncertain environment and reinforces the importance of personal networks. Laws on association registration practices have been debated, but no significant act has been passed to resolve the issue and construct a transparent legal framework to conduct such actions, which further curbs grassroots movements (Taylor et al. 2012, p. 21).

5. Conclusion

The economic future of Vietnam presents a multitude of opportunities. From a historical perspective, the image of Vietnam is of a nation capable of fast transformation from a closed market economy to an open market economy.

The most impressive observations derived from that process of transformation are the rapid pace at which extreme poverty is being eradicated as well as the overall access to basic education and the equal opportunities for obtaining higher education for both sexes. The empowering of women is a crucial factor that can highly contribute to the future growth of Vietnam.

Moreover, as the paper presents, there is a significant gap in bridging together academia, and the private sector to enable a more knowledge-based economy, which in turn could help in creating a sustainable, competitive and innovative economy in the years to come.

It is suggested by the author that the best possibility to enhance the speed and efficiency of transition from a typical manufacturing economy towards a knowledge-based innovative economy lies in establishing network of agents connected by mutual interest. This is best described by the National Innovation System theory, and its implementation within Vietnam's currently existing institutions could strongly support this vision. This is especially vital as the other countries of South-east Asia have implemented this solution with great effects, thereby creating robust economies and lifting the general wellbeing of their citizens. Vietnam's situation is similar, not only based on the current development status of its economy dominated by SMEs, but also on the similarities in culture and network creation behavior.

The type of development Vietnam is going to follow is in the hands of the main social and political forces. Development is a political process, and in that process decision-making rationality is often derived primarily from considerations of political power, not from the information generated by assessment studies (Henry 1990, pp. 91–101).

Despite this, Vietnam's performance so far has been an interesting case which requires further study as its status continues to develop. Additionally, there are a number of issues that need better understanding – for instance: the general availability of capital in rural areas, the entrepreneurial traits of culture, and the effects of clustering TNCs in the two main cities on network development with academia.

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