

BUILDING SUSTAINABLE SMALL AND MICRO ENTERPRISES IN BENIN: IS INNOVATION POLICY THE WAY FORWARD?

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Abstract

Benin like most sub-Saharan countries is faced with a series of challenges that hinders economic growth and development. One of the main challenges is the inability to develop and maintain indigenous innovative firms. Thus affecting the growth of firms that are mostly small and medium enterprises. Despite of the fact that central government has enacted policies to promote innovation in terms of modernizing agricultural mechanisms and techniques there have being lack of similar policies to promote the establishment of innovative firms whiles empowering existing ones. In view of this, this study seeks to examine how innovation capabilities of small and medium enterprises can be boosted or improve through design and implementation of national innovation policy that are firm-centric. The study adopted a conceptual approach where a SMEs-Innovation policy model was developed to appropriate the

activities of each actor. And further define the role and responsibilities of each actor so as to achieve the set objective of the policy. The model encompasses all the various actors in the innovation ecosystem. It would furthermore simulate coordination and interaction activities between actors.

Keywords: Small and medium enterprises, innovation policy, innovation activities, firm performance, sustainability

INTRODUCTION

The ability of firms to be innovative over the years has being a contributing factor for building a sustainable national economy. When firms are able to innovate it enables them to gain competitive advantage at both the regional and national level. Therefore having a vibrant enterprises that is innovative is essential to the development and sustainability of an economy (eg. Porter, 200, Lawson & Samson, 2001; Kinght & Cavusgil, 2004). Although innovation contributes to the development of most firms', larger organizations turns out to be more innovative than small and medium enterprises comparatively. And this is seen especially in developing countries. Small and Medium enterprise plays a significant role in the development of national economies in developing economies through the creation of jobs, source of government revenue generation, innovating new technology products and services. This will improves the quality process of the value creation activities of firms enabling nations to contribute to the global value chain. It will further boost the standard of products in terms of value and quality (Weerawardena & Mavondo, 2011; Rothaermel & Hess, 2007; Camison & Villar-Lopez, 2012; Birchell et al, 1996).

Despite the impact of innovation on both firms and nation's performance there seem to be little done to improve the technological innovation capabilities of firms especially small and micro enterprises in developing countries. This is attributed to a number of factors that includes low capital to invest in research and development, lack of the scientific expertise to conduct technological research, lack of institutional support and among others (Marsden, 1990; Steel & Webster, 1992; Sowa et al, 1992; Aryeetey et al 1994; Parker et al, 1995; OECD 2009 Ayyagari, et al 2006; Tung & Aycan 2008 Ladder, 1996; Gbandi et al; 2014).

Small and Micro enterprises forms a major part of national economies therefore to achieve a sustainable economy there is the critical need to have a vibrant SME sector. Furthermore since is a large employer of a nation's workforce is essential to promote activities that would encourage firms to be innovative technological so as to survive in individual

industries (eg. Snodgrass and Biggs, 1996; Davidsson and Henrekson 2002; Thurik and Wennekers, 2004).

Although technological innovation is needed for both firms and nations to gain competitive advantage in the long run, it cannot be treated as a standalone process. This is because small and micro enterprises in developing countries do not have the requisite skills, knowledge and capital to improve its innovation capabilities. Therefore there should be institutional support from public and private institution to aid a smooth transition into this process (WEF, 2007; AfBD/OCED, 2008). Through these activities firms might gain access to the requisite skills, knowledge and capital needed to be innovative. The purpose of this interaction between various actors in the economy is to stimulate an enabling environment that will harness the available resources so as to make efficient use of available natural resources. This will enable developing countries especially in Sub-Sahara to move away from the supply of raw materials to development of intermediate and finish goods. Since firms will gain the needed technological skills and innovation to improve its business processes and quality of its product (Lundvall et al, 2002; OCED, 1997; Juma & Yee-Cheong, 2005).

In Benin like most developing countries in Sub-Sahara Africa the economy is made up of Small and Micro enterprise with low innovation capabilities. Small and Micro enterprise turns out to be a major component of job creation and employment. Due to the benefits that firms derive from an innovative environment, it has prompted government to design, develop and implemented national science and technology policies. The aim of these policies is to encourage the coordination of diverse actors associated with the nation's innovation process. Although this policies plays a significant role in the development of innovative systems, most of the policies developed in Benin focus on achieving modernize agriculture (eg. Klerker et al, 2013; Roling et al, 2004).

Therefore this paper seeks to examine how innovation policy can boost the technological innovation capabilities of small and micro enterprises in Benin. This would enable firms to add value to raw material generated from modernized agriculture. Also the aim of attaining an industrial economy status the ability to add value to raw material is critical in achieving this feat. The study seeks to develop a cooperative model to stimulate coordination and interaction between the various actors so as to tap maximum benefit from the social capital that this network provides.

The study is organized as follows, section 2 focus on innovation policy and the performance of firms in developing economies, section 3 focus on the cooperation model and lastly section 4 deals with the conclusion of this study.

INNOVATION POLICIES AND FIRM PERFORMANCE

In a dynamic and complex business environment that is coupled with fierce competition, there is the critical need to develop policies and strategies that would simulate efficient use of resources so as to develop products and service that has approved and acceptable standards in terms of quality and value. Since technological innovation cannot be treated as a standalone issue but rather an integrated activity aligned with national policies. Due to the significant benefits that both firm and nations as a whole derives from innovative and competitive firms has motivated most central governments to developed policies to stimulate the activities of science and technology. And this has promoted scientific research and joint projects among various actors in the economy to achieve the national innovation target. This is evidence in developed countries, for instance in Europe has promoted the use of ICT in businesses especially SME's and this has spark a new range of innovation. This has contributed to firm knowledge base and innovation capabilities by applying these new technologies. A survey among e-business firms in Europe suggested that innovation policy contributed to firm's ability to adapt to new technologies. Furthermore, it enables previously non-innovative firms to be more innovative and productive. Firms have had access to new market segment and this have a positive impact on the socio-economic activities of the nation. This has therefore had significant influence on the performance of firms and nation economy in the aggregate (Koellinger, 2008; Lin et al, 2013; Adner& Kapoor, 2010; Liu & Wu, 2011).

Furthermore, innovation policy stimulates research and development between both public and private organization. Since research and development is cost-expensive activity national policies serves as a guide that defines the direction of national science and technology development. This enables each party to have a fair share of the social capital that arise from the interaction between diverse entities within the whole innovation ecosystem. These innovation networks promote knowledge and information sharing and this further has an impact on the entire innovation cycle. Since each actor will have access to the relevant information to be innovative. Therefore promoting firms to take center stage in the innovation ecosystem would have a significant influence on firm performance. Since technological products and services developed from this joint projects would be tailored made to solve real world situation in the dynamic business environment (Mytelka, 2004; Gronum et al, 2012; World Bank 2010; Christine et al, 2002; Herrera & Sanchez-Gonzalez, 2012).

Despite the benefits that firms derived from external research and development subsidiaries and cooperation's this activity is faced with a series of challenges especially within small and micro enterprises. And this hinders the attaining of innovation policy set targets. Since small, medium and micro enterprise forms a viable part of most economies especially in

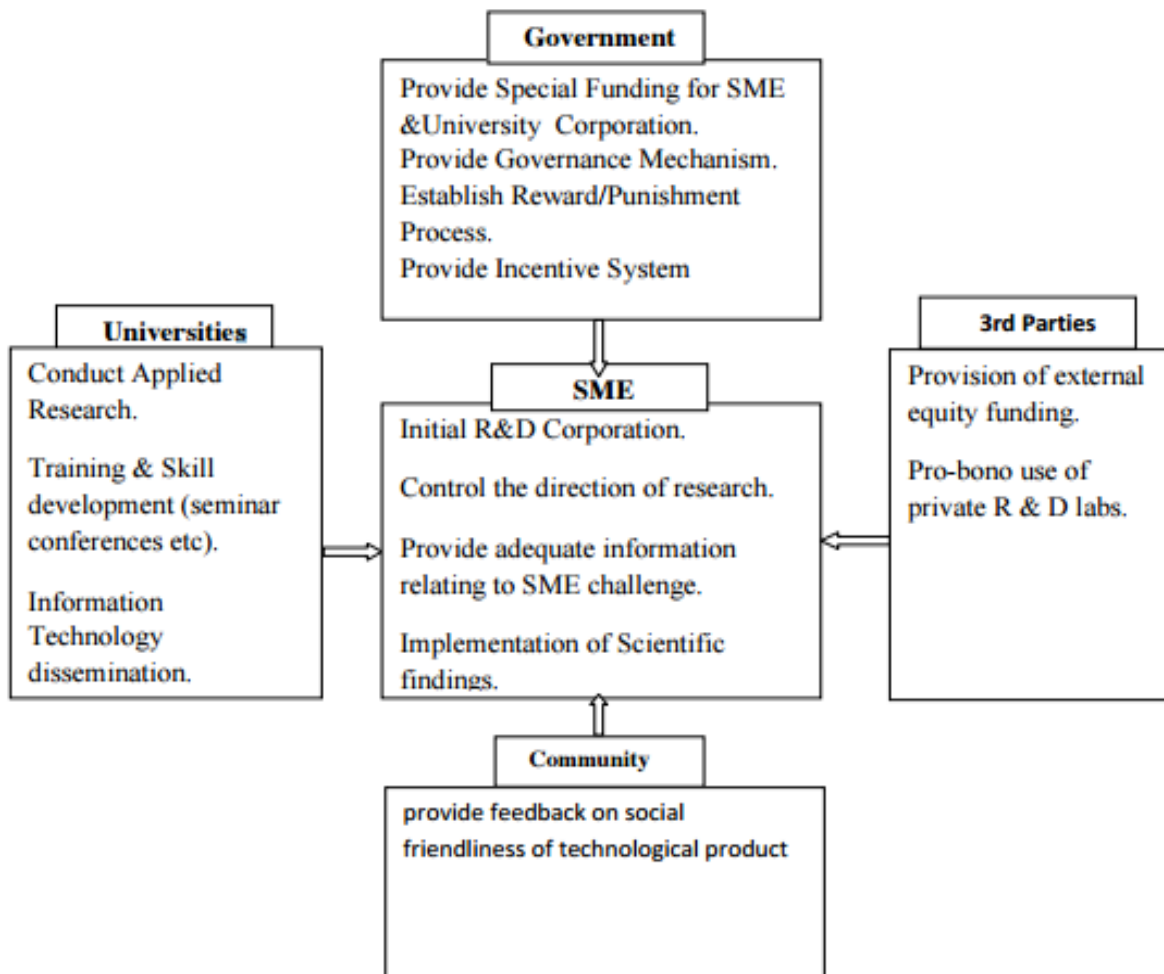
developing countries it is rational to incorporate these enterprises into the national innovation policy to drive maximum output from this sector. Small, Medium and Micro enterprise are associated with a high failure rate therefore is critical to formulate innovative policies to address the innovation deficiency of this sector. Achieving a viable innovative SME sector would further contribute to attaining sustainable economy (OECD, 2006:2007; Richard & Adams, 2004; UNIDO, 2002). Despite developing economies in sub Sahara Africa has developed and implemented policies and strategies to boost the innovation capabilities of indigenous firms, there has not being any significant changes in the abilities of firms to be innovative. This can be attributed to the generalized nature of these policies that is not sector and firm-oriented. Furthermore the inability of developing countries to tap into existing knowledge and technology has slowed down the innovation diffusion process of already existing innovative process. And this has slowed down the capacity growth of firm in their of developing its own internal and external innovative environment and capacities. Furthermore factors such as non-existence of physical infrastructures have affected this process. Therefore making most indigenous firm non-competitive and non-innovative (World Bank, 2008; Lundvall, 1992; Juma& Yee-Cheong, 2005).

ENHANCING THE TECHNOLOGICAL INNOVATION CAPABILITIES OF SME: SME – INNOVATION POLICY MODEL

This section of the study discusses a new policy cooperation model that would foster innovation within small and micro enterprises and other actor in the macro economic. The purpose of this model is to enable government to design and implement that are small and micro enterprise focused. This would encourage other others such as universities, research centers and other third party actors such as donor funds and NGO to gear their research and resources towards the development of a vibrant and sustainable SME sector. In this policy model, small and micro firms are placed in the center stage and all other actors perform their activities in accordance with what is affecting the growth and sustainability of this sector. Also this model aids to build the innovation capabilities of small and micro enterprises. Through the interaction of the various actors involved small and micro enterprises would have the needed skill and knowledge to develop its internal innovation capabilities. The ability for firms to tap into this external knowledge and skills depends on how interactive and flexible this process is. Therefore this model emphasize on an efficient communication medium between all actors in diverse stages of innovation cycle. Also the policy should include incentive that would motivate the actors associated in the innovation process to move towards the stated direction. Providing incentives would enable different actors to feel the sense of recognition and this would enable individual organization to give in their best in terms of expertise and knowledge.

Furthermore, to achieve an effective policy implementation there is the critical need to identify and define the role and responsibilities of all actors involved. Also the research direction should be changed towards a more applied one so the findings from scientific research conducted can be implemented in real world situation and on a general scale too. Also how funding and compensation for these activities should be clearly defined. This should be coupled with medium of access this funds and the conditionality's associated with it (e.g. Since the policy is small and micro enterprise oriented, any research entity that want to access this funds needs to conducts research into a real-life issue affecting small and micro enterprises) and this would prevent the abuse of funds for unwarranted activities. Since this is a social network involving human actors it is essential to have a reward and punishment scheme so as to encourage acceptable behavior in the network and deter other from bad conduct that voids the terms and agreements of this policy.

Figure 1: SME-Innovation Policy Model



Purpose of Actors in Policy- Network

Government

The government in this scenario turns to be a major player in terms of policy formulation. Therefore to achieve an innovative small and micro enterprise sector it is critical central government takes up an interest in it. Despite government has formulated many policy to boost the innovation capabilities of the entire nation in aggregate, there is the need to design sector focused policies and this would speed up the implementation process leading to positive outcome in the short and long run. Therefore government needs to set of policies geared towards the development of the small and micro firm sector. These policies would serve as a guide for research and scientific collaboration between the various actors in the entire innovation ecosystem.

Due to the financial constraints the small and micro firm encounter government involvement in this cooperation activity is essential if this cooperation is to be sustainable. Since government can provide source of funding to limit the risk of cooperation failure. Furthermore, the government would serve a check on the other stakeholders so as to avoid abuse of funds and power. This would promote trust and confidence in the cooperation.

Universities and Research Centers

The responsible of universities over the years involve teaching and conducting research, mostly academic research. That is theoretical and abstract in nature. In this cooperation model the role of universities and research centers needs to be clearly defined placing emphasis on applied research. This would enable faculty members and experts channel their abilities and capabilities in solving real-world analytical issues affecting small and micro enterprises. This is significant since small and micro enterprises lack the needed expertise to conduct internal research and development activities.

Furthermore to encourage faculty members and expertise to conduct applied research in small and micro sector government needs to put in place a series of incentives. This would increase the passion of individuals to undertake these activities. In the long run this would contribute to innovation in terms of new product and process development. This would enable provide the platform to commission new venture and also improve existing ones.

Also research centers and universities should be encourage to set out business incubation centers so as to promote academic entrepreneurship. Also this would enable firms to tap into the enormous knowledge and skills so as to improve firm's internal innovation capabilities.

Firm

The firm in this model acts as the dominant actor in the network. The central theme of all other actors is focused on the firm in terms of improving firms' innovation capabilities and skills. Equipping firms to conduct internal research and development by tapping into existing knowledge available in its external environment. Since the firm enjoys much higher social capital in this social network it is essential for it to provide adequate information so as to ensure efficiency in the outcome of projects. Firms have the sole responsibility of communicating accurate and reliable information from individuals sector industries to actors such as government, universities/research centers and other third parties, this would provide ground for reliable research output. Also this would guide in the formulation of policies toward high priority domains.

Also firms to attain efficiency in projects there should be efficient flow of information and interaction between various actors. This will enable the diverse actors associated with this network can assess and evaluate policies implementation progress, success of its products. And contribute to further review so as to deal with arising shortcomings. On the other hand research centers and universities would get to ascertain the real market feasibility of products and technologies developed.

Third Party Agents

Due to the constraints and scarcity of resources available to the public sector it would be prudent to involve members from private sector to cushion existing resources. Private research centers and laboratories should be encouraged to allocate some of their resources to support activities that would improve the innovation capabilities of small and micro enterprises especially. Also agencies such as donor fund agencies and non-governmental agencies can provide alternative source of funding to cushion one provided by central government. This will contribute to the continuity of this cooperation and research development activities.

Furthermore, through Private-Public partnership policy design innovation zone can be established and this would serve as grounds to provide specialized skills and knowledge that is needed to sustain this sector and also commission new innovative ventures. Also research centers can take advantage of private laboratories equipped with state of the art equipment.

Community/Society

The entire innovation ecosystem cannot be complete with the exemption of the society within which the firms operate. The society serves as an essential actor since it is the final consumer of products and technology developed through this cooperation. Also feedback from the society

would aid in the shaping of new technological products enabling products to be environmentally friendly. This would contribute to the reputation and trust that this form of cooperation will enjoy from the society since all these activities are funded by the society indirectly. Societal tax and levies are used by central government to fund research and development therefore channel the output to have positive impact on society is a huge set in attaining a vibrant and sustainable economy in a whole.

Furthermore, the society serve as the entry point for firms to obtain customer perception about a particular product or service therefore has a health relationship would contribute to effective communication and interaction. The society as a court of public opinion would keep the entire actors on its toes through critics and rewards when the time arises.

CONCLUSION

The purpose of this study is to establish a cooperation model that would aid in the improvement of the innovation capabilities of small and micro enterprises in Benin. According to recent national innovation policies in Benin it can be noticed that most of these policies are channeled toward the development of a modernized agricultural sector. Despite these policies has made some strides the production, manufacturing and service sectors turns out to shrink. This is due to the fact that most of these firms are not innovative and this is attributed to a number of challenges that firms are faced with. Also the majority of firms within this sector turn to be small and micro enterprises making it difficult to funds and conduct its own internal research and development activities.

Furthermore, the model discuss in this study placed the firm as the central actor around which all other activities evolves. The model encompasses all the relevant stakeholders in the innovation ecosystem. The model seeks to encourage scientific research and development activities between firms and other entities. This would enable firms to tap into existing knowledge outside its internal environment. And have a positive influence on individual firm innovation capabilities.

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