

Innovativeness and Entrepreneurial Success in Agricultural Sector: An Overview of the Literature in Developing Countries

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Abstract

Business success is often attributed to the profile of the entrepreneur, the characteristics of the business and its environment. In most of developing countries, interventions to promote entrepreneurship are typically limited to the provision of finance and coaching to build business capital and management skills. These interventions have shown mixed results as only few young enterprises last more than five years, suggesting the need to explore other drivers of entrepreneurial success. This review adds a contribution on the role of innovation in the performance of agricultural enterprises through a synthesis of the existing literature on the importance of innovation in entrepreneurial success. Our results highlight that young agricultural entrepreneurs face several challenges, including the perception from their pairs/community, limited access to production resources, climate change, poor access to technologies and market, lack of management skills, and lack of appropriate policy support. Their innovativeness depends on their ability to mobilize livelihoods assets such as financial capital, social, human and symbolic capitals. Ultimately, innovativeness allows young entrepreneur to tap into livelihoods assets-related opportunities to ensure the competitiveness and further the success of their business. We also elaborated a framework to analyze entrepreneurial performance in the agricultural sector.

Keywords: innovation, innovativeness, entrepreneurial success, youth, agricultural sector

1. Introduction

In most of the developing countries, there is a growing interest from policy decision-makers to promote entrepreneurship as a means of creating economic opportunities and enhancing youth employment. Several research have targeted different aspects of entrepreneurship; though there is a lack of information on the key drivers of entrepreneurial success which

remains a controversy in empirical studies, leading to partial and sometimes contradictory results Kyrö & Fayolle (2008). Thus, it is necessary to understand the skills and characteristics leading to entrepreneurial success, to inform interventions designed for increasing the number of successful entrepreneurs (Kusumawardhani and al., 2019).

Previous studies addressed the question of the determinants of business success which has been attributed to the profile of the entrepreneur, and the business and environment characteristics (e.g., Brixiová and al., 2015; Ndjambou & Sassine, 2014; Sjauw-Koen-Fa and al., 2016; Artinger & Powell, 2016; Sitharam & Hoque, 2016). As a result, the promotion of entrepreneurship is often oriented towards facilitating access to financial resources (i.e., credit or subsidy), strengthening the management capacities of the company (i.e., leadership, management, and bookkeeping) and entrepreneurial coaching. The impacts of these interventions remain unclear as very few young entrepreneurs succeed in making their businesses survive over years. Recent studies also suggested that most of the enterprises fail after two (02) years of establishment, especially the closing rate of young people owning small and medium-sized enterprises is about 36%, 60% and 72.3% in Nigeria (Oni, 2013), South Africa (Bushe, 2019) and Cameroon, respectively.

Entrepreneurs evolve in a complex environment characterized by perpetual changes and risks (economic, environmental, social, political, sanitary), with difficulties in predicting future. They must be constantly prepared to face these permanent and widespread uncertainties. As Moskolai (2021) pointed out in his study on organizational learning: a key driver of overall business performance, a permanent adaptation to the economic environment and global competition has become evident, and entrepreneurs should practically be creative and innovative. Creativity and innovativeness are two skills considered as important components of company's strategy (Crespell & Hansen, 2008) which are required in all areas of the company. Innovation is particularly essential to face the increasing complex and diverse challenges. In fact, leaders in the public and private sectors have understood “the need to do better, differently or something else” (St-Pierre and al., 2013) to remain competitive and adapt to changes of the market. Hence, enterprises whether small, medium or large, must create value and innovate in management, processes, products and services, commercial marketing and their business model for their survival. The survival, success or performance of a company is essentially linked to the innovation it develops Robson et al., (2009) in Ghana, Zaied & Affes (2016), Hamdoun et al., (2016) in Tunisia and Wamba et al., (2017) in Cameroon, reported that the survival, success or performance of a company is essentially linked to the innovation it develops. Thus, innovation appears as a transversal factor beyond the obvious characteristics of the success of companies; and its role is not clearly identified in the performance of a company to develop further effective interventions.

This study hypothesizes that success entrepreneurs are often quite innovative, and failing entrepreneurs are not innovative. Innovation requires not only the availability of tangible and intangible resources in the environment of the entrepreneur, but also their mobilization and values. Innovation highly depends on the way intangible resources are used (Eisenhardt & Martin 2000; Landry & Amara, 2002). In fact, resources are usually valuable, rare, inimitable and non-substitutable, and therefore their mobilization and use require some aptitude or

capacity from the entrepreneur i.e. the innovativeness. Innovativeness can be perceived as an aspect of the profile of the entrepreneur which interacts in a dynamic way with the characteristics of the company and the environment (Hebbar, 2001). Taking into account the characteristics of his company, the entrepreneur deploys his innovativeness to obtain opportunities and manage environmental threats.

In this paper, we synthesized the available literature on the importance of the entrepreneur's innovativeness in entrepreneurial success. We replied to the following questions: (1) How do we define innovation and the process of entrepreneurial innovation? (2) What place is given to innovativeness in the innovation process inside the enterprise? (3) What are the determinants of entrepreneurial innovativeness? (4) And how can innovativeness or entrepreneurial innovation determine entrepreneurial success? Why is this problem important?

2. Method

This review focuses on the case of young entrepreneurs operating in the agricultural sector. We conducted the review using a three steps approach: document search, screening, and analysis.

2.1 Document Search

Papers from scientific studies and doctoral theses were searched in databases such as Google Scholar and Scopus; and magazines were consulted such as Spores, Jeunes Afrique, etc. The used keywords were in French and English and included “Entrepreneurship” type; “entrepreneurship in Africa”, “Definition of innovation”, “capacity for innovation”, “innovativeness”, “enterprise”, “and innovation in agricultural enterprises”. Filters were also used to optimize the results; i.e. “innovativeness” and “enterprise” or “firm” or “SME” and “success” or “performance”, “03 last years” or “05 last years” or “review”.

2.2 The Screening of Papers

The identified documents were screened to select the most relevant to the topic of interest. We focused on papers dealing with the operating environment, challenges, and support benefiting young agricultural entrepreneurs in the agricultural sector. We also considered papers addressing the links between the received support, the innovativeness and the entrepreneurial success of young agricultural promoters. In total, 53 original papers, 07 bibliographic reviews, 06 theses and 09 magazines were used for this review.

2.3 Papers Analysis

Both a critical analysis and a thematic content analysis were used for the papers analysis. Critical analysis of a fact (elements, phenomenon, situation, intervention, etc.) is an intellectual exercise that helps to objectively determine the strength and weakness of the fact. The critical analysis of the documents was carried out in four main steps: (1) an overall assessment of the document (reading and assessment of the content in relation to the different topics of interest), (2) the description (synthesis of the content of the documents to draw the relevant elements for the analysis), (3) the analysis (objective interpretation of the authors'

points of view in relation to the notions/themes of interest), (4) and the assessment (taking a position). The thematic content analysis was then used to identify, in each selected document, the topics which constitute the key points developed in this work.

3. Results

3.1 Challenges of Youth Entrepreneurship in the Agricultural Sector

The challenges faced by young agricultural entrepreneurs to develop their businesses were diverse and multiple, but closely linked to the specificities of the agricultural sector. Indeed, depending on the country or the context, agriculture is characterized by several features, including the low productivity of production systems (Udry, 2010; Teno and al., 2018), low physical and human capital (Duflo and al., 2011; Gollin and al., 2014 ; Teno and al., 2018), high issues in accessing credit (Croppenstedt et al., 2003; Teno et al., 2018), the constraints on promoting storing local products (Ricker-Gilbert & Jones, 2015; Teno and al., 2018), and the low use of technology or innovative practices (Alene & Manyong, 2006; Lambrecht et al., 2016; Pamuk and al., 2014 ; Teno and al., 2018). Moreover, there is a strong predominance of small farms (around 80% of all farms) that directly employ around 175 million people (AGRA, 2014).

Young agricultural entrepreneurs meet several challenges throughout the life cycle of their business:

- Perception of the community: This first challenge highlights the negative image that the community of the young entrepreneur has on agriculture (Grandval, 2019), which is considered as a last resort attributed to lazy young people who have not succeeded in school.
- Lack of access to finance: It mainly involves the lack of access to financial resources (Niyongabo, 2008; Rahman & Fong, 2016). This lack of financial resources felt most leaders after enterprises set-up and establishment, mainly once it is necessary to invest to improve the quantity and the quality of their production. Young agricultural entrepreneurs do not have the financial autonomy that allows them to cover expenses related to innovative projects because of budget constraints. Likewise, due to their small businesses, they do not have the financial characteristics to access external financing especially from commercial banks. The young entrepreneurs are therefore left with alternatives such as crowd funding or sponsorship or seek support from their relatives of friends or even their own earning resources from other salaried employment.
- Weak human capital: This third important challenge is about the availability of qualified and motivated human resources (St-Pierre and al., 2013; Rahman & Fong, 2016; Grandval, 2019). The agricultural sector has been poorly perceived by society, and it is difficult for young agricultural entrepreneurs to find qualified personnel which is very expensive once available. These entrepreneurs usually have to employ young people according to their motivation without consideration of their previous experiences; and train them during the developing of strategies to maintain the staff.

The qualified resource also concerns young agricultural entrepreneurs who, have trained in other sector than that in agricultural trades. They then learn on the job.

- **Limited technical and technological assets:** The technical and technological challenges are critical for entrepreneurs (Kropff and al., 2019). Because of their learning on the job, most young agricultural entrepreneurs do not properly master the ins and outs of their business. They are therefore more exposed and more vulnerable. During the development of their business, their access to the technique and technology that allow innovation remains decisive but problematic.
- **Lack of access to information:** The challenge of not having access to information (Akpa, 2019; Mssassi and al., 2020) is a limiting factor for most entrepreneurs. Many young entrepreneurs do not have access to information, particularly regarding new technologies in their field and markets.
- **Poor access to market:** As highlighted by Grandval, (2019) and Ballesteros, (2021), lack of market access remains a major problem for young agricultural entrepreneurs for several reasons. First, most of these young people are involved in the promotion of local products which so far do not attract much local people. Especially in Africa, consumers still prefer imported products and have less confidence in local ones even though the latter have excellent intrinsic qualities. Second there is a lack of knowledge of the marketing channels of agricultural products most often characterized by their perishable nature. Third, marketing systems in the form of consignment sales do not allow entrepreneurs to have cash to continue their production activities. Access to the market also concerns production resources, which are limited and only the most seasoned can access them. Faced with this situation, the use of social networks to make product better known is starting to intensify, as is the setting up of points of sale directly managed by the entrepreneurs themselves.
- **Insecure access to land:** Young agricultural entrepreneurs who need land to carry out their activities, live in permanent uncertainty because they do not have own land (Purseigle and al., 2019; Fiedler, 2020; Bonnel, 2020). Whether the used land belongs to a close relative or of any individual, the owner (or his descendants) can at any time decide to break the rental contract. This leads to low investments especially for innovation.
- **Climate uncertainty:** This includes climate variability and change (Kropff and al., 2019) which are both threats to rain-fed agriculture. Climate is still uncontrolled and hard to predict, particularly in sub-Saharan Africa where adaptation capacities are also limited. This makes agricultural entrepreneurship one of the riskiest businesses.
- **Lack of enabling regulations:** In many Africans countries, there is not an enabling institutional environment in which young entrepreneurs can evolve (Sriram & Mersha, 2010).

Under these multiple challenges, young entrepreneurs in the agricultural sector must be always in a dynamic search for an appropriate and adequate "strategy" to run their business

and make it grow. They must show ingenuity to find new solutions to take advantages of the potential opportunities that can be linked to specific challenges but also to minimize risks. They should be anticipative and make informed adjustments or if required radical changes. Whether in terms of resource management (organizational aspects), research and financial management (financial aspects), staff management (social aspects), etc., young entrepreneurs must innovate to make their agricultural businesses survive. Those who succeed are the ones knowing how to be innovative at the right time.

3.2 Support for Youth Entrepreneurship and Innovatively in the Agricultural Sector

Agriculture is a very important sector for several countries in the world, especially the developing countries. For example, in the sub-Saharan Africa, agriculture contributes between 3% (in Botswana and South Africa) and more than 50% (in Chad) to Gross Domestic Product (GDP) with an average of 15% (OCDE, 2016). Moreover, it absorbs more than half of the active population (FMI, 2012). In West Africa, activities such as agricultural production, processing, packaging, transport, storage, distribution and retail trade account for 66% of total employment, or 82 million jobs, and are 78% in agriculture (Allen and al., 2018). Therefore, agriculture is the main pillar of economies and, by extension, a strategic sector for development in Africa. Multi-stakeholders' agricultural knowledge sharing platforms were set up in Sub Saharan Africa to boost the sector (Moumouni & Labarthe, 2012; Jiggins and al., 2016; Adekunle & Oparanti, 2023).

Several countries have chosen to promote agricultural entrepreneurship, due to the increasing challenges of youth unemployment and underemployment. This policy orientation aims not only to reduce unemployment and underemployment rates but also to boost wealth creation and thereby reduce poverty. In this perspective of promoting agricultural entrepreneurship, several initiatives, sometimes supported by international technical and financial partners, have emerged throughout the world. Examples include the Agricultural Entrepreneurship Promotion Project for the socio-economic transformation of rural areas in Benin, the Youth Agricultural Entrepreneurs Program (YAGEP) and the Skills Training and Entrepreneurship Program (STEP) in Nigeria, the Young Entrepreneurs in Silk and Honey Project in Ethiopia, etc. These initiatives sometimes take the form of qualifying training programs. These include, for example, the Youth Entrepreneurship Promotion Program in Agriculture and Agro-Industry (PEJAA) in Madagascar, or the Rural Entrepreneurship Development Program (REDP) in India. It is also important to note the birth of several agricultural entrepreneur incubators and "Business Promotion Centers". The occurrence of the concept of agribusiness is also an important development.

Based on the results of previous research on improving entrepreneurial performance in the field of entrepreneurship, the support actions are oriented on specific aspects of entrepreneurship such as the identification, evaluation and exploitation of business opportunities, leadership capacity building, improving access to finance, mentoring and support in the development of business plans. Beyond this important and useful support which priori covers all the possible needs of the entrepreneur, the ever-increasing closure of young businesses clearly suggests the need to provide more support to entrepreneurs on other

aspects. In its technical manual on entrepreneurship and business skills in agribusiness for young people, the Action Center for the Environment and Sustainable Development (ACED, 2017) emphasizes "that an idea or opportunity for agribusiness can be classic or innovative: when the idea or opportunity is classic, the entrepreneur will have to think about its real usefulness in relation to the offer already existing on the market, and when it is innovative, the biggest challenge of the entrepreneur is acceptance". In either case, it is clear that the fundamental prerequisite for business survival goes beyond the identification of a business idea or opportunity and resides instead in what might be qualified as the innovativeness of the entrepreneur. It follows that innovativeness would constitute the essence of the creation and survival of the company. Therefore, support for strengthening or boosting innovation should be the priority for promoting youth entrepreneurship in the agricultural sector.

3.3 Young People Innovativeness in Entrepreneurial Success

Three main research approaches are used to explain entrepreneurial journey and success: trait (descriptive) approach, fact (behavioral) approach, and process (processual) approach. The trait approach of Stevenson & Jarillo (1990) centralizes the individual (in our case the entrepreneur). It assumes that the individual has personal characteristics, norms and values that predispose him to the exercise of an entrepreneurial activity and therefore distinguish him from others (Gartner, 1990). With this in mind, many researchers have taken an interest in the attributes of the individual to establish the typical profile of the good entrepreneur. Personality traits include creativity, inclination to risk, the need for independence, innovation (Marchesnay, 1997). This approach is reported by Vesper (1985) and Gartner (1988), for who the typical entrepreneur is an ideal one. Gartner then suggested to focus on what the entrepreneur does instead of who he is. In fact, the psychological characteristics of the entrepreneur alone cannot establish his success, as he should adapt to a dynamic environment in which he is located. For example, Sambo (2016) analyzed the factors influencing youth entrepreneurship development in Liberia and Kenya and showed a moderate positive relationship between national youth policy and youth entrepreneurship development. Environmental variables then became objects of analysis and the facts-based approach experienced renewed interest in research work. Family context and socio-cultural framework also affect entrepreneurship. Finally, the process approach arose in the early 1990s when researchers find it simplistic to explain the behavior of the entrepreneur from simple characteristics of psychological or sociological traits. For Hernandez, (1995), "Business creation ceases to be analyzed like instant photography. It becomes a movie, whose creator is one of the actors". From this moment, research on entrepreneurship focus more on the entrepreneurial process. The process approach is rather a dynamic approach. "It analyzes the personal and environmental variables that promotes or inhibit entrepreneurship, entrepreneurial acts and behaviors from a temporal and contingent perspective" (Tounés, 2003).

There is a growing interest for research on the analysis of the place of innovation in the development of a company. Following Janssen (2016), it is increasingly accepted that entrepreneurship gradually establishes itself as the engine of economic and social development throughout the world and, further, it is often impossible to ensure its

performance or even its survival without considering innovation. Business innovation by its nature is intended to be systemic (St-Pierre and al., 2013) and this seems not to be sufficiently well understood by young agricultural entrepreneurs. According to the same author, this could to some extent justify the very low entrepreneurial success recorded despite the enthusiasm of politicians.

The approach of innovativeness has the advantage of a holistic analysis of the entrepreneurial environment through three components which are the propensity, the capacity and the practice. Innovativeness finds its place in an entrepreneurial success among other things, "it helps the entrepreneur to recognize competitive opportunities and threats" (Ismail & Alam, 2019). For Yao (2020), innovativeness is then considered as a complementary strategic resource which could enable managers to achieve a higher level of performance. Entrepreneurial success depends on the innovativeness of young entrepreneurs in that it allows them to better leverage the available various resources and support to ensure the success of their agricultural businesses. Their ability to mobilize economic capital (own funds, loans, subsidies, etc.), social (contracting partnerships and developing personal networks, etc.), cultural (being on the lookout for information, deploying their knowledge and know-how, etc.) and symbolic, depends on their innovativeness. Innovativeness begins with the triggering of the innovation process (propensity for innovation), which most often answers the question of "how did the young entrepreneur know that something was missing?" This is the click that will result in his willingness to innovate, to take risks. Then comes the stage requiring a capacity for innovation which consists of prospecting and choosing new solutions (how did he get the idea of the innovation? How did the young entrepreneur define the different offered possibilities?); the stage of support mobilization (information, resources, institutional support, etc.) and the stage of practice or action (the innovations concretely developed). Finally, the evaluation and learning stage where the entrepreneur evaluates the level of success and his performance. During the stages of solutions prospecting and support mobilization, the young entrepreneur must highlight his knowledge and skills. Nonaka (1994) distinguishes two types of knowledge: tacit knowledge and explicit knowledge. The first are personal, non-tangible and relate to the experience and know-how of the possessing person who them. They dictate a good part of our attitude and are difficult to transfer. The second is the knowledge codified and transmitted in a formal language. This pre-established knowledge and skills of the entrepreneur can result from his experiences in change management (practices of innovation) including past professional career, events or significant facts experienced, his culture, his social environment, etc. These elements of his life undoubtedly will condition his perceptions and actions, his business control and therefore his ability to innovate.

Entrepreneurs with wide relationships network including extension networks are more likely to access information, to see opportunities and therefore to be more innovative (Touzard et al., 2015). This finding is supported by Dossou-Yovo (2011), who links the ability to innovate to the mobilized resources by the company and which sources are in the entrepreneur's network. The larger the entrepreneur's network, the easier he can access resources and more he can innovate. Bergek (2002) identified cognitive factors that influence the decision to exploit an

opportunity, for example the illusion of control and the belief in the law of small numbers. In other words, social norms and values can influence the innovativeness of young entrepreneurs. Under the same information or situation, entrepreneurs will have a different interpretation depending on personal experience. Innovativeness will depend on the life experiences, in the broad sense, of each of the young entrepreneurs, but also on the nature of the innovation. If the link between innovativeness and business performance seems to be theoretically established, we lack explicit analytical framework relating innovativeness, its determinants and the entrepreneurial success of young people.

4. Discussion: Towards a Performance Analysis Model Based on Innovativeness as a Factor for Entrepreneurial Success

Research on innovativeness as a key success factor have received very little attention in the case of companies operating in Africa. As highlighted by Lloyd (2018) "Beyond descriptive studies of a few "success stories", analyzes of entrepreneurial innovations in Africa are almost non-existent". However, the literature has addressed the issue of innovation capacity in relation to business performance, and in sectors other than agriculture. This is for example the case of (Wamba and al., 2017) who studied the determinants of innovation capacity and its effect on the performance of large companies (all sectors combined) in Cameroon and Hamdoun et al., (2016) who looked at the role of innovation capacity in environmental management and the competitive advantage of Tunisian companies. Moreover, these studies, as previously underlined, did not take into account the systemic aspect of innovation but focused more on some characteristics of the company. Thus, they did not take into account the dynamic of the complex context in which companies operate. To our knowledge, there are no specific studies of innovation in companies in the agricultural sector, although agriculture has been an important sector of the economy of several African countries. It therefore becomes necessary to update the previous ideas with the "missing link" which is innovativeness.

Businesses operate in a regulated environment called the business environment, which are created by institutions and related to jurisdiction, free trade rules, access to credit and ease of doing business. This environment must also help to minimize the risks of unfair competition that could arise. Sriram & Mersha (2010) in their study on the determinants of entrepreneurial innovation in Ghana and Ethiopia found three characteristics, including the existence of an effective public policy. The implementation of programs and projects in favor of youth entrepreneurship, for example, can encourage them to take the initiative. By integrating into the existing institutional arrangements in his country, the young entrepreneur will have access to the facilities in place such as access to financing, technical, financial and managerial capacity building, to improve his capacities and skills and acquire new. This public policy support for entrepreneurship is carried out throughout the entrepreneurial journey. From the idea of starting a business to running the business, thematic training, according to the level of evolution of the entrepreneur, is provided to help him better analyze his idea/opportunity, develop his business plan, search for financing, set up and operate the business. It is from this moment that the innovativeness of the young entrepreneur will fundamentally begin. Once installed, how to overcome the obstacles? How to face the competition? How to develop?

As above-mentioned, the young entrepreneur' will have to meet challenges throughout his entrepreneurial journey. Thus, he must develop skills such as developing strategies to access necessary resources for innovation. These resources are related to economic capital (equity, credits, subsidies, etc.), social capital (social networks, partnerships, etc.), cultural capital (information, knowledge, know-how, etc.) and symbolic capital (prestige, fame, etc.). Where and how to look for information? With who to collaborate? What are required, available and accessible skills? Where and how to find the investment? etc., are the first concerns that the young entrepreneur will have to face based on his innovativeness. It is the latter that will be able to better guide it in the mobilization and deployment of said resources. Conversely, this exercise will also have a positive effect on its innovativeness. The investment strategies in the resources acquisition and management for innovation varies from one entrepreneur to another, since innovation depends on knowledge and skills which may arise from his professional career, events or highlights experienced, his culture, his social environment, etc.; and these latter vary from one individual to another. Depending on whether the young entrepreneur's innovativeness has enabled him to acquire and achieve a harmonious, perfect, and effective orchestration of the various resources and skills necessary to innovate, entrepreneurial performance will result either in success (growth, survival, and self-realization) or in failure (demotivation, closure of the company). By studying the mediating effect of innovativeness in the market orientation relationship and commercial performance of Very Small Businesses (VSE) in professions, Yao (2020) shown that "*innovativeness is then considered as a complementary strategic resource which could enable managers to achieve a higher level of performance*". The diagram in Figure 1 helps to better illustrate the above-mentioned analytical framework.

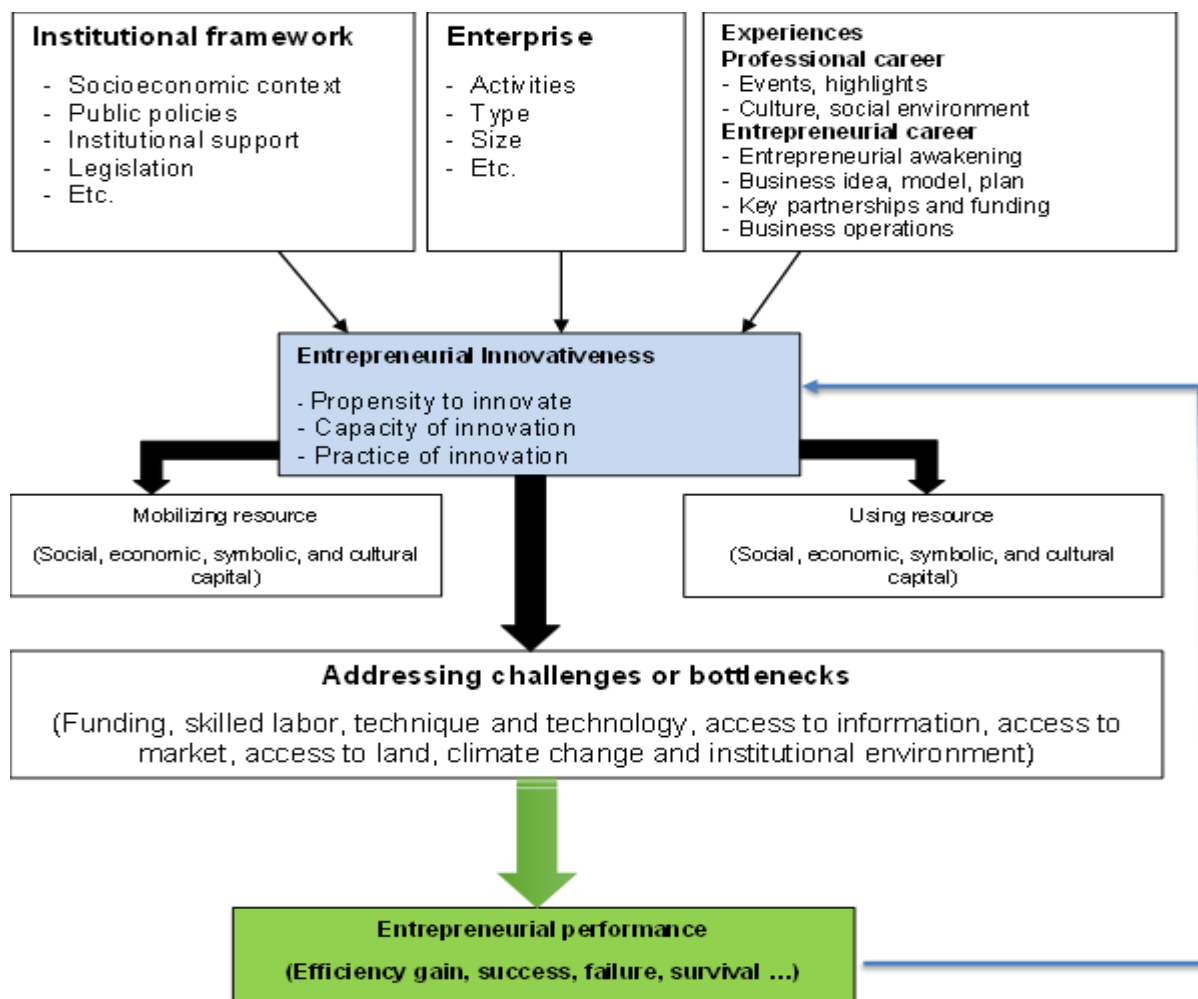


Figure 1. Proposed framework of entrepreneurial innovativeness analysis

According to the proposed analytical framework, entrepreneurial innovativeness would depend on the institutional framework in which the entrepreneur operates, the characteristics of his business and his experiences. This innovativeness therefore gives entrepreneur' the necessary skills to mobilize and efficiently use the required resources to meet the entrepreneurial challenges. This efficient use of resources will lead to new performance of the company which will result either in a gain in efficiency for the company, or in the survival of the company, or in failure.

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Authors contributions

Aline M. Aloukoutou designed the study, performed the analysis, wrote the protocol, and wrote the first draft of the manuscript. Dr Ismail Moumouni Moussa supervised the study, reviewed and edited the draft manuscript. All authors read and approved the final manuscript.

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