

Innovation and SME Development: Indonesian Experience in Uzbekistan Context

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Abstract

Under the current increased interdependence and market globalization product and service markets have been in constant change. These changes in their turn contributing to the rise of the level of competition putting enormous pressures on enterprises of all sizes to respond quickly to the changes and developments in market affairs. One of the crucial factors of survival in this highly competitive world economy is to find the way to increase the productivity and efficiency while reducing the costs. Thus, the key for success has become enterprise's capacity to innovate and come up with innovative solutions to the production processes. It is nowhere as obvious as in the case of small and medium sized enterprises (SMEs) whose share and contribution to the overall economy have been increasing, especially, in the developing or transition economies.

Keywords: Innovation; Innovation and small and medium-sized enterprises; Research and development; Innovation development; Small and medium-sized enterprises development; Indonesian experience; Interdependence; Association of Southeast Asian nations

Introduction

Under the current increased interdependence and market globalization product and service markets has been in constant change. These changes in their turn contributing to the rise of the level of competition putting enormous pressures on enterprises of all sizes to respond quickly to the changes and developments in market affairs. One of the crucial factors of survival in this highly competitive world economy is to find the way to increase the productivity and efficiency while reducing the costs. Thus, the key for success has become enterprise's capacity to innovate and come up with innovative solutions to the production processes. It is nowhere as obvious as in the case of small and medium sized enterprises (SMEs) whose share and contribution to the overall economy have been increasing, especially, in the developing or transition economies.

Since gaining its independence in early 90s, government of Uzbekistan has paid serious attention to encouraging innovative activities of enterprises through direct and indirect state assistances and legal support. It is especially case with small and medium sized enterprises as their stake in the national economy is increasing sharply. However, although the concept of innovation is widely discussed and mostly used by the politicians, as a theoretical notion little attention has been given by the academic community. Very little, if any, scholarly work has been done on innovation in the context of SME and its likely contribution to national economy. Therefore, the current paper intends to propose new insights for further research by highlighting recent trends in innovation literature and some ASEAN countries' policy in the development of innovation in the context of SME.

Literature Review

There are wide range of definitions have been proposed on 'innovation', however, general logic of the term is quite straightforward. Innovation is a process which involves creating or re-engineering products or services to meet new market demand, introducing new processes to improve productivity, developing or applying new marketing techniques to expand sales opportunities, and incorporating new forms of management systems and techniques to improve operational efficiency (Bologna SME Conference, 2000). Or,

putting it simple, innovation is a commercial exploitation of new ideas as products, processes and organizational techniques [1]. Innovation takes many forms, from investing in research and development (R&D), to gaining knowledge and experience from others' investments. The main goal of the innovation is to ensure higher productivity through investing in knowledge capital, because markets that rely on input resources and price signals alone cannot be effective in ensuring higher productivity.

Innovation, be it in small or bigger scale, has a direct impact on overall national economic performance. Innovation is considered to be vital in addressing market failures, ensuring higher productivity, and contributing to overall economic growth. Thus, governments have been doing their best to establish a favorable climate for product and service innovation in order to create a more progressive economy and greater employment opportunities. However, it is not to say that any state policy aimed at promoting innovation will bring desired outcomes. State innovation policy is deemed effective when the benefits exceed the costs of deployed resources, and social returns are greater than their alternative uses. Therefore, in evaluating the efficiency and effectiveness of innovation policy one should compare the level of spending and ultimate social returns. More often than not, according to some studies, social returns to innovation are high and exceed private returns by a wide margin [2,3].

The role of innovation in economic progress is undeniable and there is body of literature that proves it. The initial scholarly interest in the role of innovation in economic dynamism arose from the work of Schumpeter [4]. The topic further developed by Solow with a new emphasis on explaining the origins of innovation. In contrast to neo-

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classical economists who believe that capital accumulation is the main driver of economic progress, innovation theorists contend that evolving institutions, entrepreneurs and technological change lay at the center of the growth. As Schumpeter's remarkably put it, creative destruction is crucial to economic progress.

However, it took some time until Schumpeter's ideas on the role of innovation in economic growth has gained greater acceptance amongst scholarship. The literature on innovation is now vast. Leading scholars of innovation economics include Paul Romer, Elhanan Helpman, W. Brian Arthur, Robert Axtell, Richard R. Nelson, Richard Lipsey, Michael Porter, Christopher Freeman, Igor Yegorov and etc. Common belief is that innovation is an important answer to the fundamental issue of economics - puzzle of total factor productivity growth.

For the innovation theorists' economic growth could no longer be sustained through the traditional ways of increasing inputs used in the production process. Instead, creativity and new ideas are needed for generating growth and ensuring economic prosperity. Proponents of innovation claim that the notion of capital accumulation is no longer relevant to the current knowledge-based world economy. The only way to prosper is innovative capacity facilitated by knowledge and technological externalities [5].

For a group of scholars, the impact of innovation tends to explain labor productivity [6]; Roper et al. [7]. Some of them use value added per labor as an independent variable [8], while others give a bigger credit to the turnover per worker [9]. Both approaches provide evidence that innovation contributed to the increased welfare. Contribution is of twofold: it may lower the costs or expands the demand, or both. If enterprise faces a perfectly inelastic demand then the price cuts resulted from the successful introduction of innovation would impact productivity increase and, hence, the increase in welfare. Consequently, a price reduction expands sales and turnover, and productivity increase understates the value of the innovation [10].

Needless to stress, until recently development of innovation and formation of knowledge-capital have been attributed exclusively to the large manufacturing firms and studied through this prism [11-14]. This stems from the fact that introduction and diffusion of innovation used to be costly, and small and medium sized businesses could barely afford it. Likewise, lack of sufficient human resources is also one of the reasons that SMEs usually record weak performances in terms of research and innovation.

Lessons from Indonesia

However, more recently due to the technological advancement and development of information-communication technologies, coverage of the innovation has been expanded to small and medium sized businesses, and hence their matter for the national economy is rising steadily [9]. Innovation, Schumpeter [15] put it, has become a competitive stake for SMEs in terms of their place in the productive system of economies. Today investment in new technologies and know-how is strongly associated with innovation by smaller businesses and this has been contributing to the overall national economic progress. It is especially true with some ASEAN economies where small and medium sized enterprises account for more than 90% of all enterprises and whose share and contribution to the overall economy is utterly enormous.

Speaking particularly of Indonesian case, SMEs account for up to 97% of employment and contribute to 58% of country's overall GDP. Thus, particular attention of the Indonesian government has

been paid to boosting competitiveness and productivity of SMEs through promoting innovation. And country's Science, Technology and Innovation (STI) policy aim at transforming the entire national economy into knowledge-based economy (KBE) as it is recognized to be an important determinant of the national wealth and prosperous future. Recent economic downturns have made innovation far more important to target challenges, enhance country's competitiveness and ensure greater employability [16]. According to the data, so called Gross Expenditure Research and Development (GERD) was accounted for about 8.09 Trillion IDR in 2014, which is roughly 49% greater than it was in 2009 and much higher than previous years [17]. Moreover, according to innovation sub-index of the Global Competitiveness Report, Indonesia ranked 30th amongst the 144 countries in 2014 which is also a remarkable achievement as compared to other developing economies.

Enterprises of sizes, be it state-owned or private, are highly encouraged or urged to closely collaborate with the national and independent research institutes and country's leading universities. Indonesian government is also improving the intellectual property system, creating supportive schemes that encouraging and boost patent applications. The state ministry which responsible for research and technology (RISTEK) is trying to increase the capability and capacity of leading research institutes through supporting them improve their research infrastructures and build networks with their counterparts in abroad, and hence, enhance their contribution to the national innovation system. Indonesian STI policy is multidimensional and many agencies are involved in this process. Furthermore, in 2010 Indonesian government established an independent National Innovation Committee in order to ensure efficient and effective coordination of the collaboration between respective agencies. Along with this, in 2012, it was established Indonesia Endowment Fund for Education which was aimed at effectively managing the budget provided for research and related infrastructure development.

It is important to stress that a wide-scale governmental measures to promote innovation in SMEs have made an impact on the Indonesian national economy and the data clearly proves it. For instances, according to the estimates of McKinsey Global Institute [18], Indonesia has become 16th largest economy in the world and it is expected to become 7th by 2030. Moreover, based on World Bank Data [19], years right after the global financial crisis, Indonesia has been able to sustain relatively high GDP growth rate, averaging 5.8% between 2010 and 2014 (6.2% in 2010, 6.2% in 2011, 6.0% in 2012, 5.6% in 2013 and 5.0% in 2014). Indonesia's admission to the G20 club is another recognition of its position in the world economy.

The relationships between Uzbekistan and Indonesia was officially established on June 23, 1992. Both countries have recognized the importance of each other's potential. The government of Uzbekistan recognized the strategic importance of Indonesia, Southeast Asia's largest economy, the world's 10th largest economy in terms of purchasing power parity (PPP) and the world's biggest Moslem population. Meanwhile, the government of Indonesia is aware of Uzbekistan strategic importance as the gate to Central Asia, and a growing economy also a potential market. In terms of diplomatic relations, Indonesia has an embassy in Tashkent, while Uzbekistan has an embassy in Jakarta. Both countries have Moslem-majority population and both are members of Organization of Islamic Cooperation. The bilateral trade between Indonesia and Uzbekistan is about US\$ 13.6 million in 2014. The export volume from Indonesia to Uzbekistan reached US\$ 8.7 million in 2014, while import from Uzbekistan to Indonesia reached

US\$ 4.7 million. Based on Indonesian Ministry of Trade data [20], the main export commodities from Indonesia to Uzbekistan in 2014 were refrigerators, freezers and other refrigerating or freezing equipment (total export US\$ 5 million); margarine (USD 1.6 million); nonwovens, whether or not impregnated, coated, covered or laminated (US\$ 0.3 million); tea, whether or not flavored (US\$ 0.3 million); and soap, organic surface-active products for use as soap, in bars, cakes (US\$ 0.1 millions). While the main import commodities from Uzbekistan to Indonesia in 2014 were spark-ignition reciprocating or rotary internal combustion piston engines (total import value US\$ 3.5 million); pulps of fibers derived from recovered (waste and scrap) paper or paperboard or of other fibrous cellulosic material (US\$ 1.1 million); and cotton, not carded or combed (US\$ 0.09 million).

During the years after gaining independence from communist system, Uzbekistan has also undergone serious transformations towards building of a democratic state based on market economy. Legal and institutional foundations of the market economy have been established with the aim of enhancing competitiveness of national economy and ensuring greater progress in terms of national wealth. Due to the state economic policy and programs, Uzbekistan's economy has been developing on average of 7 % throughout past decades, which is higher than global average. However, the main issue at stake is to determine the core driver and/or source of factors that have contributed to this stable growth. Needless to stress, not all the credit could be given to the innovation policy. Natural resources and industrial policy of the government have a bigger share in the economy progress during the early decades of national development.

However, in recent years, greater emphasis has been put towards creating the conditions and prerequisites for fostering the development of innovation pillar of national economy. In 2006, in accordance with the decree of the President of Uzbekistan it was established the Committee on Coordination of the Development of Science and Technology under the Cabinet of Ministers of Uzbekistan. The main task of the committee is to coordinate the activities on the development of science and technology in national as well as local levels, to ensure effective coordination between state agencies involved in research and development, to monitor the effective implementation of research programs and projects, to ensure the use of the results of researches and innovations, to develop mutually beneficial international scientific and technical cooperation, and etc.

Another remarkable step to foster the development of innovation is the President Decree "On measures to stimulate innovative projects and technologies in production" from July 15, 2008, which sheds light upon the creation of mechanisms to facilitate the promotion of applied research and innovation, and provision of closer collaboration between science sector and enterprises, especially SMEs. Today, more than 200 organizations are involved in research and development activities to support enterprises. These organizations deal exclusively with conducting fundamental and applied researches, experimental-design development and implementation of their results in the production.

However, vast majority of the organizations involved in research and development mainly collaborate and have an agreement of cooperation with bigger businesses and industries. Innovative development in SME sector has gained lesser acceptance not due to the lack of attention from the government or miscalculation of the impact of such innovation, but rather due to the cost associated with such research and development which small businesses not always able to afford. Another issue is that there is insufficient studies and research in local level on the role of innovation in SME development

and scientifically proven recommendation on how to foster innovative development of small and medium sized enterprises. Additionally, the system of state stimulations and preferences for innovation in the context of SMEs does not meet the desired level yet.

For the stated reasons, it is recommendable that the state innovation policy should provide serious attention to the following measures:

- On the issue of access to financing for research and development, government should provide support for venture capital and other types of risk financing through tax incentives;
- Government should establish a clear mechanism to work directly/exclusively with SMEs through offering special financial arrangements for research activities, particularly in the early stages of development of SMEs;
- Access to new technologies and know-how should focused on cooperative information-sharing at the local, regional, national and international levels;
- National patent system should be effective, user-friendly and with lower cost. Special patent regime for SMEs could be very efficient;
- High priority should be given to the education and training in order for providing a competitive foundation for the economy in general;
- Scientific research and studies should be promoted and, if necessary, financed in order to involve researchers in the applied research to come up with scientifically proven recommendation on how to foster innovative development in SME sector;
- Finally, regulatory and administrative burdens should be seriously reduced.

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