



**Hungarian University of Agriculture and Life Science**

**Doctoral School of Economic and Regional Sciences**

**The effects of entrepreneurial social factors on agritourism**  
*“Rural lodgings in Tunisia”*

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**Ph.D. Dissertation**

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## **ABBREVIATIONS**

ADOFFARM	Agritourism of- farm
ADONFARM	Agritourism on- farm
AG	Participation in the development of agritourism business
AVE	Average Variance Extracted
$\beta$	Correlation coefficient
CA/ $\alpha$	Cronbach alpha
CCA	Confirmatory Composite Analysis
CB SEM	Covariance based Structural Equation Modelling
CR	Construct/Composite Reliability
Dt	Tunisian dinar
EFA	Exploratory Factor Analysis
$f^2$	Effect size
FC	Functional competencies
GoF	Good of fitness
HTMT	Heterotrait-monotrait ratio
IC	Confidence intervals
KMO	Kaiser-Meyer-Olkin measurement of sampling adequacy
$Q^2$	Cross-validated redundancy
$q^2$	Effect size
$R^2$	Coefficient of determination
Rho_A	Coefficient Dijkstra-Henseler
RMS	Theta root means square error correlation
RMSR	Fit indicator
RQ	Research questions
PLS SEM	Partial Least Squares based Structural Equation Modelling
SC	Social capital
SCS	Structural social capital
SCR	Relational social capital
SCC	Cognitive social capital
SI	Social identity
SID	Darwinian social identity
SIC	Communitarian social identity
SIM	Missionary social identity
SINN	Social innovation
SLR	Systematic literature review
SM	Social motivation
SRMR	Standardize root means square residual
SSE	Prediction error
SSO	Number of observations
VAF	Intensity of the mediating effect
VC	Venture capital
VD	Dependent variable
VI	Independent variable
VIF	Variance inflation factor

# 1. INTRODUCTION

## 1.1. Relevance of Topic

Nowadays, history has become a source of activities directly or indirectly related to tourism; as a result, it is vital to improve tourist sites in order to alleviate the slowdown in the tourism sector. The construction of facilities such as guest houses, lodges, campgrounds, elegant hotels, youth hostels, as well as roads, restaurants, museums, and rental car companies, is one of the measures that aids the sector's resurrection. These enhancements allow for territorial growth and the diversification of the tourist offer and the shift from quantity to quality tourism: alternative tourism. This last concept is meant to be an alternative to the typical mass tourism that prioritizes profit over everything else, sometimes at the expense of the regions visited. Alternative tourism appears to be a viable option in this regard, since it provides clients with a unique, individualized experience based on cultural interactions, experience sharing, discovery, and a sustainable environment. Furthermore, it provides a social and economic benefit to the local population throughout the project's implementation as well as during the operation of the activity. Alternative tourism provides a more equitable distribution of the resources created by the tourism environment as well as a sector assessment. In this regard, the various actors have not stopped competing in innovation to give formulas, sites, and new kinds of lodging that include freshness, uniqueness, quality contribution, adaptation to needs, and indisputable assets to attract and maintain clients. Agriculture-related tourism, commonly known as agritourism, is a growing but largely unrecorded alternative tourism business.

And in order to adapt to the evolution of tourist demand, Tunisian entrepreneurs have started by promoting the new concept of alternative tourism: Agritourism (rural lodges, guest houses, equestrian farms...). This trend phenomenon is developing in Tunisia to meet the need of the growing number of tourists who are looking for alternatives other than the tourism to which they are used. Participation in this tourism revolution is viewed as a reaction against mass tourism and the desire for a unique and precisely individualized experience outside of standard formulae (Euromonitor, 2013). This development appears to be a new type of agricultural tourism. Today, this new type of tourism has a significant competitive advantage in the worldwide tourism market, and it has already had a significant economic and social impact on the rural development of some underdeveloped areas (Zhou & Kaplanidou, 2017). Agritourism is an important component of rural communities' multifunctional development. Furthermore, rural development encompasses a wide range of new activities, including the creation of high-quality and region-specific products, nature conservation and landscape management, agritourism, and the growth of local procurement chains. In scientific studies, various theories and techniques describe agritourism as an economic, social, cultural, and psychological phenomenon (Petrović, et al., 2017). The rural area is a vital basic resource for the expansion of agritourism, which was founded on the desire for serenity and outdoor space for healing in the urban society (Nickerson, et al., 2001). On the other hand, agritourism is a term that is more consistently applied to tourism products and services closely tied to the agricultural environment, products, and other types of farm stays (Petrović, et al., 2017). In fact, agritourism has benefits for rural tourism destinations. As a result, individuals in charge of the development, promotion, and organization of rural tourism zones band together to aid in the growth of these areas, as well as to offer (Roman & Golnik, 2019), and modify their rural tourism product or service to meet the needs of today's customers. Individual However, individual enterprises' sustainability in the agritourism sector depends on their collaboration and cooperation with their work (Che, et al., 2005). This is especially critical for highly specialized entrepreneurs who are trying to keep their agritourism firms afloat. As a result, before supplying the products/services required for their customers' demands, it is also vital to gain a deeper understanding of the many antecedents that lead to participation in the creation of an agritourism business. Researchers have realized the relevance of entrepreneurial social aspects and their effects on development in order to lessen the risk that an entrepreneur may encounter before, during, or

after starting a business. However, there has been little research on the role of social entrepreneurial aspects in the context of entrepreneurial agritourism.

## 1.2. Problem statement

The engine of agritourism is the curiosity for a specific cuisine or, more broadly, for the agricultural world. Agritourism is not a new phenomenon; it began in the 1930s with farm accommodations and the first paid vacations, but it has evolved significantly in recent years. "Agritourism has developed greatly over the past 10 years and will undoubtedly continue to increase in the future," according to many observers from around the world (Gil Arroyo , et al., 2013). "Visits to producers have increased since the 1990s and are attracting an ever-growing number of aficionados" (Croce & Perri , 2010, p. 5). Growing agritourism appears to be a long-term stakeholder. Due to the growing public interest in food, rural accommodation, farm visits, and animation, and the promotion and sale of farm and area products, which appears to be one of the key current sociological trends, it could help the development of many territories (Fischler , 1990). Consider the growing use of short circuits for grocery purchases (Herault-Fournier , et al., 2012); the rise of gastronomic tourism (Clergeau & Etcheverria , 2013); the new recognition of gastronomy as a UNESCO World Heritage Site (Mantéi , 2012); and the wider public interest in food (results of food business reports, surprising success of tough works like Enders (2015) on the most recent scientific breakthroughs in digesting).

Rural accommodation is another type of agritourism that has emerged in recent years. This type of agritourism, which is increasing and posing issues, has received little research. Furthermore, the success of various forms of rural tourism accommodation in Tunisia, such as rural lodges and guest rooms, cannot be ignored among Tunisian and foreign tourist clientele. Analysts are concerned about the future of this type of lodging, on the one hand, because of withdrawal movements observed here and there following a continuous increase in the number of rural lodgings, and on the other hand, because of a very sharp increase in the number of guest rooms, which could (ironically) saturate demand. The importance of rural tourism for rural development is widely established, and rural tourist accommodation, in its most particular forms, plays a vital role in the offer of rural tourism (Durrande-Moreau, 2018). We assess the strategic importance of having a detailed understanding of the processes at work inside the tourist accommodation park, as well as a forward-looking attitude, to inform and guide rural tourism entrepreneurs, professionals, and decision-makers in their decisions and activities. Currently, a company's success is determined by the availability of high-quality products and services, competitive enterprises, and highly qualified entrepreneurs. It has to be examined whether any of these principles are representative of rural tourism conditions and actionable. To do so, we look at entrepreneurial social elements that contribute to an agritourism entrepreneur's business development (our study focuses on rural lodge entrepreneurs) and lead to their success. The goal of the study is to discover and comprehend the social entrepreneurial elements that have shaped and driven agritourism entrepreneurs.

To our knowledge, no study has looked at the idea of social entrepreneurial characteristics (social capital, social identity, social motivation, and functional abilities) and their influence on participation in the creation of an agritourism business at the same time. Few studies have looked at the influence of entrepreneurial social elements in the development of an agritourism enterprise. All of these considerations have led us to frame the problem of this doctoral dissertation through the following key question: **How do entrepreneurial social factors affect the entrepreneurial development of an agritourism business in rural Tunisian regions?**

The findings of the study are a useful tool for gathering information on many aspects of agritourism development, and they can be used in tourism industry research or academic studies.



### 1.3. Objectives of study

The overarching goal of this research is to investigate and better understand agritourism enterprises, as well as to assess their potential as a model for vital rural development. Understanding the significance of social entrepreneurial factors in agritourism entrepreneurship is also important. The study has various specific aims that are related to the general goal:

- Examining the definition of agritourism entrepreneurship and the interaction between development, planning, and tourism to identify the main elements of the agritourism idea.
- Examine the impact of entrepreneurial social determinants on the development of the Tunisian agritourism industry. Explain how numerous elements influence an entrepreneur's conduct in the establishment of an agritourism enterprise.
- Develop, test, and evaluate a research model that explains the entrepreneurial social aspects of a Tunisian entrepreneur involved in the establishment of an agritourism firm.

### 1.4. Research questions and hypotheses

The impact of entrepreneurial social elements that influence participation in the development of a firm must be investigated to understand an entrepreneur's behavior in an agritourism context. Four aspects are investigated in this study: social capital, social identity, social motivation, and functional competencies, with the impact of these four critical factors on participation in the growth of an agritourism business being carefully examined. The modeling of square-based structural equations is used to investigate the relationship (PLS- SEM) between independent and dependent variables is mediated by an agritourism entrepreneur's social identity and social drive. Furthermore, by defining social innovation as a moderating variable, the impact of social innovation on the relationship between social capital and participation in the development of an agritourism firm is investigated. The following research questions and hypotheses are based on past research and formulated from previous literature available in our study environment. Because of our research, the hypotheses are not sorted from 1 to 10 in the next section, and they do not follow the chronological sequence of the research questions.

#### **R.Q1: How can social capital affect the participation in the development of business in agritourism?**

*H1: The social capital has a strong effect on the entrepreneur to rely on the functional competencies of the agri-entrepreneur.*

*H2: The social capital has a strong effect on the entrepreneur to rely on the social identity of entrepreneur in agritourism.*

*H4: The social capital has a strong effect on the entrepreneur to rely on social motivation.*

*H7: The social capital has a strong effect on the entrepreneur to rely on the participation in the development of business in agritourism.*

#### **R.Q2: Does the social identity affect the functional competencies of an entrepreneur in agritourism?**

*H3: The social identity of the entrepreneur in agritourism has a strong effect on the functional competencies.*

#### **R.Q3: What are the social motivations of an entrepreneur regarding participating in the development of an agritourism business?**

*H5: The social motivation has a strong effect on the entrepreneur to rely on participation in the development of business in agritourism.*

#### **R.Q4: What are the functional competencies of an entrepreneur regarding participating in the development of an agritourism business?**

*H6: The functional competencies have a strong effect on the entrepreneur to rely on the participation in the development of business in agritourism.*

**R.Q5: How to explain the relationship of social capital towards functional competencies of an entrepreneur in agritourism?**

*H8: The social identity mediates the relationship between the social capital and the functional competencies.*

**R.Q6: How to explain the relationship of social capital towards the participation in the development of a business in agritourism?**

*H9: The social motivation mediates the relationship between the social capital and the participation in the development of business in agritourism.*

**R.Q7: How can the social capital of an entrepreneur participate in the development of an agritourism business?**

*H 10: Social innovation moderates the relationship between social capital and participation in the development of business in agritourism such that a higher level of social innovation would strengthen the positive relationship between social capital and participation in the development of business in agritourism.*

### **1.5. Epistemological positioning**

We favored a post-positivism approach, which allows us to deduce a conceptualization of the relationships between the social factors of an entrepreneur that intervene in the framework of our study and favor participation and business development in agritourism by going back and forth between exploratory qualitative studies and the literature. To verify these associations and provide an explanation of the function of entrepreneurial social elements in the development of an agritourism firm, this modeling will be followed by a quantitative test. As a result, we conducted qualitative exploratory research first, followed by a quantitative (empirical) confirmation study. Given the recent nature of the subject and the rarity of the works, this combination approach is the most suited. It will allow us to consolidate the choice of explanatory variables for the conceptual model from the literature on the one hand and test the relationships and hypotheses given on the other side, using the partial least squares approach and the structural equations methodology. Our research is backed by a hypothetico-deductive approach that focuses on a quantitative questionnaire investigation. In the first theoretical phase, we mobilize theoretical domains and analyze them to establish our research hypotheses, which we then aim to test in the second empirical phase. Based on the initial phase, our concern has evolved into two parts: a theoretical concern for marketing management knowledge reform and a practical concern for a professional orientation toward more profitable and efficient management practices. We were motivated in our epistemological posture by Sheth and Parvatiy (2000), who advocates a three-step approach: define, handle, and deposit in relation to a large number of concepts borrowed simultaneously from the social sciences and marketing.

### **1.6. Research design**

The research was based on an understanding of the function of social entrepreneurial elements in assisting entrepreneurs in the establishment of agritourism businesses. The author followed the stages outlined in the research design in order to attain the study's goal (Figure 1). The author's goal from the start was to develop a model based on literature and a qualitative investigation. The research design included illustrations of all relevant study phases. The following components of the doctoral thesis contain the information mentioned: introduction, literature review, material and methods, results and discussion, conclusion, and suggestions.

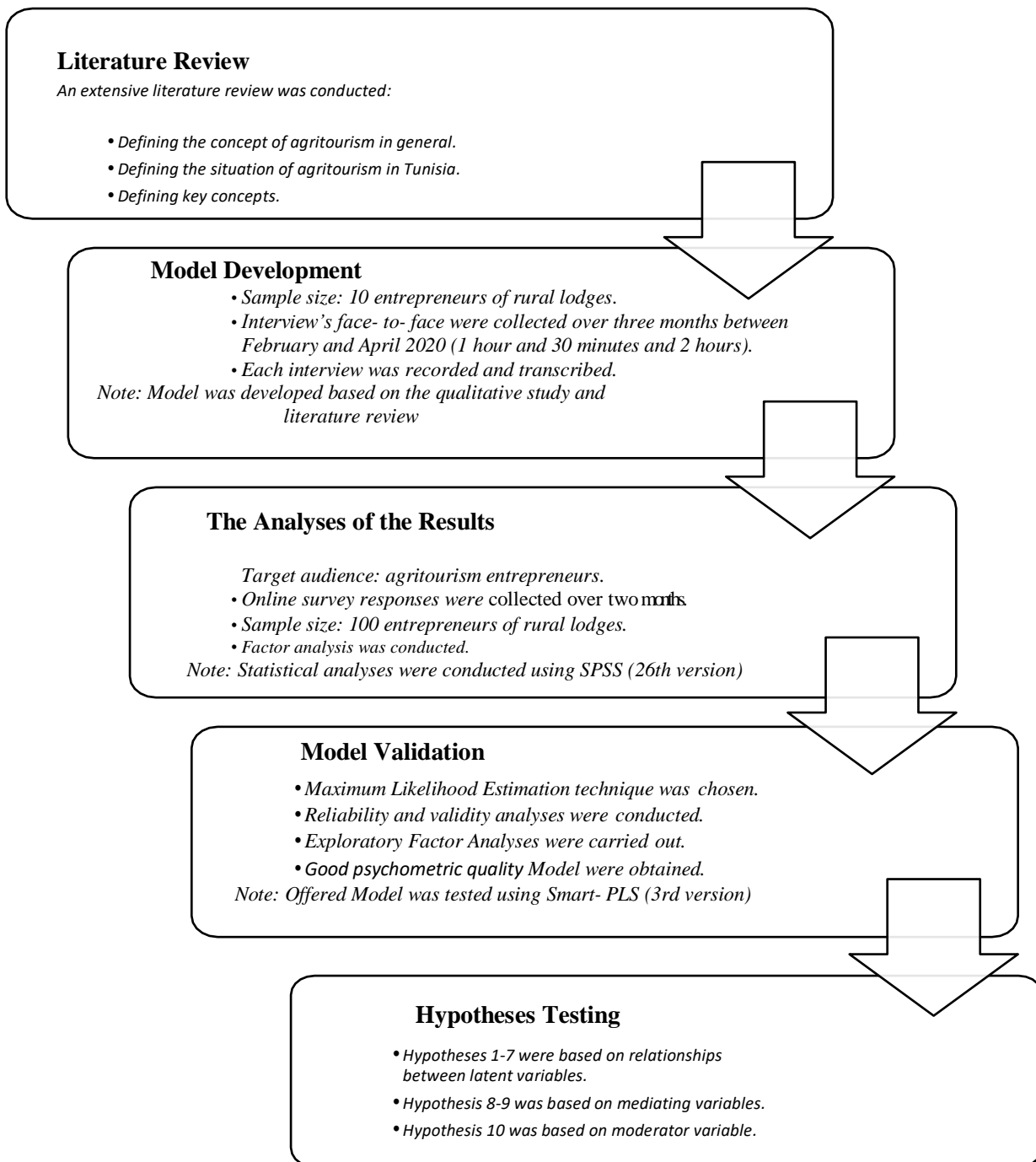


Figure 1. Research Design; Source: Own compilation

## 2. LITERATURE REVIEW

### 2.1. Introduction to agritourism

As part of economic development, the tourism sector identifies itself as an important means of economic progress in developing countries. And recently, there is tremendous potential for maximizing benefits by collaborating with other industries, including agriculture (Rogerson, 2012; Thomas, et al., 2018). Building closer links between tourism and agriculture is seen as a requirement to minimize significant economic losses, diversify economies, protect cultural heritage, increase food security and reduce poverty (Thomas, et al., 2018). However, the concept of agritourism encompasses an enormous diversity of links between agriculture and tourism. It presented as a driving strength for the development of tourism in rural regions that endorses the rural development and tolerating the family of the farmer to supplement farm revenue (Fagioli , et al., 2014). The term of agritourism is an enduring tradition which mean to visit farms and ranches and to acquire some knowledge about agriculture and the products related to it (Chase, et al., 2018). To this end, it would be interesting to see the possibility of this concept among entrepreneurs in this sector by trying to identify its role in rural development.

#### 2.1.1. Theoretical foundations of agritourism

Bibliographical research combining “tourism” and “agriculture” refers to the literature specialized in tourism and reveals three types of work. Some deal with specific themes such as culinary tourism (Clergeau & Etcheverria , 2013), wine tourism (Lignon-Darmaillac, 2015), or equestrian tourism (Helgadóttir & Sigurðardóttir , 2008). These works appear as separate fields, not claiming to be agritourism. Other works refer to agritourism, that is situated within rural tourism. They generally report cases of "agricultural diversification", when farmers open to tourism while continuing their main activity (Tew & Barbieri , 2012).

Agritourism offers four types of activities: 1) accommodation, which is the most important activity in terms of income; 2) on-farm catering; 3) direct sales; 4) various activities such as farm visits or horse rental. Generally, this work presents a diversification as a way for the farmer to “earn additional income” in a context of declining farm income and is carried out from the perspective of the farmer (not the client). Finally, other work focuses on the definition of the concept of agritourism. They start from the observation of a great dynamism of agritourism in different regions of the globe, combined with a certain confusion around the concept, which hinders knowledge and weakens policies. Agreeing on a definition would be real progress. To do this, and to go beyond the list of four activities above, some researchers analyze the meaning of the word agritourism, while others attempt to establish a typology of forms of agritourism. These two visions are presented here.

- During their research, Marcotte et al. (2006) study 33 works concerning tourism linked to agriculture, with the aim of synthesizing the meaning of the words “tourism on the farm”, “agrotourism” and “agritourism”. In fact, these last two terms (Agri or Agro) are equivalent. The studies considered agritourism to be part of rural tourism and that it takes place within "working farms", although some mention the existence of other places than farms. Thun, the authors discuss the main questions about the contours of agritourism. Is it still agritourism if the farmer's "tourist" income is higher than his "farm" income? Or if direct selling attracts more residents than tourists? Or if the offer is made by a member of the farmer's family, by a cooperative, or even by a non-farm entrepreneur? These questions do not find an obvious answer, but to clarify things and remove frequent confusion, the authors propose to better distinguish between tourism "on the farm", led by a farmer or a member of the family on the farm, from tourism. “In an agricultural environment”, which

includes the previous category and more broadly includes other types of actors such as associations, museums or cooperatives. They formulate a definition of agritourism based on "the tourist experience achieved in the agricultural environment". In conclusion, we note that the article presents two visions of tourism linked to agriculture, a 1) narrow vision "on the farm" which corresponds more to the perspective of producers, and a 2) broader vision "in agricultural environment" which better corresponds to the vision of tourists.

- Sharon et al. (2010) also draw on previous literature. In addition, they studied about 18 articles which almost all refer to the "working farm". To define agritourism, these authors propose a typology in five types, four of which concern active farms, and a residual type concerns disused farms (e.g.: accommodation in old farms). The first four types are distinguished by the nature of the contact between the farmer and the tourists. This contact is qualified as passive (e.g.: accommodation), indirect (catering), direct and theatrical (demonstration of milking) or even direct and authentic (the tourist works on the farm). With reference to the previous study, we see that these authors clearly adopt same vision of Marcotte et al. (2006).

Then, taking up this typology, Gil Arroyo et al. (2013) submit it to the judgment of various stakeholders. They do conclude that the working farm criterion is important in determining what is agritourism and "entertainment or educational purposes. Therefore, they also confirm the vision of Marcotte et al. (2006). Taking up this typology, Flanigan et al. (2014) test it by conducting a series of interviews, which leads them to propose modifications, two types out of the five: "off-farm activities" and accommodation in former farms, and the other type is "direct interactions off-farm" (e.g.: museums, agricultural exhibitions). In doing so, it seems to us that these authors implicitly broaden their vision of agritourism, without discussing this point. They interested in all economic sectors, sometimes tourism and sometimes agriculture, but rarely the intersection of these two sectors.

Following up, studies on the definition of agritourism provide essential information on the agritourism phenomenon (importance, dynamism). They also reveal divergences on the contours of the concept. Largely dominant, the vision of Marcotte et al. (2006) is essentially considering the four agritourism offers within the working farm. The term agritourism refers to tourism on the farm. The vision of Sharon et al. (2010), which is a minority, considers a wider range of agritourism activities carried out by different actors in the territory and in different places. The terms "agritourism", "agriculture-related tourism" and "agricultural tourism" are then considered to be similar. Based on these studies and before starting our study on the participation in the development of an agritourism business, we started a systematic mapping research to study and clarify the concept of agritourism in the field of entrepreneurship.

### **2.1.2. Agritourism in Entrepreneurship business**

Nowadays, the increasing of agritourism attractiveness and opportunities to launch business related to it merged the agritourism entrepreneurship such as one major element of green entrepreneurship in rural regions and one approach of helping local sustainable development (Mastronardi, et al., 2015). Correspondingly, agritourism entrepreneurship enhances the entrepreneurial features to the agritourism interrelated activities: startling the opportunity on the market (more tourists are currently attracted by the opportunity of expenditure their vacations on farming milieus), adjusting to transform via an adaptable method (the change from agriculture to agritourism leaning services), affecting the innovation (the practice of the modern technologies in developing or promoting their businesses) and presumptuous the risks of an innovative business project in the rural zone.

Conferring to Bosworth and McElwee (2014), farming has been progressively market concentrated and times of economic decline prompting farmers to be more flexible to emerge innovative skills

and to renovate themselves from ‘simple managers’ to ‘entrepreneurs.’ Consequently, the agritourism entrepreneurship denotes to business initiatives founded on agritourism lodging houses, pointed to develop the economic activities in the rural zones such as a substitute to agriculture and to response to a transformation in the customers’ behavior (Sima, 2016), which are more and more fascinated through this kind of expenditure vacations.

Compare to agritourism (which is related to the sector of economic activity), agritourism entrepreneurship (which is based on tourism associated to business initiatives established by entrepreneurs in the rural zones) takes in the entrepreneurial character and the role of the farm’s operator (Dragoi, et al., 2017). Consequently, the economic aspects are countered through social and cultural features when examining agritourism entrepreneurship. The entrepreneurial character is enhanced by the perceived occasion on the market (increasing the number of tourists and national/regional financial funding), the practical and risk-taking initiative by creating an innovative business, within the subsequent challenges related to it, and the sustenance of innovation and technology (while profoundly attached in the rural milieu and local traditions, the agritourism lodging houses frequently encourage and reservation their services and activities by employing the Internet and social media channels). Therefore, the crucial characteristic of agritourism entrepreneurship refers to the prospect of the agritourism entrepreneur to attain his/her entrepreneurial objectives alike in the lack of the benefits (Tew & Barbieri, 2012).

**2.1.3. Agritourism in Tunisia**

Since 2011, Tunisia has been facing a turning point in its history. Indeed, the country has been engaged in a process of fundamental transformations in the political, economic and social environment. Faced to this crisis, the tourism and agriculture sector merged to save the country and rebuild the Tunisian destination image. From this observation, a new notion which appeared, and encouraged the emergence of new businesses. Nowadays, in Tunisia the concept of agritourism is a new sector that resorts to the development of rural areas and offers a variety of agritourism products and services. The map which appears in figure 2 shows the list of rural lodgings in different cities in Tunisia.

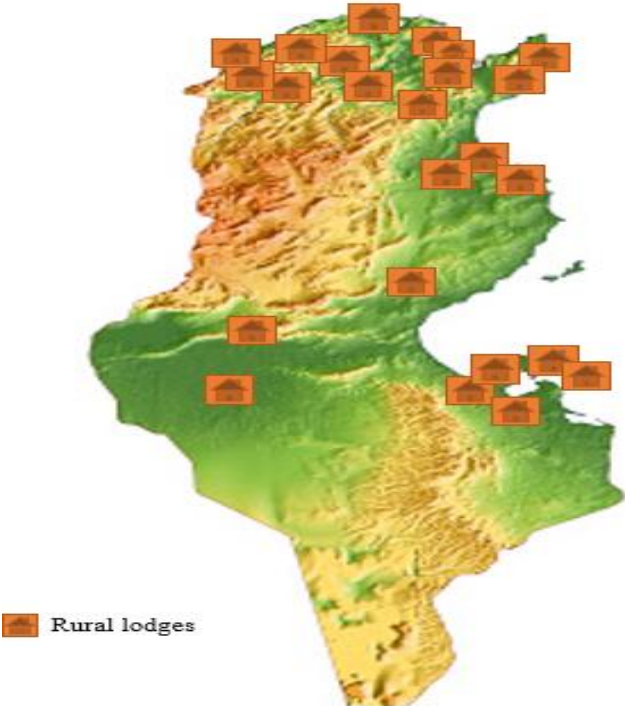


Figure 2. Map of rural lodges in Tunisia; Source: Own compilation

### 2.1.3.1. The contributions of agritourism in Tunisia

Agritourism is part of the process of local sustainable development because of its positive impacts on the three axes of sustainable development; economic, environmental and social, and the tourism sector.

- **Economic contributions of agritourism in Tunisia:** The economic benefits of agritourism are so advantageous. Indeed, it is presented as a source of additional income creation for the farmer. However, it provides it with financial security in the face of market and climate risks (Ben Alita , 2016). In addition, it promotes the creation of direct and indirect jobs in rural areas. Agritourism can generate significant ripple effects from which it supports the development of certain sectors such as transport, communication and crafts. It is a showcase of local products, by creating animation spaces to promote the products and opportunities for short tourist circuits (Ben Alita , 2016). Also, agritourism allows the establishment of an environment conducive to exchanges and the structuring of an integrated offer by promoting alliances between tourist and developing new external business links. It facilitates networking.
- **Social contributions of agritourism in Tunisia:** The main impact of agritourism is the limitation of the rural exodus. Indeed, it develops the pride of the inhabitants for their village, which is important to retain the population and existing businesses and attract new businesses and new families. Also, the agritourism promotes the role of women. It releases the talents and energies underutilized of the rural woman. It allows them to increase their power both in their family and in the community (Ben Alita , 2016). In addition, it is presented as a vector of rapprochement between city dwellers and the rural community. It allows the enhancement and anchoring of identity in rural areas, thanks to the enhancement of a different way of life and consumption. Indeed, it allows the enhancement of the farming profession and promotes the cultivation of new indigenous species. The agritourism gives recognition to traditional foods in their cultural aspects (Ben Alita , 2016).
- **Environmental contributions of agritourism in Tunisia:** The agritourism plays the role of educational advisor for understanding and respecting nature. It creates a collective consciousness (Ben Alita , 2016). It is an educational and awareness-raising tool for the protection of the environment from industrial and atmospheric pollution. On the other hand, it allows the maintenance of landscapes and the rehabilitation of the historically built environment in the monetary sense, from which visitors are willing to pay to see nature. Agritourism generally makes it possible to use heritage in a profitable and imaginative way: they can themselves become attractions.
- **Contributions of agritourism to the Tunisian tourism sector:** In the tourism sector, the integration of tourism activities within agriculture generates a lot of impacts. It ensures a geographical redeployment of tourist activities, which makes it possible to attenuate the phenomenon of saturation of coastal areas. It reduces the seasonality of the tourism sector. In addition, it is a useful tool to promote the regions of the interior, which helps to ensure a regional balance (Ben Alita , 2016). And it develops the notion of less capital-intensive accommodation infrastructure.

It is concluded that the integration of agritourism activity in the rural economy allows a series of positive impacts, the diversity and promotion of agricultural production, the creation of additional income, the social integration of the rural community, the enhancement of cultural heritage and the protection of environmental biodiversity.

### 2.1.3.2. Constraints of agritourism in Tunisia

The notion of agritourism is still recent in Tunisia. Several constraints prevent its evolution. The major constraints are of a legal nature. Law 83-87 of 11 November 83 relating to the protection of agricultural land prohibits agricultural producers from introducing an activity complementary to their agricultural activity without making a change in the use of the land (Ben Alita , 2016). Another regulatory constraint is the poor coordination between the Ministry of Tourism and the Ministry of Agriculture in terms of agritourism. In addition, very limited government intervention in terms of incentives, support and subsidies in the field of tourism in rural areas. However, some public sector intervention is likely to be required in the start-up phase of a new activity.

In addition, hoteliers and agencies lack initiative and imagination and prefer safe and confirmed values, the classic products of seaside tourism. In addition, the promoter of agritourism is deprived of financing, and the bankers consider that this type of project is very risky (Ben Alita , 2016). For the constraints concerning the promoter's profile, some farmers are clearly anti-tourists, do not want visitors to their territory, especially when footpaths or equestrian or cycle tracks cross their land (Ben Alita , 2016). They do not have an entrepreneurial spirit. In addition, there is a difficulty in grouping together and putting companies in cooperation from which many regions do not have a tradition of cooperation between farmers or between them and the public authorities, which limits the development of agritourism. Even some characteristics of the rural environment can represent a constraint, the cultural heritage of the rural environment, built, is generally in a state of disrepair and neglected. However, the environment has low population densities and includes small and widely spaced human settlements (Ben Alita , 2016). Another important constraint lies in the Tunisian city dweller who is not very motivated for this kind of tourism. Tourism has long been associated, in his mind, mainly with the sea and the desert, and marketing efforts in terms of agritourism are weak. Unfortunately, in Tunisia, little interest is given to this niche. He is ignored, forgotten and underestimated.

### 2.1.3.3. Challenges of agritourism in Tunisia

Based on the constraints imposed on the agritourism sector in Tunisia, we can highlight three major issues or challenges facing the sector.

- **Finalize an adequate legal and regulatory framework for agritourism:** The Tunisian government is called upon to finalize a regulatory framework conducive to the development of agricultural tourism and the diversification of tourist accommodation modes (Ben Alita , 2016). The ministries of tourism and agriculture must resolve the conflict, by implementing an agreement that allows the exploitation of agricultural land for tourism purposes without changing their agricultural vocation, it is that it allows the profession agritourism to be recognized by the authorities. In addition, creating a one-stop-shop for agritourism is necessary to reduce the effect of bureaucracy in order to facilitate the administrative process for the creation of the project. Agritourism activities are specific services (Ben Alita , 2016). They must be subject to multiple regulations and allowed to ensure the safety of visitors, the cleanliness of operations, agricultural zoning, etc. For this, the approval of the specifications relating to the agritourism investment is essential. Identifying, understanding and complying with these regulations is an inescapable task. The essential interest of a legal and regulatory framework is the creation of an appropriate business environment (Ben Alita , 2016).
- **Develop tools to enhance and promote local products:** Tunisia is rich in quality regional products such as its wines, olive oil, fruits, floral waters, etc. An agricultural and landscaped heritage that could become a real tourist asset, through a real development policy, supported by adequate communication (Ben Alita , 2016). This requires more studies to identify innovative formulas in order to take advantage of the potential of the



agricultural sector, while preserving its specificities. Knowing how to adapt to markets, exert influence and gain market share through marketing campaigns and links with travel agencies, transport companies and tour operators are peremptory functions to enhance and promote the products of the territory (Ben Alita , 2016). Marketing and promotion campaigns can be initiated by the public sector, but the role of the latter should gradually shift from funding to coordination as the agritourism sector develops.

- **Focus on specific training related to agricultural tourism:** The importance of training for the development of agricultural tourism should not be underestimated, because the integration of tourism into the farmer supposes that the producer has completely new skills; marketing, hospitality, catering, presentation and explanation of heritage, management of visitor flows, promotion of festivals and other events, conversion of buildings, and strategic planning of agritourism (Ben Alita , 2016). To meet the challenge of training and teaching in the field of agritourism, it is advisable to focus on three strands. First, the identification of the stakeholder who needs to be trained. Indeed, agritourism training does not only concern agricultural producers but also employees, specialists, community and cooperative groups and trainers. It is necessary to study the needs of each of them in order to suggest the most suitable training programs for them. Second, the definition and quality of the adequate training program. Indeed, these programs must bring a certain number of advantages by helping to make all concerned accountable. Essentially, the training is held to help businesses become more efficient and profitable by encouraging better marketing, better organization and cooperative work, and empowering them to entice tourists to come back for new stays. Third, the choice of organization that will develop and carry out the training program (Ben Alita , 2016).

So, to define exactly the challenges of this sector in Tunisia, we need to study several parameters and constituent elements by first studying the entrepreneurial behavior of entrepreneurial agritourism.

## 2.2. Systematic literature review

We adopted the systematic literature review method (SLR) of Rowley and Slack (2004) to review the research related to agritourism in social entrepreneurship. The SLR procedure is an organized methodology to analyze the resource's knowledge and create a mind map to develop the designed analysis of the literature, its descriptions, and the building of the bibliography (Rauniyar, et al., 2020). The SLR method differentiates itself from other traditional or conventional methods of literature review (Kitchenham & Charters, 2007). This methodology follows five phases : data collection, data evaluation, research and location of sources of information, development of a conceptual framework, collection, and research synthesis (Figure 3). The SLR is an important method to recognize the essential dominant research, identify the current research areas, and give a vision into topical research interests and guidelines for future agritourism in social entrepreneurship research. The bibliometric study develops this part to study the impact and productivity of authors and the contribution and collaboration of countries (Rauniyar, et al., 2020). Van Eck and Waltman (2010) developed a Similarity visualization software (VOS) to recognize the bibliographic synthesis by using the co-citation and co-occurrence analyses, bibliographic links, and maps (Rauniyar, et al., 2020).

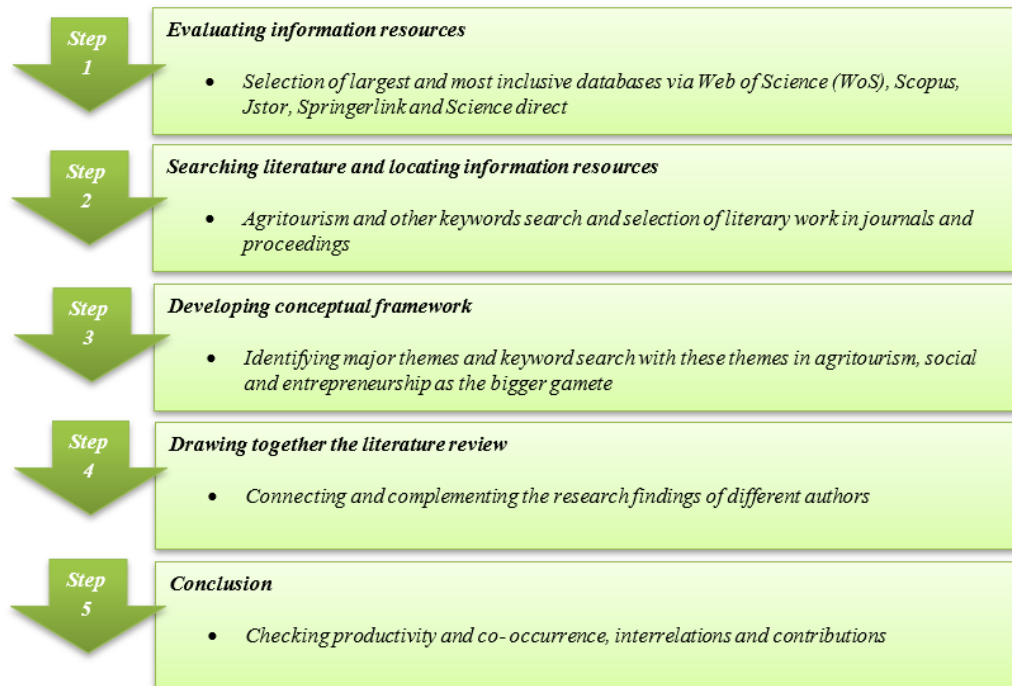


Figure 3. Steps involved in SLR methodology of Rowley and Slack (2004), adopted by Rauniyar S. et al, 2020

Quantitative techniques were used to quantify and analyse the research results of studies conducted on the themes of "agritourism", "agritourism", "farm tourism", "rural tourism", "social », and « entrepreneur » and « entrepreneurship ». These different terminologies used by the authors (Yang, et al., 2010) make the study more understandable. The parameters that were used in the research are revealed in Table 1. The parameters can be present in the menu selection of the VOS Viewer software.

Table 1. Results found according to the different phases of the systematic review

	Article collected	Number of articles excluded after the introduction of the criteria					Selected articles
		Repeated	Date >- 2000	Type of articles : Journal articles, review	Language	Off topic	
<b>Web of Science</b>	25	3	2	17	17	0	17
<b>Scopus</b>	659	4	9	150	509	43	509

The search variables used in our study are keywords, authors, journals, citations, country, a collaboration between authors, year of publication, number of research articles published per year, and the research topic. The data were extracted from Web of Science (WoS), and Scopus databases. These databases contain most of the research literature created in the field of agritourism in social entrepreneurship and management sciences in general (Aksnes & Sivertsen, 2019).

Another advantage of these databases includes scientific journals, books, and conference proceedings. In our research, we focused on online bibliographic and citation indexing services sustained and published by the Institute for Scientific Information and Elsevier, respectively. This study is based on agritourism in social entrepreneurship research available on these databases.

### 2.2.1. Study data statistics

The study of the available literature on agritourism in social entrepreneurship research revealed 679 publications to date. Out of these 679 research publications, single-authored documents constitute about 8%, while the remaining 92% of the articles were multi-authored, indicating the popularity of the collaborative nature of research among authors in the field of agritourism in social entrepreneurship research.

### 2.2.2. Research protocol development

For the review of the research study, we have developed a protocol to document the method of analysis and the criteria for the inclusion of research publications. In this study, the Web of Science and Scopus databases were used to search for research articles, review articles, and proceedings papers including at least one of these words: "agritourism", "agrotourism", "farm tourism" or "rural tourism", "social", "entrepreneurship", "entrepreneurial", and "entrepreneur" in their title, abstracts and keywords. The table 2 presents the keywords used in our research and the synonyms and also summarizes the combinations that may appear. Web of Science returned a total of 20 results, while Scopus returned 659. After removing duplicates and off topics we have reached a total count of 526 research works related to agritourism in social entrepreneurship. The initial search result for the period 2000 and over is presented in the table 1.

Table 2. The keywords used in the search and their combinations

<b>Letter</b>	<b>keywords</b>	<b>Synonym 1</b>	<b>Synonym 2</b>	<b>Synonym 3</b>	<b>Expression</b>	<b>Combination</b>
<b>A</b>	Agritourism	Agrotourism	Farm tourism	Rural tourism	A-A1-A2-A3	A+B+C
<b>B</b>	Social	-	-	-	B	B+A+C
<b>C</b>	Entrepreneur	Entrepreneurship	Entrepreneurial	-	C+C1+C2	C+A+B

### 2.2.3. Identification of important keywords

Word cloud analysis was used across the available corpus of agritourism in social entrepreneurship literature to identify the most frequent keywords in the field of agritourism in social entrepreneurship research. In our literature review, essential keywords were defined using the frequency of occurrence of the most examined and searched keywords (Figure 4).



Figure 4. Word-cloud analysis of agritourism social entrepreneurship research.

A systematic analysis method was used to research, review related literature, and defined the keywords allied to the theme of agritourism, agrotourism, rural tourism, farm tourism, social, entrepreneurship, entrepreneurial, and entrepreneur. First, 'agritourism' or 'agrotourism' or 'farm tourism' or 'rural tourism' or 'social' or 'entrepreneurship', 'entrepreneurial' or 'entrepreneur' was utilized to search for the existence of these terms in the title, abstract, and keywords at least one time overall journals available in the Web of Science and Scopus databases. Next, a word cloud analysis was effectuated utilizing the title, abstract, and keywords of all these articles. This choice of the method of word cloud analysis helps to identify the principles keywords utilized in the literature connected with agritourism in social entrepreneurship. After that, the keywords defined were utilized to search the databases of agritourism, agrotourism, farm tourism, or rural tourism in the social entrepreneurship context. The keywords defined by this proceeding are ranked according to their relevance. These articles were then examined separately to procure the important information on the research topic and explore the research question addressed, methodology, key findings, and future research.

#### 2.2.4. Identification of key research themes in the research of agritourism in social entrepreneurship

To identify key research themes in the literature corpus, an understandable framework that increases the demand and supply dynamics of agritourism in social entrepreneurship organizations has been discovered to be more fruitful by researchers (Rauniyar, et al., 2020). The framework is very advantageous that it helps to define the reasons and justifications for externalities that lead to the choice of one organization over others (Rauniyar, et al., 2020). Nine important research themes are defined, which are highly sought after in the contexts of agritourism in social entrepreneurship and related research.

## 2.2.5. Result and discussion

### 2.2.5.1. Keywords used in agritourism research in social entrepreneurship

As mentioned in the figure 4, the word cloud represents a textual data visualization, where the size of a particular word helps to visualize the frequency and essential attributed by researchers. The size of a word in the word cloud is larger, the more that word is used in the corpus. The result of word cloud analysis divulges the term “agritourism” which is the most frequently utilized by researchers.

A descriptive keyword analysis was handled for duple words such as “tourism development” and “sustainable tourism” by treating them as a single word. The 10 most prevalent keywords were defined depending on their frequency of semblance in the literature (Table 3). Word cloud analysis proposes that the keywords related to agritourism in social entrepreneurship can be ranked in the following order: Agritourism, rural tourism, sustainability, entrepreneurship, farm tourism, tourism, agriculture, rural development, sustainable development, and innovation.

Table 3. Occurrence of the top ten keywords

<b>Author keywords</b>	<b>Occurrence</b>
Agritourism	131
Rural tourism	66
Sustainability	32
Entrepreneurship	41
Farm tourism	32
Tourism	41
Agriculture	26
Rural development	31
Sustainable development	21
Innovation	13

### 2.2.5.2. Conceptual research analysis

The literature review on agritourism in social entrepreneurship proposes a large number of connections to research themes, and researchers have adopted a different and divergent view regarding agritourism in the social entrepreneurship concept. The conceptual analysis of research on agritourism in social entrepreneurship demonstrates that 64% of the total research studies cover the agritourism field, while 16% are defined as rural tourism and sustainability, 14% attributed to agritourism in social entrepreneurship, and the 6% to social networking and business development.

### 2.2.5.3. Identification of major research themes

The current literature on agritourism in social entrepreneurship was distinguished and indented into various groups for an organized literature review. The literature review structured analysis proposes that the literature on agritourism in social entrepreneurship can be mainly grouped into nine important research themes. The themes identified are “political implication/strategic changes”, “entrepreneurial factors for engaging in agritourism”, “business development and diversification strategies”, “use of innovation”, “sustainable development”, “social network/social capital”, “gender”, “heritage” and “tourist behavior”.

The results showed that the development of tourism behavior for the agritourism destination is one of the important research topics that have been examined by the researchers (Rauniyar, et al., 2020). The identification of attractive elements for the development of a tourist's perception was another critical research topic that the researchers worked on. Traditional and authentic food,

culture and heritage, and environmental protection, especially after the health crisis, emerged as the most important factors in the development of the perception that a tourist looks for (Brandano, et al., 2018).

Researchers present the social capital of the family business as being able to be the fundamental resource of this type of business compared to other types of organizations. Social capital is the set of resources that individuals can obtain by knowing other individuals, by being part of a social network with them, or simply by being known to them and having a good reputation (Baron & Markman, 2003). Social capital is the total of actual and potentially embedded resources in the network of relationships held by an individual or social unit and available to and derived by them (Nahapiet and Ghoshal, 1998). Researchers have also found that the success of agritourism is positively dependent on the quantity and quality of human resources available in farm families and farm size (Hung et al., 2016b). But research remains very limited on the effect of social capital on agritourism in social entrepreneurship.

A review of studies indicates that agritourism social entrepreneurship researchers have focused maximally on policy research in the area of the agritourism sector (Rauniyar, et al., 2020). The preference for policy-related research topics can be assigned to the preference of important journals for policy analysis connected to agritourism in social entrepreneurship and its externalities such as farmer distress, migration-related policies, and growing environmental concerns. These policies are observed to have a ripple effect on farmers who engage in agritourism and similar practices (Giaccio, et al., 2018).

The motivation to increase farmers' income through agritourism appeared as an important research topic that was demonstrated by some researchers. Like any other business activity, agritourism in social entrepreneurship also necessitates an important capital investment to develop skills, organize resources, and promote, but the generality of farmers in developing countries is unsafe and financially feeble (Rauniyar, et al., 2020). Therefore, it becomes difficult for them to invest in a new income-generating activity such as agritourism. As a result, researchers have observed that insufficient capital is a major problem in social entrepreneurship in agritourism (Rauniyar, et al., 2020).

The study of the links between agritourism in social entrepreneurship and the preservation of heritage has been an important theme that has been well developed by researchers. Researchers have observed that farmers are not fully realizing the potential of agritourism and heritage preservation (LaPan & Barbieri, 2014). A literature review on agritourism in social entrepreneurship suggests that agricultural areas, farmers, and agritourism attributes are cost-effectively associated with motivation to preserve heritage.

Researchers have suggested that tourists prefer agritourism over traditional forms of tourism (Che, et al., 2005). Inconsistency in branding has been observed to decrease marketing effectiveness and prohibit stakeholder collaboration in agritourism (Barbieri, 2019). The analysis of agritourism needs and priorities has also been a popular research topic among researchers. A range of agritourist needs has been investigated in various researches (Roziar Rich, et al., 2016; Srisomyong & Meyer, 2015). The research comparative analysis of emerging economies from developed markets discloses that the priorities of agritourists in these two markets have some comparatively (Varmazyari, et al., 2018). In both markets, tourists' choice of destination is impacted by concerns about being with family, seeing natural landscapes, and delighting in the smells and sounds of nature (Sotomayor, et al., 2014).

The literature on agritourism in social entrepreneurship suggests that the use of innovation, entrepreneurial factors, and the role of gender on agritourism in social entrepreneurship have not been extensively studied by researchers.

Researchers have observed that the increased potential of agritourism is very high, but due to knowledge and innovation gaps, we are unable to realize it (Hjalager, et al., 2018). Consequently, the analysis of innovation gaps in the field of agritourism in social entrepreneurship has caught the attention of some researchers. The researchers defined the "portfolio deficit", the "motivation for change deficit", the "policy departmentalization deficit", the "resource interpretation deficit" and the "knowledge deficit" as a deficit of innovation in agritourism in social entrepreneurship (Hjalager, et al., 2018). The position optimal scale of operation and the effective allocation of agricultural and non-agricultural resources have also caught the researcher's attention.

The determinants of international demand for rural tourism have been defined in some studies. These studies have investigated the dissimilarities in subventions, policy interventions, and marketing campaigns embraced by agritourism entrepreneurs over countries (Santeramo, 2015). widely researchers have concentrated on the pros and cons, opportunities, and challenges of agritourism in social entrepreneurship (Di Gregorio, 2017; Naidoo & Pearce, 2018).

At last, gender issues have also been discussed in some studies on agritourism in social entrepreneurship. These researches have investigated the role of women using the activity of agricultural tourism as a tool of empowerment. As a consequence, the persistence of a patriarchal ideology can congeal the process of women's empowerment in any farming society (Pattnaik, et al., 2018). To understand the advancement of the literature, trends, and other connected issues, the research categorized various relevant categories of research topics on agritourism in social entrepreneurship using parameters of the year of publication, methodology used, key journals, sampling years, breakdown by country, sub-areas studied, the variables applied and the nature of the economy and the financial market.

## **2.2.6. Bibliometric analysis**

Co-citation mapping approaches have proven to be extremely helpful in visually processing data structures (Rauniyar, et al., 2020). When creating a co-citation map of articles using this kind of analysis, a collection of nodes and edges is used. This card depicts the visual representation of the reference list's list of items. The journal articles are represented by the map's nodes, while the co-occurrence of these nodes is represented by the map's edges (Leydesdorff & Rafols, 2011). The frequency of co-citation develops as a third article cites two articles together. This is due to the fact that papers analyzing comparable themes are more likely to be mentioned jointly by other articles, increasing the frequency of co-citation (Rauniyar, et al., 2020).

### **2.2.6.1. Publication trend analysis**

Agritourism in the context of social entrepreneurship is a relatively young subject of study. In the early 1990s, general knowledge production in the process of research publications began to occur (Rauniyar, et al., 2020). The publication trends of research literature on agritourism in social entrepreneurship indicate that agritourism in the social entrepreneurship sector is still in a time of rapid growth and expansion (Figure 5). The number of research articles published in high-quality journals on this topic can be used to gauge the evolution of a research theme and identify the authors, countries, and institutions that can be regarded leaders in this field (Park, et al., 2011). A geometric increasing outline may be seen in the academic literature on agritourism in social entrepreneurship. According to the findings, the literature on agritourism in social entrepreneurship is growing at a rate of roughly 19 percent per year. According to publishing trend studies, 31 journals supported the publication of 515 papers and reviews, indicating that research material on agritourism in social entrepreneurship is well disseminated. Agritourism is a multifaceted issue in social business. As a result, it piques the interest of researchers in a variety

of fields, including tourism, agriculture, policy, marketing, development, sustainability, gender, rural and rural areas, and so on.

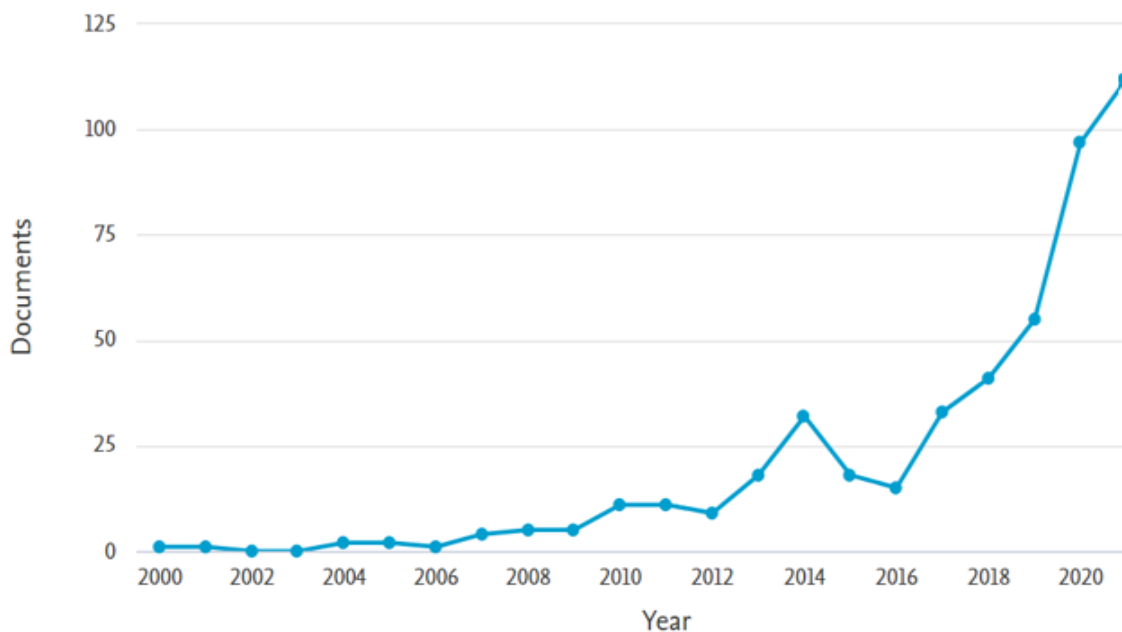


Figure 5. The publishing trend in the area of agritourism in social entrepreneurship

#### 2.2.6.2. Description of the authors

According to the authors, the majority of agritourism research in social entrepreneurship is collaborative. However, more than one author is involved in the research's completion. Only one-tenth of the document is written by a single author, as we can see. In the corpus of research works on agritourism in social entrepreneurship, there are a total of 186 writers.

Because of the prevalence of cooperative research, papers in this sector are rich in terms of substance, coverage, and publishing quality. Despite the poor contribution of researcher studies in agritourism research to social entrepreneurship (A total of 679). The classification of journal quality was done using research quality indices (Thomson Reuters and ABDC quality ranking lists). Due to the relatively new specialty of agritourism in social entrepreneurship as a research area, only a small number of researchers (679 total) are working in this field.

#### 2.2.6.3. Author dominance analysis

The function dominance analysis was used to determine author dominance ranking, as proposed by Kumar and Kumar (2018). According to the dominance analysis of bibliometric functions, Barbieri C. et al. (2008) and Karampela et al. (2021) have a dominance factor of 1 because they appear as the first author in all of their research papers (Table 4).

Barbieri is the leading contributor in the field of agritourism in social entrepreneurship, with the most research publications (table 4).



Table 4. Author dominance

<b>Author</b>	<b>Dominance factor</b>	<b>Total articles</b>	<b>Single authored</b>	<b>Multi-authored</b>	<b>First authored</b>
Barbieri C.	0.33	21	1	14	7
Ohe Y.	0.44	9	4	4	4
Ammirato S.	0.57	7	0	3	4
Kline C.	0.42	7	0	4	3
Mastronardi L.	0.5	6	0	6	3
Karampela S.	1	5	0	5	5
McGehee N.G.	0.8	5	1	3	4
Park D.B.	0.6	5	0	5	3
Annes A.	0.5	4	0	4	2
Choo H.	0.75	4	0	4	3

Most top contributors, according to the co-author (Figure 10) and co-citation network (Figure 8) networks, have more solid co-authors in their network and receive the most citations.

#### 2.2.6.4. Country contribution

Based on the highest number of research publications published in these nations, the United States, Italy, the United Kingdom, and China are among the countries that contribute the most to the literature on agritourism in social entrepreneurship. The increased awareness of the potential of agritourism in social entrepreneurship has a positive externality, leading to an increase in demand for agritourism in social entrepreneurship education from industry and available research materials. These are the characteristics that account for these countries' supremacy in the field of agritourism research in social entrepreneurship. Another benefit, according to the study, is that while the United States and Italy appear to have a high prevalence, research conducted in Italy is more noteworthy because it has a higher number of citations per piece (table 5). As a result, the study suggests that, despite the boldness of the line connecting two bubbles, significant inter-country collaboration exists.

Table 5. Total Citations per Country

<b>Country</b>	<b>Articles</b>	<b>Total citations</b>	<b>Average article citations</b>
<b>USA</b>	109	2967	3.673
<b>Italy</b>	70	827	8.464
<b>United Kingdom</b>	50	1450	3.448
<b>China</b>	30	233	12.875
<b>Australia</b>	26	726	3.581
<b>Poland</b>	24	271	3.581
<b>Spain</b>	23	159	14.465
<b>Greece</b>	19	170	11.170
<b>Canada</b>	18	546	3.296
<b>South Africa</b>	17	202	8.415

A closer look at the graph reveals growing cooperation between countries such as the United States and Australia, the United Kingdom, Italy, and China. The countries with the highest contributions also have the highest national and multi-country publications. Similarly, there are substantial ties and collaborations between countries in research on agritourism and social entrepreneurship in general (Figure 6).

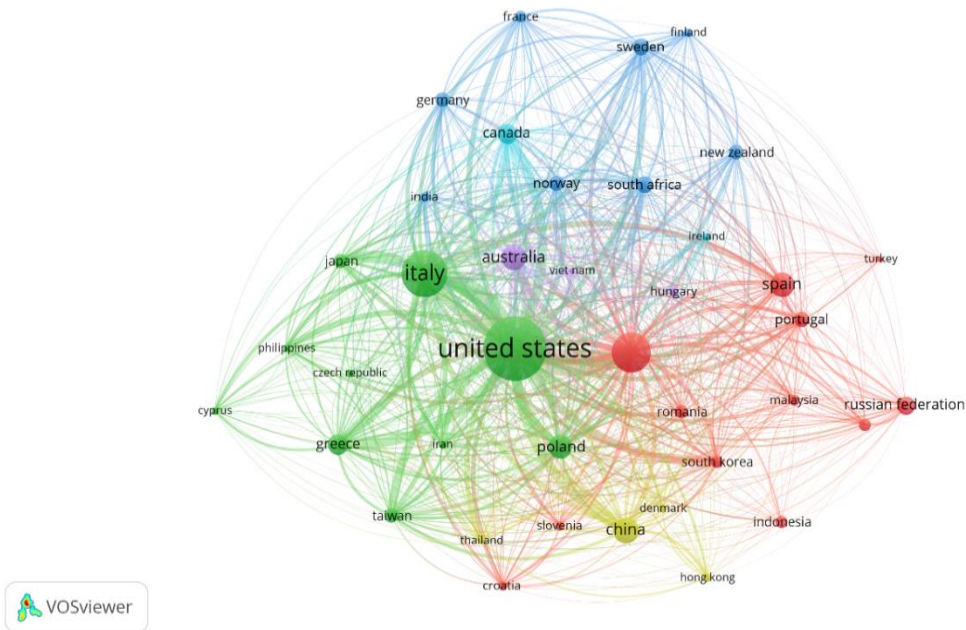


Figure 6. Most productive countries

This research is focused only on a few credible and high-level research journals, according to the publication data analysis on agritourism in social entrepreneurship. According to the analysis, the top ten journals published 29% of all current material on agritourism in social entrepreneurship. The majority of research publications are research articles, with conference proceedings and journal articles on agritourism in social entrepreneurship accounting for only 5% of overall publishing. The frequent publishing of research publications on agritourism in social entrepreneurship in international journals like "Sustainability Switzerland" demonstrates that the research conducted in this sector is of high quality, fresh, and relevant (Figure 7).

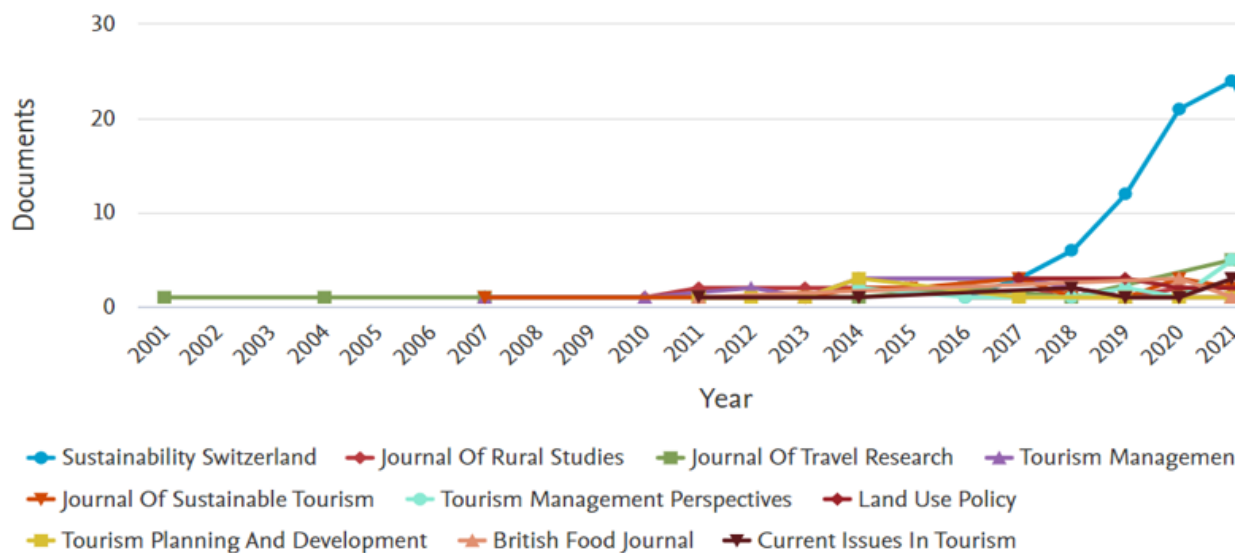


Figure 7. Top ten of journal per year

The Journal Impact Factor and the Australian Business Deans Council's Journal Quality Rankings were used to assess the journal's quality.

The list of journals that most frequently publish research on agritourism in social entrepreneurship includes the most recognized international journals (table 6). This illustrates that highly reputed publications publish these themes while disregarding publishing regularity.

Table 6. Top 10 publishing journals contributing to the area of agritourism

Journal	Year	Articles published
<b>Sustainability Switzerland</b>	2021	24
<b>Journal of rural studies</b>	2020	2
<b>Journal of travel research</b>	2020	3
<b>Tourism management</b>	2014	3
<b>Journal of sustainable tourism</b>	2021	5
<b>Tourism management perspectives</b>	2021	5
<b>Land use policy</b>	2021	3
<b>Tourism planning and development</b>	2014	3
<b>British food journal</b>	2022	4
<b>Current issues in tourism</b>	2021	3

#### 2.2.6.5. Analysis of author co-citations

The frequency of cases in which two (or more) sources were mentioned in the third article, which has a similar publication history, was investigated using the co-citation network analysis. The size of a node's bubble indicates the amount of agritourism in social entrepreneurship research that author has produced. The map's relative distance indicates how frequently a third article cited these two authors (or journals), indicating that two closely linked authors (or periodicals) were co-cited more frequently. The presence of co-citation is indicated by different colors. Sharpley, R., and



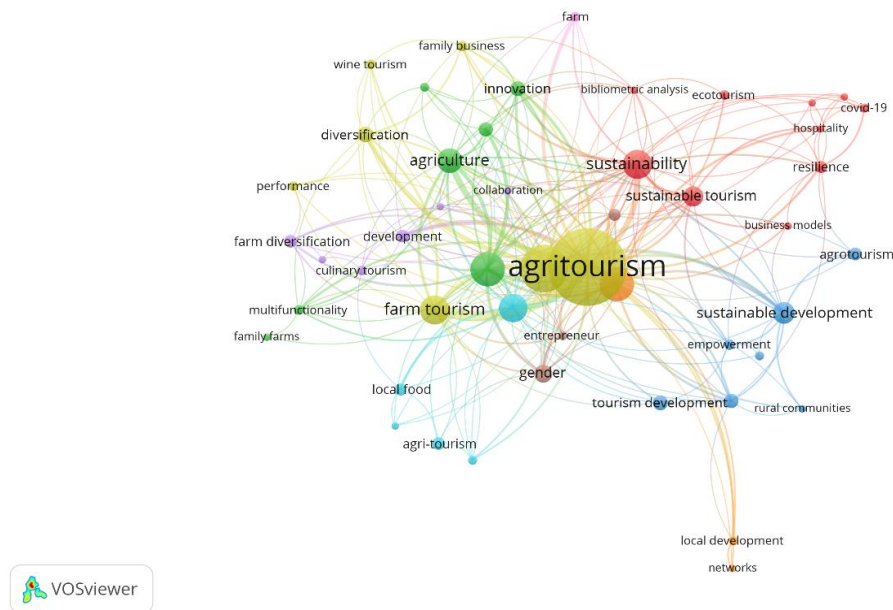


Figure 9. Co-occurrence of keywords along with ‘Agritourism in social entrepreneurship’

The distance between the two terms indicates how frequently they've been used together in a journal paper. The close terms were utilized in a greater number of research articles than the two words placed relatively farther on the map. However, the study's findings show that the terms sustainable development and sustainable tourism are frequently used together, implying that they are more commonly utilized in research publications. Sustainable development and gender, on the other hand, are positioned at a wider distance on the map, indicating that these terms were used less frequently in a study paper. The frequency of study on agritourism in social entrepreneurship is suggested by the inclusion of the words Italy, Poland, and Greece.

#### 2.2.6.7. Analysis of co-authors

The breadth of collaborative research in the subject of agritourism in social entrepreneurship is investigated using a network analysis of co-authors. The frequency with which two or more writers conducted joint research on agritourism in social entrepreneurship was characterized by the co-author network map (Figure 10). Authors who are close in proximity to each other are more likely to co-author research articles than those who are farther apart. A multi-author article has been co-authored by authors who are related by the same colored lines on the map. Jakes, S., Morais, D.B., and Lapan, C. appear to have collaborated the most in the subject of social entrepreneurship agritourism.

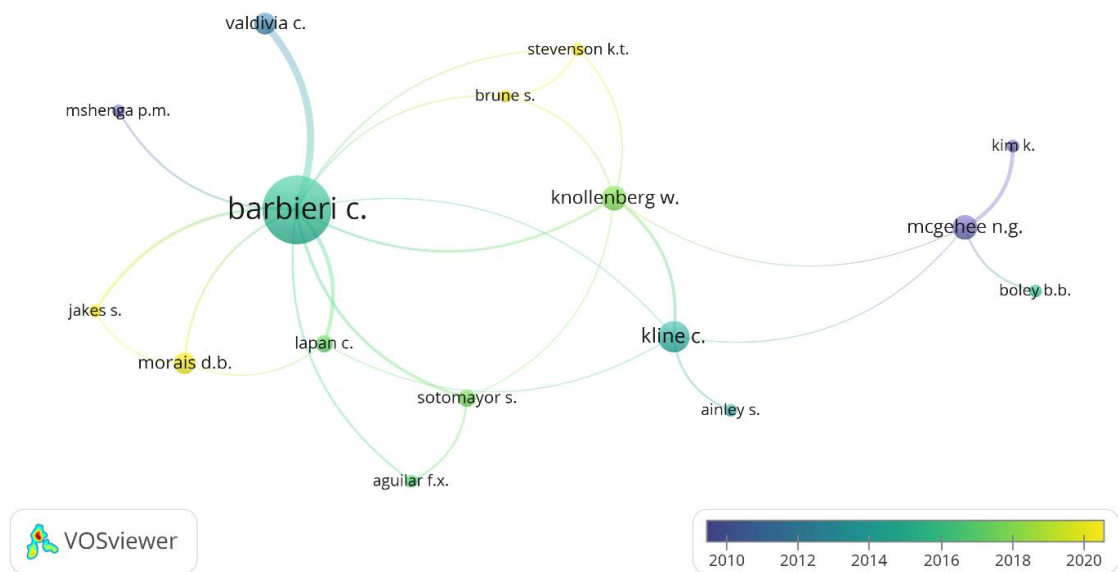


Figure 10. Co-authorship network

The spatial pattern of publication of research on agritourism in social entrepreneurship in relevant journals is represented by an analysis of the chronological view of research papers. The color range of published reviews lies on a continuum from blue (2010) to yellow (2020), according to the agritourism in social entrepreneurship research timeline map (Figure 11).

The spatia is represented by an analysis of the chronological view of research publications. Journals that published articles on agritourism and social entrepreneurship in the middle of the year have been color-coded in green. Around 2014, we noticed that research publications on agritourism in social entrepreneurship were more frequently published in journals represented by the yellow nodes, such as *Tourism Planning and Development*. Later on, more research on agritourism in social entrepreneurship was published in publications such as *Sustainability* (Switzerland), which is shown by a yellowish node in the timeline.



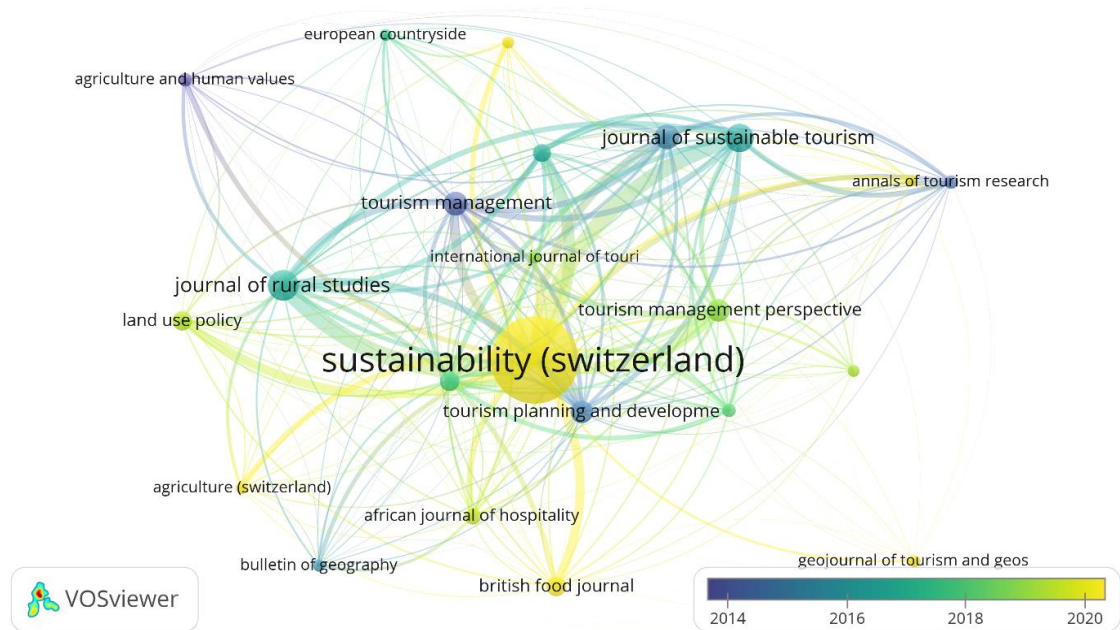


Figure 11. A timeline view of Bibliographic Coupling with Sources

Although the volume of research literature and the number of researchers working in the area of agritourism in social entrepreneurship has continued to grow and diversify in recent years, the area of agritourism in social entrepreneurship is still relatively small compared to other areas of management research, according to a review of the literature. The publishing trend in this subject reveals a geometric increase in scientific progress.

We will focus on the sub-themes connected to social entrepreneurship variables in our empirical section.

### 2.3. Theoretical framework of the research

Social entrepreneurship is generally a controversial phenomenon. Nowadays, numerous contradictory definitions of the concept already exist but no uniting conceptual framework of it has appeared yet (Choi & Majumdar, 2014). Various schools of thought have approached the gaps between diverse conceptions of social entrepreneurship and have tried to map out the diverse senses, logics, and approaches completely supposed in these conceptions. However, to find a solution to the definitional problem that would provide scientists to collectively determine the field of social entrepreneurship is still obviously missing (Choi & Majumdar, 2014).

Thereby, the social entrepreneurship can be considering such as a conglomerate of various sub-concepts that are recognized like (1) co-creation of social value, (2) the social entrepreneur, (3) the organization of social entrepreneurship, (4) social innovation and (5) market orientation. Nevertheless, these sub-concepts can be considered such as the based attributes of social entrepreneurship. For this reason, any special instantiating or conception of social entrepreneurship should comprise some of these sub-concepts at least. In this research case, we will study the social entrepreneur as a sub-concept of social entrepreneurship.

Several authors suggested that social entrepreneur has been considering such as central in social entrepreneurship (Light, 2008; Roper & Cheney, 2005; Thompson & Doherty, 2006). He or she is viewed as the pioneer of social entrepreneurial and as the innovative who imagines, creates and shoves through social innovations and mechanisms of social change (Ziegler, 2010). In fact, in numerous renowned circumstances of social entrepreneurship, the social entrepreneur has revealed

to be pivotal in starting and realization of social entrepreneurial activities. However, certain researchers have also noticed that a collectively social entrepreneurs can exist in some circumstances (Bacq & Janssen , 2011). Certain person seen the social entrepreneur just like someone who initiates and exploits a social objective organization. Nevertheless, others person views the social entrepreneur such as a visionary, creative, innovative, and changing risk-taking (Bacq & Janssen , 2011). But still unclear how visionary, risk-taking, innovative or others must be identified such as a social entrepreneur. In this research, we will concentrate on the social factors of entrepreneurs as: social capital, social identity, social motivation and functional competencies.

### **2.3.1. Social capital**

The execution of the social capital concept in tourism investigation is comparatively missing. Thereby, little attention has been attributing to the roles of social capital and its important effect in regional and community tourism development (Nordin & Westlund, 2009). Before clarifying the role of social capital and its influence on the development of agritourism in rural areas, it is necessary to clarify this concept and give some definitions and define its components.

#### **2.3.1.1. Definition**

Over the last decade, the notion of social capital has enjoyed a spectacular career, illustrated by the dynamism of the production of academic articles devoted to commenting on it or implementing it in one way or another, and gained a rarely equaled popularity for an academic notion. Indeed, the notion of social capital makes it possible to characterize the interactions of relationships, to analyze them, and to manage them. While their definition of familiarize provides a link between competitive advantages and the resources derived from interactions, the use of the concept of social capital makes it possible to extend and complement this approach by identifying the roots of these competitive advantages. In line with the work of Nahapiet and Ghoshal (1998), which show that social capital is a resource, this amounts to presenting the social capital of the family firm as being able to be the fundamental resource for this type of firm compared to other types of organizations. Social capital is the set of resources that individuals can obtain by knowing other individuals, being part of a social network with them, or simply by being known to them and having a good reputation (Baron & Markman , 2003). Many definitions have been proposed, but they all have in common that the benevolence that others have towards an actor can be a source of value, that the social resources inherent in relationships can be used for ends economic (Burt, 1992; Cohen, et al., 2001). Thus, the actors can derive benefits from their membership in social networks. The notion of social capital covers the structure and content of an actor's social relationships (Davidsson & Honig, 2003), e.g., the network of relationships but also the volume of capital of different kinds that it allows to mobilize by proxy. For an actor to benefit from social capital, three conditions must be met: 1 / he must have the opportunity to enter social transactions (the connections of the social network); 2 / members of the social network must be motivated to act in favor of the actor; and 3 / they must have the capacity to do so (Davidsson & Honig, 2003). Moreover, the beneficial effects of social capital generally fall into three categories, which are not mutually exclusive: information and research, coercion-attraction, and influence. First, network members can use their social connections to generate information that is useful for themselves or the group. This phenomenon has been described in research at the individual, group or company level (Burt, 1992; Cohen, et al., 2001). This beneficial effect vis-à-vis information shows the relationships developed for social purposes that can affect the costs of research and access to information. This point has been further investigated by network theory by analyzing how social connections can increase the likelihood of an actor finding the right information (Burt, 1992; Liao & Welsch, 2005). Second, social relations can also induce normative pressures (Baron & Markman , 2003). However, four ways in which social relations can act coercively or attractively on economic actions: recruitment, obligations, surveillance, and discipline. For example, recruiting into a network of relationships



implicitly uses pressure from network members to ensure the quality of the worker and to discipline him. Likewise, regular social relations allow actors to monitor economic relations and behavior.

Third, through their social relationships a network member can benefit from varying degrees of influence and power (Davidsson & Honig, 2003). This allows this (or these) actor (s) to make others carry out certain actions and thus achieve their objectives.

These different effects of social capital have, for example, been observed in studies on entrepreneurs (Davidsson & Honig, 2003; Liao & Welsch, 2005). Thus, the individual social capital that an entrepreneur can have to create or develop his business has an impact on his success in achieving his objectives. Alongside these beneficial aspects, there are also negative facets of social capital that are less highlighted in management research but still exist. These negative consequences are mainly four in number: the exclusion of “outsiders” to the social network, excessive demands for solidarity or mutual assistance between the members of the group, a restriction of individual freedom and standards that hinder success and the development of group members. So, the objective of this doctoral research was to use the sources of social capital benefits in the development of certain behavioral variables in an entrepreneur.

### 2.3.1.2. Dimensions of social capital

Nahapiet and Ghoshal (1998, p. 243) describe social capital as “the total of the actual and potential resources integrated into, available by, and derivative from the network of relationships owned by an individual or social oneness”. Basing on this definition, those researchers decayed social capital into three components, namely structural, relational and cognitive.

- **The structural dimension:** The structural dimension of social capital preoccupied the whole model of connections into a network of social relationships. The essential aspects of this dimension are the presence/absence of network links and network configuration. The links in a social network are the causing of social interaction or social interchange which is closely related with the feeds of resources and information. According to Burt (1992), the advantages of information resulting from the structural dimension can be access, timeliness, adequacy, and referrals. Thereby, the structural dimension has a remarkable effect on the accessibility of precious resources as capital, infrastructure, space, facilities and employment.
- **Relational dimension:** The relational dimension of social capital denotes to the quality or strength of social links, which is usually a reflect of the duration of the sustainable relationship, the measure of emotional intimate, and the frequency of mutual behaviors (Nahapiet & Ghoshal, 1998). The relational dimension is essential for entrepreneurship because personal experience and the quality of past contacts can profoundly affect whom the entrepreneur is probably to be near and effectively commit with. Between the numerous components that making a social link stronger or weaker than others, relational trust plays a primordial role. Thereby, trust and trustworthiness attenuate the requirement of preservation against moral risks and opportunism, thus facilitate the feeds of information and resources and commitment in collaborative behaviors (Davidsson & Honig, 2003). With respecting to the advantages of information, strong links are more auspicious to the forwarding of refined information and implicit acquaintances (Inkpen & Tsang, 2005). Because refined information and implicit acquaintances cannot be easily coded or comprehended their transmitting principally demands close and rehearsed interacts. Compared with the shares of information and knowledge which conducts to no loss of the initial source of the information and knowledge, shares private ownership and other concrete resources signifies temporarily deprivation of the utilize value for the proprietor, making him/her subject to uncertain vulnerable and indeterminate. Consequently, the strength of the relationship indisputably has a directly effect on the forwarding of resources.

- **The cognitive dimension:** The cognitive dimension of social capital includes the resources offering sharing performances, interpretations, and meaningful systems between parts (Nahapiet & Ghoshal, 1998). The development of a fruitful relationship not only demands time and emotional engagement but is likewise substantially the two parts share something in common as values, beliefs, attitudes and vision. The coherence of these cognitive characteristics makes easier the comprehension of each other's reflection processes, activates information and knowledge sharing, and encourages sustains for certain social acts (De Carolis & Saporito, 2006).

Two processes through which the cognitive dimension operates an effect on entrepreneurship, namely entrepreneurial culture and organizational legitimacy, suggested by Liao and Welsch (2005). With respect to entrepreneurial culture, most of the research has mentioned that in communities where it is pervasive, persons are more probably to comprehend risk-taking behaviors, tolerate defeat, promote financial independence of new younger generations, and litigate self-employment, thus offering a favorable environment for the entrance and interchange of resources for private affairs development (Karlsson, 2005). The second process signifies that the business must be mostly renowned and admitted by the society; fails of it may commit wide antagonism and social lobbying, thereby considerably minimize the chance of getting externally resources and information.

### **2.3.2. Functional competencies for an entrepreneur**

#### **2.3.2.1. Definition of the concept of competence**

Le Boterf (2013) defines competence in terms of the combination of resources. These resources are multiple and are internal or external to the individual. Thus, acting competently means knowing how to combine and mobilize a set of appropriate resources. These resources are personal (knowledge, know-how, behavior ...) or even media (databases, colleagues, experts, other professions, professional networks, etc.). The individual who knows how to act competently in each situation must "manage this situation by taking into account its specific requirements and context in order to produce results (products, services) that meet certain performance criteria for a recipient (customer, patient, user ...)" (Le Boterf, 2013, p. 21). Let us add that the competence comprises two invariants: it is appreciated individually and is not interchangeable from one individual to another on the one hand; it is contextualized and is revealed in action on the other hand (Lichtenberger, 2006). A third invariant can be added to this list is the contingent aspect of competence. This does not exist before an act; it emerges from it. Finally, Dejoux (2001) puts forward the idea that the individual stores his skills in a reservoir and that he mobilizes them (or not) according to the situations he must live, that he enriches them as they go. For our part, we adhere to this combinatorial conception of the competence definition and to the idea of contextualization and contingency. Also, competence is conditional on its transferability from one situation to another. Correspondingly, the competences define as a tool of reference, management and evaluation for managerial purposes or individual support. This repository is a "common denominator" whose goal is to provide a synthetic and standardized representation of a work situation, capable of bringing together the most characteristic and representative elements of the activities relating to a given profession. In this sense, we define competence as the mobilization of a combination of resources internal and external to the individual (knowledge, know-how, interpersonal skills, external supports, etc.), always contextualized and linked to a specific action, allowing this individual to act effectively in each context. In the context of a work situation, the competencies mobilized by an individual can be detected, evaluated and value.

### **2.3.2.2. Definition of the concept of entrepreneurial competencies**

The notion of competence has recently been adopted in the field of entrepreneurship to refer to the combination of knowledge (know-how), attitudes (know-how) and skills (know-how) necessary to be effective (efficient) during the entrepreneurial process. One of the obstacles to the development of research on entrepreneurial competencies has its origins in the individualistic approach that dominated entrepreneurship research during the 1980s. This approach assumed that certain individuals have personality traits and unique characteristics that would predispose them to entrepreneurial activity (Greenberger & Sexton, 1988). This movement has disinterested in the actions of the entrepreneur and has limited itself to identifying his traits, attributes and stable characteristics. The results of this psychological research came to represent the entrepreneur as being "a person full of contradictions and so full of traits that she could be anyone" (Gartner, 1988). These findings revealed the inability of the trait approach to explain the performance of entrepreneurs. Thus, researchers have turned to the analysis of the actions of the entrepreneur, focusing more particularly on the activities that he sets up during the entrepreneurial process (Souitaris, et al., 2007). These authors implicitly assume that the implementation of these activities, known as gestation activities (drafting a business plan, making financial forecasts, seeking funding, etc.) implies success in the entrepreneurial process. Numerous studies have been undertaken to analyze the number and type of gestation activities put in place by entrepreneurs. Therefore, this research was interested in the activities themselves and moved away from understanding the role of the individual (the entrepreneur) in their implementation (Shook, et al., 2003).

An alternative to this request proposed, as early as the 1990s, to consider the entrepreneur's interaction with the entrepreneurial situation that animates him in order to understand his behaviors and reactions. One of the directions that falls within this perspective concerns research that drew on cognitive psychology to try to understand how entrepreneurs think and why they act the way they do (Mitchell, et al., 2002). This research made it possible to identify the knowledge, attitudes and skills necessary during the entrepreneurial process. It is important to emphasize that the entrepreneurial competencies identified in this cognitive approach are mainly competencies specific to the role of the entrepreneur, in contradiction to the general competencies that can be shared by other roles, especially that of manager. These competencies are also contextualized, in the sense that they are determined by the role that the entrepreneur must assume or solve the problems encountered. Thus, the role of the entrepreneur and the entrepreneurial competencies may be different from situation to other situation and from phase to other phase during the entrepreneurial process.

### **2.3.2.3. Entrepreneurial competencies in the different phases of the process**

Looking more particularly at the process of creating organizations, Shook et al. (2003) suggest considering the diversity of entrepreneurial skills required in each step of the entrepreneurial process. They present the main entrepreneurial competencies previously identified by other authors by relating them to the stages of the entrepreneurial process during which they manifest themselves. Those authors draw on the work of Shane and Venkatraman (2000) to represent the process of creating an organization in four stages: (1) intention stage, (2) identification, (3) exploration and (4) exploitation of the opportunity.

1) *During the "intention" stage:* In this stage, the entrepreneur has not yet identified an opportunity but where he already intends to create an organization. The main competency that the researchers have identified in the individual is his willingness and enthusiasm to take actions with a view to creating an activity (Attour & Barbaroux, 2016). Bird (1988, p. 442) defines this entrepreneurial intention as "the state of mind which directs the individual's attention and leads him to action". This competence comes under the register of affective skills which condition the commitment of an individual in the process of acquiring knowledge and skills. Several authors interested in this

first step of the entrepreneurial process (Attour & Barbaroux , 2016) have analyzed the personal variables and cognitive factors of the entrepreneur that can influence his intention to create an organization. These authors identified three variables: the individual's perception of the feasibility, the perception of the desirability of creating an organization and the perception of the social support that could be granted to it.

2) *During the opportunity identification stage:* During the opportunity identification stage which follows the intention to create an organization, some authors assume that the role of the individual consists in his ability to recognize opportunities, which implies the ability to perceive them when others see chaos, contradictions and confusion. The recognition of opportunities presupposes two conditions: on the one hand 1) the possession of a behavior oriented towards the search for information, and on the other hand 2) the possession of an alert mind allowing the perception of opportunity. If we base ourselves on the contribution of the authors devoted to learning (Paquette, 2005), we could refer to the competency necessary for the identification of the opportunity as being general skills, known as reception skills or perception that correspond in the first phase of the information processing cycle. Thus, this result represents a new skill corresponding to higher phases of the intellectual process of processing information. These are the competency of production and creation which presuppose the existence in the individual of a spirit of analysis, repair and synthesis. Regarding the competency of reception (or perception), these consist of two tasks: first (1) pay attention to the facts to perceive the internal or external stimuli which appear in the individual, then (2) integrate these stimuli by retrieving in memory knowledge associated with the information collected. This information exists in the environment and is even "reported" to the individual. However, entrepreneurship authors identify access to information as the primary factor influencing the identification of opportunity (Attour & Barbaroux , 2016).

Regarding the sources of information used by entrepreneurs, several authors find that they prefer to use informal sources by favoring (e.g., person-to-person contact) (Attour & Barbaroux , 2016). In addition, entrepreneurs seek information in a random and unguided fashion and in the environment at unconventional times and places. Based on the information that entrepreneurs use the most, we can assume that the “best connected” individuals with the richest and most dense social network are those who have the most access to information. Moreover, the second task relating to reception capacities assumes that the individual who will succeed in integrating the stimuli associated with the information collected is the one who possesses the knowledge associated with it. This statement has indeed been demonstrated by several authors devoted to entrepreneurial learning. These authors suggest that the level of knowledge held by the entrepreneur conditions his ability to acquire new related knowledge (Attour & Barbaroux , 2016). This is an absorption capacity which assumes that the more an individual acquires in one field, the more easily he can acquire others (and therefore to learn) more easily.

3) *When the opportunity is identified:* When the opportunity is identified, the next step for the entrepreneur is to assess so that he can choose and decide to exploit it. Part of the role of the entrepreneur can be summed up in his ability to judge the value of the opportunity and choose to exploit it, which presupposes a certain capacity to make operational decisions of opportunity. Therefore, the competency identified at this stage of the process are decision-making skills that call on skills of choice and commitment. A study by Wang et al. (2020) identified cognitive factors influencing the decision to take advantage of the opportunity. These are “the illusion of control” and the “belief in the law of small numbers”. The illusion of control is determined as the situations in which the individual overestimates the ability of his skills to increase his performance while it is the luck factor that predominates in these situations as the decisive factor. Belief in the law of small numbers refers to individuals who use a limited amount of information to reach definitive conclusions. These individuals have heuristic representations that lead them to believe that small samples can be representative of the population. More particularly, Wang et al. (2020) find that

these two cognitive factors influence the perception of risk which had an impact on the evaluation of the opportunity.

4) *High degree of uncertainty and great ambiguity*: During the opportunity exploration phase, the entrepreneur will have to seek solutions to problems not yet fully defined, find applications for ideas not fully developed and explore business opportunities for concepts that are still very vague. During this period, the entrepreneur usually has very few resources in terms of time, attention and funding (Attour & Barbaroux , 2016). In this context, the entrepreneur will have the capacity to face the constraints of novelty in order to reduce the uncertainty and the ambiguity around his business creation plan. Its actions will be mainly focused on finding and reconfiguring the resources essential for the emergence of its organization. Indeed, the acquisition of both tangible (information, human capital) and intangible (social, physical, financial and organizational capital) resources are the main concern of nascent entrepreneurs during this phase of the process.

A first analysis of the competencies identified from the contribution of Shook et al. (2003) allows us to account for a variety of skills, attitudes and knowledge necessary to be successful during the entrepreneurial process. Each of these competencies is influenced by a set of entrepreneurial predispositions, personal characteristics and cognitive factors. The cognitive skills proposed by Shook et al. (2003) presupposes the need for different but complementary knowledge, attitudes and skills at each stage of the entrepreneurial process. As he progresses in the process of creating an activity, the entrepreneur will have to demonstrate an ability to adapt and acquire these complementary competencies. In the following paragraph, we will focus on entrepreneurial functional competencies. In the first place, we will focus on understanding the functionality of an entrepreneurial competencies and then test it in our model.

#### **2.3.2.4. Functional competencies for an entrepreneur**

Knowledge of job competency refers to the existing abilities or natural abilities of a person. Knowledge of professional competency is seen as influencing the success of entrepreneurship, as a socially integrated activity where the idea emphasizes the importance of skills and knowledge in relationships with other parties (Bin Yusoff, et al., 2018). Knowledge is a factor that sets entrepreneurs apart from their competitors and turns poorly organized businesses into well-regulated businesses. Knowledge is an important resource for organizations, and entrepreneurs with more knowledge are uncertain of their effectiveness and can learn and notice market changes more quickly. In fact, the role of entrepreneurship is constantly influenced by education acquired experimentally and culturally. Therefore, it was strongly argued that the traditional approach to entrepreneurship should change, and that the importance of entrepreneurship education should be increased. More recently, the concept of entrepreneurship involves more than just starting a business (Bin Yusoff, et al., 2018). Instead, it includes developing the competencies needed to grow the business as well as the personal competencies needed to be successful. Empirical evidence shows that companies whose leaders develop their skills and competences are more likely to be profitable and grow more than companies run by entrepreneurs who do not have these characteristics (Bin Yusoff, et al., 2018). Research expands that entrepreneurial competence affects organizational performance, and this concept has become an important tool for improving a company's competitive advantage. A recent study on emerging economies found that business knowledge tends to promote development, especially among rural women entrepreneurs in Bangladesh (Afrin, et al., 2010). Particularly from the point of view of the methode of asnaf entrepreneurs (beneficiaries of zakat. asnaf entrepreneurs have a positive impact on the good governance of zakat where they have been transformed into needy people. asnaf entrepreneurs contribute to poverty reduction and the proper disbursement of zakat), recent research has shown that capital assistance in the form of courses, training and skills is important for asnaf entrepreneurs to be successful in their business (Muhamat, et al., 2013). On the contrary, it was found that a lack of competencies led to the failure of the company (Bin Yusoff, et al., 2018). Previous literature

suggests a lack of large-scale entrepreneurial expertise (Bin Yusoff, et al., 2018). However, the current literature is fragmented in terms of indicators of business information, and most factors focus on the concept of information in the context of entrepreneurial characteristics. Therefore, the development of these competencies needs to be better assessed.

In the entrepreneurial practice paradigm, dimensions of entrepreneurial knowledge and competencies include self-confidence, education, and functional knowledge, especially in the context of small and medium-sized enterprises (Bin Yusoff, et al., 2018). The most important elements of entrepreneurial competencies and knowledge are analytical / critical thinking; leadership skills; and knowledge of business management and organization. Based on the above, the present study is an effort to measure functional business competencies and knowledge among entrepreneurs as a variable that leads to business development in agritourism.

## **2.4. Mediating variable**

### **2.4.1. Social identity of agritourism entrepreneurship**

The identity of social entrepreneur is very important concept in the construction of our conceptual model to test its effect on the development of agritourism sector. Nevertheless, various research has concentrated on comprehension of the entrepreneurial identity and its development (Falck, et al., 2012). There is a missing to understand the relationship between the entrepreneurial identity and the entrepreneurial process. Also, its effect to the behaviors which persons engage such as identification and exploitation of entrepreneurial opportunities (Fauchart & Gruber , 2011). Murnieks et al. (2014) realized that “the centrality of entrepreneurial identity increased entrepreneurial passion and subsequently the amount of time of entrepreneurs devoted to find and operate a new venture”. This study follows the first stream of research and is specifically interested in exploring the identity of social entrepreneur in the agritourism sector.

#### **2.4.1.1. Definition of social entrepreneurial identity**

Identities have become an interesting concept in many fields. Searches on entrepreneurial identities concentrate on the way in which individuals come to see and comprehend themselves such as entrepreneurs. For social constructivist theory, they suggested that identities are presented as emerging and flowing, a process of becoming, and frequently depend on a narrative or discursively building perspective on identities (Kasperova & Kitching, 2014). For the realistic and positivistic theory of identity, it has progressed in two different ways but closely linked orientations (Powell & Baker , 2014). The identity theory represents the differences between perceptions and actions which come through the role (Mathias & Williams , 2014). In addition, this role of identity can be stable or situated (Ashforth, et al., 2008), and supposing a specifically role which push individuals to think and to act differently (Ren & Guo , 2011). Furthermore, previous studies provide that the role and its significance to the persons effect their behavior (Murnieks, et al., 2014). The more the identity is significant and central, the more time we invest for this activity or the more consistently we act depending to the role of identity of individuals.

Other studies provide that entrepreneur can assume and navigate many roles of identities without a single role identity. Also, according to the role of identity presumed, entrepreneurs will think contrary on the opportunities and make decisions differently based to them. Further, Farmer et al (2011) provide that “it is not just the current identity, but also the aspirational role identity as an entrepreneur that predicts entrepreneurial behavior”. This conclusion is articulate with the idea which mentioned that the identity is a future-oriented concept. On other term, the behavior of person is influenced by who we are, and by who we want to become. As a sub- concept of entrepreneurial identity, social identity theory offers a theoretical perspective through which various types of entrepreneurial identities can be acknowledged such as they refer differently in

basis of social motivation, self-evaluation and the referring context such as an entrepreneur (Fauchart & Gruber , 2011). Therefore, social identity theory is concerned in the social identities acquired from member of group (Mills & Pawson, 2012). Thereby, the individual identifies himself or herself such as a group membership or social category. In addition, individuals often have more hybrid identities than a single social identity (Fauchart & Gruber , 2011) which fill various social identities that can straddle, enhance one another and conflicting (Chasserio , et al., 2014). Social identities defined socially and contains certain norms which the person should conform it (Chasserio , et al., 2014).

The link between entrepreneurship identity and behavior got a few attention (Fauchart & Gruber , 2011). Burke and Reitzes (1981) argued that the link between identity and behavior intervenes through an essential mutual reference context. As a result, an entrepreneur with a special reference framework linked to his or her identity will utilize the same reference framework in the process of entrepreneurial decision-making connected to entrepreneurial behavior. Accordingly, there must be an adjustment between the identity and the entrepreneurial activity (Mills & Pawson, 2012).

As studies on entrepreneurship frequently refers to a self-realization or the capacity to express oneself such as an essential motivation behind entrepreneurs launching new businesses and penetrate in entrepreneurship (Van Gelderen & Jansen , 2006), social entrepreneurial identity strongly influences the behavior of the entrepreneur to create and exploit the business opportunity.

#### **2.4.1.2. The dimensions of social entrepreneurial identity**

Three types of entrepreneurial social identities such as Darwinian, Communitarian and Missionary identities (Fauchart & Gruber , 2011). The typology is elaborated based on three social identity dimensions: basic social motivation, basis of self-evaluation and frame of reference which the level of the rational scale of pure founder identities is reflecting their social relationships in terms of personal and symbolic contact with others and in terms of the level of social exhaustiveness. Owing to a person's identity which forms a cognitive framework for construing experiences and behavior possibilities, identity explains various entrepreneurial behaviors (Fauchart & Gruber , 2011). Consequently, in this thesis, it is possible to examine these identities in connection to prior study on entrepreneurial behavior through the different three dimensions.

- **Darwinian identity:** The Darwinian identity accounts the “classic entrepreneur” identity who has the elementary objective of starting a strong and fruitful business (Van Praag, 1999). For the Darwinians, competitive businesses and other Darwinians are the reference framework and the social group against which they assess themselves. For these types of entrepreneurs, the industry where they exploit, the markets that they serve or the most social cause support relatively little meaning or nothing. Therefore, provided more profits and improved chances of success, they might flip and commit in new businesses.
  
- **Communitarian identity:** The Communitarian identity can be elaborated according to the motivation of hobbies or leisure interests in business to maintain a group of like-minded persons. Building an authentic identity is essential to be completely part on the social group, to exchange intimate expertise and skills of the community and to have the ability to serve it from the inside (Lewis , 2013). For Communitarians, it does not important to switch the industry; in return, they maybe innovate new and more performant directions to serve the group. This meaning is close to the concept of “the user entrepreneur” that suggested by Shah and Tripsas (2007). In their definition, they presented users as entrepreneurs that stumble on an idea through their own use and after to share it with their community. Also, the process implies a collective creative activity prior to create businesses within the user community.

- **Missionary identity:** The Missionary identity that motivated by beginning with a firm to forward a greater cause and to act responsibly is judged to be critical. Therefore, their motivation is thoroughly linked to social entrepreneurship (Bacq & Janssen , 2011) and to study which focusing on social entrepreneurial identity. According to Jones et al. (2008), individuals hugging a social entrepreneurial identity need to differentiate themselves from the Darwinians and decline the proximity to profit-seeking identities. Consequently, it may be equitably essential for the missionary identity, to build their identity depending on the social status of social entrepreneurs and by differentiating from other types of identities. Therefore, the foundation of identity is not just “who I am”, but also equitably “who am I not”.

Because of the social identity theory is attractive for various reasons, its utility and uses for search on entrepreneurship depend on its capacity of clarification about this concept. In this research, we will be founded on the social identity theory to aid us for comprehends and explaining the heterogeneous on behaviors that entrepreneurs keep through the business process development.

## **2.4.2. Entrepreneurial motivation**

Motivations were first studied under two main categories, namely intrinsic motivations, which can be defined generally under the theme of passion, and extrinsic motivations (Richard & Veilleux, 2018). The latter category recognizes two types of entrepreneurs: the opportunistic entrepreneur in pursuit of his dreams and the needy entrepreneur who tries to survive. The theory of self-determination claims to integrate these two approaches within a continuum in which extrinsic motivations are on a scale inferior to intrinsic motivations. Motivation studies have also been largely based on entrepreneurs' need for accomplishment. This need is multidimensional and includes the need to master skills, work orientation and interpersonal competitiveness.

The entrepreneur is also motivated by risk-taking, and this propensity can be beneficial if it is moderated by a healthy fear of failure (Block, et al., 2015). The entrepreneur knows how to deal with ambiguity and believes that the place of control of his destiny lies in himself. He is also confident in his ability to perform the tasks necessary for the success of his business and persists in achieving the ambitious (and multidimensional) goals he has set himself (Richard & Veilleux, 2018). This persistence can globally be perceived as conduct which also implies, in this case, a high level of energy. The entrepreneur is also motivated by a desire for independence higher than the average. In short, it is necessary to qualify any systematic categorization of the entrepreneur motivations by an analysis of its particular and unique context. Before exploring more specifically the components of motivation, it is necessary to understand the development of entrepreneurial motivation as a key to explain the entrepreneurial opportunities (Mahto & McDowell, 2018). Furthermore, people with a lack of entrepreneurial motivation are implausible to adopt entrepreneurial behaviors or actions necessary to transform them into entrepreneurs (Miller, et al., 2016). However, despite the compromise of entrepreneurship specialists on the importance of entrepreneurial motivation in the entrepreneurial behavior process, scientific progress in this area has not advanced significantly. To do so, it is necessary to understand the basis of individual behavior and identity (Mahto & McDowell, 2018).

### **2.4.2.1. Definition**

Entrepreneurs' motivation is linked to entrepreneurship through entrepreneurial intentions. Indeed, the way companies react to challenges, recognize business-related opportunities and create business plans to invest in them is an intentional behavior strongly affected by entrepreneurial intentions (Bartha, et al., 2019). The major model of entrepreneurial intentions is based on the theory of planned behavior (Ajzen, 1991) and the idea of the entrepreneurial event (Shapero, 1982). This model recommends that intentions are affected by the perceived feasibility that is



driven by self-efficacy, the individual's confidence in entrepreneurial challenges, and perceived desirability as the person's desire to re-engage in connected entrepreneurship tasks (Bartha, et al., 2019).

The current motivational theories are mostly embedded in economics and psychology but are still struggling. Theories of driving is concentrated on push factors and the incentive approach is focuses on the pull factors. Therefore, entrepreneurs are motivated by success in their entrepreneurial activities and avoid the risk of failure. There is also the intrinsic motivation that involves intangible motives that endogenously guide an entrepreneur to move (the need for accomplishment, self-realization or reciprocity) and extrinsic motivation that involves external rewards such as acknowledgment and monetary payment.

Empirical analyses reinforce the idea that motivations are an important marker of entrepreneurial intentions and activity (Bartha, et al., 2019). Ryan and Deci (2000) find that while the individual's need for competence, kinship, and autonomy is met, intrinsic motivation is the main influencer. However, if the above needs are not satisfied, extrinsic motivations become dominant in the behavior. Indeed, the study of Luthje and Franke (2003) shows that the personality traits that present themselves as motivational factors have an important effect on entrepreneurial intentions. According to Barba-Sanchez and Atienza-Sahuquillo (2017), the need for independence is emerging as a motivation that is closely related to entrepreneurial intentions. For Antonioli et al. (2016), the intrinsic motivations are strongly affected by entrepreneurial intentions, contrary to the extrinsic motives that are generally influenced by the position and the environmental work.

In addition, motivations affect behavior through intentions. According to Kozubikova et al. (2017), tests on a small sample of small and medium-sized enterprises (SMEs), have shown that they are more expected to create new products and get involved in innovation. Using multivariate tests on many French start-ups, Gundolf et al., (2017) have stated that entrepreneurial motivation is linked to the technique of innovation. Regarding to Wach and Wojciechowski (2016), an analysis of students founded in Krakow showed that risk attitudes and academic studies in business / non-business generally influence entrepreneurial intentions. Using the GUESSS-based data, Sieger et al. (2016) suggested that entrepreneurial motivation is related to social identity. They show that there are important differences at the regional level in entrepreneurial identities between Western regions.

#### **2.4.2.2. Motivational factors of entrepreneurs**

Scholars have adopted several theories to identify the motivational factors of people to start their own business. However, some scholars believe that instinctive personality traits are important motivators, while others suggest that external/situational (push-pull) factors are the most influential on entrepreneurial intentions. Indeed, the study of Luthje and Franke (2003) shows that the personality traits that present themselves as motivational factors have an important effect on entrepreneurial intentions. It has been shown that personality traits, such as the need to achieve, a desire to innovate, a propensity to take risks and a preference for control influence entrepreneurial activity. According to Barba-Sanchez and Atienza-Sahuquillo (2017), the need for independence is a motivation that is closely related to entrepreneurial intentions. For Antonioli al. (2016), the intrinsic motivations are strongly affected by entrepreneurial intentions, contrary to the extrinsic motives that are influenced by the position and the environmental work. Therefore, entrepreneurs are motivated by success in their entrepreneurial activities and avoid the risk of failure (Bartha, et al., 2019). However, "push-pull" factors present themselves as motives that encourage the person to take the initiative to launch a new business. According to scholars, people may have motivations "pushed" by negative external conditions such as unemployment. In parallel, pull factors, such as the desire to be a leader, the increase in income, the image of an entrepreneur, can lead an

individual to entrepreneurship (Bartha, et al., 2019). Having a stable and comfortable family livelihood motivates entrepreneurs to embark on entrepreneurship. According to a survey of Khulna city entrepreneurs, Uddin et al. (2015) pointed out that they are motivated because of the profits that give jobs to their families and can, therefore, stay closer to them. Hussain and Yaqub (2010) indicated that they are one of the most important factors that motivate entrepreneurs to start their own business. Additionally, job requirements and income-level security are motivational factors of great personal value and entrepreneurs' self-satisfaction that leads to a satisfactory level of security that encourages them to start their own business. The most important motivational factor for the individual is increasing their income. His respondents in this survey chose the factor of having extra income as a trigger to become entrepreneurs. And as a result, the stabilization of the family financially motivates entrepreneurs (Uddin, et al., 2015).

Having previous experience helps entrepreneurs to have confidence in themselves and in this way to start their own business. In addition, previous experience is an important entrepreneurial motivator (Zhu, et al., 2015). With the experience and knowledge experienced in the past, it has become easier to apply them in an autonomous business. Previous work experience can motivate you to have your own business using previously owned skills. Good management skills, charisma and friendliness, and hard work are identified as necessary factors in entrepreneurship (Zhu, et al., 2015). These are the main factors that motivate an entrepreneur.

According to Joo's research study (2016), self-efficacy is proving to be an important motivator considering the responsibilities and the ability to deal with the problems. Self-efficacy is self-actualization, which reflects all that an individual is capable of being.

Another motivation that encourages the individual to create his own business is to have a higher social status (Islam, 2012). Identifying an opportunity and discovering a need that can be satisfied can motivate the creation of an autonomous business. Support from family and friends has emerged as a very important motivational factor in the creation of one's own business (Zhu, et al., 2015). Family and friends are strong assets, and their motivation and encouragement lead to greater success in entrepreneurship.

In the light of a thorough review of previous literature, some motivational factors were identified for this study. These factors will be present in the following paragraph.

## **2.5. Moderator variable of social innovation**

During the development of the tourism industry, the new strategies to develop the tourism involves the management of start-ups and SMEs to intensify their competitiveness and attractiveness. For this reason, the concept of social innovation has become predominant in research academia (Moulaert, et al., 2013), in policymaking (BEPA, 2014), amongst the third sector organizations (URBACT, 2015) and also, in business (Frost & Sullivan, 2014). In its more fundamental personifications, it is applied in to comprehend and to find the direction to the social renovation (Henderson, 1993). And in its more practical forms, to define what is perceived as "socially minded" innovations (Garcia M & Haddock, 2016). However, it is staying an indefinable concept with numerous contributions underlining the various ways in which it can and has been utilized. Whereas it is rarely attempting to clearly define this concept or to enunciate its conceptual and practical consequences and implications (Grimm, et al., 2013).

### **2.5.1. Distinction between social innovation and innovation**

As social innovation (SI) is generally mentioned in the literature only as innovation, it is necessary to start by distinguishing this term from innovation. Some researchers have argued that SI is about improving social well-being (Graddy-Reed & Feldman, 2015) which makes it quite different from technological innovation, which has mainly private objectives (profits). But this statement is insufficient. In fact, a profit-seeking company might claim that its innovations have had a great

social impact on the SI (for example, social media, or dating sites, which help to manage loneliness and isolation).

Innovation involves the implementation of a product (good or service) or a new process, a new marketing method or a new method of organizing business practices, workplace organization or external relations (OECD , 2006). This definition includes three key factors. First, the notion of implementation. Indeed, a new product, technology, idea or invention is not an innovation until it is implemented and generates value for a company. Second, innovation involves a variety of different activities than just product development. Thirdly, the activities that take place within companies and which presently concern private companies and the economic added value. Innovation activities include several types of knowledge and activities, including in areas such as finance, organizational management or business strategies. These three factors namely: inclusiveness, need and target areas are very important to distinguish between IS and innovation (Marques, et al., 2017).

Finally, this definition also indicates that activities in the third sector are not necessary. In addition, many of these activities are moving towards the definition of innovation, even if they specifically concern the satisfaction of human needs (Marques, et al., 2017). As already mentioned, innovation aims to add value to professional organizations. However, some activities can add value without being counted as an innovation. Taking as an example, when a company wanted to increase its size to meet the growing demand of these customers. From this, a larger company can generate greater economies of scale and profits, even without new products, processes, or services have been introduced. In the same way, an initiation can be effective in meeting human needs without being socially innovative, but it does not lead to more inclusive processes of participation and realization.

### **2.5.2. Definition of social innovation**

Social innovation appears as an adequate concept for examining social aspects. However, social innovation targets impact beyond the individual level, for a wide range of social and / or ecological contexts (Neumeier, 2016). From this observation, social innovation has been presented as "changes in the attitudes, behaviors or perceptions of a group of people in a network of aligned interests that, compared to a range of leads to new methods that improve collaborative activities within the group " (Neumeier, 2016, p. 2). Similarly, social innovation can be demonstrated as both a process and a result, strongly linked (Baker & Mehmood, 2015). Furthermore, it is presented as a process, referring to the interaction between actors through the phases of problematization, expression of interest, delimitation and coordination (Neumeier, 2016). During the process, social innovation is totally dependent on individual intervention, at a time when the actors easily assist in the transformation of interactions and networking activities. According to these findings, social innovation reveals new institutional structures such as network structures, which can respond to the needs of change in order to achieve the objectives of change expected societal impacts.

The institutional impacts of social innovation can be assessed using three basic characteristics (Baker & Mehmood, 2015):

- Scale, referring to the number of people directly and indirectly affected,
- Scope, referring to the level of change towards new institutional frameworks, and
- Resonance, referring to people's imagination and belief in what is possible.

Baker and Mehmood (2015) evaluate social innovation focusing on collaborative means of action. Indeed, they support the idea that any action will influence its environment. Not only that these three characteristics that will be affected, but also the environment, including the marine area with its ecosystems (Soma, et al., 2018). Social innovation appears from social, environmental and economic resources. From this observation, social innovation is linked to the fundamental

dimensions of sustainability that cover all economic, social and ecological aspects. As a result, social innovation covers three societal functions (Baker & Mehmood, 2015):

- Individual and collective basic needs,
- Social relations and relations with ecosystems, and finally,
- Socioeconomic capacity to influence social innovation.

Social innovation is among the innovation approaches of firms based solely on profit maximization (Mulgan , 2006). As such, social innovation does not only refer to new and invented ideas and products, but it brings together processes that encourage creativity to invent, support and consider new social solutions to the needs of the public (Biggs & al., 2012).

In conclusion, the concept of social innovation includes an actor element made up of people with attitudes and perceptions about innovation, who aim more for societal effects than to make a profit as such, with who she acts and commits to learning, networking and collaboration. Social innovation also has an effect, which can be treated based on its breadth, scope and resonance.

### **3. MATERIALS AND METHODS**

#### **3.1.Exploratory qualitative study**

The research model is developed based on previous theoretical work. Thus, the final selection of factors, which are integrated into the model, was following a qualitative study. The qualitative survey is a logical phase of preparation for the quantitative study. Thus, following this phase, the research object will be better understood, and the hypotheses will be more rigorously advanced. Within the framework of our work, we carried out two parts in the qualitative study which aim at two different objectives. The objective of the first qualitative part is to determine the evolution and the formation of the social capital mobilized in the context of the agritourism sector more precisely, rural lodgings, while the objective of the second part is to determine the elements that make up our model. Therefore, we chose in the context of these two parts of qualitative studies, to carry out semi-structured individual interviews with the managers of Tunisian rural lodgings in the agritourism sector to focus directly on their speeches.

For the first part of our study, the research methodology chosen was the case study, and, more specifically, a multiple case analysis. The sampling method used is about the non-probabilistic by judgment type (Cooper & Schindler , 1998). The sample includes ten cases of emerging businesses in the context of rural lodgings. The number of ten cases is the result of theoretical saturation during the data coding and analysis phase. The starting criteria for the choice of cases were that they must be companies with the following characteristics: new companies having had agricultural land, and which have added tourist services, rural lodgings which have started between one and two years before the time of research.

To be able to have a more complete perspective of the evolution and the formation of the social capital mobilized in the context of agritourism, we first made sure that among the chosen cases, we could find the possible variations relating to the main components from the rural lodgings. First, these variations affect the agritourism sector, for example the variation in the degree of services offered by entrepreneurs; and then the type of entrepreneur, whether he is the owner of a rural lodgings.

The research was carried out in Tunisia in 2020 with entrepreneurs from rural lodgings located in five cities: Bizerte, Nabeul, Tozeur, Mednine, and Bèja. The cities chosen to show great diversity and many differences in relation to the level of the development of agritourism sector. Semi-structured interviews used to gather the data necessary for our study. We used a time deconstruction strategy by phases of the business developing process to treat and analyze the data. More specifically, we have established an analytical framework which presents in four stages the process of developing a business: initiation, preparation, start-up and consolidation. In addition, research notes and available documentation on cases and agritourism, especially rural lodgings in Tunisia were also used. These data made it possible to reconstruct, in retrospect, the history of the creation process of each case analyzed and the evolution of the social capital of these companies. We interviewed the entrepreneurs of the cases studied, the owners of rural lodgings who added tourist services to their main activities, namely agriculture. In total, we conducted and recorded ten interviews. These interviews lasted from one to three hours. The sample size is based on the principle of semantic saturation. The qualitative material was subsequently recorded and then transcribed for analysis. Note that data collection qualitative took about three months between February and April 2020.

The data processing and analysis process used is inspired by the strategy of temporal deconstruction, more particularly deconstruction by process phases (Borges & Filion , 2012). First,

a descriptive sheet for each case was established, followed by the intra-case analysis and finally by the inter-case analysis. For the first part of the interviews, we have divided the contacts of the social capital mobilized into Knowledge and Information networks, resource and business network, financing network and family and other contacts. The second part was to verify the research directions that have emerged in the literature review, and to explore also new aspects that may emerge in connection with our conceptual framework.

### **3.2. Quantitative study**

Once the questionnaire is validated, the quantitative study can begin. The most important step in this phase is the preparation of the stages of the investigation. The survey is based on the scientific principles of quantitative methods, based on statistical processing of the data collected (Wacheux, 1996). Its basic principle lies in the comparison of situations from a defined number of observations and a limited number of dimensions of analysis. Indeed, the constitution of the study sample must meet specific criteria to determine whether it can be representative of the population studied.

#### **3.2.1. Approval of the measurement scales**

In order to ensure the right choice of measurement scales and the possibility of their use in the context of this work, we carried out a pre-test of the borrowed scales, considering the difference in the context of our study compared to the context of origin of the chosen scales. However, the validity criteria, the validation construct and the constructed validity criteria were used to validate the questionnaire. The apparent validity was confirmed by seeking expert advice on the importance of the measurement items and the defect items for each variable used in the questionnaire. The evaluation of the questionnaire made by Professor Zoltan Lakner, Hungarian University of Agriculture and Life Science, Godollo, Hungary and Professor Ayoub Nefzi, University of Jeddah, Saudi Arabia. The suggestions of experts in this field were considered and the final version of the questionnaire was prepared based on their comments and suggestions. The correctness of the construction and the validity of the standard for the implants under study have already been demonstrated based on the literature. However, an exploratory factor analysis was performed to improve the validity of the construction.

##### **3.2.1.1. Structure of the questionnaire**

The questionnaire contained self-reported questions related to the latent constructs as well as personal information. The large number of questions was justified by the large number of latent variables included in the study.

- In the first section of the questionnaire, it contains general information on the name of the rural lodging and the time required for the entrepreneur to start his business.
- The second section of the questionnaire includes statements regarding social capital, social identity, social motivation, entrepreneurial functional competencies and participation in the development of an agritourism business. Survey participants expressed their opinion using a five-point Likert scale (from 1 or “strongly disagree” to 5 or “strongly agree”). Each hypothesis was centered on the measurement of latent variables linked to entrepreneurial social factors influencing the entrepreneur's participation in the development of his agritourism business.

##### **3.2.1.2. The size of the sample**

Regarding the size of our sample, we referred to the work of Hair et al (2017) which stipulates that the sample size is fixed according to the number of variables of the study model with a minimum

of 100 respondents to be able to perform factor analyzes on the data collected. Other researchers have advanced other rules that we dwell on later in the context of modeling by the PLS-SEM approach. Thus, we have ruled with the number of 100 respondents to be able to ensure a number allowing easily to proceed to factor analyzes while respecting the rest of the conditions of our authors of references in order to provide information and consistent results. In this research, an appropriate analysis of the sample demographic attributes is deemed essential to have an overview about the associational landscape and to capture information and several sociodemographic characteristics with respect to civil society stakeholders (See table 7). The total sample consists of 100 respondents.

Table 7. Description of the sample

Demographic characteristics	Category	Percent	Results
Gender	Male	61	Most of the respondents studied in our study were men: of the 100 entrepreneurs, 61 were men, and women represented 39% of the total. Women are less likely to engage in active leisure than men because it requires a lot of money and effort. Also, agritourism is a new sector in Tunisia which is a little difficult for women to get started without the help of other members of the family.
	Female	39	
Age	18-35	15	According to the results of the following table, most of the interviewed entrepreneurs (56%) belonged to the 36-50 age group. It is the age group that seeks to become a leader of its own project. In Tunisia, this category is favored by the ease and the encouragement of the government to start own businesses. And because of the unemployment that permeates Tunisia these years and the decrease in the tourism sector, the government encourages young people and seniors to embark on other types of tourism. The 51 to 65 age group was the second highest category with 29%. The number of respondents in the 18-35 age group (15%) was much lower.
	36-50	56	
	51-65	29	
Education	High school	43	The statistics on the educational qualification of the respondents presented in the table below show that the majority of respondents in the agritourism sector with 54% had a bachelor's degree. About 43% of respondents held a high school. Only 2% of entrepreneurs had more than 5 years of education.
	Bachelor's Degree	54	
	Postgraduate (+ 5 years)	2	
Income/ monthly/ person	1300-4000 dt*	78	The results show that about 78% of the total respondents earn a monthly income of 1300 –4000 Tunisian Dinars. Only 22% of the total respondents earned an income of more than 4000 Tunisian Dinars.
	< 4000 dt	22	

\*1DT (Tunisian Dinar) = 0.31 EURO

1 EURO= 362.62 HUF

1DT = 110.45 HUF

Due to the COVID-19 pandemic, the online survey gathered information from participants on several sociodemographic variables including gender, age category, educational level and personal income. For better tabular depiction and visual appeal of the results, certain acronyms are used in the table headings.

### 3.2.2. Factor analysis

The validation of the constructs then the empirical test of the model hypotheses requires proceeding in two stages as recommended by Anderson and Gerbing (1988). Therefore, it is important to choose the appropriate analysis methods in order to ensure the relevance and precision of the data collected and to explain the phenomenon studied (Roussel, et al., 2002). As part of this research and after review of research work mobilizing a similar methodology in the field of agritourism in entrepreneurship and social entrepreneurial, the following methods were selected:

- An exploratory factor analysis (EFA).
- A confirmatory factor analysis (CFA) in order to obtain reliable measurement scales, valid and good psychometric quality.
- A causal analysis of the relationship structure of the conceptual model and allowing to test all the research hypotheses using the PLS approach.

### **3.2.2.1. Exploratory factor analysis (EFA)- General Requirements**

#### **Reliability, validity and psychometric quality of the scales**

The primary objective of this exploratory work is not to create measurement tools. Thus, based on the work of Churchill (1979), without being as rigorous as in the case of the development of a measurement scale, the principal component analysis (EFA) was retained to extract the minimum of factors while maximizing the variance explained by the items. Thus, the variables used in the study were subjected to a factor analysis, which made it possible to purify the measurement scales. For this, Evrard et al (2003) recommend respecting certain steps in the conduct of this analysis. The first step is to check whether the data is "factorizable" or not.

The literature suggests two tests: The Kaiser-Meyer-Olkin test (KMO) and the Bartlett sphericity test. When the KMO test has values greater than 0.5, factor analysis is feasible. Regarding the Bartlett test, it makes sure that the covariance matrix is different from an identity matrix (rejection of the null hypothesis). To analyze the results of the factorial analyzes, we have retained the main components corresponding to eigenvalues greater than 1, according to Kaiser's criterion, and a percentage of explained variance greater than or equal to 0.60. Following the recommendation of Evrard et al (2003), the items are eliminated over time, according to the following criteria:

- Eliminate items that have a commonality of less than 0.4 (Igalens & Roussel, 1998)
- Retain items with factor contributions greater than 0.5.

For the reliability of the measurement, Cronbach's alpha is used. It is considered acceptable at the threshold of 0.5 and 0.6 ( Jolibert & Jourdan , 2006). The summary of all these criteria is provided in appendix 2.

Moreover, the initial results of the EFA often do not support a precise identification of the components. In this case, it will be difficult for the researcher to give an interpretation of the extracted components. One of the recommended solutions is to transform the solution obtained again by rotating the axes used to define the different components. The rotation makes it possible to determine new weights by rotating the reference axes (the components) to simplify the structure obtained. Evrard et al (2003) distinguish between two main types of rotation: orthogonal and oblique. In the context of this research, oblique rotation is retained insofar as it refers to the hypothesis that there are correlations between the factors. With an oblique rotation the reference axes will be moved by increasing or decreasing the angle they form between them. Indeed, the issue of factor independence/ dependence is at the heart of the controversies between the proponents of the two methods (Baillargeon, 2003). The question that arises: to what extent the researcher can accept the theoretical independence of the dimensions of a given phenomenon, when it comes to correlated psychological constructions and he does not clearly know how these dimensions are related to each other?

It is not possible to impose a structure of independence on dimensions which are correlated (Baillargeon, 2003). In this case, it is better to start by considering the oblique rotation as a solution to check the correlation between the extracted dimensions. If the dimensions do not show correlations between them, the orthogonal solution can be considered.



### **3.2.3. Confirmatory factor analysis (CFA)**

Following the phase of purification and verification of the psychometric qualities of the measurement scales of the constructs of the model, we chose the method of structural equations as the method of data analysis for the interpretation of the results of our study, in order to perfect the analysis of the data collected, estimate the models and test the research hypotheses. The structural equation modeling approach that best suits the nature of our data, and that we have taken, is that of Partial Least Squares (PLS).

#### **Choice of PLS approach and Smart PLS-3 software**

There are two major approaches for estimating models of structural equations which differ in the nature of the analysis of constructs simultaneously. The oldest approach is the one based on the analysis of covariances, CB-SEM, carried out through the LISREL software or else AMOS which is interested in the estimation by the maximum likelihood (estimation of the coefficients and minimization of the difference between the variance-covariance matrix). Unfortunately, this method has restrictions for certain types of data, which causes serious estimation errors in addition to its rigidity in terms of sample size. The second PLS-SEM approach, which has gained momentum, is widely used by marketing researchers. It is based on the variance (estimation of parameters with a multiple regression) and the statistical processing done via the Smart-PLS software. It completes the method which precedes it as an extension without the same limits by presenting solutions to the problems of estimation by covariance. It should be specified that the estimation of the model is based on partial least squares following an iterative approach which is done by multiple regressions while maximizing the explained variance. Hair et al (2011) believe that this method is a more flexible alternative for researchers who intend to work on small samples, with measuring instruments with a low number of items and data that do not follow the rule of thumb. collinearity. The latter summarized the basic rules for using the PLS-SEM method, comparing them with CB-SEM relating to “the research objective”, “the specificities of the measurement model”, “the nature of the data from the structural model”, “sample size and allocation” and “model evaluation”. Our own justifications for the choice of this approach are essentially based on "the complex nature of the structural model comprising several constructs and several indicators", "the non-normal distribution of the data", "the exploratory nature of the research" and "the prediction objective constructs that we want to achieve". Unlike the CB-SEM method whose objective is to test and confirm the theories, the main goal of the PLS-SEM method is the prediction with greater flexibility compared to the treatment of the heterogeneity of the data. Thus, we judge the use of the Smart PLS3 software, designed for data analysis with the PLS-SEM method, whose user manual of the authors of references allows an optimization of its use in an exploratory framework such as ours. We emphasize that we have used several types of quantitative and qualitative latent variables measured by several manifest variables. In addition, our model contains a categorical exogenous variable and for this Hair et al (2017) confirm the interest of modeling by the PLS-SEM method insofar as it makes it possible to integrate variables of metric but also nominal nature. In addition, during our study, we tried to verify relationships that were little or even unverified in previous work and on which there is no consensus in the literature. By relying on the contribution of our qualitative study, we attempt to analyze certain effects little studied in the literature. In this sense, the literature underlines the exploratory and predictive specificity of the PLS-SEM method. We thus decide on the choice of the PLS-SEM approach using the Smart PLS3 software as the most adequate means helping us to determine the most relevant predictor variables for our model.

#### **Specification of the research model**

As in all models of structural equations, relationships can range from items to constructs or from constructs to items. Thus, the question arises of the meaning of the causal relationships between

the latent variables and the variables observed in a PLS model. To specify the meaning of the relations between the different categories of variables, the literature distinguishes the formative mode from the reflective mode. Crié (2005) suggest that the researcher must respect three main considerations to choose the formative or reflective mode:

- First, if the object of the research is to consider the observed variance, reflective indicators are more appropriate. On the other hand, if the objective is the explanation of the "unobserved" variance, formative indicators offer greater explanatory power.
- The second consideration refers to the theoretical framework on which the researcher relied to build his model. The choice will depend on the substantive theory underlying the model, in other words on the way in which the constructs are conceptualized.
- The third consideration concerns considerations related to empirical contingencies.

Hair et al. (2019) indicate that there is no criterion for choosing the formative or reflective model. It will depend on the discretion of the researcher. The formative model can be conceptually ambiguous. Several authors recommend this choice when the construct is influenced by items behaving in a mutually exclusive manner (Jarvis, et al., 2003). Indeed, an important correlation between the items can lead to a problem of vertical collinearity (Kock, 2018) leading to an instability of the model. This risk has been considered in recent developments in PLS software (Ringle, et al., 2018). Considering the risks and constraints linked to the choice of formative or reflective mode, it is advisable to opt for a mixed mode that considering the specificity of the constructs: a reflective model between the latent variables and their items and a formative model between the secondary variables and the main variables of the structural model. Two others, no less important reasons to justify this choice:

- First, the small size of the sample may affect the stability of the parameters, especially with the formative mode.
- Secondly, a reflective relation (between the latent variable and its indicators) is privileged because each construct is measured by different items. Items are created to measure the same underlying phenomenon. Each manifest variable reflects its latent variable that is related to it by a simple regression. In other words, the latent variable theoretically exists but remains unobservable. It influences the indicators that explain their inter-correlations.

Reflective indicators must have internal consistency. Indeed, as Jarvis et al. (2003) mentioned, the construct validity remains unchanged if a single indicator is removed because all the facets of a one-dimensional construct must be sufficiently represented in the remaining indicators. For this, it is necessary to fulfill the conditions of uni- dimensionality of the construct and of a positive sign of the correlations of the indicators with their latent variable. In the case of a reflexive relationship, we consider that the construct may not have been completely captured by all the indicators. Under these conditions, some research suggests that using PLS with this reflective option is a more prudent choice. As the choices are justified and the characteristics of the structural equation model with its latent variables are specified, it is necessary to define the quality criteria of a PLS model. In order to estimate our conceptual model, which is composed of second order reflective latent variables, we will follow the modeling via the software SmartPLS in its third version available online on the website of the software by applying the method of "nonlinear structural equations » as specified in the work of Hair et al (2019) following the PLS-SEM partial least squares approach. Indeed, the design of a model of structural equations goes through several stages. Najjar and Najjar (2013) cite those most applied, namely specification, identification, estimation, evaluation and up to a complementary stage of presentation of synthesis of the results obtained. Note that the model

specification relates to the design of linear relationship diagrams. In other hand, measurement models and structural models are based on the theoretical framework. Chin (2010) underlines this point by reporting this step based on determination of the direction of the causal relationship between the latent variables and their measure indicators in order to test their significance.

➤ **Definition and delineation of the higher order / hierarchical component model (HCM)**

In PLS-SEM, hierarchical component models (HCM) had enjoyed popularity among researchers and widespread application. There are mainly four types of HCM shown in the following figure 12 and advanced in the literature: (1) Reflective-reflective measurement model called second-order construction type I, (2) reflective-formative model II, (3) formative-reflective Model of type III and (4) formative-formative model of type IV. The two common characteristics of these types of models are: the higher order construction (HOC) which captures the most abstract entity and the lower order construction (LOC) which captures the sub-dimensions of the abstract entity. Each of the types of HCM is represented by a different relationship between the higher order construct (HOC) and the lower order construct (LOC) and the latter and the corresponding indicators. In this research and in accordance with theory, all higher order constructs (HOCs) are reflective-reflective second order HCMs explaining all underlying low-order (LOC) constructs which are reflective-measured constructs, the arrows (relations) pointing from the latent construct to the indicators observed in the measurement model. In relation to our research framework and the latent constructs covering the concrete traits of “social capital” in the model, were operationalized at the lower level as reflexive. The same goes for the different constructions, namely the social identity and the participation in the development of an agritourism business. All the other different constructs in our study were measured using reflexive indicators (items) that the latent construct is a trait explaining the indicators (Fornell & Larcker , 1981). The choice of this type of measurement typology is supported by two major criteria put forward in the literature indicating the facts that (1) reflective indicators establish and maintain the causal direction of the construct towards the measured item because the reflective indicators are manifestations of the construct, (2) changes in reflective indicators do not induce changes in and do not modify the meaning of the constructs as long as the construct has sufficient reliability (Hair & al., 2017). In this regard, the assessment of the adequacy of measures requires a reliability of internal consistency which is an appropriate standard (Jarvis, et al., 2003).

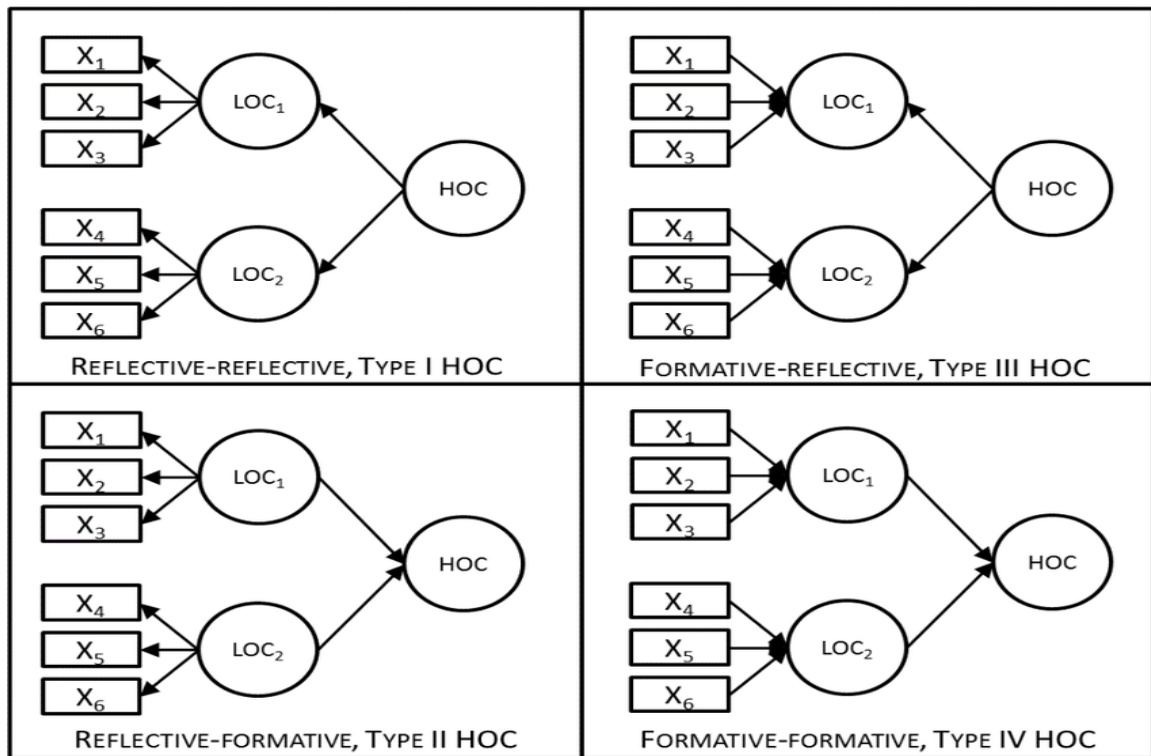


Figure 12: The four types of the Hierarchical Component Models (HCMs)

(Source: Adapted from Becker et al., 2012)

➤ **Specification of higher-order constructions in the measurement model**

In our research framework, the higher order constructs in the measurement model specifically: social capital, social identity and participation in the development of an agritourism business as reflective first order construct. Causal relationships range from constructs to overt indicators. In this regard, we will estimate these variables according to the confirmation criteria of the reflexive constructs. Further details are provided in the following analyzes (See appendix 3).

In the following, a discussion and presentations of the results deduced from the application of the PLS-SEM method which is presented to examine the proposed integrative model and the relation of hypotheses.

Specifically, we used SmartPLS version 3 software. Based on the two-step analysis by Hair et al. (2017), the first step is to perform a confirmatory factor analysis (CFA) to assess the quality of the measurement model (external model), which represents the relationship between the latent variable and their corresponding indicators, by applying the criteria of evaluation of the reflective measured constructs which include the study of reliability, convergent validity and discriminant validity and the second step is to confirm the structural model (internal structure of the model) which includes all the relationships between the latent variables involved in our research representing the links that we seek to explain and test the associations emitted in the research model.

### **Construction of the measurement model and structure model**

#### **➤ Construction of the latent variables of the model**

The methods of constructing second order latent variables by the approach of structural equations have multiplied recently with the appearance of statistical processing software such as Smart PLS. By digging deeper into the literature and referring to the basic work of hierarchical (higher order) component models such as Hair et al (2017), we have identified the most widely used methods namely:

- ✓ **The "repeated indicator approach" or "repeated indicator (hierarchical model)" method:** This method is the most used in the estimation of higher order constructions by PLS. It was initiated by Wold et al. in (1983) and Lohmoller in (1989) and its specificity is summed up in its consideration of indicators of first-order constructions as being indicators for second-order construction. Principal researchers Wetzel (2009) and Hair et al (2017) explained the usefulness of this method. According to Wetzel (2009), this method is based on the definition of higher order latent variables by the process of repeating the manifest variables of lower order latent variables. In this case, the internal model represents the hierarchical component of the model. In other words, a second-order latent variable made up of a first-order variable can be specified and directly measured by all the manifest variables of the first-order latent variables which determine it. This method has recently been the subject of some criticism from Van Riel et al (2018) who calls for abandoning this estimation method in view of a new approach that he called "three-step approach". The "three stage approach" criticizing the repeated indicator approach for the risk of creating correlated residuals by these repetitions. But despite all this method remains the closest to reality in terms of model estimation.
- ✓ **The "two-stage approach" method:** this method of model estimating is recommended especially when the model contain constructs of a reflective – formative form. Ringle et al (2018) explain that the manipulation of this method involves a first estimation step by relating the first-order constructs to the final endogenous variable by eliminating the second-order construct. They explain it by a two- stage with estimating the parameters of the model by using the scores of the first order constructions as indicators for the final model while reinserting the second order construct. This modeling approach allows the estimation of the relation between the exogenous latent variables and the hierarchical constructs. However, it is considered in the modeling of the interaction term of the moderating variables of a formative form.

- ✓ **The "hybrid" method:** Van Riel et al. (2018) as well as by Ringle et al (2018) criticized it for the underestimation of exogenous variables in the explanation of the variation in endogenous variables. In fact, this method is based on the distribution of the manifest variables between the second and first order latent variables.

Based on the research of Van Riel et al (2018) as well as Hair et al (2019), we have judged that adopting the “repeated indicator” approach is the best choice for modeling the latent variables of our research model (See figure 13).

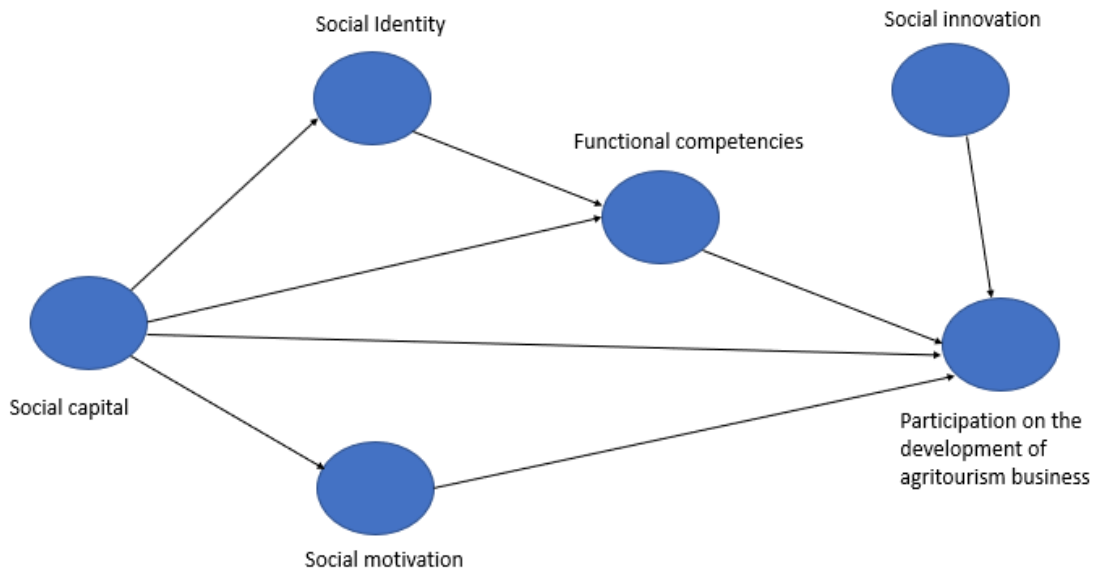


Figure 13. Model estimation scheme using the repeat indicator approach (PLS)

### ➤ Construction of the structural model

The structural model is none other than the set of model constructs put in relation to each other according to the research hypotheses based on the research objectives as well as the review of the literature. The latent variables used on our structural model are second-order reflective variables: “social capital”, “social identity”, “social motivation”, “functional competencies”, “social innovation”, “participation in the development of agritourism business”. The reflective variable “social capital” as well as the independent reflexive variable “functional skills”, play the role of second-order exogenous latent variables in their causal relationships in the model. As for the latent variable “participation in the development of agritourism business”, it represents the endogenous dependent variable for our model.

The second-order latent variable “functional competencies” is a reflective construct that has two statuses depending on the nature of its causal relationships in the model. It occupies two statuses. Thus, it is both an endogenous and exogenous variable in the model. "Functional skills" has the status of exogenous variable for the dependent variable of the model " participation in the development of agritourism business " as well as in its relationship with the construct of "social identity" and "social motivation". On the other hand, this variable has the status of endogenous variable in its relationship with the constructs “social capital” as well as for the variable “social innovation”. The second-order reflective latent variable “social identity” as well as “social motivation” play the role of mediating variables of the links between the other constructs of the model to which they are attached. “Social innovation” is an exogenous latent variable which has

the status of moderating variable of the relationship between the construct of “social capital” and the endogenous latent variable of the “participation in the development of agritourism business” model. We schematize below (See figure 14) these variables with their causal relationships between them by linking them according to the research hypotheses that we wish to study. Thus, each arrow in the model represents a research hypothesis translating a causal link between the constructs linked together.

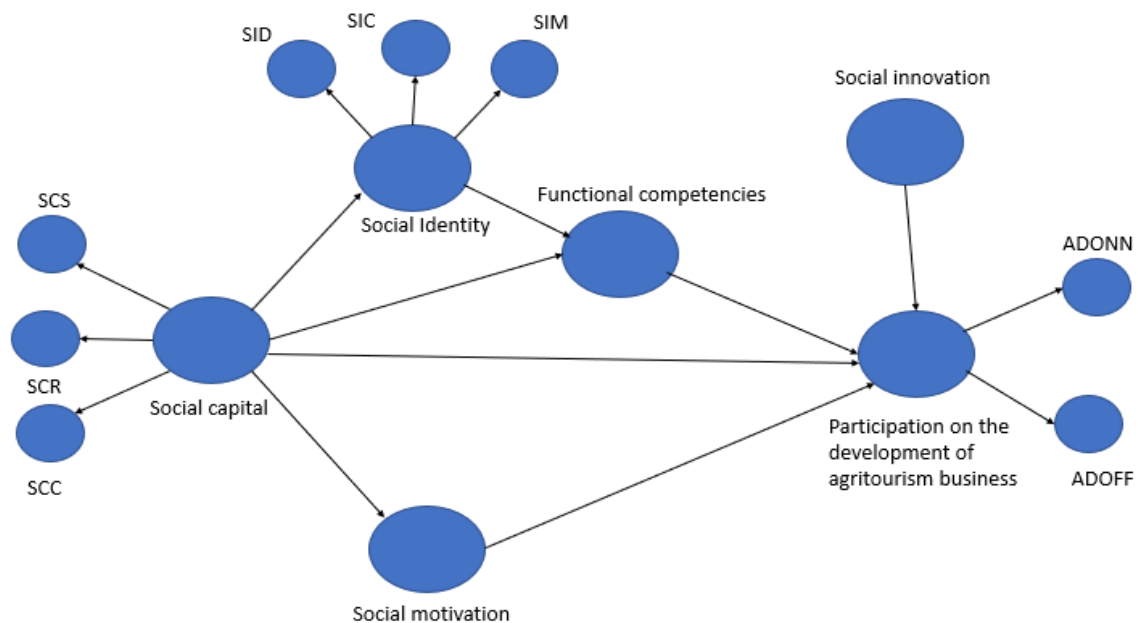


Figure 14. Structural model

### Conceptual model test protocol

In choosing the method of structural equations for the estimation of the conceptual model, we must first proceed by the estimation of the measurement model in order to be able to proceed later to the evaluation of the structural model.

#### ➤ **Evaluation of the measurement model (outer model)**

The measurement model, also called the external model, represents the assumed linear relationships between latent variables and manifest variables. To examine the measurement model, three criteria are required in the literature to assess the quality of the measurement model: the reliability of measurement scales, convergent validity and discriminant validity (See appendix 4).

- ❖ **Reliability:** A first analysis was carried out on each item by examining the loadings. Chin (2010) states that the standardized "loadings" or correlation coefficients must be greater than 0.707 to be retained to the confirmatory analysis. In the case of an exploratory analysis, this threshold can be reduced to 0.6 (Hair, et al., 2019). When the loading is below this threshold, it means that there is a little more variance shared between the construct and its items than between the variance of the errors (Carmines & Zeller, 1979). Thus, if the measurement model has loadings less than 0.6, it is necessary to re-examine the eliminated items and try to determine the reason why these items did not reach the threshold of 0.6 among the following reasons:

- From a bad item -expressed (This problem contributes to low reliability),
- From an inappropriate item (This problem contributes to poor content validity),
- From an improper transfer of an item from one context to another (This problem contributes to the non-generalization of items within contexts).

As a part of this research, several iterations were performed under PLS. According to the above recommendations, items that are below 0.6 have been eliminated. Regarding to the reliability of measurement scales, they are traditionally assessed using Cronbach's Alpha. The threshold accepted by researchers to conclude whether a scale that reliable or not is 0.70. Cronbach's alpha is the benchmark coefficient for assessing reliability, but it is based on the restrictive assumption that considers equality of item importance. In this perspective, structural equation methods develop another coefficient which has the advantage of considering measurement errors. This is the index of concordance or composite reliability.

- ❖ **Convergent validity:** The AVE (Average Variance Extracted) is the squared average of the factor contributions of a block of items taken separately. It measures the value of the variance captured by the construct and its items with respect to measurement errors (Fornell & Larcker , 1981). The convergent validity consists in calculating the average variance shared between a construct and its items. For the multiple indicators, they are used for a construct and its items. However, multiple indicators are used for an individual construct that the researcher considers them as a reliability of individual items. But he must also check to what extent the items can demonstrate convergent validity (Hulland , 1999). For this, the researcher considers the threshold of 0.7 as satisfactory for a composite reliability. The generally accepted threshold is (0.5).
- ❖ **Discriminant validity:** Discriminant validity is the traditional methodological completeness of convergent validity. It consists in proving that the variance shared between a construct and its items (AVE) is greater than the variance shared between two constructs. In the context of the PLS method, the construct must share the greatest variance with its items than with the other constructs in the model (Hulland , 1999). To apply discriminant validity, Fornell and Larcker (1981) suggest the use of the average variance shared between the construct and its items. This measure must be higher than the variance shared between the construct and the other constructs of the model (The square correlation between two constructs). This can be demonstrated in the correlation matrix which includes the correlations between the constructs in the elements of the part bottom left of the matrix diagonal. The values of the square root of the AVE calculated for each construct along the diagonal.

According to Hulland (1999), to have an adequate discriminant validity, the values presented in the diagonal of the matrix must be significantly higher than the elements outside the diagonal corresponding to the rows and columns.

#### ➤ **Evaluation of the structure model (inner model)**

The quality of the measurement model can be understood based on its explanatory influence. This quality is evaluated by the coefficient of determination ( $R^2$ ). It corresponds to the average of the coefficients of determination observed on the dependent variables. Previous research using the PLS method obtained mean values above 50% or even 70% (Zahra & George , 2002). However, in addition to the overall quality of the model, it is also necessary to evaluate the measurement quality for each block of variables. The PLS method does not optimize the equations and lacks an index that can inform the user of global validation of the model. For this, Tenenhaus et al. (2005)



suggest using the GoF test (Good of Fitness) for the independent variables. This index is calculated based on the average of the various constructs of the explained variance ( $R^2$ ), the index of redundancy and commonality. According to Tenenhaus et al. (2005), the GoF index can be obtained by the following formula:  $GoF = \sqrt{[(Average (R^2)) \times Average (Commonality)]}$  and it must be above the recommended cut-off point of 0.30. (See appendix 5)

### ➤ **The structural model**

The structural model represents the relationships between variables. One of the objectives of this study is to test causality in the relationships between different variables and constructs. The test of the hypotheses is carried out by the evaluation of a structural model reproducing the theoretical relationships between the variables. Thus, the model is first tested based on an internal evaluation using the "path weighting scheme" defined by Lohmöller (1989). The hypothesis test consists in examining the level of significance of the estimation parameters (path coefficient) of the relationships between the variables (linear regression coefficients). In practice and following the recommendation of Hair et al (2019), the SmartPLS software was chosen to process regression analyzes for the user-friendliness of its interface and the possibility of obtaining graphical representations of the estimated models. The validation of the hypotheses depends fundamentally on the significance of the estimated relationships. Following the recommendations of de Chin (2010), the bootstrapping technique, with a minimum number of bootstrap samples is 5000, was used to test the statistical significance of each path coefficient. The threshold of 1.96 for the "T Student" was used to decide on the significance of a structural relationship of the model and the empirical validation of the research hypotheses.

## 4. RESULTS AND DISCUSSIONS

### 4.1. Results preparatory of qualitative phase

#### 4.1.1. First part of the interview

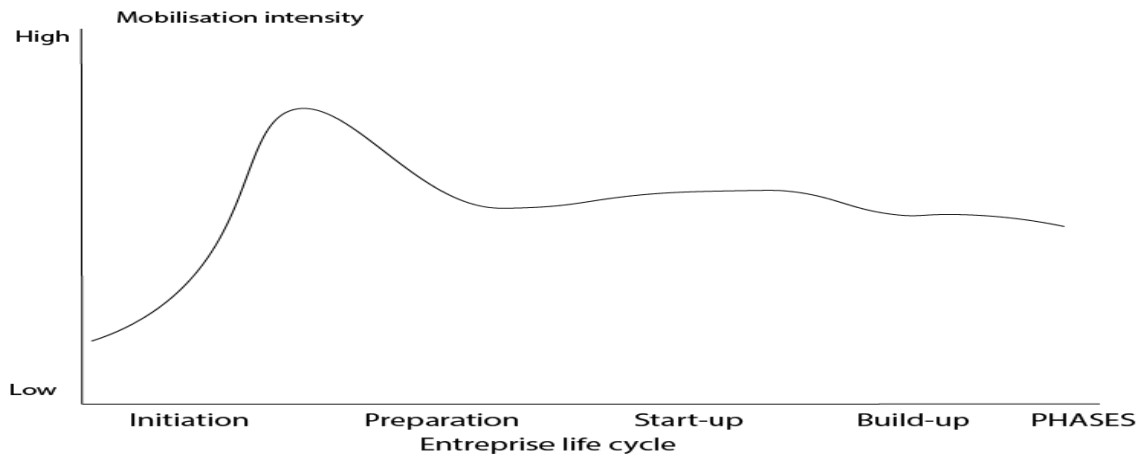
In the next sections, we will analyze each of the categories of entrepreneurial social capital, namely: The Knowledge and Information network, the family category and others, the resource and business network, and, finally, the funding network. For each category of social capital, we present a figure which gives an overview of the mobilization of these networks at each stage of the creation process. We indicate the intensity of use, ranging from low to high. This intensity aims to illustrate graphically our interpretation of the analyzed cases. We can see that there are changes in entrepreneurial social capital at each of the four stages of the creative process. This share capital goes from a predominantly Knowledge and Information network to a more diversified network, comprising all categories of networks and a composition with proportionally more and more resource and business contacts. These observations which we confirm the results of other research which had noted the dynamic, progressive and evolutionary character of the social capital of entrepreneurs as the process of setting up their business progresses.

*a) Knowledge and Information network:* Entrepreneurs must seek information and obtain expertise about creating projects in the agritourism industry after opting to create their own business, which is critical in order to start a business. When most of the instances investigated decided to start a firm in the agrotourism industry, this was the situation. They sought information and advice from past contacts. Consider the case of the "Côté ferme" in Mjez ilbeb, whose owner wanted to create a rural lodge where tourists may learn about rural life and take advantage of the agritourism services available. The owner of this accommodation went to other lodgings to observe their solutions for how they built their lodgings, and he took note of the services that were offered and how the agricultural and tourism sectors were combined. This is an example of how having a huge network with numerous structural flaws can be beneficial. The owner of "Côté ferme" might evaluate the various services provided by other lodgings and get ideas for how to build his own. As a result, networks are an important aspect of building a lodge and contribute to the project's success (Khazami & Lackner , 2022).

"El nour sahara" (a rural cottage in Tunisia's south) was unable to find information and knowledge through its informal network since it was unable to supply the information required. This lodge's owner attempted to contact other lodging establishments in other Tunisian cities for guidance and assistance. Because of the time and distance, he had difficulty contacting them. As a result, the city government was approached, which proved to be an excellent decision. He was ultimately able to bridge several holes in his informal network thanks to government help as a formal link. As a result, he was able to collect information that his network was unable to deliver. He learned how to start, plan, and run a business, which was quite useful to him during this time. This demonstrates that network functionality isn't all that important. The most important factor is how entrepreneurs can bridge the gaps in their network.

In another case, the lodging "Dar ennou" used social networks as a source of information and inspiration to create and develop its project (Khazami & Lackner , 2022). The entrepreneur finds what he needs to launch his project in the facebook groups concerned in this sector. This proves that the functionality of the network is not so important. What matters more is how entrepreneurs have no limits in their search for information, they can do everything. The figure 15 resume the mobility of the Knowledge and Information network in different phases of enterprise cycle. It is very high during the initiation phase when the entrepreneur searches more information and help.

Figure 15. Mobilization of the Knowledge and Information network (Khazami & Lackner , 2022)



*b) The family network and others:* The first network category is named "family and others," and it includes family members and friends. The majority of these interactions are used in the early phases of the creation process (See figure 16). Their ability to mobilize reduces over time, particularly after business hours. Other researchers have noticed a reduction in the utilization of family and other close contacts over time (Ruef, et al., 2004).

Entrepreneurs are beginning to discuss the prospect of developing tourism services in addition to the agricultural products that are already available with friends or colleagues. Entrepreneurs seek information and opinions from various contacts in their network, frequently within family and friends, to progress their business idea or analyze a business opportunity, in addition to what their colleagues from the nucleus of the entrepreneurial team bring them. These are people who are experts in the subject or who know something about the market where entrepreneurs want to launch their own business. These wannabe entrepreneurs, for example, converse with family members or friends who are currently involved in the industry. This is how four of the five entrepreneur instances have evolved.

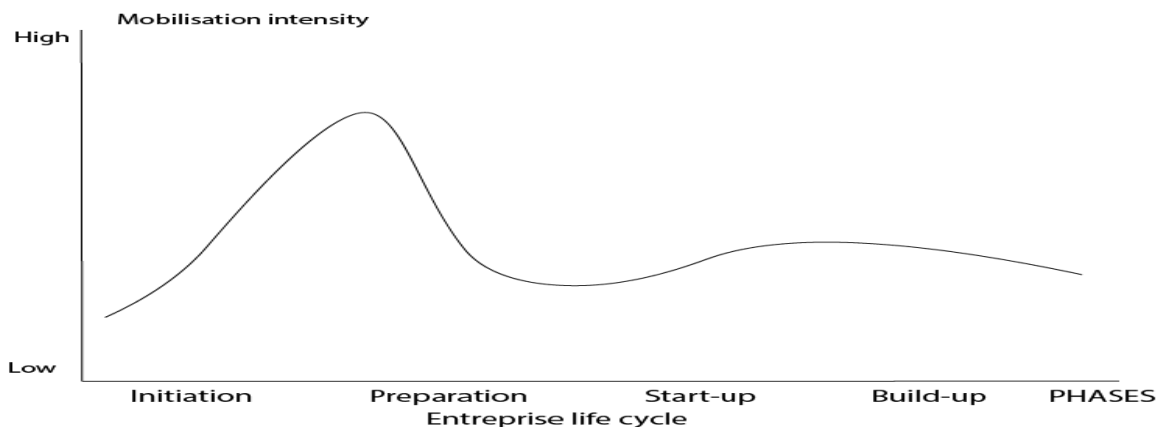


Figure 16. Mobilization of family and other networks (Khazami & Lackner , 2022)

The family was largely a source of support and financial resources in the instances we looked at. Entrepreneurs with the fewest resources to invest in their businesses have primarily used it. They expected the family connections to be more sought. It can be explained in part by the fact that rural lodge owners begin their businesses with the help of a tourism group. They also discover some of the resources they would normally seek from the family among their associates or in the tourism organization.

c) *The resource and business networks:* The resource network is not extremely mobilized in the early stages of the creation process, as seen in Figure 17. Only during the start-up stage, when entrepreneurs begin to sell their services or products, does this mobilization begin to increase.

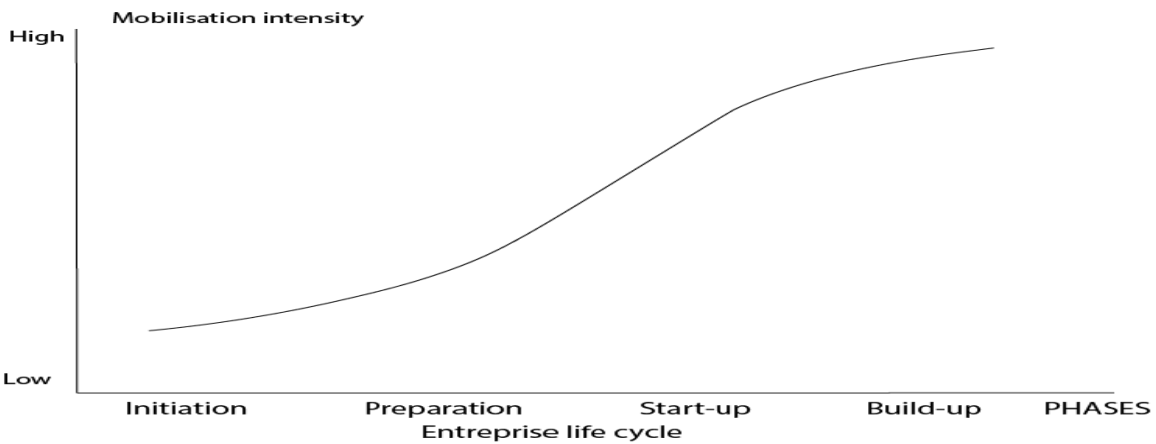


Figure 17. Mobilization of the resource and business networks (Khazami & Lackner , 2022)

Despite the necessity of submitting an idea for creating and marketing a service/product to potential clients or at the very least to someone who is familiar with the market for this service/product, rural lodging entrepreneurs rarely mobilize resource relationships during the initial stages. They frequently opt to establish their own business without first having their business idea examined by at least one potential client. It's no different in the planning stage. Even if they want business data in order to construct a business plan, entrepreneurs rarely, if ever, use potential clients or other business contacts to obtain this data. One of the risks that an entrepreneur overlooks when starting late to mobilize business contacts is developing a service that is unsuitable for market demands and conditions. As a result, they risk having trouble marketing it, particularly during times of crisis. Entrepreneurs of rural lodges deliver highly motivating services/products, but they are created, constructed, and presented in such a way that they are incompatible with or inadequately adapted to markets, particularly the crisis markets that Tunisia has experienced in recent years.

Entrepreneurs would benefit greatly from establishing business ties early on, particularly in international markets or with potential local customers for their services. Apart from having someone from the market evaluate their initial idea, as we've already mentioned, such mobilization

would benefit entrepreneurs in a number of ways, including allowing them to focus ways to better satisfy the needs of future consumers and customers.

First, the knowledge and skills that entrepreneurs gain via interactions with business connections enable them to build services that are better defined to fulfill market needs, with agritourism and commercial services being particularly well suited. Second, business contacts can connect entrepreneurs with a variety of resources that can provide them with valuable commercial information for approaching a wide range of markets, which is a valuable asset for many outstanding rural lodges. From the beginning, these services have been aimed at both the international and local markets. Other sources may be able to provide valuable information on financial aid programs or perhaps money for the expansion of their tourist services.

Finally, when they established their business, they all needed support, as "Green Ranch" did when he decorated his lodge using his informal network and friends' contacts. They had to enlist the help of a buddy from their network to work on site in his spare time, including evenings and weekends. They informed him that once the income started, they would pay him. This information, according to Shane (2003), represents the principles of network theory, which states that strong links offer advantages over weak links. During the creation of corporate processes, close relationships are frequently required. Dar ichkel's entrepreneur received a little contribution from the local municipality as part of an entrepreneurship course in which this lodge's entrepreneur joined after a friend informed him of the paid training. In reality, the Tunisian government provides incentives to encourage entrepreneurs to expand their businesses. This idea was elaborated on in the next paragraph about the funding network.

*d)The funding network:* The finance network is activated during the planning stage and remains active throughout the business and consolidation phases (See figure 18). The financial relationships that have been established are primarily government funding agencies. We've witnessed the mobilization of venture capital funds in almost every situation we've looked at. Banks and family members are used by entrepreneurs to mobilize financial resources. Furthermore, our findings support what has already been established in the literature: that some entrepreneurs start their businesses with their own money or with the help of family members (Di Gregorio & Shane, 2003). These funds will be supplemented by public money or contributions from financial institutions. We noted the importance of using public funding agencies or government resources in the case of Tunisian agritourism services studied during this research project, as well as having recourse to venture capital suppliers because of their critical need for financial resources to complete the development of their businesses.

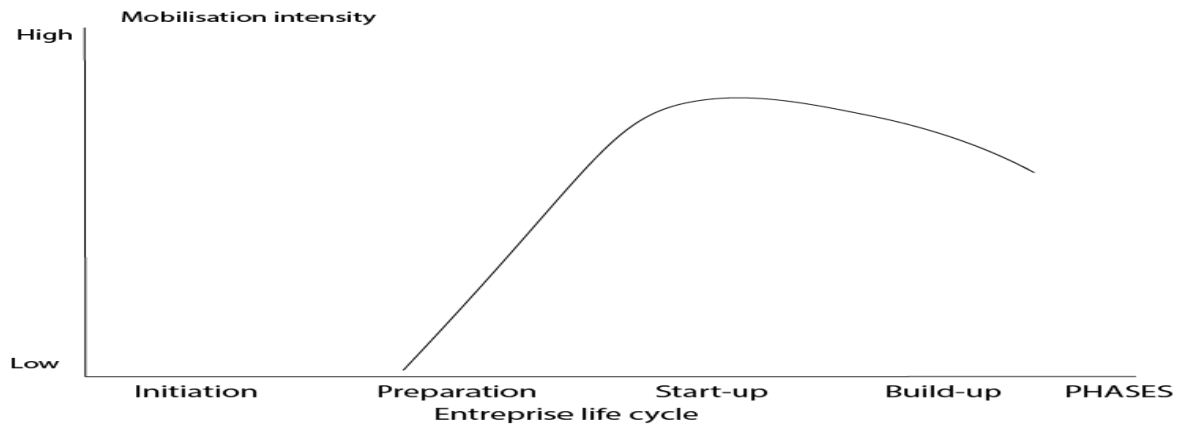


Figure 18. Mobilization of the funding network (Khazami & Lackner , 2022)

This thesis sought to explore the main characteristics of the industry network and how they have been used for new Tunisian entrepreneurs in the agritourism sector. By focusing on qualitative interviews, the impacts of the networks were mapped based on the process of entrepreneurial creation, in order to answer the research question: *How did the Tunisian entrepreneur benefit from their networks throughout the entrepreneurial process of developing their rural lodging?*

Most of the enterprises polled are members of many local or national professional networks (e.g., tourist offices, agricultural offices, etc.), which are frequently associated with a general or thematic labeling. Indeed, they believe that the legibility and reputation of their organization among tourists is primarily determined by these structured links or, increasingly, the construction of a website. However, their personal knowledge (friends of friends, family friends) is sometimes used to attract tourists by word of mouth. Those tourists may also arrive through local tourism operators; however, consumer referrals are still limited. Thus, it appears that entrepreneurs with many weak links with both local contacts (such as restaurateurs, leisure activities, or even other accommodation structures) and close contacts (primarily family members) can benefit from the dissemination of information about their structure's location and level of quality. Interpersonal interactions, on the other hand, appear to complement more formal partnerships within social capital (network professionals, internet).

Entrepreneurs' social capital enabled them to access fresh resources in some cases, according to the interviews. Relationships are frequently more local (inside the territory) and stronger than they were previously (relationships with friends). Some owners were aware of the availability of specific subsidies and consequently received a financial capital contribution. When a tourist housing business is combined with a food or leisure business, entrepreneurs can often recruit temporary workers more easily than they can through temporary employment agencies.

Other entrepreneurs were able to profit from the experience of other lodging owners, who were able to offer them advise on how to operate their business (e.g., membership of networks and choice of labels, investment, etc.). This type of learning, like access to new resources, occurs when an entrepreneur maintains good ties with other members of the same group, in this case, tourism entrepreneurs or hotel owners.

The interviews reveal that it is critical to distinguish the types of information at issue at the level of the processes governing information circulation. Given the geographic and social dispersion of tourists, social capital can influence the renown of an activity if it is present on a large scale and

affects people from many circles. As a result, the entrepreneur with a large number of local contacts and connections in remote places will be favored with a large number of professional partnerships and other advantages. In terms of guidance or knowledge about resources, on the other hand, the entrepreneur will have easier access to information due to the large number of people who belong to various groups and inside the professional sphere. Finally, when the two parties are in close proximity, it can be beneficial.

The figure 19 is giving a summary of the social capital mobilized by each network throughout the four stages of the development process of a rural lodging.

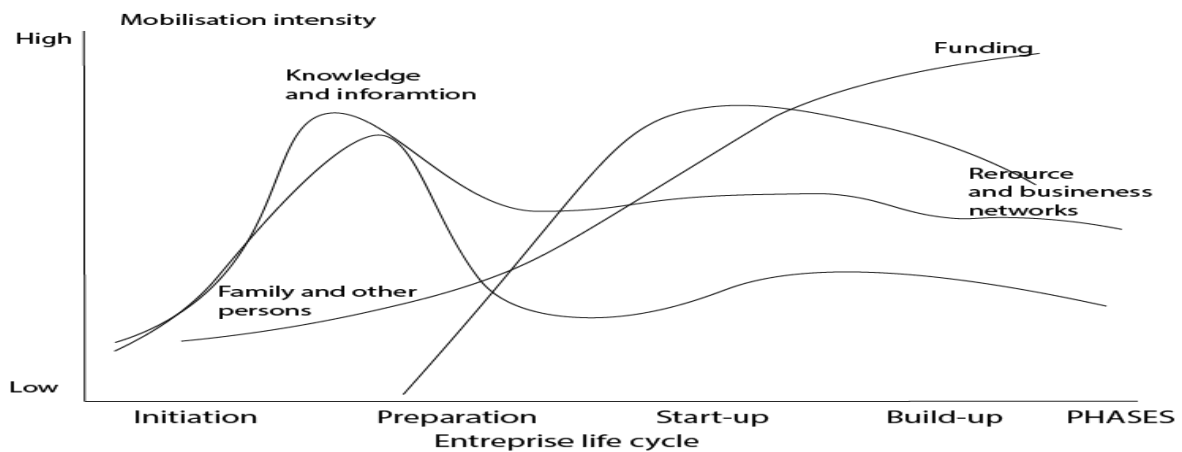


Figure 19. The social capital mobilized by each network throughout the four stages of the development process of a rural lodging (Khazami & Lackner , 2022)

Existing research on social capital in entrepreneurship has one drawback: it tends to take a cross-cutting approach, ignoring the changes that occur during the creation process. In this regard, we made a contribution by conducting a retrospective study that gives a complete and careful analysis of the development of social capital during the four stages of farm development. The figure above depicts the differences in the mobilization of the various networks. It's worth noting that some connections can also function as multiplex contacts. A multiplex contact is one that helps to disseminate a variety of resources, not just those that are typically associated with its category. As a result, activating a certain type of contact might occasionally help entrepreneurs to amass resources that would otherwise be directed to another type of contact.

As a result, the first part of this study allows us to recommend creating an atmosphere and a support system that will allow entrepreneurs to expand and diversify their networks prior to the commencement of the rural accommodation development process. This step defined the social capital portfolio that an entrepreneur employs the most during the course of their business development.

The social contacts of agritourism entrepreneurs play an essential role in the development of rural lodging and the distribution of information, according to this initial phase of investigation. However, this forces us to distinguish between two types of social capital: those related to communication, knowledge, and information in the context of the accommodation system, which involves remote social capital and weak links, and those related to the launch and management. Relationships with government organizations and other local tourist entrepreneurs, which lead to

tighter links, are the mainstay of tourism activities. The interviews also demonstrate the importance of social capital, particularly local and strong ties, in agritourism firms' strategic decisions. We will identify the structure of social interactions that determines the options for accessing resources, as well as its impact on the rest of the components of our proposal model, during the second phase of interview processing.

#### **4.1.2. Second part of the interview**

The goals of this section are to confirm the study lines that arose from the literature review on the one hand, and to explore new elements that may develop in connection with our conceptual framework on the other hand. After the examination of each category that was unveiled in the first part of our interview, it attempts to define the components of Tunisian entrepreneurs' entrepreneurial social capital in the context of agritourism. Second, to see if the aspects of social identity that we used in our research elicit a positive response from owner-managers of rural lodgings, as well as to discern how different social identities recognize different opportunities. We'll also figure out all of the social motivations that motivate and push the entrepreneur to start an agritourism firm. Similarly, this project intends to investigate participation in the establishment of an agritourism business by combining these antecedents. To achieve this sensitive goal properly, we chose to deeply evoke social capital because this networking helps, on the one hand, to bring out the components of social identity and, on the other hand, to produce motivation in an entrepreneur while they are developing their company. Finally, the study looks into the connections between these three variables and the growth of the agritourism business in rural areas. Face-to-face interviews with agritourism entrepreneurs have been implemented. All of these interviews took place in Tunisia and were videotaped and transcribed. They lasted between 1 hour and 30 minutes and 2 hours each. As a result, our work will be organized as follows, drawing influence from Walliman (2005): pre-analysis phase and data analysis.

##### **Pre-analysis phase**

###### **• *Investigation procedure***

In the vast majority of cases, qualitative research leads to the formulation of recommendations. They also allow scholars to look into fresh ideas and connections in the field (Andréani & Conchon, 2005). The objectives of this qualitative study are to corroborate the research lines that emerged from the literature review on the one hand, and to investigate novel components that may emerge in tandem with our framework on the other. Its purpose is to investigate the links between entrepreneurial social factors and the growth of agritourism businesses. Given our goal, we conducted a semi-structured interview in the field to collect qualitative data and ensure proper information extraction. The interview is conducted according to a script that contains leading questions that must be broad and open. Furthermore, the interview guide should emphasize the research's central theme, which is derived from the theory, the research challenge, and the interviewer's personality (Romelaer, 2002). The participants were interviewed about the following topics: (1) the value of social capital, (2) their social identities as they developed their agritourism businesses, (3) their social motivations that led them to develop this business, and (4) their participation in the development of their agritourism businesses (see appendix 4). The goal of this qualitative study, as stated previously, invites us to use the "semantic saturation" criterion to maximize the number of respondents in the sample (Evrard, et al., 2003). On this basis, if two successive interviews no longer generate new information, data collection ends.

###### **• *Sampling***

We contacted the owners of rural lodgings in order to attain our research goals. The convenience sample is made up of ten Tunisian entrepreneurs who own rural lodges in Tunisia and have been in business for more than a year. This activity was carried out based on the population's geographical diversity and structural relevance, rather than statistical representativeness. As a



result, each respondent was asked to recruit additional subjects who met the predetermined criteria, until saturation was reached (See table 9).

Table 8: Characteristics of the qualitative sample

<b>Entrepreneur</b>	<b>Case</b>	<b>Experience of entrepreneur</b>
<b>Man in his 50s</b>	Rural lodging+ local dishes	Work experience as an agriculture engineering+ Experience in farming
<b>Woman and man (married couple) in their 40s (Both interviewed)</b>	Rural lodging	Experience as doctors
<b>Man and woman (a married couple in their 40s (Both interviewed)</b>	Rural lodging+ Equestrian farm	Work experience as doctors+ Experience riding horse for woman
<b>Two men in their 50s (brothers and both interviewed)</b>	Rural lodging +Equestrian farm	Experience as both in hotel services
<b>Woman in her 40s and man in his 50s (married couple and both interviewed)</b>	Rural lodging + Green pedagogic space for children	Training on the food sector for the woman Man long experience as a food engineering
<b>Woman in her 40s</b>	Rural lodging	Experience as a teacher

The content of the product is provoked (Murray, 2018) from an interview guide developed to present the research to the participants and target the most appropriate profiles. Face-to-face interviews were conducted, tape-recorded, and transcribed. The interviews were coded one by one and examined to determine the entrepreneur's identity and primary habits. Six types of entrepreneurs are classified in terms of identity:

- ❖ Entrepreneurs have been identified as predominantly Darwinian. His primary motivation is to increase his financial wealth.
- ❖ Three more entrepreneurs were characterized as being predominantly community-based. Their primary motivation is tied to the community to which they belong, the authenticity of which serves as the basis of their self-evaluation, and their frame of reference is linked to the community it serves (visitors).
- ❖ Two of the firms were community-based, and they were part of a group with a missionary bent. The roots of social motivation can be traced back to an idealistic ecological ethic based on communities and their participation in rural areas. Their frame of reference is linked to the guests' community.
- ❖ A missionary identity has been identified in an entrepreneur. The benefits of the local community (visitors to rural lodges) and educational purposes (horse breeding) are the foundations of social motivation, but they also come from the community. Its self-assessment foundations were tied to the success and advancement of the local community, and its frame of reference was linked to idealistic aspirations about educational and helpful traits.
- ❖ An entrepreneur has been defined as a member of a group with a Darwinian identity who has a missionary identity. The basis of social motivation in this case were replication, which was linked to both an idealistic objective and individual awareness in the establishment of employment and profits. The fundamentals of self-evaluation were tied to idealism.

- ❖ By banding together with Darwinian identities, two entrepreneurs were identified as having a community identity. The fundamental social motive was linked to both contributing to the local community and self-interest in obtaining more income in this study.

## Data analysis

### ➤ *Components of social capital:*

The significance of the parameters found during the literature research is confirmed in this qualitative exploratory phase. Following the utilization of social capital in the business formation process, three variables have been identified: structural capital, relational capital, and cognitive capital. These characteristics may also have an impact on an entrepreneur's social identity and drive.

a) *Structural social capital:* During the study, several interactive features associated to the entrepreneur's desire to expand his business that could allude to strong and direct ties are plainly visible through the respondents' interviews. As a result, networked social ties provide an information channel that reduces the time and effort required to acquire data. When networks have strong relations and direct links among their members, awareness sharing is relatively easy to achieve and maintain. In addition, several respondents' remarks emphasize the importance of social connection in affecting their company development behavior *"I preserve a nearby and solid social relationships with some members of the local community of this region", "I communicate frequently... They made things easier for me before the beginning of my project. " "I know most of the people here on a personal level since I lived my childhood in this area, right after when I grew up and I had my old job, I changed to the capital. Often here with my family to get away from everyday life and, I decided to start my project, the locals here helped me a lot and they appreciated the idea of this rural lodging with lots of encouragement"*.

Similarly, getting to know other entrepreneurs can help you develop a proclivity for working for yourself. Knowledge of specialists and professionals in agriculture and tourism, which is incorporated into the social network, could also be a strength that makes identifying and exploiting opportunities easier. For instance, one interviewee stated: *"My friend knows a man who already works in tourism ... and we met ... after a long discussion, he helped me by certain places and gave me some contacts that I need it"*.

Persons with close relatives or friends who act as village representatives and have expertise of the implementation of projects in rural areas of Tunisia. These village leaders, for example, are well-versed in government policy and legislation. They also have the most management experience among the locals. It can be seen in a clip from several interviewees' speeches. *"I know the" 3omda "here, and he showed me the necessary papers to start my project", "the difficulty in the development of a business is the regulatory papers, but the head of this village facilitated me tasks"*.

b) *Relational social capital:* Relational social capital has arisen as an emotional sense in interpersonal connections that facilitates information transmission. Individuals who closely identify with and trust a network have relational capital. Collaboration, resource attainment, and knowledge sharing amongst people are all dependent on trust. Some study has been published in the literature (Davidsson & Honig, 2003; Zhao, et al., 2011), has highlighted trust as a component of relational social capital in the literature. This variable was clearly stated in speeches, implying that the entrepreneur made his decision based on the reliability of his network. According to the thematic analysis, trust is implicitly generated in talks about relational social capital and information exchange. Furthermore, people are more eager to participate in social and helpful

exchanges and interactions when their relationships are highly trustworthy. It can be seen in a clip from several interviewees' speeches. *"I have total trust in my relatives and friends", "... for me, a strong relationship with the local community is more profitable in terms of time and money".* To develop an environment conducive to information exchange, interpersonal trust is essential. Throughout the course of a project, respondents stated their faith in their networking, and it appears to be more significant in some instances. *"I'm trying to jump into the project or change another direction", "... Yes, what others are saying, and I am proposing, is of great importance to me ... makes things easier for me and allows me to save a lot of time "*.

Strong linkages are more favorable for the transfer of comprehensive information and implicit awareness in terms of information benefits. When good information and implicit awareness cannot be readily codified or understood, their transmission becomes increasingly dependent on tight and recurring connections. As a result, it is possible to claim that the strength of the relationship has a more direct impact on resource transmission. Identification appears to be a very essential process in the responses of some interviewees, based on this effect. In actuality, people view themselves to be associated with another person or a group of people with whom they have a close relationship. Here is an example of verbatim: *"The period before the start my project, I needed some advice, some information, ... and oh!!! I got them by contacting my networking ..." have received full help and exchange information about the project, competitors, pars, too, my neighbor offered me a contact with an investor "*.

A strong sense of exchange, such as favoritisms offered and received, and a strong sense of equality, are also important components of social capital. The following is taken directly from the interviewees: *"I like shared with others my knowledge, because some of them also helped me in the launch of my business", "it's just a give-give", "when I do not find the correct information or when I find a lack in my bank account for the project, I asked for help to my relatives, and I know they helped me ... and it was the same when someone of them asked my help. "*

*c)Cognitive social capital:* We discovered that entrepreneurial participants mostly exhibit cognitive social capital for building a rural hotel. Furthermore, the distinction between individuals, language, and shared codes has been highlighted by cognitive social capital. To maximize the chances of members understanding each other, it is preferable to have mutual knowledge by allowing them to openly communicate their information. The parties' cognitive component encompasses not only the creation of a fruitful relationship, but also the development of both parties' mental presence. These individuals mention *"My family and friends boost me to develop my business and add some touristic services", "... In the beginning when I started to think about adding a new service to my land and create my cottage, my wife told me that I am crazy... Now, I see she is totally proud and encourage me all the time".*

Shared codes and language make it easier for people to grasp each other's goals and how to act in their communities. To begin with, shared knowledge makes it easy for people to communicate with one another and have access to their information. Second, shared knowledge provides a common conceptual framework for assessing predicted exchange and combination profits. Finally, shared knowledge conveys a sense of interconnectedness. It enhances the ability of several parties to incorporate knowledge gained via social interactions. Some respondents' remarks also emphasize the importance of the sharing vision in communication with their networks: *"Share with your circle is very important to your business ", " You cannot work without a balanced communication with your surroundings "*.

Similarly, through a shared vision, cognitive social capital symbolizes the collective goals and aspirations of an organization's members. It is indeed regarded as "a liaison mechanism that assists various sectors of the business in integrating or combining resources" (Tsai & Ghoshal, 1998, p. 467). As a result, members of similar organizations will be expected to work together to share or

exchange resources. Local communities and individual networking develop groups that share common interests and aims in the rural lodging industry. Cohen and Prusak's theories were supported by the findings (2001). They conclude that shared values and objectives bind members of networks and human communities, facilitating cooperation and improved knowledge sharing in terms of quantity and quality, and eventually assisting in the completion of projects. For instance, one interviewee stated: "*... since we have the same interest in promoting our region, the community here helped me a lot at the beginning of my developing phase of my project*", "*in parallel with my personal goal, I wanted to make my old region a famous destination that people from different countries or city come to visit ... And that helped me a lot at first because the people here appreciated the idea of promoting our region*".

As a result of our investigation, twelve prospective dimensions have been identified, which will be subjected to a pre-test later. According to the majority of participants' interviews, social capital indicates two often related categories: the entrepreneur's social identity and social motivation.

### ➤ *Components of social identity*

Entrepreneurs must, and still desire, to set themselves apart from the rest of society. They do, in fact, profoundly affirm the psychological need to be a part of the group. People define themselves as a person who identifies with an internal group whose characteristics are wholly different from those of an external group, based on the principle of social identity. In other words, belonging to an internal group allows people to incorporate positive aspects of the internal group, such as achievement and status, by contrasting them with perceived negative elements of the external group, resulting in an increase in their esteem and effectiveness. As a result, members of social groups rank activities based on how well they match their identity prototype, making them more likely to participate in activities that are most appropriate for them. Individuals' social identities grow throughout their lives, beginning in childhood, and will be constantly changed and reassessed throughout their lives. According to our study's interviews, we identified three forms of relative social identity for Tunisian rural lodge entrepreneurs, which are supported by Sierge et al. research's (2016). As a result, an entrepreneur's social identity influences the type of opportunity that they pursue, the strategic decisions that they make, and the type of value that they produce. The analysis of the social identity of an entrepreneur can offer light on an inexplicable variance in the process of building a business based on this observation. Entrepreneurs' social motive, self-evaluation, and reference group all impact their social identity, resulting in three distinct types of social identity: Darwinians, communitarians, and missionaries.

*a) The Darwinian identity:* The "traditional entrepreneur" identity is accounted for by the Darwinian identity, which has the primary goal of building a stable and profitable firm. Competitive enterprises and other Darwinians provide the Darwinians with a reference framework and a social group against which they can judge themselves. For instance, one interviewee stated: "*I create my firm in order to make money because on our days and specially after the revolution, in Tunisia, to stay in your job without any other income, it makes life difficult. Also, I want to be an owner business and advance my career as an agriculture engineering in the world of business. My family support me on my decision... and this is a supportive for me... they help me morally, money, networks... and now, I think that I took the right decision to launch my rural lodge in this area... my business shows a growth success nearby the visitors*" (Khazami & Lackner, 2021).

The industry in which they exploit, the markets that they serve, or the greatest social cause that they promote have little or no meaning for these types of entrepreneurs. As a result, if they can make more money and have more prospects to succeed, they may flip and invest in new firms. Entrepreneurs with a largely Darwinian identity are primarily concerned with the profitability of their enterprises as well as their own personal gain. In other words, they devote the majority of their time to tasks that ensure the success of their company. This objective viewpoint is analogous to the causality principle, which uses the aims as a foundation for acting and making decisions

based on the estimation of expected returns. The interviewees verbatim confirm: "... my ambitions are quite high. We are in the agritourism market, and from everywhere we are visiting and enjoying the ambience", " To be successful, my business reveals a successful financial performance compared to my competitors".

To start a firm, Darwinian entrepreneurs rely on their social capital. This is backed up by these direct quotes: "My family supports me on my decision ... and this is supportive of me ... they help me morally, money, networks ... and now, I think that I took the right decision to launch my rural lodge in this area ... ", " to me, the success of most of the businesses started by your networks " (Khazami & Lackner, 2021).

The acquired results are consistent with the variables indicated in the literature and provided in the previously established conceptual model. In addition, the study discovered a novel variable that appears to be unique to Tunisia, namely " **Personality traits specific to entrepreneurship**". General characteristics (such as openness to experience, conscientiousness, and emotional stability, the need for accomplishment, the proclivity for innovation or inventiveness, a proactive personality style, a general sense of self-confidence or self-efficacy, and a stress tolerance, the need for autonomy) are not only the best predictors of behavior or performance in a specific field like entrepreneurship. Our research of the interviews found the following entrepreneurial characteristics among Tunisian entrepreneurs: **Entrepreneurial Orientation**. This indicator represents the degree to which a company's executives have an entrepreneurial mindset. This notion is divided into three parts: the trend toward innovation, taking risks, and being proactive. It can be seen in a clip from several interviewees' speeches. "it's a new field of battle that deserves to discover it", "Being an entrepreneur means taking risks", "In any case, you are challenged every morning", "I, in five years, I had to arrive two or three mornings with peace of mind in this business, therefore, every morning you are called into question on your forecasts, on your vision of things, therefore, it takes the spirit of initiative", "I prefer to go ahead and discover new ideas, new battlefields to dig into" (Khazami & Lackner, 2021).

b) *The Communitarian identity*: The communitarian identity can be developed based on the incentive of hobbies or leisure activities, as well as a business's desire to maintain a group of like-minded individuals. These individuals mention "My grandfather has owned this farmhouse for many years... It is my main motivation to reconstruct it while maintaining the old charm and tradition things on this house... It is very important for me and for the visitors to exchange stories related to this house showing them some pictures that remember the history for this treasure" (Khazami & Lackner, 2021).

A firm that wants to keep a group of like-minded people can build a community identity based on the motivation of their hobbies or leisure interests. In this situation, being a part of the social group, sharing the community's intimate abilities and competencies, and serving it from within necessitates the development of a trustworthy identity. It can be seen in a clip from several interviewees' speeches. "The first time, before we start our business, we think about making money and our farmhouse, but we are going to have a good time. the visitors are looking for a place to eat in the area ... the place to taste our traditional food, beautiful nature ... the local community here farmhouse, they also helped us to start their business with their knowledge, information, friends ... ", " that's what I wanted to do for a long time ... " (Khazami & Lackner, 2021).

It is unimportant for communitarians to move sectors; in exchange, they may be inventing new, more potent ways to help the collective. This interpretation is similar to Shah and Tripsas' concept of the "entrepreneurial user" (2007). Users are defined as entrepreneurs who discover an idea through their personal use and then share it with their community, according to their definition. In addition, the process includes a collaborative creative activity within the user community prior to the creation of a business. It's confirmed by some interviewees: "I have owned this farmhouse many years ago ... a few years ago, a thought has progressed that when I withdraw, I will be the owner of my business ... today, I am achieving my dream" (Khazami & Lackner, 2021).

Their entrepreneurial activities are presented as essential for community progress in their community identity. *"My main motivation for this business was to offer a new product for our customers that they did not get it before"* (Khazami & Lackner, 2021). This interviewee's interest in local heritage and traditional handicrafts stems from a desire to connect with them to a larger community. According to this finding, self-interested motivation for products and business development corresponds to effective conduct based on the starting concept of knowing oneself rather than focused on the ultimate aim. Entrepreneurs that specialize in a sense of community were particularly interested in what their networks could provide them as they developed their projects. They aimed to keep their flexibility in order to generate ideas depending on opportunities, and they collaborated with others to do so. It can be seen in a clip from several interviewees' speeches. *"People like to tell others ... So, I started with a word of mouth to make knowing my cottage." Now, they came to accommodate in my house and taste my tradition food ", " Through the contact with the local community, I knew what I wanted to do in this business ... I knew what I wanted to start my business ", " ... I believe that if you know the people already, then I'm sure it's a lot easier to get you up and running, that's getting results very quick ", " Our first customers are coming from here"* (Khazami & Lackner, 2021).

As a result, an entrepreneur with social orientations increases his prospects. The capacity to correctly understand others, convey feelings and thoughts clearly, be convincing, and make a good impression are all examples of social orientations (confidence, seriousness ...). As a community-minded entrepreneur, these social orientations enable him to not only establish large relational capital, but also to extract useful resources (advice, support, money, time, etc.) from his social network. Furthermore, the higher a business's social orientation, the greater its financial performance.

*c)The Missionary identity:* The missionary identity that drove the founders of the company to advocate for a better cause and conduct responsibly is regarded as critical. As a result, their motivation is solely focused on social entrepreneurship, and research on the identity of social entrepreneurship have been conducted. Individuals devoted to a social entrepreneurial identity, according to Jones, Latham, and Betta (2008), must distinguish themselves from Darwinians and distance themselves from for-profit identities. As a result, missionary identity can be just as important in terms of defining itself in relation to the social purpose of entrepreneurs and distinguishing itself from other sorts of identification. As a result, identity is founded not only on "who I am," but also on "who am I not?" Some responders' remarks also emphasize the importance of missionary identity for social development: *"Many people go to my farm to educate about horses and make a tour around the village.", "My principal motivation is to open my cottage in firm, I can pursue values that are essential to me or special cause (for example social, sustainability, ...)* (Khazami & Lackner, 2021).

Entrepreneurs with a missionary identity rise to prominence as a result of their deep convictions about their businesses, which serve as a vehicle for social change. They consider their companies as a platform through which they may further their societal objectives. This objective positioning is not focused on profit or a foreseeable return, but it can always be argued that they use the causality principle to base their actions on the goal. This is confirmed by the interviewee's response: *"To us, our green cottage can contribute to change many bad habits and to make some places better to consume"* (Khazami & Lackner, 2021). Its missionary character, founded on an organic way of life and the encouragement of local contribution, provides a clear vision of the company's ultimate form. When he first began to build their agritourism business, this goal was in the forefront of his mind. *" I want to convince them that it is what I'm looking for and what I'm dreaming about ... A farmhouse in the middle of my firm ... Now, many visitors to my cottage come to relax and to change the place of everyday life and to make tour around the village ... which encourages the development of the region and transforms it to the best ", "to open a cottage on the agriculture firm, both ministry of tourism and agriculture oblige for some criteria as the cottage does not spoil the base of agriculture land"* (Khazami & Lackner, 2021).

On this basis, we claim that entrepreneurs' missionary identity is based on society's collective aspirations. Indeed, they will make decisions in accordance with the societal community. The following is taken directly from the interviewees: *"Of right! we must think about earning money, but we have other viewpoints also ... we can be atypical as a business since there is so much idealism in it", "It is a distinct venture. If you do not comprehend it, you will think it is working... we could really change the city ... with the community of our region, we will create a new different picture", "...that is what we like and then that is what we can do. And always with social purpose"* (Khazami & Lackner, 2021).

The acquired results are consistent with the variables indicated in the literature and provided in the previously established conceptual model. In addition, the study discovered a novel variable that appears to be unique to Tunisia, namely "**Eco-entrepreneur responsibility**". Being an entrepreneur who considers environmental responsibility when starting a firm has become a serious concern today. It necessitates those businesses set an example and accept responsibility for society, employees, and customers. Environmental concerns are now being integrated into many firms' internal management systems. The goals are varied: reducing waste, reducing resource use, and, more broadly, reducing negative environmental impacts. Some participants in our qualitative study expressed an interest in being environmental guardians. They strive to eliminate negative consumption that is harmful to the environment in their operations. *"Our goal for this lodging is above all to consume organic to reduce the massive use of products which destroy nature", another interviewee said that: "the government also encourages us and encourages this kind of project which protects the environment. She mentions in their law as an important point to consider before opening a lodge"* (Khazami & Lackner, 2021).

We understand that a single entrepreneur can have multiple identities, some of which may be shared. It is confirmed verbatim by the following: *"It is not just a business for money, there are these types of firms everywhere in many different places. To me, it is to deliver goods and services with a high quality to our customer and to help them to live unforgettable experience. For me, it is also better to be able to work your own business ", " Through the contact with the local community, I realized there was an opportunity to get into this business ... I knew what my local community want to react to this place ... I am sure that you will be able to start your business. Our first customers who came to consume our service was from relative of our neighbor ... So, I started with the word of mouth ... from everywhere, they came to taste my tradition food ", " Here, to live a new experience and to be able to do what we truly need the best. What is the motivation behind our business? How do you go about it?... Discover new things totally different than hotel, it is a challenge", "For us, the green concept is the most important ... we care about the future of our children ... we want to create a green life ... To be healthy in their mind and their behavior. To us, we are going to make our business better"* (Khazami & Lackner, 2021).

Social capital can impact hybrid identities, resulting in mixed approaches or ambiguous conduct. Because it will be difficult to verify these hybrid identities in the future, our assumptions will concentrate on the social capital effect on one type of identity at a time, while ignoring the influence of other possible identities.

#### ➤ **Components of the social motivation of an agritourist entrepreneur**

Thematic analysis showed a number of themes concerning agritourism businesses and their social motive. Indeed, we can detect numerous elements that influence the social motivation of the entrepreneur throughout the business creation process and their consequences on the development of their social identity by analyzing the remarks of the respondents.

The acquired results are consistent with the variables indicated in the literature and provided in the previously established conceptual model. In addition, the study discovered two new variables that appear to be unique to Tunisia, namely "**image of the entrepreneur**" and "**Entrepreneurial innovators**".

a) *Financial success*: This is undoubtedly the most prominent motivation in the interviewees' speeches. Entrepreneurs seek financial success first and foremost. Some respondents' remarks further emphasize the importance of motivating interaction in determining their decision to start a business: *"I am looking for a business that allows me to improve my standard of living", "my old job is not enough to live a big family ... we wanted to accompany with another business to have more money ... This project helped us a lot "* (Khazami & Lackner, 2021).

Tunisian agritourism operators are looking for ways to supplement their revenue. For instance, one interviewee stated: *"agriculture is not enough to make us live, we need an addition"*. Many entrepreneurs who work in agriculture or other fields want to supplement their family's income. Financial success was indicated by respondents during a project, and it appears to be more important in some instances. *"My project now reaches a certain level of success with visitors." This work pays well ", " Best paying business "* (Khazami & Lackner, 2021).

Farm tourism, which is thought to boost family income and revenue from recreation, is often complementary. Although agritourism has become an important long-term livelihood strategy for certain entrepreneurs who already work in agriculture, it continues to be a source of additional revenue for others. Whatever the case may be, it has proven to be a long-term indicator of regional development. Furthermore, financial success appears to be one of the most frequently invoked motivator benefits during the start-up of a business.

b) *Interesting work/hobby*: The easiest motivator to discern in the respondents' comments was interesting work/hobby, which was frequently centred only on the motivational component. We have, however, been able to identify certain patterns. *"I like what I do now ... when I was in my old job, I'm always in the pressure and I do not like working in the obligation ... Now, I feel free without any pressure because I like what I do ", " It's a pleasure for me to be responsible for my work "* (Khazami & Lackner, 2021).

A passion that turned into a business was also a source of motivation for entrepreneurs. An example of the verbatim is as follows: *"It's an interesting job for me ... In some period in my life, I want to be an entrepreneur with my own business", "My job now is my hobby ... It's what I want to do"* (Khazami & Lackner, 2021).

A motive for building agriculture and tourist enterprises was an entrepreneur's business ambition and enthusiasm when he decided to expand his firm. During the course of a project, respondents revealed their enthusiasm and involvement in their business, and it appears to be more essential in some cases. *"I like what I'm doing now", "for me, the farm is all that I love most in my life", "to love what you do, and what you do will 'love back ... it's a Tunisian proverb that expresses the love you find in my business"* (Khazami & Lackner, 2021).

Interesting work/hobby also refers to the terminology associated with the concept of motivation, particularly for those who have taken the risk of leaving a secure employment to start their own business and be self-employed. *"I like risk", "A child's dream", "Business love", "I dreamed about it", "Like this work", "Stimulating work"* (Khazami & Lackner, 2021).

c) *Consumer education*: The concept of consumer education is completely mirrored in the responses, and visitors provide meaning that is as accurate as that described in the literature study. For entrepreneurs, agritourism firms are a wonderful tool to improve their personal lives and build their identities. *"I transferred my knowledge as a farmer to my visitors", "I lived with them the harvest of grapes ... It was a well rewarding experience for them", "there are some who have already lived the experience of riding on horseback but who do not know how to treat a horse"* (Khazami & Lackner, 2021). Diversifying into agricultural tourism because of a commitment to consumer education. If farm visitors have a greater understanding of what goes on the farm, it may be easier to get support for farm activities when they are needed.

d) *Tax incentives*: Tax incentives, which have spurred individuals, particularly young people, to start and grow businesses, are one of the topics to be discussed following Tunisia's revolution. The



government has aided the emergence of new projects by providing tax benefits to both new and existing entrepreneurs. The following is taken directly from the interviewees: *"also the state has helped us in our projects", "after the revolution, many people are suffering from the rise of lifestyle ... we cannot live with a salary that we take our jobs only; we need other sources for more ... the tax facilities that our new government offers us, motivated us a lot to think about launching a project "* (Khazami & Lackner, 2021).

The federal government's operations have an impact on all enterprises, including farms, once again. Tax incentives for farmers and ranchers encourage them to launch new businesses. Tax relief was another important reason in encouraging our interviewees to consider creating an agritourism business, as our research indicated. The relevance of tax reduction in inspiring entrepreneurs is further emphasized by some respondents' comments: *"I thought about this business it's been a while, but thinking about the tax and all that, I cancelled the idea ... From the revolution, everything changed ... they have facilitated many things ", " with taxes, we cannot think about business "* (Khazami & Lackner, 2021).

*e) Meet the needs of the leisure/holiday market:* In today's leisure society, on-farm and off-farm recreation possibilities are becoming increasingly significant. Entrepreneurs are drawn to sectors that combine two domains at the same time, such as agritourism, in order to capitalize on the desire for new lodging and leisure experiences.

Furthermore, rural lodgings are an important component of rural regions' multifunctional development. Furthermore, rural development encompasses a wide range of new activities, such as environmental conservation and landscape management, agritourism, and the growth of local supply chains. It connects agricultural producers with tourists or day-trippers, allowing them to learn about the agricultural environment, life, and production through the reception and information provided by their host. It is an important aspect of the eco-development of certain rural areas, particularly in terms of the impact of this activity, which generates significant income, on the protection and enhancement of the natural, agricultural, and cultural resources of the area. Some respondents' remarks also emphasize the importance of satisfying the needs of the leisure/holiday sector in determining their decision to start an agritourism business. *"This sector is growing strongly", "If I see my friends, for example, there are two who have decided to start this type of business because it is profitable and trendy", "after the revolution, everything is changed and decreased agriculture and tourism which are the two most profitable sectors for us and for our country, but unfortunately ... in recent years have noticed a new sector that looks like that mixed both ... As I am a farmer, I decided to take this path of changing"* (Khazami & Lackner, 2021).

*f) New agricultural government programs:* Many federal agricultural programs are being scaled back or phased out. Most agricultural programs in this context are focused on crops, so farmers, for example, could be more concerned about the loss of government agriculture programs.

The main thrusts of pre-revolutionary and post-revolutionary government development strategies have been economic growth, unemployment reduction, and integration into the global economy. The agricultural and rural sectors encounter challenges that limit their growth. It is characterized by a poorly organized agri-food sector that is not being used as a development strategy, farmers' limited access to extension and training services, and small producers' limited access to rural financial services, all of which prevent the adoption of new technologies that require investments. Agriculture research and extension get very little funding. Despite substantial advances, rural populations in some areas still lack access to essential services and infrastructure. Furthermore, the sector must contend with the aridity of the region as well as the variety of climatic events. Rainfed agriculture is hampered by erratic rainfall and erosion, which degrades soil quality. Due to a system of poor agricultural supervision and extension, the intensification of agricultural production systems in irrigated areas remains low. This has an impact on productivity and puts a

strain on food demand. Finally, agricultural farmers and other disadvantaged groups are hampered by the policies of agricultural trade liberalization and reliance on the global market.

Agriculture policy is being implemented as part of the government's five-year economic and social development plans, as well as sector-specific policies. Development plans, in general, aim to have a substantial impact on agriculture and rural development. According to several of the people interviewed, the country does not appear to have either a long-term national strategy for agricultural development or a well-defined medium-term action plan (Garcia, et al., 2019).

Tunisia has been pursuing a new strategy to create initiatives connected to sustainable tourism and organic farming in order to generate income at the local level while avoiding the traditional pattern of mass tourist since 2016. Because it will rely on the valorisation of existing natural resources and local products in rural areas, this initiative has great development potential. Tunisia would be able to build a professional network, assist farmer training, and implement organic and fair agritourism pilot projects in the various regions designated under this new plan (Moroccan press agency , 2017).

The concept is to allow all farmers and peasants in rural Tunisia to engage in organic farming, to offer new local and recreational products to visitors, and to welcome them in rural cottages, bed and breakfast houses, and educational farms. It can be seen in a clip from several interviewees' speeches. *"After the revolution, new programs are working on the development of certain sectors that are threatened by the revolution ... I'm talking about agriculture since I'm working in ... these new rules that our government has followed are appearing more efficient than the old ... facilitations, no obstacles in the launch of business related to agriculture and many other benefits ... thank you to the revolution that helped us "*, another interviewee who says: *" years have suffered from poor attendance at the level of our sector ... the new changes, motivated us a lot to think about business"* (Khazami & Lackner, 2021).

g) *Companion with guests*: In certain circumstances, especially for women farmers, the social benefits of meeting a diversity of individuals outweigh the economic benefits (Murphy, 2011). Women farmers are often in charge of addressing the demands of visitors, thanks to the division of labour on farms and the inclusion of tourism products and services *"we prepare traditional dishes for our lodge"*, *"in our house, we give Tunisian traditional breakfast and dinner"* (Khazami & Lackner, 2021).

Entrepreneurs in the agritourism industry strive to provide products and services to their customers that entice them to return to their lodges and embrace their products. It is supported by the verbatim accounts of the interviewees: *"I like contact with my visitors"*, *"I like to talk about my old experiences and the stories that surround the area ... this area is very rich with stories"* (Khazami & Lackner, 2021).

They also have deep bonds with tourists who come to take advantage of their services *"What a pleasure to meet people from different countries... we share stories, knowledges and many other things"*, *"It was easy to be friends with our visitors"* (Khazami & Lackner, 2021). As a result, agritourism enterprises form strong and enduring bonds with individuals (company owners, tourists, and the local population) by fostering a sense of community around a common cause and a novel experience. Furthermore, this motive appears to be the benefit that is most frequently invoked during this form of transaction.

h) *The image of an entrepreneur*: During the investigation, a new motive emerges as a major factor in the majority of the interviewees' responses. According to several participants, the image of an entrepreneur is extremely essential to them. *"Successful feeling"*, *"I like to lead"*, *"I want to see my lodge on the top"* (Khazami & Lackner, 2021). In addition, the potential to exert leadership that comes with becoming a manager has surfaced as another aspect in our research that differs from past findings. Nonetheless, as an entrepreneur, this is an essential component of your profession.

The following were mentioned by these respondents: “*sense of freedom*”, *healthy lifestyle*”, “*satisfy our need to be autonomy to others*” (Khazami & Lackner, 2021). However, a person's psychological development, social development, and personal well-being are all dependent on meeting these demands. However, this fulfillment can only come from interacting with others in one's own social situation.

Entrepreneurs who exercise their leadership with their staff could meet these needs. Because this motivating element appears to be based on an individual's innate desires, its significance is crucial in explaining this profession decision.

An entrepreneur presents a composite agritourism product based on terroir-based tangible resources as well as, and most importantly, the valorisation of agricultural know-how. He is a master of creation and transformation's technical itineraries and gestures (from field to fork). Based on these qualitative findings, we discovered that when an entrepreneur considers himself as an actor and business owner, the projection of his future image as an entrepreneur is a natural result of the motivation process. Furthermore, the findings reveal that having a positive self-image as the sole owner of his company and the sole person accountable for its success or failure appears to be an active factor in the development of a project. Being the owner of a firm is a powerful motivator for an entrepreneur to grow personally and improve their personality. Respondents explicitly acknowledged their desire to lead their companies, and it appears to be more significant in some cases. “*it is very important for me to be the owner of my business*”, “*after years and years working as a farmer, I developed my business... be the leader of it, it is a most important pattern*” (Khazami & Lackner, 2021).

*i) Entrepreneurial innovators:* According to our findings, innovation is a source of fresh growth prospects and a driver of leadership. In this context, the value of invention serves as a motivator for the entrepreneur to give his all. The importance of entrepreneurship and innovation has been stressed, with a few notable exceptions.

Entrepreneurial innovators display both core and secondary entrepreneur characteristics. These individuals are more likely to be innovators than entrepreneurs. The status quo is never enough for an entrepreneurial innovator. They are always looking for ways to improve their processes. Innovative entrepreneurs want change, get tired of it, and are driven to take risks to bring their discoveries to market, unlike master innovators who are content with innovation in and of themselves. Entrepreneurial innovators discover market gaps and fill them with innovative business models, products, and procedures that they will personally promote. As an example of verbatim, consider the following: “*the idea of developing your business is an innovative thing ...*”, “*I got tired of working on a job that is standard for me ... I did it for years ... the same tasks ... no innovation ... the idea of developing my business is really something that pushes me every day to give the best version of myself ... to encourage the creative part of me*” (Khazami & Lackner, 2021).

### ➤ **Components of the agritourism entrepreneur business development**

We conducted field observations to better understand what agritourism is today and to determine its components. The farm's agritourism, on the other hand, is thriving. Farmers value the social interchange with tourists and the improved control of their income, according to the entrepreneurs involved, while tourists value the direct contact with producers and the discovery of producing sites. We identified two elements of the entrepreneur's participation in the development of his agritourism firm based on the interviews conducted: agritourism on-farm and agritourism off-farm. In the following sections, we will go over our qualitative findings in greater depth.

#### **--- Developing business in agritourism on- farm**

*a) Accommodation on- farm* is a popular activity, especially during the summer, accounting for up to 10-15% of overnight stays. Original and new offers, such as the “straw adventure” network

offer, which is an accommodation offer on active farms that is quite unique in both content and organization, occur from time to time. Tourists can sleep in a straw-covered barn and experience peasant hospitality and breakfast. This service, which has been developed across Tunisia, is unique, immersive, well-communicated, and reasonably priced, and hence has numerous advantages. However, in other agritourist locations, this activity is essentially non-existent, especially when the farmers are dairy breeders who spend the summer caring for animals and storing hay. *"We offer accommodation so that the visitor gets the most out of nature and enjoys agricultural activities..."* (Khazami, et al., 2020).

b) *Catering* is based on the restaurant or refreshment bar concept, is thriving in some locations. In the winter, some farmers provide food on their farm, while at the summer, they provide catering in their alpine chalet. As numerous rural lodge owners have confirmed. *"With the accommodation, our rural lodge offers other services for our clientele, namely the local gastronomy which belongs to our region"* (Khazami, et al., 2020).

c) *Farm tours* Rarely are they considered actual tourism offerings. Rather, they are occasionally asked to answer to a certain curiosity and are supplied free of charge once a week while performing an agricultural duty. Some rural resorts charge a fee for mountain pasture tours in which visitors can assist in various tasks (calling the herd, milking, making cheese). Faced with high demand from Tunisian and international tourists and tour operators, encourages operators to offer farm tours on a more frequent basis at more affordable rates. Some rural hotels reacted. *"With us, our visitors can accompany us for a tour on the farm and practice some agricultural activities ... most of them have appreciated the offer and join us with pleasure and curiosity"*.

d) *Direct farm sales* are practiced on varied scales in all territories. Opening hours are frequently restricted to only a few hours per week. *"At the end of their visits, we present to them some of our products made and produced in our premises"* (Khazami, et al., 2020).

#### **----Developing business in agritourism off- farm**

Agritourism off-farm is a new company that has emerged in conjunction with rural resorts. The interviews provide insight into several types of off-farms agritourism.

a) *Accommodation in old farms, or in folklores places*, is mentioned marginally. *"Sometimes, tourists come to our house just to spend the day discovering our activities and the activities offered by others in the region ... and at the end of the day, they prefer to stay in another area and not with us ... "* (Khazami, et al., 2020).

b) *Restaurants that offer "local" menus* are thought to be significant Some local restaurants are particularly interested. It is establishing contractual channels between farm producers and restaurateurs for the mutual benefit of both parties as well as tourists seeking these formulas. Some interviewees say it verifies their suspicions. *"In our rural lodge, we do not offer food ... for that we offer addresses of certain restaurants in the region so that our visitors can visit them"* (Khazami, et al., 2020).

c) *Agritourism off-farm tours*: cooperatives, wineries, and cheese cellars are the most common. These tours, which were originally created to attract consumers, have evolved into true tourist attractions. Tours can also take place outside and focus on the terroir's unique characteristics. Specialist guides, for example, provide "landscape readings," in which they explain the connections between soils, floral meadows, ruminants, and the flavor of cheese. *"With our activities, the tourist can make agritourism tours in the region" v.*

c) *The sale of regional products off-farm* is frequently provided by stores affiliated with cooperatives, which are popular with travelers. Markets and retailers can also provide it (producers or even general). The region, for example, promotes the sale of regional products by bringing together the players: milk, cheese, fruit, and vegetable farmers, local village markets, and traders who organize specific kiosks. *"In our area, apart from what we offer here, you can find other producers who sell their products as well ..."* (Khazami, et al., 2020).

e) *Museums*: In some locations, they play a significant role. They can be formed on a private (production cooperatives, refiners or traders, groups) or public (public-private partnerships). One interviewee said that the neighborhood had a well-known museum.

f) *Theme routes*: For some locations, they are a key draw. In certain rural locations, an old cheese trail has lately been restored and reinvigorated for visitors. *"Here, on the right, an old family factory which has been upgraded with a new concept for tourists to discover how cheese-making is done"* (Khazami, et al., 2020).

g) *The themed trails* allow the walker to go on a free exploration of the territory. They cover a wide range of topics, from short walks to hiking. Take note of the horse pathways as well. *"... yes, there are horseback rides ..."* (Khazami, et al., 2020).

h) *The themed stays* are provided by a few mountain guides who want to share their love of mountain pastures and vineyards.

i) *Events*: There are many of events, especially in the summer, and they serve a dual purpose. Internally, they equate to a regional festival that brings people together around shared beliefs. Externally, they allow for the promotion of regional products and the portrayal of a positive image of the region. Some events have a long history. *"We have a famous event here, which takes place every year in our region"*, while others have more recent *"full moon parties"* (Khazami, et al., 2020).

Agritourism, whether on or off the farm, is a virtuous circle in the end. It promotes local agriculture, preserves know-how and sceneries, and enhances the image of the region in order to attract tourists. It serves as a complement to more appealing pursuits. We found some responses from respondents that summarize the effects of running an agritourism business.

*"There are a lot of things to develop in terms of agricultural tourism, such as farm visits or highly successful snacks. They make it possible to attract tourists in all seasons, which is valuable"*

*"Agriculture-related tourism is too little exploited. It brings a huge image benefit to the territory. It refers to a certain ideal of life. We are a real village, with a life for the year"*

*"Cheese is clearly a major part of our identity, it is a vector of innovation and differentiation. The potential is considerable, but it requires mediation work "*

*"We can still enhance our agriculture, we have real products, real know-how. Some foreign tour operators include farm tours in their packages. For them, these small mountain farms are extraordinary "*

*"Tourists take part in traditional festivals in large numbers, it's a real craze. We also want to promote restaurants that use local products and allow easy identification "* (Khazami, et al., 2020)

Qualitative study was used to confirm the applicability of the concepts given in the conceptual model and to determine the elements influencing an agritourism entrepreneur's decision to

develop their rural region in Tunisia. This research revealed the importance of "social capital" in the establishment of an entrepreneur's social identity and the determination of their social incentive to grow their business (See figure 19). The introduction of two factors as social incentive triggers, "the image of the entrepreneur" and "Entrepreneurial innovators," is a plus for our research. To the best of our knowledge, the literature on social motivation has not emphasized these two notions, which are the focus of this qualitative study. Also, the new two concepts related to the social identity of an entrepreneur: "Personality traits specific to entrepreneurship" and " Entrepreneurial Orientation" appeared as strength on the social identity research (See Appendix 6).

The subjectivity of analysis is the limit of our effort. Furthermore, our qualitative research has revealed that additional factors such as perceived danger, emotions, and others might influence the agritourism entrepreneur's views on the growth of their rural region. However, because the goal was not to include all the variables that could influence the entrepreneur, we limited ourselves to those that we thought were more relevant for our research in order to strengthen the conceptual model's predictive control.

#### **4.2. Development of conceptual model**

Numerous transcribing works in the postmodern approach favor inductive rather than deductive, and qualitative rather than quantitative currents. For some, they propose to contemplate a "new generation" of qualitative methods better adapted to the field of capital (Andréani & Conchon , 2005). Notwithstanding, we prefer to take a more mixed method. As a result, we believe that it is possible to consider a framework and research model that integrates approaches. Our work is part of the hypothetic-deductive perspective. Therefore, the next paragraph aims to define and explain the variables used for our research model, which should make it possible to study the role played by social entrepreneurial factors in the context of agritourism businesses. Indeed, the next paragraph deals the clarification of the key variables of our model. As a result, we will focus on the relationships between the variables in our research and the proposed conceptual model.

##### ***The social factors of entrepreneurs on the participation in the development of business in agritourism***

- ***Social motivation as a social factor on the participation in the development of business in agritourism***

Motivation, according to Carsrud and Brannback (2011), is the link between an entrepreneur's intentions and actions. Other research, such as those conducted by Kuratko et al. (1997), back up these findings by demonstrating a link between entrepreneur motivation and company performance. The "entrepreneurial aims" are what the entrepreneurial impulses attempt to achieve. Financial rewards, independence and autonomy, and family safety, according to Kuratko et al. (1997), are the three types of motivators. Finally, there are four types of entrepreneurial motivations: money, recognition, freedom, and family tradition (such as the drive to continue the family firm) and emulate family members. Entrepreneurial success may be influenced by motivational elements such as encouragement from family and friends, talents, and economic situations.

- ***Functional competencies as a social factor on the participation in the development of business in agritourism***

Several studies have looked into the impact of entrepreneurial skills on the success of businesses. Entrepreneurial competencies, technical-functional skills, and management competencies are the

three categories of competencies identified by Chandler and Jansen (1992). These three areas of abilities, according to authors like Gupta and Mirchandani (2018), are necessary for achieving entrepreneurial success. The entrepreneur's experience has an impact on the company's success. In a similar vein, Gupta and Mirchandani (2018) found that experience is an important factor in determining success. Having prior experience in the same industry as the newly formed company improves the chances of success and survival. They do, in fact, give practical (organization, team management) and technical competencies, which are critical to a company's success. According to several studies, an entrepreneur's previous work experience in the same industry as their new business has a major impact on performance. Business experience, according to Sajilan and Tehseen (2015), has a beneficial impact on the success of a new business. Furthermore, the consequences of previous experiences represent the concept of common sense, and entrepreneurs will be able to perform better if they have prior knowledge about buyers and suppliers, as well as their environment. In other studies, the link between prior experience and entrepreneurial success is shown to be minimal (Kor & Mesko, 2013). According to Sapienza et al. (2004), the degree of similarity between the new and previous firms has a detrimental impact on performance. The new business, on the other hand, builds on existing competences without innovating in entrepreneurial, managerial, or technological competencies, which all contribute to success. Aldrich et al. (1987) found that good network management (overdraft facilities, assistance, and intervention to resolve administrative issues) has a beneficial impact on corporate growth.

- *Social identity as a social factor on the participation in the development of business in agritourism*

In the field of identity studies, social identity theory has emerged as a prominent theoretical lens (Stets & Burke, 2000). It is only recently that it has been applied to entrepreneurship study (Fauchart & Gruber, 2011; Powell & Baker, 2014). While various studies have shown that one's identity can be a major predictor of entrepreneurial decisions and actions (Conger, et al., 2012). Only a few research have looked into social identity and entrepreneurship. Franke et al. (2006) employ social identity theory to increase the understanding of venture capital decision making, which is the first research contribution we were able to find (VC). They employ this lens as the theoretical foundation for their "likeness hypothesis" in venture capital decision-making, in particular (e.g., they argue and find support for the idea that Venture capital firms will rate venture teams that have a profile similar to the one they have more favorably). Fauchart and Gruber (2011) propose an alternative approach, focusing specifically on entrepreneurs' social identities and how these identities influence the establishment of new enterprises in different ways. Based on the fact that social identity theory allows for a specific reassessment of an individual, and that social identity is vital for an individual's feelings, values, beliefs, and actions (Hogg & Terry, 2000). They investigate the origins of social identities and how they influence business behaviors and activities using social identity theory. Their study identifies three pure types of founding social identities – labeled "Darwinian," "community," and "missionary" social identities – as well as hybrid forms that exhibit characteristics of these primary types, using a systematic identity assessment approach social identity drawn from the theory of social identity. They examine the variation in (1) their social motive to establish a firm, (2) how they view themselves as founders, and (3) their frame of reference (other relevant ones) while deciding their behavior and actions to identify the heterogeneity of the founders' social identities. Their article not only identifies the pure (and hybrid) forms of social identities of the founders stated above, but it also shows that founders with diverse social identities establish new enterprises in ways that are compatible with their own individual designs. To put it another way, founders of diverse social identities not only have structurally different views of what it means to be an entrepreneur, but these self-conceptions also have a substantial influence on how they act and behave while establishing their business (Fauchart & Gruber, 2011). Powell and Baker (2014) analyze how and why the founder's identity can affect strategic reactions to specific circumstances, taking a parallel perspective to Fauchart

and Gruber (2011). They contend that entrepreneurs' behaviors and activities are influenced by their social identities and role-related self-views (their role identities), and that founders' role identities are a complement and manifestation of their social identities. Powell and Baker (2014) seek to know how the founder's many identities can have opposing consequences for how he should conduct his business. Powell and Baker (2014), for example, show that a particular role of identity can restrain behaviors and activities that would be dictated to an individual by his social identity based on self-descriptions. When this new research is combined, it suggests that using a social identity lens to better understand founders, their behaviors, and activities in the establishment and development of new enterprises can be beneficial. However, as the field of entrepreneurship becomes more interested in social identity, systematic efforts to quantify social identities as a trigger for engagement in business development are limited.

- ***Social capital as a social factor on the participation in the development of business in agritourism***

The ability of an entrepreneur's social capital to engage successfully with others and adapt to new situations in order to create strategic partnerships and capture commercial opportunities is referred to as their social capital. According to Baron and Markman (2003), an entrepreneur's social capital has a favorable impact on his or her business performance.

As a result, the hypotheses described in the introduction have been created based on this finding.

- ***The social innovation as a moderator variable***

The fifth and final component of social entrepreneurship is social innovation. Traditional social service delivery is distinguished by a non-traditional and innovative approach to social entrepreneurship (Nicholls & Cho, 2008). As a result, many authors consider it to be an important part of social entrepreneurship (Peredo & McLean, 2006; Nicholls & Cho, 2008).

Peredo and McLean (2006, p.64) define social entrepreneurship as part of the use of innovation, whereas Dees (1998a, p.4) proposes that social entrepreneurs engage in "a process of continual innovation." According to some authors, social entrepreneurship is a "innovation activity that creates social benefit" (Austin, et al., 2006), that it permits the "development of new models" (Seelos & Mair, 2005) and that a finite "innovative approach" is a constitutive aspect (Nicholls, 2008).

Change is inextricably tied to the concept of innovation. As a result of this finding, entrepreneurship necessitates innovation (Swedberg, 2000) and entrepreneurs are the innovators who have brought about all of the major economic improvements. Furthermore, social entrepreneurs are seen as social innovators who bring about significant societal change (Mair, et al., 2012), a sustainable social transformation (Alvord, et al., 2004) and a fundamental change (Martin & Osberg, 2007). As a result, social entrepreneurship is sometimes referred to as "stockbrokers" (Sharir & Lerner, 2006). In the literature, the role of social innovations as a vector of change and social transformation has received a lot of attention. Based on our findings, we believe that social innovation is an essential component of social entrepreneurship. On the one hand, it is highly regarded, while on the other, it contributes to the concept's complexity.

Individual social entrepreneurs are constantly scrutinized considering social innovation (Bacq & Janssen, 2011). Often, it is the social entrepreneur who considers change, develops strategies, and implements social innovations (Choi & Majumdar, 2014).

As a result of what was stated in the preceding paragraph, hypothesis H10 was created (page 9).

Finally, we discussed the various concepts and research assumptions that we employ in developing our model (See figure 20). Our conceptual model's usage of explanatory variables is justified by the features of our research object (agritourism):



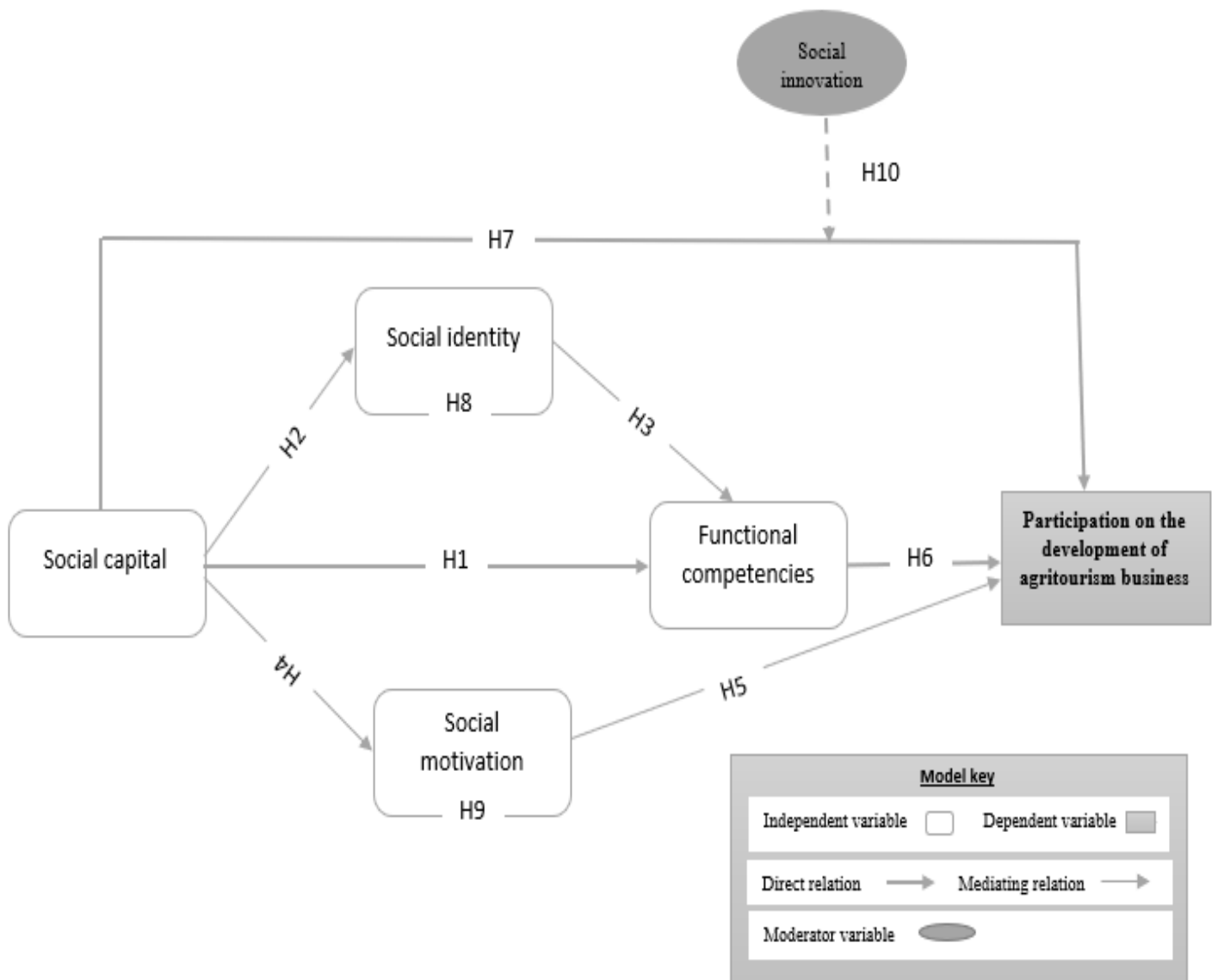


Figure 20. Proposal of a preliminary conceptual model

### 4.3. Results of Exploratory Factor Analysis

Factor analysis was carried out using the SPSS version 26 program. An exploratory factor analysis was performed on a sample of 100 participants. A principal component analysis and varimax rotation were used to create an EFA. The factor loading threshold was set at 0.50. To verify acceptable levels of explanation, the communality of the scale, which measures the amount of variance in each dimension, was also tested. Except for five items, all communalities were more than 0.50. Table 9 shows the preliminary results of exploratory factor analyses of the measurement scale.

Bartlett's Test of Sphericity, which provides a measure of the statistical probability that the correlation matrix has substantial correlation among some of its components, was used to quantify the overall importance of the correlation matrix. The results were substantial, with  $X^2 (n= 100) = 302,252$  ( $p < 0.001$ ), indicating factor analysis appropriateness. The Kaiser-Meyer-Olkin (KMO) sampling adequacy score was 0.748, indicating that the data was suitable for factor analysis. Data with KMO values greater than 0.700 are considered suitable for factor analysis. Finally, the factor solution produced from this research resulted in sixth components for the scale, accounting for 85.355 percent of the data variation.

Table 9. Preliminary Results of Exploratory Factor Analyzes of the Measurement Scale

Variables	Dimensions	Items	Communalities	Eigenvalue	Rotated factor loadings	Cronbach's Alpha
Social capital of entrepreneur	Structural social capital	SCS1	.757	2.310	.850	.845
		SCS2	.850		.796	
		SCS3	.868		.906	
	Relational social capital	SCR4	.702	2.786	.838	.851
		SCR5	.736		.632	
		SCR6	.864		.807	
		SCR7	.676		.608	
	Cognitive social capital	SCC8	.774	2.509	.824	.902
		SCC9	.862		.716	
		SCC10	.716		.602	
KMO = .882		Test of Bartlett: Significant		p < 0.001	α of the scale: .945	
Total variance 78.056 %						

		SID1	.922	2.675	.956	.829	
	<b>Darwinian</b>	SID2	.926		.718		
	<b>identity</b>	SID3	<u>.227</u>		.459		
		SID4	.898		.943		
<b>Social Identity of entrepreneur</b>		SIC5	.595	1.948	.737	.729	
	<b>Communitarian identity</b>	SIC6	.913		.708		
		SIC7	.863		.912		
	<b>Missionary identity</b>	SIM8	.878	2.913	.918	.865	
		SIM9	<u>.219</u>		.419		
		SIM10	.829		.888		
		SIM11	.927		.959		
	KMO = .865	Test of Bartlett: Significant			P <0.001	α of the scale: .939	
	Total variance 74.519 %						
	<b>Social motivation of entrepreneur</b>		SM1	.729	1.267	.725	.896
			SM2	.616		.775	
		SM3	.962		.938		
		SM4	.633		.625		
		SM5	.657		.609		
		SM6	.806		.782		
		SM7	.640		.670		
		SM8	.638		.789		
		SM9	.833		.855		
		SM10	.952		.936		
		SM11	.958		.937		
	KMO= .812	Test of Bartlett: Significant			p <0.001		
Total variance 76.583%							
<b>Functional competenci</b>		FC1	.691	1.219	.752	.683	
		FC2	.683		.804		
		FC3	.522		.554		
		FC4	.633		.671		
		FC5	<u>.481</u>		.646		
		FC6	.553		.729		

<i>es of entreprene ur</i>	FC7	<u>.493</u>		.557	
	FC8	.713		.807	
	FC9	.820		.901	
	KMO= .659		Test of Bartlett: Significant		p
<0.001					
Total variance 62.090%					
<i>Social innovation</i>	SINN1	.917	2.679	.959	.940
	SINN2	.921		.960	
	SINN3	.841		.841	
	KMO= .743		Test of Bartlett: Significant		
P<0.001					
Total variance 89.259%					
<i>Agritouris m developmen t</i>	ADOFF	.695	1.328	.833	.755
	1	.857		.833	
	<b>Agritourism</b>	ADOFF	.974		.986
	<b>development</b>	2	<u>.352</u>		.562
	<b>of farm</b>	ADOFF	.859		.927
		3	.795		.866
		ADOFF	.784		.703
		4	.690		.817
		ADOFF	.726		.834
		5			
		ADOFF			
		6			
		ADOFF			
		7			
		ADOFF			
	8				
	ADOFF				
	9				
	ADONN	.977	3.841	.987	.986
<b>Agritourism</b>	1	.967		.982	
<b>development</b>	ADONN	.829		.904	
<b>on farm</b>	2	.972		.985	

ADONN			
3			
ADONN			
4			
KMO= .845	Test of Bartlett: Significant	p <0.001	α of the
scale: .898			
Total variance 80.599%			

Nonetheless, five items (SI3, SI9, FC5, FC7, and AD4) failed to load appreciably on any dimension in this initial EFA. As a result, these items were excluded from further investigation. The EFA was repeated by the author without these components. The results of this new investigation confirmed the theoretically described structure of the sixth element in the research (see table). The KMO (Kaiser-Meyer-Olkin) coefficient was 0.757. The sixth factors accounted for 85.516 percent of the variance among the study's items. The results of the Bartlett's Sphericity Test were significant, with all communalities exceeding the required value of 0.500. The sixth component found as part of this EFA corresponded to the research's theoretical proposition. Factor 1 has Social Capital (SC) items SC1 to SC10, whereas Factor 2 contains Social Identity (SI) items SI1 to SI11 (SI). Items SM1 to SM11 in Factor 3 refer to Social Motivation (SM). Items FC1 to FC9, signifying Functional Competencies, make up Factor 4 (FC). SINN1 to SNN3, referring to Social Innovation, is the fifth factor (SINN). Finally, component 6 brings together 12 items ranging from AG1 to AG13, which indicate the growth of the agritourism industry (AG). The factor loadings are shown in the table below (See table 10).

Table 10. Factor Analysis Results After Elimination of Items with Low Factor Loadings

Variables	Dimensions	Items	Communalities	Rotated factor loadings	Cronbach's Alpha
<b>Social capital of entrepreneur</b>	<b>Structural social capital</b>	SCS1	.757	.850	.845
		SCS2	.850	.796	
		SCS3	.868	.906	
	<b>Relational social capital</b>	SCR4	.702	.838	.851
		SCR5	.736	.632	
		SCR6	.864	.807	
		SCR7	.676	.608	
	<b>Cognitive social capital</b>	SCC8	.774	.824	.902
		SCS9	.862	.716	
		SCC10	.716	.602	
SS loadings= 1.031		KMO = .882	α of the scale= .945	Test of	
Bartlett= Significant		p <0.001			

Total variance 78.056 %					
		SID1	.937	.896	.892
	<b>Darwinian</b>	SID2	.940	.910	
	<b>identity</b>	SID4	.911	.881	
		SIC5	.585	.749	.729
<b>Social</b>	<b>Communitarian</b>	SIC6	.947	.945	
<b>Identity of</b>	<b>identity</b>	SIC7	.865	.894	
<b>entrepreneur</b>		SIM8	.879	.904	.949
	<b>Missionary</b>	SIM10	.835	.885	
	<b>identity</b>	SIM11	.941	.896	
SS loadings= 1.142		KMO = .859	$\alpha$ of the scale= .956	Test of	
Bartlett= Significant		p <0.001			
Total variance 87.095 %					
		SM1	.729	.725	.896
		SM2	.616	.775	
		SM3	.962	.938	
		SM4	.633	.625	
<b>Social</b>		SM5	.657	.609	
<b>motivation</b>		SM6	.806	.782	
<b>of</b>		SM7	.640	.670	
<b>entrepreneur</b>		SM8	.638	.789	
		SM9	.833	.855	
		SM10	.952	.936	
		SM11	.958	.937	
SS loadings= 1.267		KMO= .812	$\alpha$ of the		
scale= .896					
Test of Bartlett= Significant			p <0.001		
Total variance 76.583%					
		FC1	.652	.740	.701
		FC2	.738	.855	
<b>Functional</b>		FC3	.593	.529	
<b>competencies</b>		FC4	.740	.825	

<i>of entrepreneur</i>	FC6	.881	.931		
	FC8	.850	.886		
	FC9	.806	.877		
SS loadings= 1.073		KMO= .669		$\alpha$ of	
the scale= .701					
Test of Bartlett= Significant				p <0.001	
Total variance 75.160%					
<i>Social innovation</i>	SINN1	.917	.959	.940	
	SINN2	.921	.960		
	SINN3	.841	.841		
SS loadings= 2.679		KMO= .743		$\alpha$ of	
the scale= .940					
Test of Bartlett= Significant				p <0.001	
Total variance 89.259%					
<i>Agritourism development</i>	ADOFF1	.706	.825	.728	
	ADOFF2	.860	.904		
	<b>Agritourism</b>	ADOFF3	.977	.979	
	<b>development of</b>	ADOFF5	.871	.922	
	<b>farm</b>	ADOFF6	.792	.816	
		ADOFF7	.805	.801	
		ADOFF8	.675	.821	
		ADOFF9	.739	.832	
		ADONN1	.977	.975	.986
		<b>Agritourism</b>	ADONN2	.966	.972
	<b>development on</b>	ADONN3	.833	.900	
	<b>farm</b>	ADONN4	.974	.974	
SS loadings= 1.009		KMO= .870		$\alpha$ of the scale= .896	
Bartlett= Significant		p <0.001		Test of	
Total variance 84.798%					

The goal of this part was to operationalize variables of agritourism sector development related to social factors of entrepreneurship. A review of the literature was used to develop a measurement scale, which was then compared to the findings of the qualitative investigation. Some measurement scales have undergone development or modification, resulting in item reformulations or deletions.

The pre-test also allowed for more precise comprehension and consequently validation of the experimental settings. The use of factor analyses allowed the scale to be purified, its dimensionality studied, and its psychometric quality verified.

The next stages will provide a better understanding of the measurement model's quality and adequacy by investigating the construct's reliability and validity, specifically convergent and discriminant validity, as well as putting the hypothesized relationships between the variables to the test through structural model analysis. In this case, confirmatory factor analysis (CFA) was used to assess the measurement model's suitability, followed by a Structural Equation Model (SEM) analysis to corroborate the structural model. PLS-SEM was used to investigate the moderating role of 'social identity' and 'social motivation'.

➤ **Construction of the measurement model**

The prediction between the latent variables and their measurement indicators is represented by the measurement model. As a result, it's a question of the structural model, with manifest variables linking to latent variables that make up the conceptual model. Figure 21 depicts a diagram of the measurement model, which includes the interconnected variables and their various dimensions and measurement items.

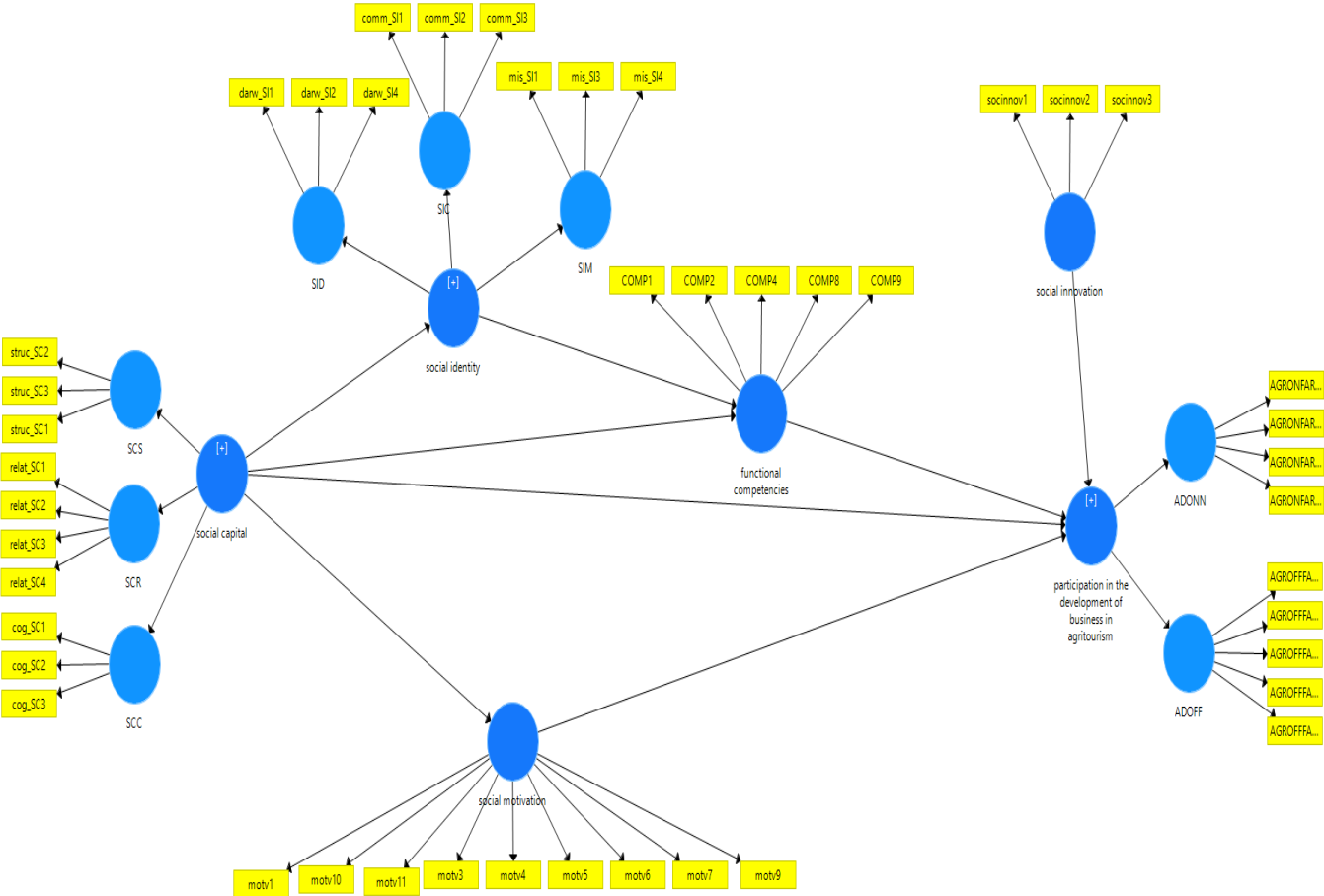


Figure 21. Diagram of the measurement model



## **Estimation of the measurement model**

The primary goal of estimating the measurement model is to ensure that the constructs are correctly represented. As a result, it is advisable to check the validity and reliability of the construct measures by ensuring that the indicators accurately depict them. Our constructs' measuring scales are reflective in character. However, by assigning the results within the framework of our investigation, we show the approach for evaluating the measurement scales of the constructs estimated by the PLS-SEM method.

### **➤ Verification of the reliability and validity of the model measurements:**

To analyze internal consistency, we use the software SmartPLS3 and its PLS method calculation commands to verify the composite reliability, the reliability of the indicators (items reliability), and the Cronbach's Alpha index, as recommended by Hair et al (2017). Indeed, the indicator of internal consistency, namely the composite reliability coefficient, which represents the construct in terms of item correlation, must normally be larger than (0.7) and less than (0.95), with a tolerance of a minimum threshold of 0 (0.6) (Hair & al., 2017). Cronbach's alpha, which is concerned with the correlation of items and their representativeness of the same construct, must also have a value larger than 0. (0.7). The indicators' dependability affects the items of the structures, and it may be verified using the indicators' external loads (outer loading). Items with low loading factor values (factor loading 0.4 or less) should be deleted, according to Hair et al (2017). A minimal item loading of (0.4) is accepted, whereas items with loadings between (0.4) and (0.7) must be eliminated after assessing their impact on the improvement of the indicators (CR) and the average of the extracted variance (AVE). By examining the loading of the indicators, we identified some items with low loading values (<0.5). We proceeded by deleting them one by one, starting with the item that represents the value of the lowest factor loading and verifying its impact on the scale's dependability, as recommended by Hair et al (2017). The reliability indicators of the CR and AVE scales were improved when seven items (SM2, SM8, FC3, FC6, ADOFF2, ADOFF6, ADOFFF7) were eliminated. Following the model's purification, we verified the loading as well as the CR and AVE indices, which revealed that the indicators all had loadings larger than (0.7), and that the measurement scales all had good internal consistency with CR values greater than (0.6) and less than (0.95). (See table 11).

One of the most significant metrics of dependability in PLS SEM models is Rho A. It calculates the squared correlation between the construct score and an unknown score or the genuine construct score. The required minimum score for Rho A is 0.7 (Henseler, et al., 2014).

Table 11. PLS-SEM assessment results of reflective measurement models

Constructs	Dimensions	Indicators	Loadings	*Cronbach's Alpha	Rho_A	Composite Reliability
				<b>0.945</b>	<b>0.952</b>	<b>0.954</b>
<i>Social capital</i>	<i>Structural capital</i>	<i>SCS1</i>	<b>0.887</b>	<i>0.847</i>	<i>0.848</i>	<i>0.908</i>
		<i>SCS2</i>	<b>0.802</b>			
		<i>SCS3</i>	<b>0.735</b>			
	<i>Relational capital</i>	<i>SCR1</i>	<b>0.585</b>	<i>0.851</i>	<i>0.876</i>	<i>0.900</i>
		<i>SCR2</i>	<b>0.850</b>			
		<i>SCR3</i>	<b>0.891</b>			
		<i>SCR4</i>	<b>0.831</b>			
	<i>Cognitive capital</i>	<i>SCC1</i>	<b>0.819</b>	<i>0.902</i>	<i>0.907</i>	<i>0.939</i>
		<i>SCC2</i>	<b>0.929</b>			
<i>SCC3</i>		<b>0.842</b>				
				<b>0.954</b>	<b>0.984</b>	<b>0.960</b>
<i>Social identity</i>	<i>Darwinian identity</i>	<i>SID1</i>	<b>0.935</b>	<i>0.889</i>	<i>0.915</i>	<i>0.933</i>
		<i>SID2</i>	<b>0.815</b>			
		<i>SID4</i>	<b>0.924</b>			
	<i>Communitarian identity</i>	<i>SIC1</i>	<b>0.685</b>	<i>0.727</i>	<i>0.754</i>	<i>0.846</i>
		<i>SIC2</i>	<b>0.751</b>			
		<i>SIC3</i>	<b>0.871</b>			
	<i>Missionary identity</i>	<i>SIM1</i>	<b>0.875</b>	<i>0.949</i>	<i>0.951</i>	<i>0.967</i>
		<i>SIM3</i>	<b>0.847</b>			
		<i>SIM4</i>	<b>0.939</b>			
<i>Social motivation</i>		<i>SM1</i>	<b>0.743</b>	<i>0.914</i>	<i>0.944</i>	<i>0.929</i>
		<i>SM3</i>	<b>0.893</b>			
		<i>SM4</i>	<b>0.746</b>			
		<i>SM5</i>	<b>0.770</b>			
		<i>SM6</i>	<b>0.743</b>			

		<i>SM9</i>	<b>0.714</b>			
		<i>SM10</i>	<b>0.888</b>			
		<i>SM11</i>	<b>0.891</b>			
		<i>FC1</i>	<b>0.827</b>	<i>0.788</i>	<i>0.847</i>	<i>0.847</i>
<b>Functional competencie s of entrepreneu r</b>		<i>FC2</i>	<b>0.775</b>			
		<i>FC4</i>	<b>0.828</b>			
		<i>FC8</i>	<b>0.642</b>			
		<i>FC9</i>	<b>0.560</b>			
		<i>SI1</i>	<b>0.965</b>	<i>0.940</i>	<i>0.985</i>	<i>0.961</i>
<b>Social innovation</b>		<i>SI2</i>	<b>0.969</b>			
		<i>SI3</i>	<b>0.896</b>			
				<i>0.977</i>	<i>0.980</i>	<i>0.981</i>
		<i>ADONN1</i>	<b>0.987</b>	<i>0.986</i>	<i>0.988</i>	<i>0.990</i>
<b>Agritourism development</b>	<b>on farm</b>	<i>ADONN2</i>	<b>0.983</b>			
		<i>ADONN3</i>	<b>0.909</b>			
		<i>ADONN4</i>	<b>0.986</b>			
		<i>ADOFF1</i>	<b>0.839</b>	<i>0.938</i>	<i>0.945</i>	<i>0.954</i>
<b>Agritourism off farm</b>	<i>ADOFF3</i>	<b>0.988</b>				
	<i>ADOFF5</i>	<b>0.933</b>				
	<i>ADOFF8</i>	<b>0.815</b>				
	<i>ADOFF9</i>	<b>0.842</b>				

\*Jöreskog's (1971) composite reliability

The extracted mean variance (AVE) was investigated further to study convergent validity, which gives and indicates how the underlying concept explains more than half of the variance in its elements, suggesting that the construct converges to its indicators (Hair & al., 2017). The AVE values of the compositions analyzed were higher than the required value of 0.50, indicating that the construct explains more than 50% of the variance in its indices (elements). As a result, the converge validity has been achieved.

After demonstrating reliability and convergent validity, it was decided to assess the discriminant validity of the combinations studied that should be specified in the model as well as the empirical difference from other formulations using the most recommended and popular criterion of Fornell and Larcker (1981) rather than the less rigorous cross-loading approach (Hair & al., 2017). According to Fornell and Larcker (1981), each construct's correlation values must be smaller than the square root of the AVE. In other words, the technique compared each structure's AVE to the

quadratic correlation (a measure of covariance) that constructs with all other model combinations. We summarized the different results in appendix 7 as part of our research and for analysis, highlighting and revealing that all the square roots of the AVE values of the reflective constructions studied (e.g., diagonal values) are higher structural correlations (e.g., diagonal off-matrix values), indicating that the single specified construct has no covariance with any other construct greater than its AVE value, confirming and demonstrating the distinction of p (See appendix 7).

➤ **Heterotrait-monotrait ratio (HTMT):**

We evaluated the H ratio in two parts, as per Hair et al. (2017, 2019) guidelines: first, we checked the values of HTMT based on the output of the PLS algorithm, which must be less than (0.85). The HTMT values provided by the Bootstrap procedure output were checked in the second stage. We verified that the HTMT values are within their appropriate confidence intervals (CI = 0.95), indicating that there is no cross-correlation concern.

Table 12. Results of the HTMT value- Discriminant validity

	<b>Agritourism development</b>	<b>Functional competencies</b>	<b>Social capital</b>	<b>Social identity</b>	<b>Social innovation</b>	<b>Social motivation</b>
<b>Agritourism development</b>	-	-	-	-	-	-
<b>Functional competencies</b>	0.840	-	-	-	-	-
<b>Social capital</b>	0.432	0.469	-	-	-	-
<b>Social identity</b>	0.736	0.650	0.465	-	-	-
<b>Social innovation</b>	0.159	0.169	0.070	0.123	-	-
<b>Social motivation</b>	0.482	0.692	0.566	0.336	0.080	-

Table 12 shows that all HTMT<sub>.90</sub> values ranged from 0.840 (FC->AG) to 0.070 (SINN -> SC), with 0.840 being the highest and 0.070 being the lowest.

➤ **HTMT as a statistical test (HTMT<sub>inference</sub>)**

The largest upper confidence interval limit for HTMT inference is .958, which is less than 1, indicating that the value one is outside the interval's range. This indicates that the two conceptions are empirically different. As a result, we conclude that discriminant validity between the various pairs of reflective constructs has been established (See table 13).

Table 13. Heterotrait- Monotrait Ratio (HTMT)

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>5.0%</b>	<b>95.0%</b>
Functional competencies -> Participation in the development of agritourism business	0.963	0.963	0.928	0.999
Social capital -> Functional competencies	0.470	0.482	0.286	0.697
Social capital -> Participation in the development of agritourism business	0.441	0.444	0.272	0.608
Social identity -> Functional competencies	0.715	0.714	0.603	0.811
Social identity -> Participation in the development of agritourism business	0.802	0.801	0.715	0.874
Social identity -> Social capital	0.491	0.495	0.335	0.645
Social innovation -> Functional competencies	0.169	0.218	0.102	0.377
Social innovation -> Participation in the development of agritourism business	0.157	0.170	0.037	0.345
Social innovation -> Social capital	0.048	0.110	0.040	0.226
Social innovation -> Social identity	0.112	0.148	0.062	0.286
Social motivation -> Functional competencies	0.665	0.673	0.541	0.801
Social motivation -> Participation in the development of agritourism business	0.455	0.464	0.310	0.608
Social capital -> Social motivation	0.575	0.580	0.440	0.711
Social motivation -> Social identity	0.369	0.374	0.201	0.539
Social motivation -> Social innovation	0.085	0.148	0.076	0.264

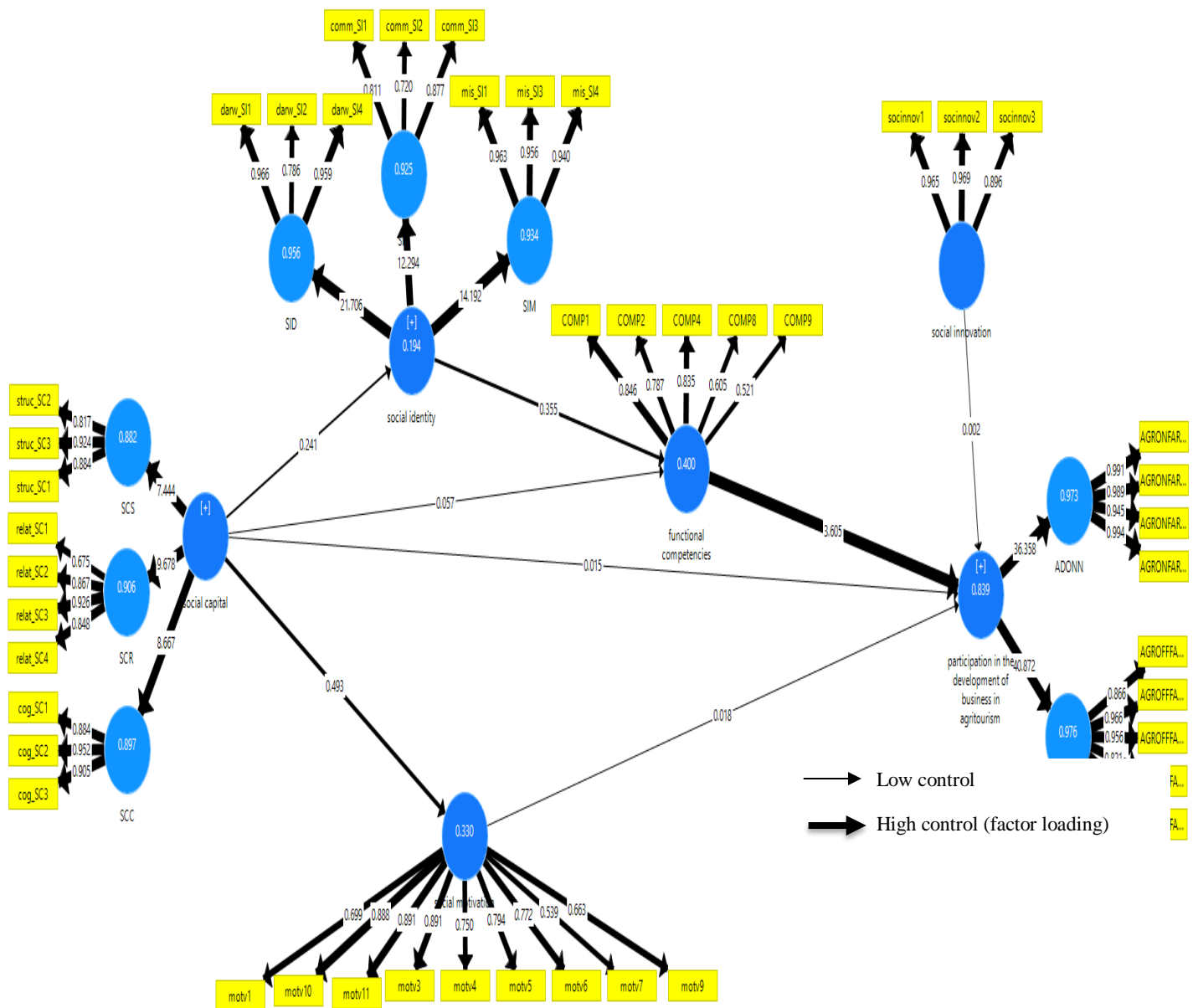


Figure 22. Measurement model evaluation (legend: factor loading in bold)

We evaluated the structural model (internal model) and tested whether the relations hypotheses between the constructs studied are significant and meaningful after checking the required psychometric properties and estimation of the measurement model, indicating that the measurement model's quality is satisfactory (See figure 22). An initial assessment of the structural model and associated statistics relating to model quality were established for this purpose using the following criteria: coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ), and path coefficients (Hair & al., 2017). In fact, unlike the CB-SEM, which focuses on other criteria to verify the model's quality, we must examine and analyze the explained variance as a measure of the model's fit in the PLS-SEM. Prior to using the structural model, it was checked for potential collinearity between construction indicators.

## **Estimation of the structural model**

There are a set of criteria that allow a heuristic evaluation with the PLS-SEM method on the PLS software in order to assess the structural model's capacity to predict endogenous variables. The estimating process as well as the various outcomes obtained are presented in the next section.

### ➤ **Procedure for estimating the structure model with PLS**

In order to appropriately analyze the structure model, five crucial criteria must be validated, according to Haier et al (2017, 2019). These are the criteria:

- The coefficient of determination  $R^2$
- The size effect  $f^2$
- The predictive relevance  $Q^2$
- The effect of the size  $q^2$
- Tests of the significance of structural links by the Path coefficient (p- value)

It is vital to note that using these indicators to assess the fit of the global model is not possible. According to some academics, the GoF's F-index (goodness-of-fit index) fulfills this goal. This strategy, however, has been widely criticized and debated, owing to its inability to determine the model's validity. As a result, the FIT indicator (RMSR) is utilized to assess the structural model's fit.

### ➤ **Assessment of the collinearity problems of the model**

Before proceeding to the evaluation of the structural model in terms of estimation error, it is necessary to examine the collinearity of the constructs. By recognizing the collinearity problem, independent variables are examined. The membership of two or more indicators in the same block expressing the same information, as in the case of a redundancy of indicators utilized as a single object for the assessment of numerous concepts, is the problematic form of collinearity. The variance inflation index "VIF" can be used to determine whether or not a collinearity problem exists. As a result, the Smart PLS software allows us to obtain multi-collinearity results via the "VIF" values. The VIF indicator must have values larger than 5 (tolerance threshold 0.20), and the variables and indicators must have values less than (0.5). Hair et al., (2017) suggest that these collinearity issues can be solved by removing the problematic construct, merging the independent variables into a single variable, or transforming a higher order variable. The constructions in our model are reflective in nature and have the property of being interchangeable, as seen by the VIF values exhibiting values less than 3 (See table 14). As a result, we preserved our existing structures without making any changes.

Table 14. Evaluation of the Variance Inflation Factor (VIF)

	<b>Agritourism development</b>	<b>Functional competencies</b>	<b>Social capital</b>	<b>Social identity</b>	<b>Social innovation</b>	<b>Social motivation</b>
<b>Agritourism development</b>	-	-	-	-	-	-
<b>Functional competencies</b>	2.368	-	-	1.237	-	1.237
<b>Social capital</b>	1.642	1.000	-	1.237	-	1.237
<b>Social identity</b>	1.991	-	-	-	-	-
<b>Social innovation</b>	1.024	-	-	-	-	-
<b>Social motivation</b>	1.844	-	-	-	-	-

➤ **Assessment of the relevance and significance of the structural model**

Given the exploratory nature of our study, we performed the resampling procedure via the Bootstrapping processing on the SmartPLS3 software with a confidence interval of 10% to evaluate the causal relationships of the model's constructs. The indicator p-value representing the probability of error allows us to confirm or deny the existence of a relationship between the variables, as shown in figure 23. Indeed, we can only assume that a relationship exists and that it is significant when it does and when it is significant for a maximum level of error of 5% (The relation exists at 95 percent).



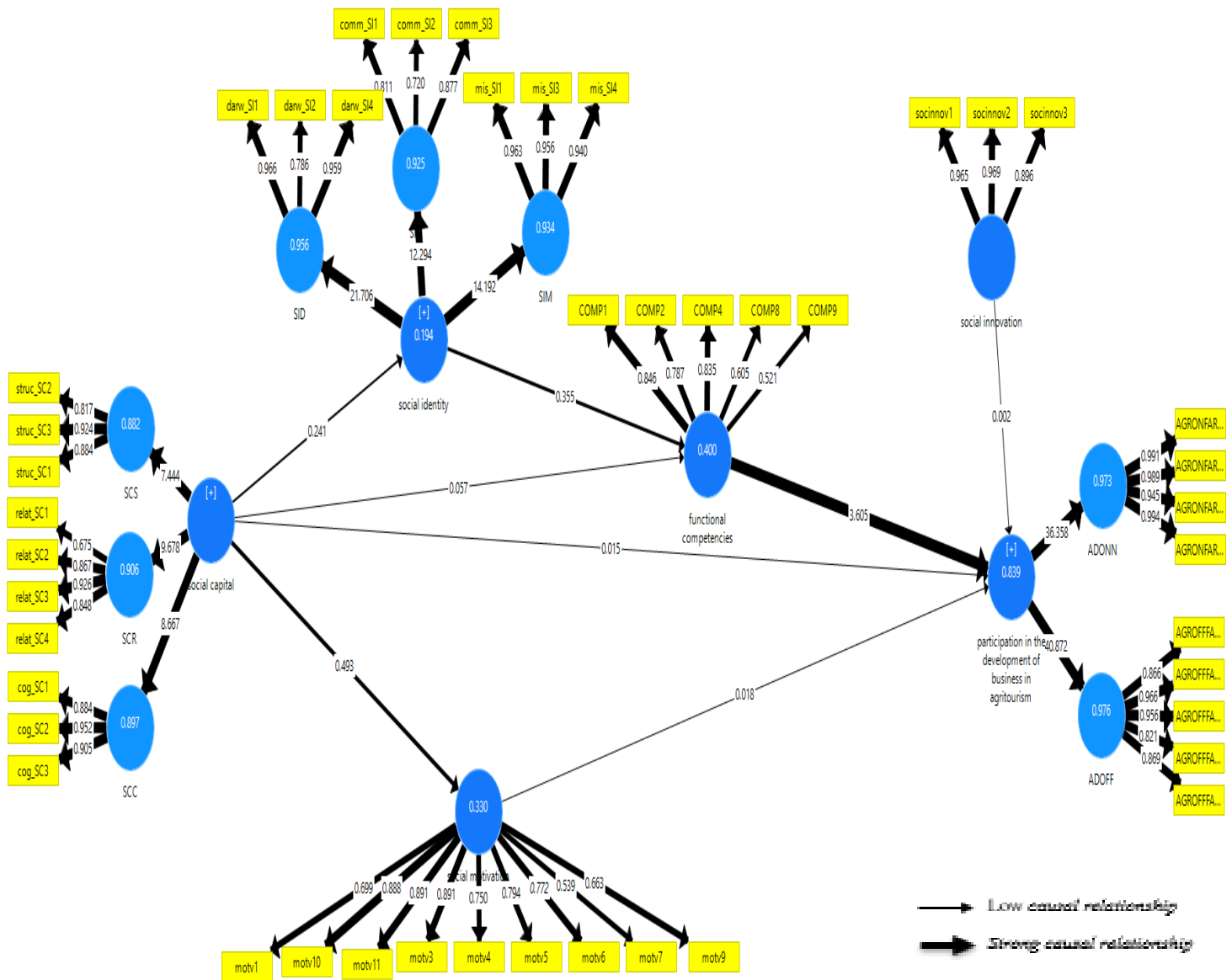


Figure 23. Estimation of the conceptual model (legend: Bootstrap output of the constructs with their correlation coefficients (path coefficient) and (p- value) and in bold the arrows representing a strong causal relationship

## Evaluation of relational links

The correlation coefficient ( $\beta$ ) as well as the value of the index educate us about the importance as well as the direction of the causal relationship between the constructs that progress in the same direction when we observe positive and significant coefficients (p- value). Given the exploratory nature of our study, all of the relationships in our model are significant (p 5%) at a confidence interval of 10% using the Bootstrap treatment, with the exception of the relationship between social innovation and participation in the development of agritourism business and the relationship between social motivation and participation in the development of agritourism business. The correlation coefficients reveal the evolution of our model's constructs, such as "social capital" and "functional competencies," as well as "social capital" and "engagement in the development of agritourism businesses" (See table 15). All of these factors are strongly correlated, so a favorable social capital promotes the entrepreneurs' functional competencies, and a favorable social capital indicates the entrepreneurs' participation in the development of their agritourism firm. Similarly, increased functional competencies of enterprises imply participation in the growth of the agritourism industry. Similarly, as entrepreneurs' social capital grows, so does their willingness to participate in the development of agritourism firms.

Table 15. Evaluations of relational links (confidence interval of the Bootstrapping procedure 10%, p <0.10; p <0.05; p <0.01 Significant)

	<b>Std.<math>\beta</math> Correlation coefficient</b>	<b>Standard Deviation</b>	<b>t- statistics</b>	<b>p- values</b>	<b>Significance</b>
<b>FC -&gt; AG</b>	0.923	0.032	28.466	0.000	<b>Significant</b>
<b>SC -&gt;FC</b>	0.161	0.093	1.732	0.083	<b>Significant</b>
<b>SC-&gt;AG</b>	0.064	0.037	1.743	0.081	<b>Significant</b>
<b>SC-&gt;SI</b>	0.462	0.088	5.255	0.000	<b>Significant</b>
<b>SC-&gt;SM</b>	0.586	0.063	9.279	0.000	<b>Significant</b>
<b>SI -&gt;FC</b>	0.604	0.067	9.009	0.000	<b>Significant</b>
<b>SINN - &gt;AG</b>	0.017	0.048	0.348	0.728	<b>Not Significant</b>
<b>SM-&gt;AG</b>	-0.072	0.058	1.242	0.214	<b>Not Significant</b>

### ➤ **The predictive accuracy of the R<sup>2</sup> structural model**

We were able to visualize the values of the coefficient of determination R<sup>2</sup>, which tells us about the variance of endogenous variables explained by their predictors, namely all the exogenous variables that are related to them, by providing us with their combined effects, by running the PLS algorithm. R<sup>2</sup> acceptable levels vary by discipline, according to Hair et al (2017). Keep in mind that the greater the value, the better the model's forecast. According to Hair et al (2017, 2019), in the context of consumer behavior research in Marketing, the values of this index are low for a threshold below 0.20, moderate for values below 0.50, and strong for values surpassing 0.75.

*R<sup>2</sup> = The squared correlation between the actual and predicted values of a specific endogenous construct.*

Table 16. Estimates of R<sup>2</sup> by the PLS method

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>t-Statistics ( O/STDEV )</b>	<b>p-Values</b>	<b>Predictive accuracy of latent variable</b>
Participation in the development of business agritourism	0.871	0.881	0.026	33.302	0.000	<b>Strong</b>
Functional competencies	0.192	0.213	0.099	1.928	0.054	<b>Weak</b>
Social identity	0.486	0.506	0.049	9.970	0.000	<b>Moderate</b>
Social motivation	0.445	0.454	0.098	4.550	0.000	<b>Moderate</b>

The R<sup>2</sup> values for the construct "Participation in the growth of commercial agritourism" are 0.871, as shown in Table 16. This suggests that the independent factors can account for more than half of the variation in participation in company agritourism development. The construct functional competencies have R Square values of 0.192. These have a minor impact.

This study is regarded as one of the first in the field of agritourism entrepreneurship. However, these findings are useful for future research in the field. R<sup>2</sup> values over 0.486 and 0.445 indicate a moderate effect for the construct's social identity and social motivation, respectively. Because there is no predictor variable, the R<sup>2</sup> of social innovation (SINN) and social capital (SC) is 0. For a better understanding of the results, the corrected R Square values after penalizing for model complexity and sample size are also provided (See table 17).

Table 17. Estimates of adjusted R<sup>2</sup> by the PLS method

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>t-Statistics ( O/STDEV )</b>	<b>p-Values</b>	<b>Predictive accuracy of latent variable</b>
Participation in the development of business agritourism	0.864	0.874	0.028	31.370	0.000	<b>Strong</b>
Functional competencies	0.183	0.205	0.100	1.826	0.068	<b>Weak</b>
Social identity	0.476	0.495	0.050	9.556	0.000	<b>Moderate</b>
Social motivation	0.434	0.444	0.100	4.344	0.000	<b>Moderate</b>

### ➤ The size effect f<sup>2</sup>

It is advisable to check the change in the values of the coefficient of determination R<sup>2</sup> after the exogenous factors are removed in order to assess the usefulness of these exogenous variables in explaining the latent endogenous variables of the model. As a result, the size effect f<sup>2</sup> test supports the model's predictive power R<sup>2</sup> by alerting us about the strength of the association between the

model's latent variables. Indeed, the  $f^2$  index indicates the extent to which the explanatory variable influences the explained variable's coefficient of determination. The model is estimated in two steps using the PLS program, once with the exogenous latent variables present and once without them present. According to Hair et al. (2017), the thresholds of variation of the index  $f^2$  vary between (0.02), (0.15), and (0.35), with a minor effect of size for a threshold value of less than 2%, a moderate effect for a threshold of 15%, and a big effect of size for threshold values of 35%.

$$f^2 = (R^2_{inclue} - R^2_{exclue}) / (1 - R^2_{inclue})$$

*with  $R^2_{inclue}$ : the value of  $R^2$  with the exogenous variable included*  
 *$R^2_{exclue}$ : the value of  $R^2$  with the exogenous variable excluded.*

Table 18. Evaluations of the effect of size  $f^2$

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>t- Statistics ( O/STDEV )</b>	<b>p- Values</b>	<b>Effect size</b>
FC -> AG	1.607	1.785	0.676	2.379	0.017	<b>Large</b>
FC ->SI	0.528	0.567	0.172	3.064	0.002	<b>Large</b>
FC ->SM	0.237	0.253	0.125	1.892	0.059	<b>Medium</b>
SC->AG	0.001	0.008	0.013	0.045	0.964	<b>Small</b>
SC->FC	0.237	0.294	0.190	1.248	0.212	<b>Medium</b>
SC-> SI	0.069	0.076	0.043	1.603	0.109	<b>Small</b>
SC->SM	0.214	0.231	0.092	2.330	0.020	<b>Medium</b>
SI ->AG	0.439	0.475	0.198	2.220	0.026	<b>Large</b>
SINN ->AD	0.003	0.015	0.021	0.133	0.894	<b>Small</b>
SM->AG	0.009	0.026	0.038	0.236	0.813	<b>Small</b>

The PLS treatment's outputs revealed that the variable "functional competencies" contributes significantly to the explanation of the variance of "Participation in the development of business agritourism" with a large effect of size ( $f^2 = 1.607 > 0.35$ ) and "Social identity" ( $f^2 = 0.528 > 0.35$ ). Thus, entrepreneur functional competences have a big size effect for their social identity with a strong causal relationship on the one hand, and a moderate size effect for their social motivation on the other. With ( $f^2 = 0.214 < 0.35$ ), "social capital" has a moderate effect on "social motivation". As a result, entrepreneur social capital helps moderately to explaining the variation in their social drive. He finds a weak size effect on "Entrepreneur's functional abilities" when comparing the size effect to "social capital" ( $f^2 = 0.237 < 0.35$ ). As a result, we conclude that social capital plays a significant role in explaining entrepreneur functional competency variance. As a result, it only makes a minor contribution to the application of social identity variation. On the other hand, "social identity" has a significant impact on participation in the growth of company agritourism ( $f^2 = 0.439 < 0.35$ ). These findings suggest that the entrepreneur's social identity has a significant role in the variation of participation in the development of business agritourism. We can see that this variable has a very modest size effect on involvement in the development of business agritourism ( $f^2 = 0.003 < 0.35$ ) by looking at the values linked to the size effect of social innovation. For its part, "social motivation" has a small effect ( $f^2 = 0.009 < 0.35$ ). Social innovation and social drive, based on these principles, could contribute poorly to explaining variance in their social capital but greatly to explaining variation in agritourism company development (All results are included in the table 18).

We may deduce from these findings that the model's latent variables have a good association because the size effect indicator is linked to the significance of causal links.

➤ *The quality of the predictive capacity of the Q<sup>2</sup> structural model*

To assess the model's predictive relevance, the Q<sup>2</sup> indicator is used to determine the positive or negative quality of the exogenous variable's predictive relevance on the endogenous variable in question. The value of Q<sup>2</sup> varies between 0.02, 0.15, and 0.35, according to Hair et al (2017), indicating a weak, medium, and strong prediction of the endogenous variable from the exogenous variable, respectively.

$$q^2 = (Q^2 \text{ Included} - Q^2 \text{ Excluded}) / (1 - Q^2 \text{ Included}) \text{ with } Q^2 \text{ Included: the value of } Q^2 \text{ with the exogenous variable included } Q^2 \text{ excluded: the value of } Q^2 \text{ with the exogenous variable excluded}$$

As a result, a Q<sup>2</sup> value greater than zero for an endogenous variable shows that the structural model is predictive for that variable. The values of the Q<sup>2</sup> index can be obtained in two ways: one using data from both the measurement and structural models (cross-validated redundancy), and the other using only the data from the measurement model (cross -validated communality). We then move to the Blindfolding treatment on the software PLS-SEM, which is the technique that permits the Q<sup>2</sup> index to be calculated. According to Hair et al. (2017), the strategy entails reusing data by omitting a portion of the data matrix and then estimating the model to forecast the excluded component. In order to analyze the fluctuation of the indicator Q<sup>2</sup> when one of the explanatory variables is deleted from the model, the Q<sup>2</sup> index must also be calculated in order to calculate the effect of size q<sup>2</sup>. The predictive importance of the endogenous variable from the model's exogenous variable is represented by the q<sup>2</sup> index. In other words, the indicator q<sup>2</sup> allows you to determine the extent to which the exogenous variable has an effect on the model's endogenous variable. This index's values vary from 0.02, 0.15, and 0.35, indicating weak, moderate, and significant predictive relevance, respectively.

We find that the values associated with the endogenous constructs are all different from zero and rather high when we examine the output of the statistical Blindfolding processing by the PLS-SEM program in order to assess the predictive significance of the model. The value of Q<sup>2</sup> reveals that it has a significant predictive capacity for the exogenous variables that provide an antecedent to the endogenous variable "participation in the development of commercial agritourism" (0.707). All exogenous variables have moderate explanatory predictive power for the remaining antecedents of endogenous variables. The results in table 19 clearly demonstrate the model's predictive usefulness when it comes to endogenous latent variables.

Table 19. Results of the predictive relevance of endogenous variables

<b>Constructs</b>	<b>SSO</b>	<b>SSE</b>	<b>Q<sup>2</sup>_ predict</b>	<b>Predictive relevance</b>
Agritourism development	900.000	264.033	0.707	<b>Large</b>
Functional competencies	500.000	387.051	0.226	<b>Medium</b>
Social identity	900.000	776.299	0.137	<b>Medium</b>
Social motivation	900.000	742.119	0.175	<b>Medium</b>
Social capital	1000.000	1000.000	-	-
Social innovation	300.000	300.000	-	-

The size effect coefficients support the existence of a significant link between constructs with high predictive quality of their antecedents. Indeed, when the antecedent "functional competencies" is removed from the model for the construct "participation in the development of business agritourism," the value of  $Q^2$  falls from (0.707) to (0.217), demonstrating the strong predictive value of a size effect  $q^2$  of value (1.672). It's the same with the endogenous variable "functional competences," whose coefficient of determination dropped from (0.226) to (0.099), indicating the variable's subsequent explanatory power ( $q^2 = 0.164$ ). The size effect, which attests to its average predictive prediction ( $q^2 = 0.006$ ), supports the fluctuations in the coefficient of determination (from 0.707 to 0.705) for the variable "social motivation" and its association with "participation in the growth of company agritourism." Unlike the relationship between "social capital" and "participation in the growth of business agritourism," the influence of size  $q^2$  on this construct is very small (0.003), which can be explained by the presence of other antecedents with a higher prediction quality for this construct. The association between "social capital" and "functional competence," which has a very tiny size effect, is the same. Table 20 shows a summary of the size effect  $q^2$  and predictive relevance  $q^2$  evaluations.

Table 20. Summary of the evaluations of the predictive relevance  $Q^2$  and of the size effect  $q^2$

<b>Relationship/ Constructs</b>	<b><math>Q^2</math> includes (predictive importance)</b>	<b><math>Q^2</math> excluded</b>	<b><math>q^2</math> (size effect)</b>	<b>Quality of the size effect</b>
Social capital ->Functional competencies	0.226	0.000	0.291	<b>Strong</b>
Social Identity->Functional competencies	0.226	0.099	0.164	<b>Medium</b>
Social motivation-> participation in the development of business agritourism	0.707	0.705	0.006	<b>Weak</b>
Functional competencies -> participation in the development of business agritourism	0.707	0.217	1.672	<b>Strong</b>
Social capital -> participation in the development of business agritourism	0.707	0.706	0.003	<b>Weak</b>

➤ ***The FIT model goodness-of-fit index (SRMR)***

The PLS-SEM software allows us to have various complementary indices that educate us about the quality of the predictive relevance of the model in order to determine the evaluation of the approximate fit of the model. The mean square deviation between the observed and indicated correlations of the model is represented by the "SRMR" index ( $RMS_{\theta}$ ). According to Henseler et al (2014) and Hair et al (2017), a value of "SRMR" ( $RMS_{\theta}$ ) less than (0.12) indicates a strong fit of the model, whereas a value greater than (0.12) shows a lack of fit of the model. Indeed, this indicator substitutes Tenenhaus et al. (2005)'s goodness-of-fit index "GoF," which verifies the model at the CB-SEM level but has been questioned by Henseler et al. (2014) for its application in the context of PLS-SEM. They claim that the "GoF" indicator is insufficient for PLS-SEM because it does not distinguish between valid and invalid models, as well as the fact

that it cannot be used for formative models. Furthermore, unlike CB-SEM, which attempts to reduce discrepancies, the estimate of the PLS-SEM model, which is concerned in prediction rather than explanatory modeling, is based on maximizing the explained variance of endogenous variables. Henseler et al (2014) propose utilizing "RMS<sub>theta</sub>," which originated in 1989 with Lohmöller but was never used in the context of the PLS-SEM, as an alternative measure of model fit based on these factors. When it comes to low threshold values, it should be used with caution because a poor fit does not always reflect a poor predictive power of the model. Henseler et al (2014) propose accepting greater values by stating that the fixed threshold is too low for PLS-SEM and that the threshold values for this indicator have not yet been set. Some academics are proposing for the implementation of evaluation criteria that emphasize the predictive nature of the PLS-SEM, which focuses on prediction rather than explanatory modeling, based on its unique characteristics. In this instance, they advise against the use of current statistics, while waiting for further signs to emerge. These statistical tests are of limited use, according to these researchers, and their use can even damage the model's predictive effectiveness. The value of the RMS theta (0.13) in our study shows a result that is somewhat higher than the a priori acceptable threshold, leading us to conclude that the model has acceptable predictive significance (See table 21).

Table 21. Standardized root means square residual (SRMR) and RMS<sub>theta</sub>

<b>SRMR SATURATED</b>	<b>ESTIMATED SRMR</b>	<b>RMS THETA</b>
0.120	0.136	0.130

#### **4.4. Verification and Interpretation of the model's research hypotheses**

We can assess the structural links by appreciating the strength of the relationships between them, based on the estimations of the structural models and the measurement models, and on the various treatments through the PLS software for the reliability and validity analyses of the measurement scales, as well as the verification of the predictive quality of the model. In this section, we are content with reporting and summing the outcomes of the hypotheses tests in order to go over them in detail later by analyzing and discussing all the findings.

##### **4.4.1. Verification of direct effects**

The processing of the PLS program gives us with suitable statistical indices to properly understand these relationships in order to verify the hypothesis of the structural links between the constructs of the research model. We can determine whether there is a strong or weak relationship between the constructs by looking at the coefficient of the structural linkages. Because the relationship can be positive or negative, this coefficient swings between (-1) and (+1), and the closer the coefficient gets to zero, the weaker the relationship becomes, and vice versa. The significance of the coefficients of these structural links, on the other hand, is determined using Bootstrap processing via PS software, which allows the value of the test (t- statistics) to be calculated, thus justifying the structural link's significance for a value greater than the critical value 1.65. (For a significance level of 10 percent used in the context of exploratory research). The indices of statistical processing carried out by PLS for each of the ties in the model between the dependent and independent variables are summarized in table 22. In the next paragraph, we'll look at each relationship separately and discuss the outcomes.

Table 22. Summary of the results of the model link statistics

<i>Path coefficient of research hypotheses</i>						
<b>Hypothesis</b>	<b>Path</b>	<b>Std.β Correlation coefficient</b>	<b>Standard Deviation (STD Error)</b>	<b>t-value</b>	<b>p- value</b>	<b>Decision</b>
<b>H1</b>	SC ->FC	0.161	0.093	1.732	0.083	<b>Supported</b>
<b>H2</b>	SC->SI	0.462	0.088	5.255	0.000	<b>Supported</b>
<b>H3</b>	SI ->FC	0.604	0.067	9.009	0.000	<b>Supported</b>
<b>H4</b>	SC->SM	0.586	0.063	9.279	0.000	<b>Supported</b>
<b>H5</b>	SM- >AG	-0.072	0.058	1.242	0.214	<b>Not Supported</b>
<b>H6</b>	FC->AG	0.923	0.032	28.466	0.000	<b>Supported</b>
<b>H7</b>	SC->AG	0.064	0.037	1.743	0.081	<b>Supported</b>
<b>H8</b>	SC ->SI ->FC	0.291	0.055	5.321	0.000	<b>Supported</b>
<b>H9</b>	SC->SM ->AG	-0.042	0.036	1.142	0.253	<b>Not Supported</b>

#### 4.3.2. Verification of indirect effects

These are the intermediate variables that help to clarify the process that connects the independent explanatory variables to the explained dependent variables.

##### ➤ Verification of the mediation effect

The mediator is defined by Baron and Kenny (1986) as "the variable that accounts for the link between the predictor and the criterion." To put it another way, a mediating variable is one that explains how and why a relationship exists with the many effects that occur. As a result, a mediator can explain the entire or portion of the link between an independent and a dependent variable (See figure 24).



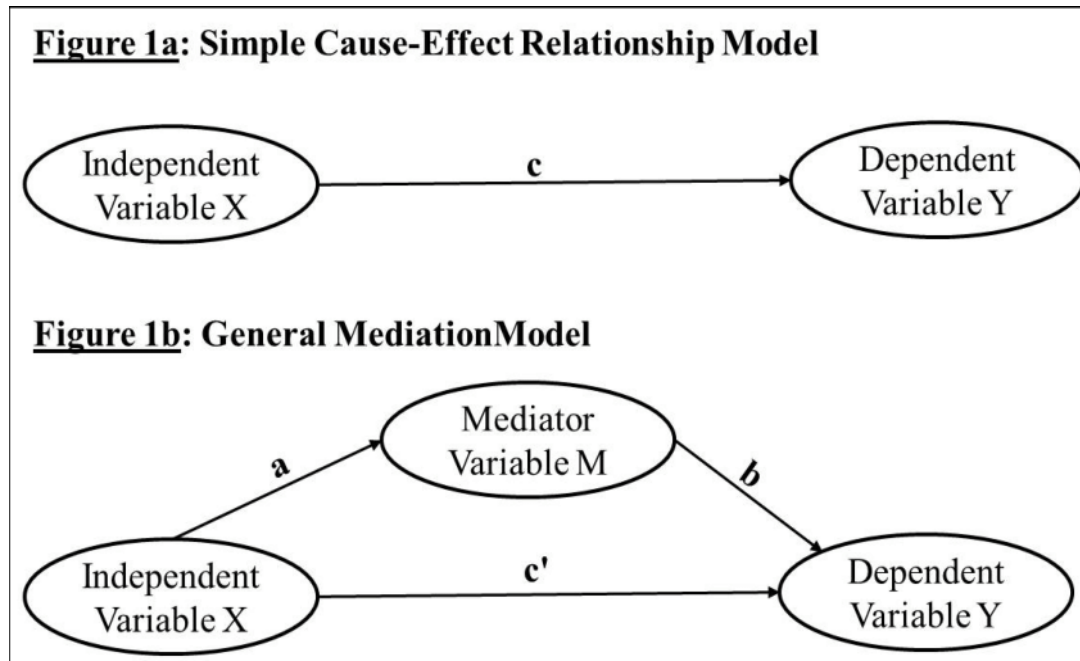


Figure24. General mediation model

- Path a (p1): the relation between the independent variable and the mediator variable VI-> MED
- Path b (p2): the relation between the mediator and the dependent variable MED-> VD
- Path c (p3): the relation between the independent variable and the dependent variable VI-> VD

### ➤ Mediation analysis approach

Hair et al. (2017) emphasize the necessity of verifying this type of effect, advising researchers to check total effects because a minor link between latent variables typically hides a complete mediation effect rather than a null association between the variables. To test this effect, Hair et al (2017) recommend that researchers use the priming test (initiate the sampling distribution of indirect effects) by the bootstrapping treatment rather than the Sobel test (1982), which is no longer applicable in the context of the PLS-SEM. This approach was previously advanced by Preacher and Hayes (2008) in the context of regression and who highlighted the inadequacy of the Sobel test in the analysis of indirect effects. Indeed, the Sobel test examines the direct to indirect relationship between the independent and dependent variables while taking mediation into account. This test requires unstandardized path coefficients and other statistical flaws, as well as a normal distribution that does not adhere to the nonparametric PLS-SEM approach. Triggering the indirect effect has more statistical power than the Sobel test, and this Bootstrapping technique makes it more reliable independent of the form of the variables or the sample distribution.

The effect of mediation can be studied using one of two methods. Baron and Kenny (1986) introduced the oldest technique, which is a sequential strategy ideally suited to the structural equations' method. These authors identified four prerequisites for a variable's mediating role in a relationship between other variables. According to these authors, the independent variable must have (1) a significant effect on the dependent variable, (2) a significant effect on the mediator variable, (3) when the impact of the independent variable on the dependent variable is controlled, the mediator variable should have a significant impact on the dependent variable, and (4) when the impact of the mediating variable on the independent variable is controlled, the impact of the mediating variable on the independent variable should be controlled. However, Preacher and

Hayes (2008) have disputed this technique on numerous issues, including the first condition, which has been widely criticized by other scholars such as Zhao et al (2011), leading to a consensus on the lack of necessity for verification (See figure 25).

The approach of Preacher and Hayes (2008) proposes that there are two main conditions that must be verified to talk about mediation. The first condition is that of the existence of a significant relationship between the independent variable and the dependent variable under the effect (or through or in the presence) of the mediator ( $p$ -value  $< 0.05$ ) (total effect / indirect bootstrap effect). The second condition is the verification of the bootstrap confidence interval levels. Therefore, it is a question of testing the model which considers the indirect effects (VI- $\rightarrow$  VD; VI- $\rightarrow$  MED; MED- $\rightarrow$  VD) as well as the model which takes account at the same time of the direct and indirect effects (VI- $\rightarrow$  VD; MED- $\rightarrow$  VD).

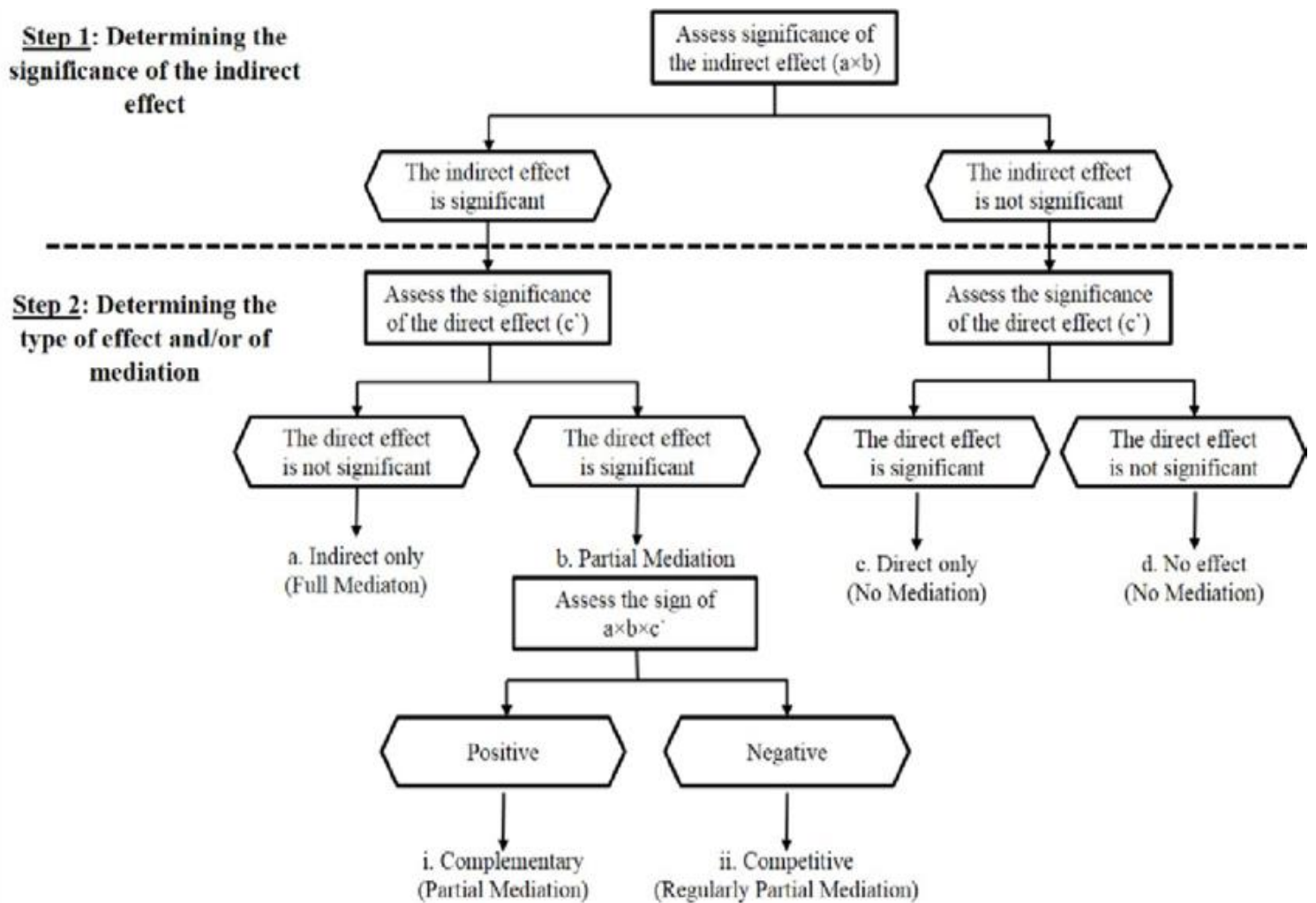


Figure 25. Procedure for analyzing and estimating the mediation effect (Source: Zhao et al, 2011)

## **Verification of the mediating effect of social identity**

According to social theory, the weight of favorable social capital allows the entrepreneur to redevelop a social identity. A new identity centered on the social is developed through seeing a bigger and more diverse social capital. However, social presence is a factor that facilitates the development of a sense of belonging. As a result of social contacts, the quality of relationships improves. Furthermore, social identity has rarely been explored in conjunction with an entrepreneur's functional competencies. An entrepreneur, whether on-farm or off-farm, cannot proceed in business development without first recognizing his social identity. When it comes to the study of social identity's mediating role, we can observe that it has been emphasized in the domains of Social Psychology, social behavior, and entrepreneurship since 1989. We postulate that social identity mediates the relationship between social capital and an entrepreneur's functional competencies in the context of our research. Following the approach of Zaho et al. (2011), we check the indirect effect first, then the direct effect.

### **➤ Verification of the indirect effect**

Following Hair et al (2017)'s recommendations, a significant value of p-value 0.000 is displayed for the indirect effect between the independent variable "social capital" and the dependent variable "functional competencies" after performing the first Bootstrapping treatment of the indirect effect (5000 steps change of sign at 5%) on the PLS software to verify the total effect. Through the mediating variable social identity, we can argue that the link between social capital and functional competence is important. As a result, the indirect effect is considerable, and the first condition is proven (See table 23).

Table 23. Evaluation of the indirect effect (social identity)

<b>Indirect effect relationship</b>	<b>Initial sample (O)</b>	<b>Sample mean (M)</b>	<b>Standard deviation (STDEV)</b>	<b>t- value (  O / STDEV  )</b>	<b>p-values</b>
<b>Social capital - &gt; Social identity - &gt; Functional competencies</b>	0.291	0.287	0.055	5.321	0.000

### **➤ Verification of the direct effect**

We see a significant p-value when we look at the direct effect of the independent variable "social capital" on the dependent variable "functional skills" (from the path coefficients) (0.083). Because the indirect and direct effects are both strong and relevant, we can conclude that social identity is a partial mediator of the relationship (See table 24).

Table 24. Evaluation of the direct effect

Direct effect relationship	Initial sample (O)	Sample mean (M)	Standard deviation (STDEV)	t- value (  O / STDEV  )	p-values
Social capital - > Functional competencies	0.161	0.151	0.093	1.732	0.083

➤ **Verification of Bootstrapping confidence intervals**

The significance of social identity (SI) in mediating the relationship between social capital (SC) and functional competences was investigated using mediation analysis (FC). Table 25 shows that the total effect of SC on FC was statistically significant ( $\beta = 0.435$ ,  $t = 3.884$ ,  $p < 0.001$ ). The impact of SC on FC is significant ( $\beta = 0.161$ ,  $t = 1.732$ ,  $p = 0.083$ ) when the mediating variable (SI) is included. SC had a substantial indirect influence on FC through SI ( $\beta = 0.291$ ,  $t = 5.321$ ,  $p < 0.001$ ). This demonstrates that SI fully mediates the link between SC and FC.

Table 25. Summary of the assessment of the direct and indirect effect (social identity)

Total effect (SC - > FC)		Direct effect (SC - > FC)		Indirect effects of (SC - > FC)					Results
Coef ficie nt	p- valu e	Coefficie nt	p- valu e	Coef ficie nt	SD	t- Val ue	p- valu e	BI (5%, 95%)	Signific ant
0.435	0.000	0.161	0.083	H: SC->SI->FC	0.268	0.052	5.135	0.000	0.190, 0.365

➤ **Checking the intensity of the mediating effect**

In a model with a mediation effect, it's critical to check the force of mediation and calculate its intensity on the mediated part. The variance considered presented by the ratio of the indirect impact to the overall effect ( $VAF = \text{indirect effect} / \text{total effect}$ ) is the method used for this purpose. In reality, this ratio allows you to see how much the mediation process explains the dependent variable's volatility. This experiment was conducted to see how social capital influences an entrepreneur's functional abilities. Hair et al. (2017) look at two levels of variance in VAF to understand how mediation works. According to these authors, a VAF value of less than 20% suggests that there is no mediating impact, whereas a VAF value of greater than 20% but less than 80% qualifies partial mediation as normal, and a VAF value greater than 80% indicates complete mediation. We have a VAF of 61 percent in our example ( $VAF1 = 0.268 / 0.435 = 0.616$ ), indicating that this is a normal partial mediation. This may indicate the existence of another or more mediators who should be considered in the interaction.

**Verification of the mediating effect of social motivation**

Previous research on the behavioral intentions of entrepreneurs has found that all conduct is preceded by a desire that drives them to act. We propose to test the possible mediating effect of social motivation in the relationship between social capital and their participation in the development of agritourism business in our study context, which deals with the intention to adopt a very specific behavior, namely participation in the development of agritourism business.

➤ **Verification of the indirect effect**

The indirect effect of the relationship was confirmed using the PLS software's Bootstrapping treatment, which revealed that the indirect effect between the independent variable "social capital" and the dependent variable "participation in the development of agritourism business" is significant, with a p-value of 0.000. (See table 26). Through the mediating variable social motivation, we can deduce that the relationship between social capital and participation in the development of agritourism businesses is significant. The first condition of the mediation effect is valid, according to these findings.

Table 26. Evaluation of the indirect effect (social motivation)

<b>Indirect effect relationship</b>	<b>Initial sample (O)</b>	<b>Sample mean (M)</b>	<b>Standard deviation (STDEV)</b>	<b>t- value (  O / STDEV  )</b>	<b>p- values</b>
<b>Social capital - &gt; social motivation - &gt; participation in the development of business in agritourism</b>	-0.042	-0.040	0.036	1.142	0.253

➤ **Verification of the direct effect**

We see a significant value of p-value (0.000) when we check the direct effect (from the path coefficients) of the independent variable "social capital" on the dependent variable "participation in the development of agritourism business," which leads us to conclude that social motivation does indeed represent a partial mediator in the relationship because the indirect and direct effects are both significant and important (See table 27).

Table 27. Evaluation of the direct effect

<b>Direct effect relationship</b>	<b>Initial sample (O)</b>	<b>Sample mean (M)</b>	<b>Standard deviation (STDEV)</b>	<b>t- value (  O / STDEV  )</b>	<b>p- values</b>
<b><i>Social capital - &gt; participation in the development of agritourism business</i></b>	0.064	0.060	0.036	1.743	0.081

➤ **Checking Bootstrapping Confidence Intervals**

The significance of social motivation (SM) in mediating the link between social capital (SC) and participation in the growth of agritourism businesses was investigated using mediation analysis (AG). The total effect of SC on AG was significant ( $\beta = 0.424$ ,  $t = 4.371$ ,  $p < 0.001$ ), according to the results in table 28. The impact of SC on AG remained significant when the mediating variable (SM) was included ( $\beta = 0.064$ ,  $t = 0.081$ ,  $p < 0.001$ ). The indirect effect of SC on AG via SM ( $\beta = -0.042$ ,  $t = 1.142$ ,  $p = 0.253$ ) was found to be minor. This demonstrates that SM has no role in the link between SC and AG.

Table 28. Summary of the evaluation of the direct and indirect effect (social motivation)

Total effect (SC - > AG)		Direct effect (SC -> AG)		Indirect effects of (SC - > AG)					Results
Coeff ficient	p- valu e	Coef ficient	p- val ue	Coeff icient	SD	t- Valu e	p- value	BI (5%, 95%)	Not Significa nt
0.42	0.00	0.06	0.0	H: SC-	-	-	1.142	0.253	-0.111, 0.009
4	0	4	81	>SM- >AG	0.042	0.040			

### Verification of the moderation effect

Baron and Kenny (1986) define the moderator as “a variable that affects the direction of the relationship and / or the strength of the relationship between the independent variable and the dependent variable”. To put it another way, the moderator enables you to specify whether and how the relationship changes. Therefore, the moderation effect represents the variation of the effect of an exogenous latent variable on an endogenous variable in the presence of a third variable which moderates this relationship. The presence of a moderating variable in a relationship means that the independent variable has a strong interaction effect on the dependent variable through interacting with it. The moderator variable is described as a specification variable by these writers because it specifies the conditions under which an independent variable has an effect on a dependent variable. According to Baron and Kenny (1986), two conditions must be met in order to determine the presence of a moderation: (1) the moderation must be meaningful; (2) the moderator must perform well in either increasing or decreasing the relationship's intention.

Different strategies for evaluating this moderation effect have been proposed in the literature, including the way of dichotomizing the moderating variable using a multi-group analysis and the method of constructing the interaction term. Chin (2010) explains how to introduce the interaction effect by estimating the explained variance while also taking into account the interaction effect between the independent variable and the moderator, as well as the effect of the moderating variable over the dependent variable. Interaction effects occur when a relationship has a moderating variable.

According to Hair et al. (2017), there are three techniques to evaluating this interaction effect: "product indicator approach," "two-stage approach," and "orthogonalization strategy." The product indicator strategy is based on regression and involves multiplying the independent variable's indicators by each moderating variable's indicator. It does not apply to formatively measured constructs (the independent and moderating variables). Its main disadvantage is the model collinearity it produces, which can be avoided by standardizing the moderator indicators before creating the interaction term. The orthogonalization strategy is nothing more than an extension of the product indicator approach, avoiding the collinearity problem solved by standardization, which is still insufficient, as well as the challenge of comparing direct effects in the lack and presence of the interaction term. It only applies to reflectively measured constructs (the independent and moderating variables). It entails the establishment of product indicators as well as their regression on the moderator and independent variable indicators. In order to maximize the prediction of the endogenous variable, it minimizes the estimation bias that will be applied. Apart from eliminating the collinearity problem, it has the advantage of being simple to assess the intensity of the moderating effect and allowing for high grade prediction precision. The two-stage technique was utilized to determine the relevance of the influence of moderation on the connection by measuring and selecting constructs in a formative manner. It has a great deal of statistical power.

We proceeded to analyze the moderating effect of our model by following Chin (2010) and Hair et al (2017) recommendations based on the method of the interaction term by the product indicator approach.

**Moderating effect modeling equation (interaction term method)  
Hair et al. (2017):**

$$Y_2 = p_1 Y_1 + p_2 + p_3 (Y_1 M) Y_1 + p_2 M$$

The substantial evaluation of social innovation in the model validated the moderation effect analysis and led us to the conclusion that the social innovation variable has a moderating effect in the link between "social capital-> involvement in the growth of agritourism business").

Table 29. Assessment summary of the moderation effect (social innovation)

	<b>Initial sample (O)</b>	<b>Sample mean (M)</b>	<b>Standard deviation (STDEV)</b>	<b>t- value (  O / STDEV  )</b>	<b>p- values</b>	<b>Result</b>
<b>Moderator effect 1 - &gt; participation in the development of agritourism business</b>	-0.086	-0.081	0.036	2.380	0.017	<b>Significant</b>

As a result, a higher level of social innovation would improve the beneficial association between social capital and agritourism business development. The hypothesis investigated the function of social innovation in mediating the relationship between social capital and participation in the growth of agritourism businesses. Table 29 shows that social innovation moderates the connection between social capital and participation in agritourism business development ( $\beta = -0.086$ ,  $t = 2.380$ ,  $p < 0.001$ ). In short, the PLS-SEM analysis demonstrated that when social capital was regulated by social innovation, the association between social capital and participation in the development of agritourism activity was greater (Figure 26).

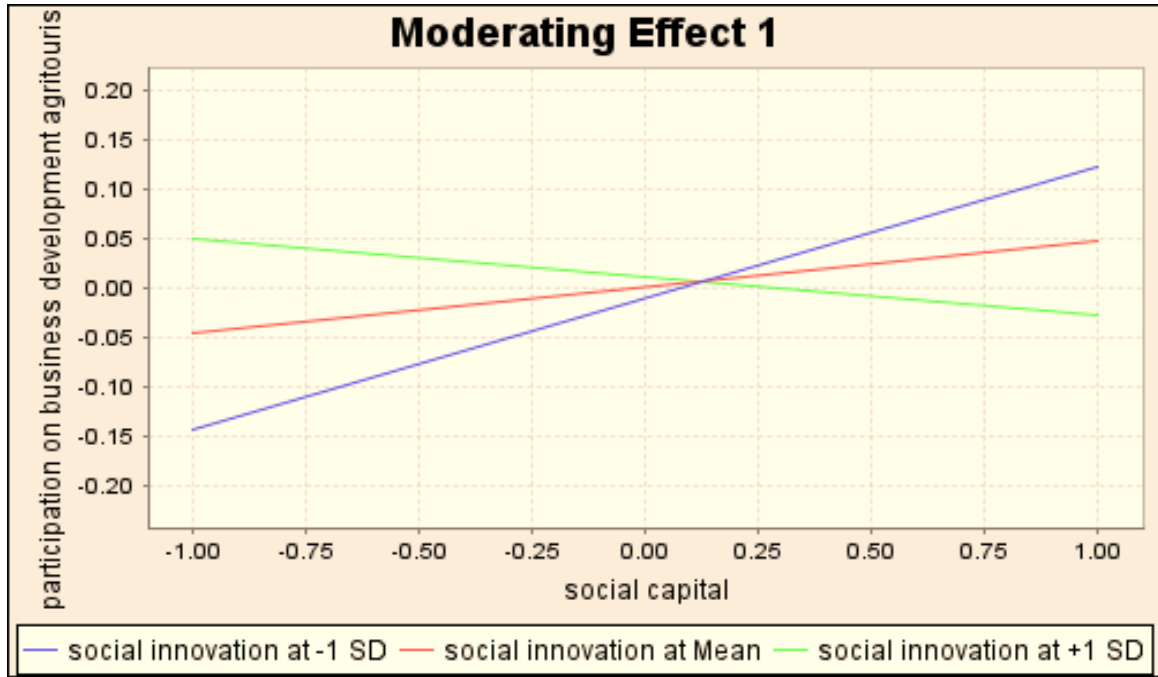


Figure 26. Schematic of the moderation effect

This section allowed us to present, estimate, and validate the conceptual model by using the PLS partial least squares method to verify the causal relationships after conducting factorial analyses on the measurement scales. We first justified our choice of the PLS-SEM methodology by presenting the data analysis method we used. As a result, we spent time defining the nature of the elements that make up the research model and designing measurement and structure models. After that, we estimated each of the measurement and structure models. The results of the numerous structural link tests are presented in the following sections, along with an interpretation of the results for each research hypothesis.



## 4.5. Results and discussions of research hypotheses

Following the various statistical treatments performed on the data collected, which allowed us to evaluate the construct measurement instruments on the one hand and our conceptual model on the other hand through the estimation and validation of measure and structure models, we focus on the interpretation of the expected results in this section. We offer the results of the testing of study hypotheses relating to direct links in this section, followed by those of indirect links of mediation and moderation. We'll start by exposing the outcomes of the tests, and then we'll compare them to the literature.

### 4.5.1. Presentation of direct links

Remember that PLS is based on Wold et al. (1983)'s hierarchical components approach for representing complicated relationships between latent constructs in structural theoretical models and allowing estimate using a measurement model based on empirical data. It should be emphasized that using the "repeated indicator" approach to represent second-order reflective structures allows for the evaluation of causal links between higher-order constructs (Hair & al., 2017). In other words, this method allows you to determine the significance of the relationship between higher-order constructs, but it does not allow you to determine the significance of the direct impacts of lower-order dimensions on the model's dependent variables. Indeed, as previously stated, all obvious markers of first order constructions are re-used for direct estimation of second order constructs throughout this processing. However, as Ringle et al (2020) point out, it's critical to understand and estimate the relationship between the model's first-order constructs, second-order composite constructs, and higher-order constructs.

In our research study, it is important for us to study both the lower level of the relationship and the higher level. With the objective of testing the sub-hypotheses of our conceptual model and knowing the meaning of the relationships between the manifest variables (the dimensions of the second-order constructs) with the rest of the dependent variables of the model and in view of the impossibility of displaying these links by the approach we have borrowed, namely the "repeated indicator", we have thus created a causality model which contains the manifest variables of the first order without containing the constructs of the second order. We were able to cross this data and adopt this technique based on our research and literature review, particularly those writers Van Riel (2017) and Henseler et al., (2013), as well as the visualizations of the tutorials on the official YouTube website of the software and experts. We found ourselves with a combination of two ways, namely the repeated indicator approach and the first phase of the two-stage strategy, after following Becker (2018)'s advice on the SmartPLS software, which can be found on the Software Forum website.<sup>1</sup>

The main model of our study, which was evaluated using the repeated indicators approach and included second-order constructs alongside first-order constructs, helped us test the main hypotheses of our study by allowing us to better interpret the validity of the first-order measurement model and the structure model, as well as the predictive quality of our study model. We also plan to evaluate the model's evaluation in the presence of second-order

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1

<https://forum.smartpls.com/viewtopic.php?f=6&t=24233&p=37903&hilit=repeated+indicator+approach#p37903>

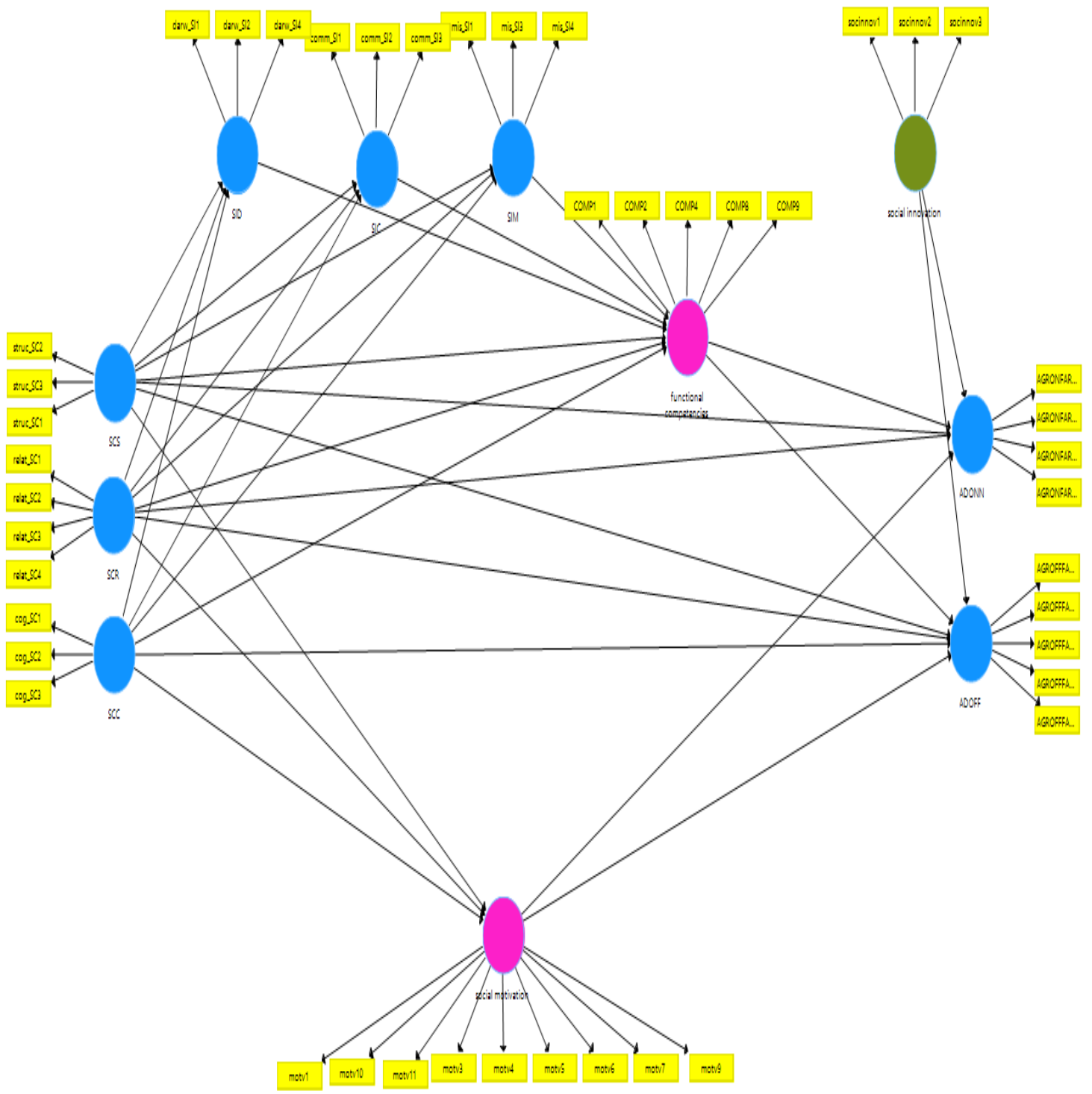
✓ <https://forum.smartpls.com/search.php?st=0&sk=t&sd=d&sr=posts&keywords=two+stage+or+repeated+indicator&start=15>

✓ <https://forum.smartpls.com/viewtopic.php?f=11&t=16594&p=35845&hilit=repeated+indicator+approach#p27956>

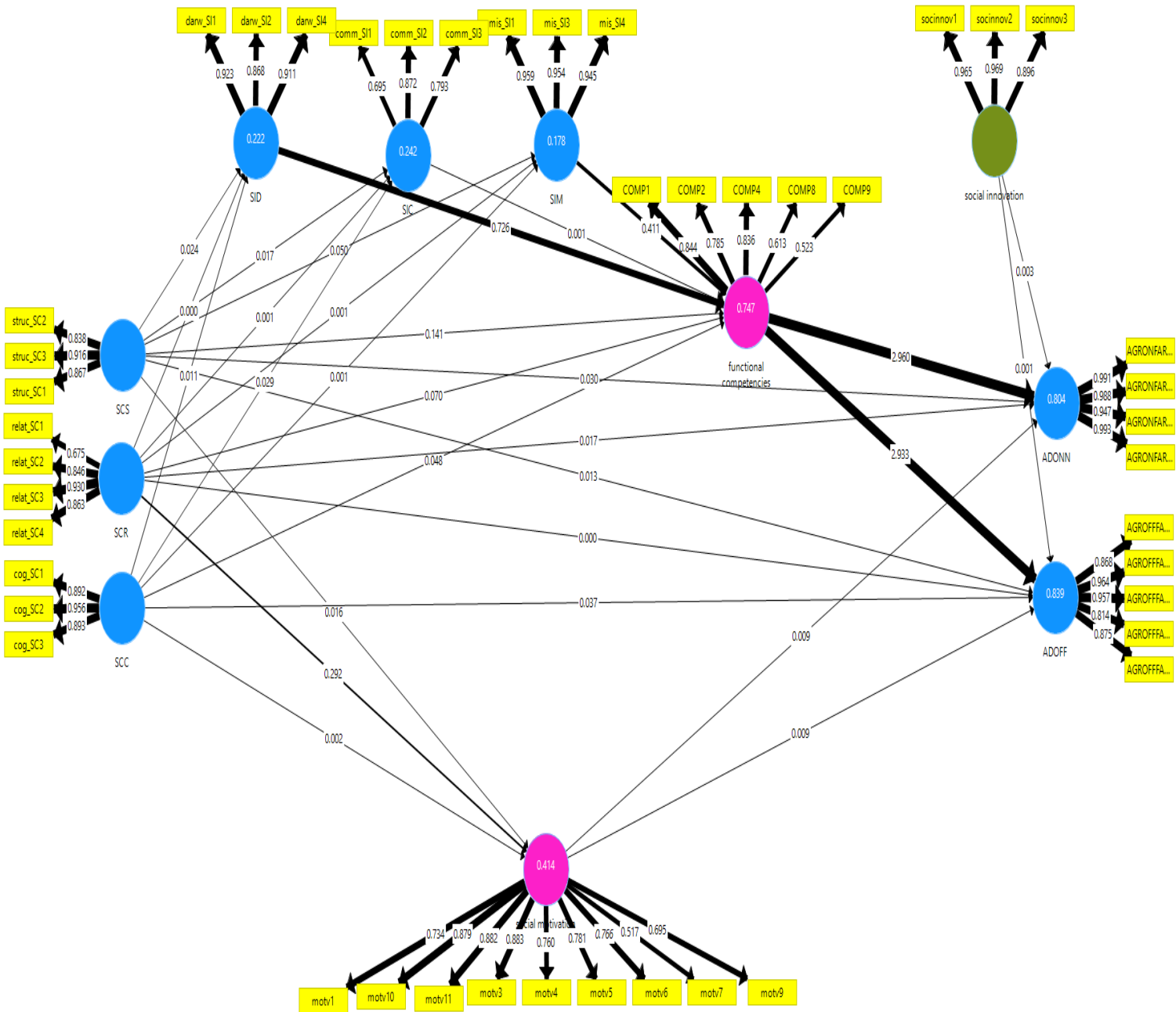
<https://www.youtube.com/watch?v=LRND-H-hQQw&feature=youtu.be>

constructs to the model with only lower-order constructs (See figure 27). The outcomes of the numerous tests of the hypotheses and under hypotheses of our research will be shown in the following paragraph, which will be justified by the combination of methodologies used. Given the nature of the researched notion, which can be difficult to assess, we tolerated a 10% error threshold for some linkages.

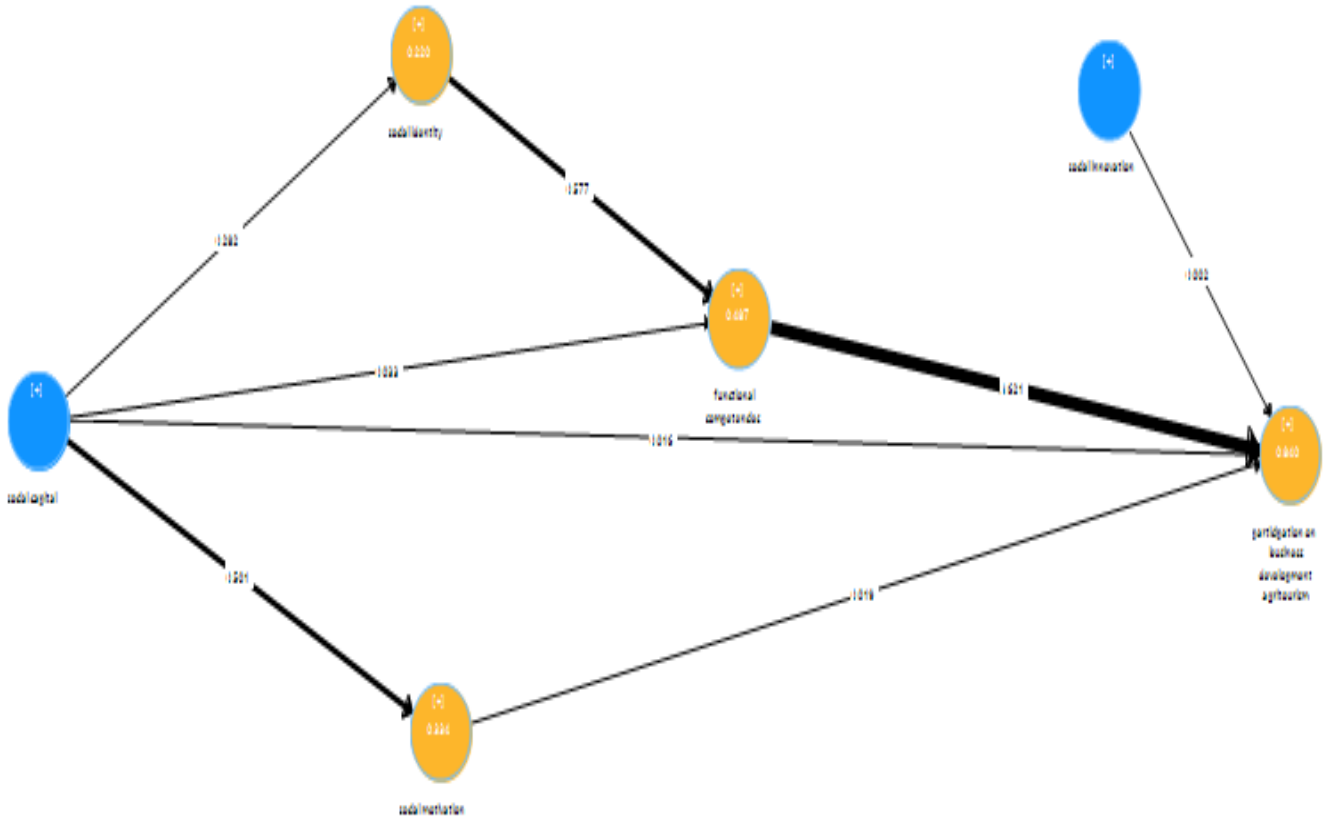
**Direct model estimation (1st step of the Two stage approach)**



**Estimation of the model with the indicators ( $R^2$ )**



**Bootstrap direct-output model evaluation (path and p- value)**



**Evaluation of the direct model with output indicators –Bootstrap**

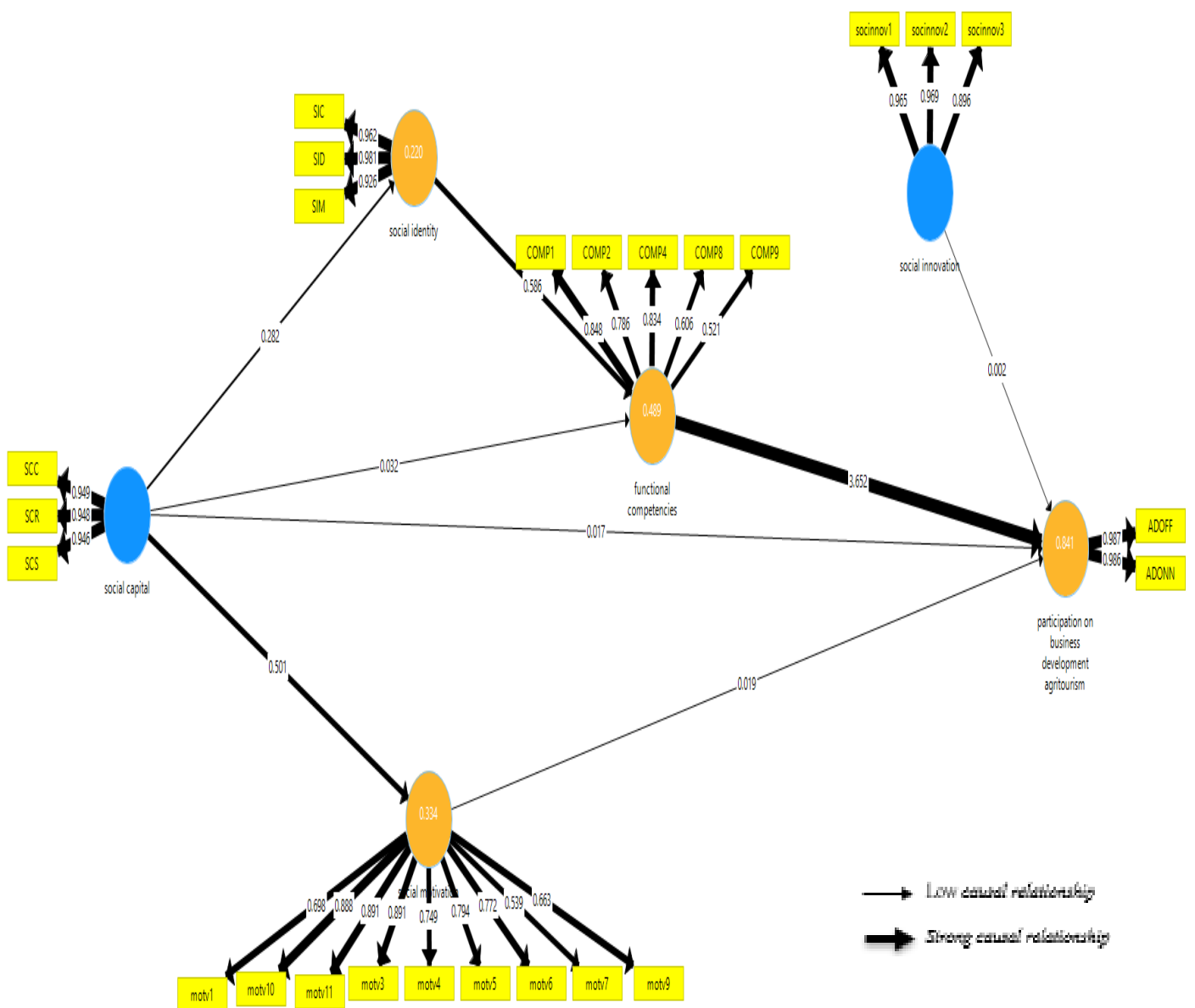


Figure 27. Diagram of the evaluation of the direct bootstrap effect model

#### 4.5.1.1. The link between social capital and functional competencies

***H-1: Social capital has a positive effect on the functional competencies of the agritourism entrepreneur.***

We first evaluated the model using the repeated indicator approach, and then we evaluated the model using only the first-order constructs to test the significance of the sub-hypotheses and conclude on the overall significance of the hypothesis. We emphasize that this process was used to examine all the model's structural links, which will enable us to justify our hypotheses and under hypothesis by combining the results from the two methods. The results of the structural model estimation of the influence of social capital on entrepreneur functional abilities demonstrate that the link is positive ( $\beta = 0.161$ ). Using the Bootstrap procedure to continue the study, the direct link was shown to be significant at the 5% level with a statistic t- value (1.732). More specifically, table 30 shows that relational social capital and cognitive social capital both have a positive impact on entrepreneurs' functional competencies ( $\beta = 0.278$ , t- statistics = 2.678) and ( $\beta = 0.246$ , t- statistics = 2.259), respectively, whereas capital social structural capital has a negative impact on entrepreneurs' functional competencies ( $\beta = -0.421$ , t- statistics = 3.439) at the 5% level.

The theory behind these findings is that the formation of feelings in interpersonal interactions improves knowledge exchange and tends to engage entrepreneurs in their partnerships. Furthermore, the shared knowledge that allows entrepreneurs to freely express their knowledge tends to raise the chances of members understanding one another. If the network's social interactions are poorly managed, they risk negatively affecting the entrepreneur's functional competencies and removing information conduits that lower the time and effort required to collect information.

Table 30. Summary of the H 1

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p- values	5%	95%	Decision
<b>H1</b>	<b>H1.1</b>	Social structural capital -> functional competencies	-0.421	3.439	0.001	- 0.658	- 0.250	<b>Supported</b>
	<b>H1.2</b>	Social relational capital -> functional competencies	0.278	2.678	0.007	0.106	0.442	<b>Supported</b>
	<b>H1.3</b>	Social cognitive capital ->	0.246	2.259	0.024	0.075	0.438	<b>Supported</b>

	functional competencies						
<b>H1: Social capital -&gt; functional competencies</b>	0.161	1.732	0.083	<b>0.062</b>	<b>0.390</b>	<b>Supported</b>	

#### 4.5.1.2. The link between social capital and social identity

**H-2: Social capital has a positive effect on the development of social identity in the entrepreneur.**

According to this theory, social capital has an impact on the development of social identity. The estimations of the effect of social capital dimensions on entrepreneur social identity construct dimensions reveal that the two constructs have a positive and significant relationship ( $\beta = 0.462$ , t- statistics = 5.255). According to the results of Bootstrapping, social structural capital encourages the growth of the entrepreneur's missionary identity ( $\beta = 0.441$ , t- statistics = 2.157), but has a negative relationship with other identities (see table 31). Furthermore, at a significant level of 5%, social cognitive capital tends to produce a favorable communitarian identity among entrepreneurs ( $\beta = 0.311$ , t- statistics = 1.783). Social relational capital, on the other hand, has a negative and inconsequential effect on the three social identities. Three sub-hypotheses have been ruled out. The importance of the relationships between the first-order constructs of social capital and the dependent variable social identity, as well as the relationship between the two latent constructs, led us to infer that our main hypothesis was partially validated. The findings show that a broad portfolio of social capital contributes to an entrepreneur's social identity. In other words, an entrepreneur with a large social capital base likely to grow his social identity favorably.

Table 31. Summary of the H 2

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p- values	5%	95%	Decision
<b>H2</b>	<b>H2.1</b>	Social structural capital -> Darwinian identity	0.298	1.334	0.182	- 0.084	0.655	<b>Rejected</b>
	<b>H2.2</b>	Social relational capital -> Darwinian identity	-0.003	0.016	0.987	- 0.327	0.302	<b>Rejected</b>
	<b>H2.3</b>	Social cognitive capital ->	0.193	1.189	0.234	- 0.079	0.456	<b>Rejected</b>



	Darwinian identity						
<b>H2.4</b>	Social structural capital -> communitarian identity	0.250	1.039	0.299	- 0.205	0.600	<b>Rejected</b>
<b>H2.5</b>	Social relational capital -> communitarian identity	-0.057	0.287	0.774	- 0.379	0.264	<b>Rejected</b>
<b>H2.6</b>	Social cognitive capital -> communitarian identity	0.311	1.783	0.075	0.007	0.579	<b>Supported</b>
<b>H2.7</b>	Social structural capital -> missionary identity	0.441	2.157	0.031	0.107	0.765	<b>Supported</b>
<b>H2.8</b>	Social relational capital -> missionary identity	0.048	0.262	0.793	- 0.254	0.353	<b>Rejected</b>
<b>H2.9</b>	Social cognitive capital -> missionary identity	-0.072	0.398	0.691	- 0.362	0.231	<b>Rejected</b>
<b>H2:</b>	<b><i>Social capital -&gt; Social identity</i></b>	<b>0.462</b>	<b>5.255</b>	<b>0.000</b>	<b>0.311</b>	<b>0.610</b>	<b>Partially Supported</b>

#### 4.5.1.3. The link between social identity and functional competencies

***H-3: Social identity has a positive effect on the development of functional competencies in an entrepreneur.***

When starting a rural business, this hypothesis supports the premise that the development of many social identities and activities favors the development of functional abilities of an entrepreneur. The structural link between social identity and functional abilities is positive ( $\beta =$

0.604) and fairly significant (t- value = 9.009), according to the data (see table 32). With ( $\beta=1.377$ , t- statistic = 5.967), the "Darwinian identity" variant has a favorable effect on functional skills. The versions of "missionary identity" and "communitarian identity," on the other hand, have a negative impact on functional competences ( $\beta = -0.702$ , t- statistic = 5.486;  $\beta= -0.046$ , t- statistic = 0.234). The hypothesis is partially correct since the three types of social identity have different effects on functional abilities.

Table 32. Summary of the H 3

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p- values	5%	95%	Decision
<b>H3</b>	<b>H3.1</b>	Darwinian identity -> functional competencies	1.377	5.967	0.000	1.027	1.725	<b>Supported</b>
	<b>H3.2</b>	communitarian identity -> functional competencies	-0.046	0.234	0.815	- 0.309	0.278	<b>Rejected</b>
	<b>H3.3</b>	missionary identity -> functional competencies	-0.702	5.486	0.000	- 0.899	- 0.496	<b>Supported</b>
<b>H3: Social identity -&gt; functional competencies</b>			0.604	9.009	0.000	0.332	0.656	<b>Partially Supported</b>

#### 4.5.1.4. The link between social capital and social motivation

**H4: Social capital has a positive effect on social motivation in an entrepreneur.**

The fourth hypothesis proposes that social capital is at the root of their social motivation development. The statistical results suggest that the relationship is positive ( $\beta = 0.586$ ). The direct association is significant (t- value = 9.279) at 5%, according to bootstrap processing. Table 33 reveals that social relational capital has a ( $\beta = 0.863$ , t- statistics = 6.209) strong positive effect on an entrepreneur's social motivation. In contrast to the Social structural and Social cognitive capital variants, the relationship is negative ( $\beta = -0.208$ , t- statistics = 1.220;  $\beta = -0.067$ , t- statistics = 0.323). This is how social capital affects an entrepreneur's social incentive in numerous ways. However, an entrepreneur with a significant amount of social capital, particularly relational capital, is more likely to be socially driven. His activities and contacts with social capital and networking reflect his motivation to advance in business through socialization. These findings make sense to us in the context of creating a rural business that is primarily driven by social motivation.

Table 33. Summary of the H 4

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p- values	5%	95%	Decision
<b>H4</b>	<b>H4.1</b>	Social structural capital -> social motivation	-0.208	1.220	0.222	- 0.658	- 0.250	<b>Rejected</b>
	<b>H4.2</b>	Social relational capital -> social motivation	0.863	6.209	0.000	0.602	1.080	<b>Supported</b>
	<b>H4.3</b>	Social cognitive capital -> social motivation	-0.067	0.323	0.747	- 0.425	0.269	<b>Rejected</b>
<b>H4: Social capital -&gt; social motivation</b>			0.586	9.279	0.000	0.450	0.681	<b>Partially Supported</b>

#### 4.5.1.5. The link between social motivation and participation in the development of agritourism business

*H5: Social motivation in an entrepreneur has a positive effect on participation in the development of agritourism business.*

The results of statistical analyses linked to the influence of an entrepreneur's social motivation on participation in the growth of an agritourism firm demonstrate a significantly negative association ( $\beta = -0.072$ ). At 5%, the direct correlation is insignificant (t- value = 1.242), according to the bootstrap analysis (See table 34). This finding explains why an entrepreneur is not socially motivated to engage in agrotourism business development. As a result, the H5 hypothesis is not validated, indicating that agritourism entrepreneurs are not motivated to enhance and build their operations. We can assume that this is due to the current circumstance in which the entire planet is experiencing a pandemic. Most sectors have been harmed by COVID-19, including the agritourism sector, which is expanding as a new industry linked to the visits of local and foreign tourists.

Table 34. Summary of the H 5

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p - Values	5%	95%	Decision
<b>H5</b>	<b>H5.1</b>	social motivation - > participation on farm	-0.049	0.683	0.495	- 0.169	0.050	<b>Rejected</b>
	<b>H5.2</b>	social motivation - > participation off farm	-0.056	0.851	0.395	- 0.156	0.023	<b>Rejected</b>
<b>H5: social motivation -&gt; participation in the development of agritourism business</b>			-0.072	1.242	0.214	- 0.175	0.018	<b>Rejected</b>

#### 4.5.1.6. The link between functional competencies and participation in the development of agritourism business

***H-6: Functional competencies have a positive effect on participation in business development in agritourism.***

This hypothesis supports the notion that an entrepreneur's functional competencies motivate participation in the growth of an agritourism enterprise. Functional competencies have a strong positive and significant coefficient ( $\beta = 0.923$ , t- statistic = 28.466), according to statistical analysis. As a result, the sub-hypothesis is confirmed. Functional abilities do, in fact, have a positive and significant effect on on-farm engagement ( $\beta = 0.906$ , t- statistic = 21.036). This is a supported theory (See table 35). As a result, functional competencies have a positive and significant impact on off-farm engagement ( $\beta = 0.884$ , t-statistic = 18.728). Given the relevance of an entrepreneur's functional competencies, the latter is urged to engage in the development of agritourism businesses, whether on or off the farm.

Table 35. Summary of the H 6

Hypothesis	Under Hypothesis	Relationship	Original Sample	t- Statistics	p- Values	5%	95%	Decision
<b>H6</b>	<b>H6.1</b>	functional competencies -> participation on farm	0.906	21.036	0.000	0.856	0.980	<b>Supported</b>

<b>H6.2</b>	functional competencies -> participation off farm	0.884	18.728	0.000	0.810	0.949	<b>Supported</b>
<b>H6: functional competencies -&gt; participation in the development of agritourism business</b>		0.923	28.466	0.000	0.860	0.967	<b>Supported</b>

#### 4.5.1.7. The link between social capital and participation in the development of agritourism business

*H-7: Social capital has a positive effect on participation in the development of agritourism business.*

The results of the structural model estimation of the social capital influence on participation in the growth of agritourism companies demonstrate that the relationship is strictly positive with the value ( $\beta= 0.064$ ). The direct association between the value of the t- statistic and the value of the t- statistic is not significant at the 5% level, according to bootstrap processing (1.743). These findings highlight the relevance of social capital in agritourism company development, particularly in health-related issues (COVID-19), which have increased people's interactions and engagement in the agritourism sector's development. We can say that the hypothesis is validated at the end of these findings in table 36.

Table 36. Summary of the H 7

Hypot heis	Under Hypot heis	Relationship	Origin al Sampl e	t- Statis tics	p- values	5%	95%	Decision
<b>H7</b>	<b>H7.1</b>	Social structural capital -> participation on farm	0.151	1.802	0.072	- 0.065	0.293	<b>Support ed</b>
	<b>H7.2</b>	Social relational capital -> participation on farm	-0.163	1.460	0.144	- 0.366	0.005	<b>Rejecte d</b>
	<b>H7.3</b>	Social cognitive capital -> participation on farm	0.087	0.846	0.398	- 0.082	0.257	<b>Rejecte d</b>

<b>H7.4</b>	Social structural capital -> off-farm participation	-0.103	1.041	0.298	- 0.268	0.058	<b>Rejected</b>
<b>H7.5</b>	Social relational capital -> off-farm participation	0.019	0.226	0.821	- 0.124	0.151	<b>Rejected</b>
<b>H7.6</b>	Social cognitive capital -> off-farm participation	0.176	1.862	0.063	0.033	0.347	<b>Supported</b>
<b>H7: Social capital -&gt; participation in business development in agrotourism</b>		0.064	1.743	0.079	0.081	0.125	<b>Partially Supported</b>

#### 4.5.2. Presentation of Indirect links

##### 4.5.2.1. The social identity mediation relationship of the relationship between social capital functional competencies

**H8: social identity mediates the link between social capital and entrepreneurs' functional competencies.**

We were able to uncover the mediating effect of social identity in the relationship between social capital and entrepreneurs' functional competencies by following the procedure for verifying the mediation effect, which was previously described by Preacher and Hayes (2008) as well as Zhao et al. (2011), and by following Hair et al. (2017) recommendations. In fact, we began by assessing the two conditions pertaining to the indirect and direct effects. On the one hand, the findings of the Bootstrap processing statistics demonstrated that the indirect influence of social capital on entrepreneurs' functional competencies through social identity is substantial ( $p$ -value < 0.000). The verification of the second criterion, referring to the direct effect of social capital on the functional competences of entrepreneurs, revealed a substantial effect (see table 37), leading us to infer that social identity is a partial mediator. Furthermore, the Bootstrap treatment of PLS was used to verify the confidence intervals, confirming the mediating role of social identity in the association between social capital and functional competences of entrepreneurs. The degree of social identification that explains the variation in functional abilities was revealed by the ratio of variation of the indirect effect to the total effect (VAF = 0.365), demonstrating a typical partial mediation.

Table 37. Summary of the results of the direct and indirect effect of the mediation relationship (social identity)

Total effect (SC -> FC)	Direct effect (SC -> FC)		Indirect effects of (SC -> FC)					Results Supported	
	Coefficient	p-value	Coefficient	p-value	Coefficient	SD	t-Value		p-value
0.435	0.000	0.161	0.083	<b>H: SC-&gt;SI-&gt;FC</b>	0.268	0.052	5.135	0.000	0.190, 0.365

We check the type of mediation according to Baron and Kenny at this level (1986). The direct and indirect effects are both significant, and the sign of their product is positive, indicating that "social capital" mediates part of the effect on "functional competencies," in addition to the fact that "social capital" explains part of "functional competencies" independently of "social identity." In other words, a high level of "social capital" supports the entrepreneur's social identity, which has a beneficial impact on his functional competencies. As a result, we might conclude that it is a partial complementary mediation (See table 38).

Table 38. Summary of results of the type of mediation (social identity)

Direct effect sign	Indirect effect sign	Product sign (direct effect * indirect effect)	Type of mediation
+0.161	+0.268	+0.038	<b>Complementary</b>

#### 4.5.2.2. The mediating relationship of the social motivation of the relationship between social capital and participation in the development of agritourism business

***H9: Social motivation mediates the relationship between social capital and participation in the development of agritourism business.***

On the one hand, the results of the statistical analyses of the Bootstrap treatment of PLS relating to the verification of the mediating effect of social motivation in the relationship between social capital and participation in the development of agritourism business showed that the indirect effect of social capital on participation in the development of agritourism business through social motivation is not significant. On the other hand, social capital has a strong direct effect on participation in the growth of agritourism businesses (See table 39).

Table 39. Summary of the direct and indirect effect of the mediation relationship (social motivation)

Total effect (SC -> AG)	Direct effect (SC -> AG)		Indirect effects of (SC -> AG)						Results	
	Coefficient	p-value	Coefficient	SD	t-Value	p-value	BI (5%, 95%)	Rejected		
0.424	0.000	0.064	0.081	H: SC->SM->AG	-0.042	0.040	1.142	0.253	-0.111, 0.009	

By checking the type of mediation, we can see in table 40 that the direct effect between "social capital" and "participation in the development of agritourism business" has a positive sign, whereas the indirect effect has a negative sign, leading us to conclude that the product of the indirect effect has a negative sign. These findings demonstrate that there is no mediation. Based on these findings, we may conclude that "social motivation" does not act as a mediator between "social capital" and "engagement in the growth of agritourism businesses".

Table 40. Summary of results of the type of mediation (social motivation)

Direct effect sign	Indirect effect sign	Product sign (direct effect * indirect effect)	Type of mediation
+0.064	--0.042	-1.523	Not Complementary

#### 4.5.2.3. The relation of moderation of social innovation of the relation between social capital and participation in the development of agritourism business

***H 10: Social innovation moderates the relationship between social capital and participation in the development of agritourism business such that a higher level of social innovation would strengthen the positive relationship between social capital and participation in the development of agritourism business.***

Insofar as social innovation does moderate the relationship in question, the results of checking the moderating impact of social innovation using the interaction term of the creation method are contradictory to our assumptions. However, the estimated direct link between social innovation and participation in the growth of agritourism business implies that social innovation may serve as an antecedent to the reasons for agritourism business development.



Table 41. Indicators of the tests of the direct relationship between social innovation and participation in the development of business in agritourism

	<b>Initial sample (O)</b>	<b>t- Statistics</b>	<b>p- values</b>	<b>5%</b>	<b>95.0%</b>
<b>Moderator effect 1 - &gt; participation in the development of agritourism business</b>	-0.086	2.380	0.017	-0.163	-0.039

Insofar as social innovation moderates the link in question, the results of the two-stage approach to verifying the moderating impact of social innovation match our expectations. The evaluation of the direct link between social innovation and participation in the development of the agritourism industry, on the other hand, reveals that social innovation plays an essential role in development (See table 41). Indeed, implementing social innovation encourages learning and adds to the growth of an entrepreneur's business in their area. In a somewhat dynamic environment like tourism, and more specifically agritourism, the cooperative capacities between members of an entrepreneur's social capital, as well as the inventive learning developed, appear to be key influencers in agritourism business involvement. The relationship between social capital and participation in the growth of agritourism businesses is summarized in Figure 28, which is moderated by social innovation. We accept the hypothesis of the moderating influence of social innovation on the link between social capital and involvement in the growth of agritourism firms based on these findings and comparisons to the literature. Because it fosters the formation of a shared vision and common sense around the goal of sustainable tourism, this construct serves as both a predictor and a driver of responsible innovation.



## Moderation effect test by approach Two- stage

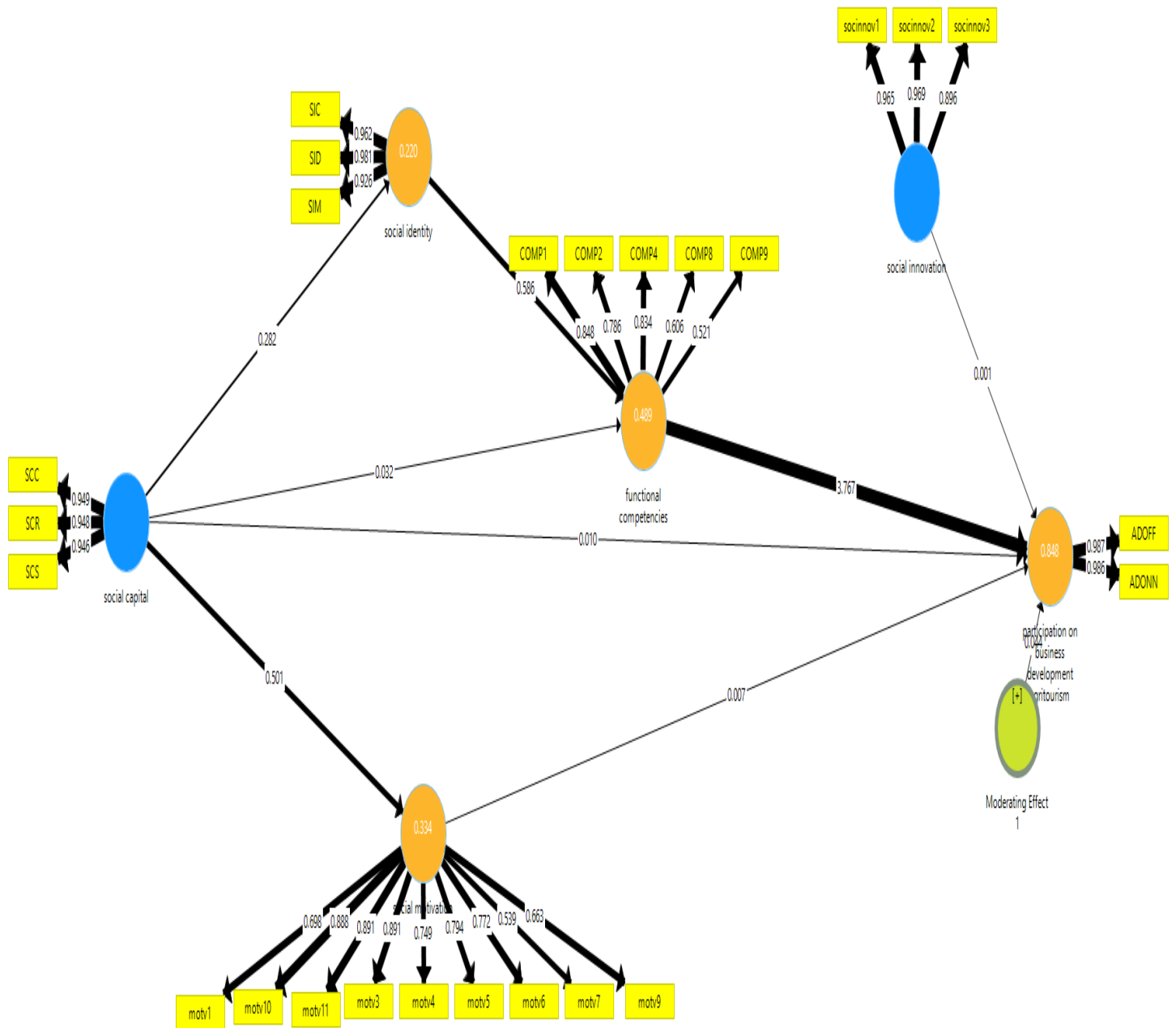


Figure 28. Diagram of the moderation effect

## 5. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this doctoral dissertation is to investigate the influence of entrepreneurial social elements in the growth of agritourism businesses. Concepts that have never been addressed in a conceptual model that connects them together, especially in a novel environment like agritourism. The goal of combining these notions was to better forecast the behavior of an entrepreneur who is having increasing difficulty figuring out how to establish a firm and how to position it favorably against competition. The following is a description of the work's problem: *"How do entrepreneurial social factors have effect on the entrepreneurial development of an agritourism business in rural Tunisian regions?"*.

The primary goals of this study are to gain a better understanding of the concept of participation in the development of agritourism businesses, which has yet to be defined, as well as to appreciate the power explanation of this construct in relation to the social factors that lead to its realization. Similarly, we hope to propose a conceptual framework that connects entrepreneurial social factors and participation in the development of agritourism businesses in order to test them simultaneously by identifying a moderating variable that may affect the interaction between two dynamics that ultimately lead to business success. As a result, our primary goal is to investigate and better understand agritourism enterprises, as well as to assess their potential as a model for vital rural development. In truth, agritourism is an element of the rural world's integration into development dynamics. Farmers, according to their philosophy, contribute to the beautification of the countryside. As a result, this type of tourism can keep couples on the farm and away from off-farm jobs. It also allows you to open yourself to the outside world and break up the monotony of daily rural living through relational connections with clients.

In Tunisia, challenges remain, including the legal framework for the business and the profile of the Tunisian agricultural producer. To tackle these issues, Tunisia must establish a program to encourage agritourism and entrepreneurs who have already begun or intend to start in the field. As a result, its programs must begin with the reality and viewpoints on the ground. As a result, the value of our research or model was to explain social aspects in the context of agritourism through the study of entrepreneurship. For the economic development of a business in a new context, such as agritourism, an agritourism entrepreneur's social capital can promote the economic development of his activity to the extent that his relationships facilitate the circulation of information and then give him access to new resources, both material and immaterial (raw materials, capital) (knowledge). Furthermore, social capital can affect an entrepreneur's economic activities as well as the development of local tourism more broadly through strong relationships, such as family or friends. Indeed, when trusting connections develop amongst entrepreneurs, we see that they have an impact on their strategic behavior, sometimes leading to the establishment of a new business, additional investments, or even a price level agreement. As a result, entrepreneurs have been worried with maintaining a large number of relationships with a variety of people, both geographically and socio-professionally. Data research demonstrated that social capital is important for an agritourism entrepreneur's business development. We realized the importance of specific constructs linked (related) to our study framework as we progressed in our investigation. According to the literature on social identity structures, social motivation motivates entrepreneurs to continue building their enterprises, and functional competencies are crucial.

Indeed, social capital appears to be a factor of the entrepreneur's desired social identity. Furthermore, the concept of social capital has been proven to be directly linked to the entrepreneur's functional competencies. Due to the global health crisis and the small number of participants in our sample because agritourism is a new sector in Tunisia, social motivation is not important to engage in the development of business in agritourism. These constructs that we felt

significant to examine in engaging in the creation of an agritourism firm have thus been added to our theoretical framework. To accomplish so, we've decided to start with a double exploratory qualitative study using semi-structured interviews to gain a better understanding of the subject and to uncover any potential relationships and constructs by comparing them to the literature. We began the second portion of the interview with the same interviewees after conducting a qualitative investigation with ten entrepreneurs of Tunisian rural lodges. This research has allowed us to gain a more comprehensive understanding of the evolution and formation of social capital mobilized in the framework of agritourism, as well as to identify potential variations in the key components of rural lodgings. The exploratory study with the same entrepreneurs, on the other hand, allowed us to identify the key "social incentive of an agritourism entrepreneur," which agrees with Bartha, et al. framework (2019). It also enabled us to determine the components of a social identity that an entrepreneur picks while building his company. This research enabled us to separate the various dimensions of the concept of participation in the development of an agritourism business. We generated a set of hypotheses and proceeded to construct our conceptual model based on our literature review and the outcomes of our exploratory qualitative studies. Our modeling entails connecting social capital to entrepreneur functional competencies via the mediation of social identity, as well as social capital to participation in the growth of agritourism businesses via the mediation of social incentive and moderation by social innovation. We conducted a survey of 100 entrepreneurs from rural lodges to evaluate the model and verify the research hypotheses by administering a questionnaire. The 'Partial Least Squares' structural equation method was used to examine these data. These statistical treatments occupied the second half of our effort. We began with factorial analyses of the measuring equipment used to measure the constructs, both exploratory and confirmatory. Then we looked at the many direct and indirect mediation and moderating relationships. In addition to the direct benefits of social capital and functional competencies, the research model allowed us to highlight the mediating effects of social identity and social motivation. As a result, it has allowed us to improve our knowledge and understanding of how entrepreneurs can participate in the growth of an agritourism firm while considering entrepreneurial social concerns. The interactions of social capital support this participation in the development of an agritourism firm, and particular functional competencies peculiar to the entrepreneur stimulate it. Otherwise, for the effective development of their agritourism firms, entrepreneurs value their social capital and functional competencies.

## **5.1.Contributions**

### **5.1.1. Theoretical contributions**

This study investigated entrepreneurial behavior in the establishment of an agritourism firm and developed a methodology to assist entrepreneurs in this sector who are experiencing economic hardship following COVID-19 and the revolution. Beginning with an examination of the factors that influence entrepreneurial behavior in the development of agritourism businesses, the research has resulted in a conceptual model that can be used to encourage entrepreneurs to develop their entrepreneurial social factors in the growth of their agritourism businesses. The best final fit of the model obtained in this study suggests that: (i) the dimensions of an entrepreneur's social identity are affected by different levels of entrepreneurial social capital; (ii) the different dimensions of entrepreneurial social capital do not directly affect the participation in the development of agritourism business; on the other hand the mediating role of functional competencies plays an important indirect role in this relationship (SC) and (AG); (iii) the relationship between social capital and functional competencies mediated by social identity is tested significantly positive; (iv) social entrepreneurial capital has had a direct influence on the social motivation of an entrepreneur; on the other hand the relationship between this and the participation in the development of

agritourism business mediated by social motivation responsibility of an entrepreneur is tested significantly negative. There has been some research into the impact of social innovation on the establishment of agritourism businesses. This study appears to be the first to use data directly from Tunisian agritourism entrepreneurs to assess the effects of social innovation on the relationship between social capital and participation in the development of the industry. The findings of this study can help entrepreneurs in the agritourism sector, especially in light of the economic difficulties brought on by pandemic outbreaks. These findings can inform the growth of agritourism businesses, especially in a crisis, thanks to our expanding understanding of the necessity of employing social variables of entrepreneurs in the development of a firm. This study can also help with the development of entrepreneurial marketing communications, allowing for more effective campaigns to impact visits and stays in rural lodges.

One of the goals of this research was to look at the role of social capital in entrepreneurial development. Social capital is frequently regarded as a critical component of entrepreneurial development. However, research on this topic is fragmented and dispersed, and there is a lack of an integrative model that takes into account both the multifaceted nature of social capital and the outcomes of entrepreneurial growth models. The measurement of social capital has traditionally been done in terms of the entrepreneur's relative position in his social network and the attributes that derive from it, reducing social capital to one dimension and separating other components. The three components of social capital (structural, relational, and cognitive) are integrated and researched in greater depth in this work to capture all of the qualities of this concept and its implications on entrepreneur development. In comparison to earlier research, this study adds the assessment of the impact of social capital on entrepreneurial development. Its goal is to demonstrate the significance of this concept as an analytical framework for incorporating social factors into entrepreneurial activity. However, the findings demonstrate that, contrary to the study's previous conclusions, the three dimensions of social capital have no direct impact on participation in the growth of agritourism businesses; however, an indirect effect enhances the association between the two variables. Indeed, the tourism economy, and more specifically, the agritourism sector in our study, has been badly impacted by the coronavirus epidemic and the efforts taken to contain the virus's spread. As a result, given the intertwining of the effects of the economic and health crises, as well as the gradual relaxation of travel restrictions, demand recovery will take time. At the same time, as the pandemic persists, travelers' confidence will be harmed much more. This attitude will undoubtedly alter once the agritourism entrepreneurs who faced difficulties during the recession have recovered. The combination of modern and older literature has allowed the specificities of the notion of social capital in the era of participation in the development of agritourism company to be clarified. Furthermore, even though the sample size was small, the fact that we segmented the study of the process of developing a business into four main stages, each with several sub-stages (see qualitative) allowed us to refine our understanding of the role of social capital in the development of a business in the agritourism context. It also gives a model that the reader might assume, but which has never been shown so convincingly using actual data. Each stage of the business development process necessitated the development of a new social capital structure.

The assessment of the agritourism literature in the second part suggests that agritourism's epistemological and methodological advancement are two crucial features of agritourism in social entrepreneurship (Barbieri et al., 2019; Rauniyar, et al., 2020). This bibliometric analysis will aid scholars in identifying understudied agritourism themes in social entrepreneurship for further study.

The research highlights top academics and research countries in the subject of agritourism in social entrepreneurship, as well as major research issues, interrelationships, and partnership methods. This study contributes to the understanding of agritourism as a concept in social entrepreneurship. The bibliometric and structured network analysis conducted could help to fill the gap in

agritourism research in social entrepreneurship (Rauniyar, et al., 2020). This systematic mapping of the agritourism research field in social entrepreneurship aids in effectively visualizing the available literature in the field of agribusiness by graphically illustrating the evolution of research publications over time and assisting in the identification of current and potential research interests.

The third contribution is the linking of variables that have never been presented in the same study before and that have succeeded in empirically validating the effects that we wanted to measure and in explaining in a significant way the participation in the development of agritourism businesses in the entrepreneurship field that we were interested in modeling. The study of entrepreneurial social elements within the theoretical framework of entrepreneurial engagement in the development of an agritourism firm and its interaction with social variables is a valuable addition to the entrepreneurial literature. Indeed, the development of a conceptual framework that connects entrepreneurial social factors (social capital, functional competencies, social identity, and social motivation) has made it possible to identify the most determining variables in entrepreneur participation in the development of agritourism businesses and to determine their possible effects by validating it empirically in an entrepreneurial framework. Finally, qualitative research has been very useful in identifying agritourism enterprises (rural lodges in our instance) and businesses on real land, as well as the dimensions of social capital, social identity, and conceptual specificities of participation in the growth of company agritourism. These social entrepreneurial aspects have been found to be critical in the growth of agritourism businesses (Nahapiet & Ghoshal, 1998; Sieger, et al., 2016; Bartha, et al., 2019; Durrande-Moreau, et al., 2017). As a result, an entrepreneur who possesses these entrepreneurial social traits and combines them will be more likely to continue participating in the growth of their agritourism firm. All of these contributions have enabled us to enrich the work of recent literature with those who have been our basic references such as the social capital reference framework of Nahapiet and Ghoshal (1998), the work of Sieger et al., (2016) for social identity, research on social motivation by Bartha, et al (2019) and participation in the development of agritourism business of Durrande-Moreau et al (2017) by continuing research on the factor's entrepreneurial social skills of an agritourism entrepreneur and applying their measurement scale.

### **5.1.2. Methodological contribution**

This PhD dissertation benefits from a qualitative study of rural lodging entrepreneurs. We were able to have a broad field of view from several angles as a result of these research, which increased the study's rigor. Furthermore, the empirical confirmation of the relationships using a combination of a qualitative method backed by semi-structured interviews and a quantitative approach via the administration of the questionnaire was a significant contribution to our research. In addition to applying entrepreneurial social factor scales to rural lodge entrepreneurs in the context of agritourism in a developing country like Tunisia and constructing a scale for assessing involvement in the growth of an agritourism business based on Durrande-Moreau et al.'s work (2017). Another novelty of this work is the use of appropriate metrics and their validation in the context of a study of entrepreneurial agritourism.

Our final management contribution is the utilization of the technique for constructing second-order entities using the approach of repeated indicators and crossing it with the first stage of the two-stage approach. Indeed, the "repeated indicator" approach allows for the evaluation of causal links between higher-order constructs by modeling second-order reflective structures (Hair et al., 2017). In other words, this method allows you to determine the significance of the relationship between higher-order constructs, but it does not allow you to determine the significance of the direct impacts of lower-order dimensions on the model's dependent variables. Given the necessity of

investigating both the lower and higher levels of the relationship in our study setting, we built two models. The main model of our study, which was evaluated using the repeated indicators approach and included second-order constructs alongside first-order constructs, helped us test the main hypotheses by examining the relationship between higher-order constructs and allowing us to better interpret the validity of the first order measurement model and the structure model, as well as predict the quality of our study model. Thus, a second causal model which contains the manifest first-order variables without containing the second-order constructs and this by following, on the one hand, the recommendations of the software developer SmartPLS as Becker (2018) and Hair et al. (2017) and, based on the works of Van Riel (2018), and Henseler et al. (2014).

### **5.1.3. Managerial contribution**

This study could aid entrepreneurship professionals and entrepreneurs in the development of their agritourism firms. We have a few suggestions in this direction that we feel free to make. Managers of rural lodges, in particular, must pay close attention to their enterprises' development by taking a social approach. Indeed, the findings on the impact of social capital on agritourism entrepreneurs highlight the importance of the structural, relational, and cognitive links that these entrepreneurs must favor in the development of their businesses in order to facilitate certain stages in the progression of their functional skills and the identification of the right social identity for them. As shown in our findings, they could also enhance their social incentives in order to increase their participation in their agritourism enterprises. They do so by providing a social framework that encourages the growth of social entrepreneurship. Nowadays, social entrepreneurial characteristics have become a requirement for the success of enterprises, which are more reliant on social entrepreneurship for their growth and pursuit. Furthermore, combining the findings of qualitative investigations with a review of the literature revealed that an entrepreneur's business in agritourism requires entrepreneurial social characteristics (social capital, functional competencies, social identity, and social motivation). Entrepreneurs employ functional competencies as an entrepreneurial social component that aids in the growth of an agritourism firm.

Identifying key issues, themes, challenges, and potential areas of agritourism in social entrepreneurship will also assist agritourism marketers, destination managers, policymakers, and other key stakeholders in developing and strengthening the status of all partners involved in an agritourism value chain in social entrepreneurship, as well as narrowing the gap between entrepreneurs' expectations and perceptions.

Another managerial contribution is the identification of new kinds of agritourism for entrepreneurs as well as tourists, which is leading the way in this sort of tourism. This method, on the other hand, allows for a new perspective on agritourism based on a deeper understanding of reality. It should enable the agritourism operator to expand his firm and the activities he or she provides to tourists and visitors. Furthermore, it must address the importance of commerce in agritourism. The public is interested in land and agriculture goods, which can be used as a tourist resource. Consumers, on the other hand, are interested in locally produced foods, how they're prepared, and the cultural aspects that surround them. They enjoy exploring, tasting, and bringing them back as souvenirs. They value the unique opportunity to immerse themselves in the agricultural world. It's critical for them to have documentation that the food they're eating is from the location they're visiting. The environmental (e.g., hiking trails) and cultural (e.g., castles, churches) aspects of the regions are frequently highlighted in brochures and websites, but the agricultural heritage is rarely mentioned. Some tourist portals, for example, offer "flavor" or "terroir," which showcase regional food goods, or "accommodation," which connects visitors to farm inns. As a result, the entrepreneur should focus on growing his business. Similarly, this research aids the entrepreneur



in integrating these agritourism offers into the territory in order to achieve a favorable position. In this age of health crisis, which has destroyed the tourism and agriculture sectors, the agritourism offer is consistent with the more general tourist offer, as well as the total offer of the region. Territorial marketing might be a road that an entrepreneur can take to achieve this consistency, which must be built as the initiatives progress. This study demonstrates the necessity for agritourism mediator training for localities interested in developing agritourism. The territories can also act in the long run through vocational training if they want to develop agritourism. Our findings reveal that people in the agricultural sector rarely consider tourism products, while people in the tourism world frequently overlook agricultural wealth.

## **5.2. Limits and perspectives of the research**

Despite its merits, our research has limitations. The first constraint we'd like to mention has to do with the size of the sample we employed to evaluate our study hypotheses. Because of the novelty of this industry, as well as the health problem being at the root of a worldwide economic crisis with life-changing repercussions, we have only interacted with a few agritourism entrepreneurs. It has had very tangible effects on the tourism sector, which is vital to many populations, communities, and businesses, and these ramifications are especially felt in countries, cities, and regions where tourism accounts for a significant portion of the economy, making an exhaustive study impossible. Future study could consider this limitation by defining research criteria that allow researchers to reach a larger population that is likely to reflect the characteristics of these entrepreneurs.

The second constraint that we must note is the operationalization of the concept of an entrepreneur's social drive. The findings revealed no significant link between participation in the establishment of agritourism businesses and the results. This result, however, does not necessarily imply that the entrepreneurs polled are not socially driven. On the contrary, we believe that an entrepreneur's social drive plays a role in his or her ability to participate in the development of a business. This unexpected outcome could be explained by the tiny sample size required to get concrete results, as well as the negative implications that the globe is experiencing as a result of the coronavirus, which has impacted various sectors, including our doctorate work context.

The final point we'd like to make is that using the PLS method inside the framework of structural equation models provides a novel approach to studying entrepreneurial social dynamics and rural development. Despite its limits, it thus opens significant research possibilities, as the models built as part of this work have properties that are well suited to the application of this method.

## 6. NEW SCIENTIFIC RESULTS

Since the 1970s, the Tunisian tourism system has produced mass seaside tourism, concentrated in coastal towns. The tourist infrastructure (essentially seaside resorts) is often assimilated to the hotel industry. This mono- activity, favored by a certain sectoral policy, is at the origin of the current tourist crisis in all its dimensions: economic, social and environmental. The political instability that followed the 2011 revolution, as well as the terrorist attacks that hit Tunisia in 2015, significantly reduced the number of tourists to the country. These political and security crises were overtaken by his recovery from Covid-19. The priority of Tunisian tourism stakeholders today is therefore to relaunch this sector. At the same time, an awareness of environmental issues has emerged in recent years to promote the development of a new type of more sustainable tourism.

The prospect of developing sustainable and responsible tourism has developed among travelers the need for a new form of tourism, local and ecological. Indeed, the appearance of agritourism as an important lever that contains essential elements to contribute to the construction of the tourism of tomorrow. It involves the preservation of natural resources and cultural heritage with respect for local communities and their interests as well as those of visitors and future generations. Thus, under the effect of the pandemic, the health dimension integrates this concept of alternative tourism. Moreover, the overhaul of tourism and its system must therefore be part of a global and integrated long-term approach, which mobilizes all the actors of the territories-destinations concerned. Therefore, the present study is conducted to examine and deepen the understanding of agritourism enterprises and assess its potential as an important development model in rural areas. Also understand the role of social entrepreneurship factors in fostering agritourism entrepreneurship.

- The development of the social capital of the entrepreneur during the development of business in agritourism is a novelty in my study.

In terms of the mechanisms associated to the transmission of information, the interviews I've conducted with entrepreneurs suggest that it's critical to distinguish the types of information involved. If it exists on a large scale and affects people from various circles, social capital can have an impact on the image of an activity. As a result, the entrepreneur with a large number of local contacts and who works in remote places will benefit from multiple professional partnerships and other benefits. On the other hand, because of the presence of many people from various groups and within the professional sphere, the entrepreneur will have better access to information for assistance or resource information. Finally, when the information transmitted involves the day-to-day administration of the company, proximity can be useful. Managers of agritourism firms must be cautious when establishing their businesses using a social strategy. Indeed, the findings on the impact of social capital on agritourism entrepreneurs emphasize the importance of the social capital links that these entrepreneurs must foster in the development of their businesses, as it allows them to take certain steps to improve their functional skills and identify the best marketing strategy for their products and services.

- The output of the study provides novel information about the research areas in agritourism in social entrepreneurship.

In my research, I employed the Rowley and Slack technique to conduct a systematic review of the agritourism literature (2004). To fill the vacuum of any such research that would analytically and objectively define the main research poles in this subject, I presented a systematic structured bibliometric and network analysis of the body of literature on agritourism in social entrepreneurship.

Important keywords have been identified, together with their proportional frequency of use and, as a result, the most searched locations within the theme of agritourism in social entrepreneurship. Through an iterative examination of search keywords, potential knowledge gaps and research gaps connected to agritourism in social entrepreneurship were identified. In the document's "research topic" section, notable contributions are noted and grouped together. This section of the study identified influential authors' works, as well as their co-citation, dominance, and collaboration. The in-depth manual assessment of all known research works in the field highlighted emerging poles of research in the subject of agritourism in social entrepreneurship literature. In the context of agritourism in social entrepreneurship, the political ramifications appear to be the most researched area. The study investigated the elements that influence tourist destination selection, perception formation, and externality. It also discusses the importance of farmers' traits and reasons for using such on-farm procedures to boost their revenue. Technical factors were also examined in relation to the leisure and agritourism industries. The study also focuses on the innovation gap, as well as marketing and pricing strategies.

The United States, Italy, and the United Kingdom have done the most research on agritourism in social entrepreneurship. While research from Asian and African countries with agrarian economies is still in its infancy.

The study emphasizes the conceptual distinction between agritourism and other related ideas in the typology of agritourism. It also shows that topics like the role of social elements including social identity, social motivation, social capital, and skills have received very little attention. It was observed that there is a strong need to identify important research themes that have remained unexplored but are essential to realizing the potential of agritourism in social entrepreneurship. As a result, we conducted our study, which looked at the topic of social entrepreneurship elements.

- This pioneering research on entrepreneurial social factors in agritourism is not without evoking many dimensions that open up new avenues of theorization.

This was a difficult topic to research. Because there are no credible and available basic data and statistics on agritourism in Tunisia, this is the first study of the social variables of entrepreneurship in the agritourism sector based on qualitative and quantitative analysis. The findings of our study enable us to comprehend the social behavior of agritourism entrepreneurs, their social capitals that aid in business development, as well as their social motivations and the factors, primarily social identity and functional competencies, that encourage the entrepreneur in

the project development process. This was a difficult topic to research. Because Tunisia lacks trustworthy and accessible fundamental data and statistics on agritourism in general, this is the first study to be conducted. The findings of this study help to fill a gap in the literature by bringing together social factors of entrepreneurship in the agritourism industry not only in Tunisia but also in other countries and formulating methodological guidelines for data collecting and analysis.

- The conceptual model of this study, which considers the entrepreneurial social factors as a potential of agritourism development.

In my empirical research, it was discovered that social capital plays a critical role for Tunisian entrepreneurs seeking to develop their businesses due to a lack of information from government institutions by promoting the economic development of their activity by facilitating the circulation of information and then providing access to new resources, both material (raw materials, capital) and immaterial (knowledge). The findings emphasize the importance of social motivation and social identity in business development, as well as functional skills for successful agritourism business development.

## 7. SUMMARY

This doctoral research is interested in the study of the role of entrepreneurial social factors in the participation in the development of agrotourism. Concepts that have not been studied in a conceptual model that brings them all together and especially in a new context such as agritourism. The goal of this choice of crossing these concepts was to better predict the behavior of the entrepreneur who finds it increasingly difficult to start a business and to position it well in relation to its competitors. The problematic of this work is presented as follows: "How do entrepreneurial social factors have an effect on the entrepreneurial development of an agritourism company in rural Tunisia?".

The general objective of this study is to examine and deepen the understanding of agritourism enterprises and to assess its potential as a model for important development in rural areas. Also, to understand the role of social entrepreneurship factors to encourage agritourism entrepreneurship. Linked to the general objective, the study has specific objectives: To examine what agritourism entrepreneurship is and to understand the relationship between development, planning and tourism with the aim of identifying the main characteristics of the concept of agrotourism, to explore and examine the important role of entrepreneurship social variables on agrotourism Tunisian business development. However, explain how different factors influencing the behavior of an entrepreneur in the development of an agrotourism business, conceptualize, test and validate a research model explaining the entrepreneurial social factors of a Tunisian entrepreneur within the framework of his participation in the development of an agrotourism business. To achieve these objectives, *I used a systematic review of the agritourism literature to clarify the concept of agritourism in social entrepreneurship. A systematic structured bibliometric and network analysis presented in the body of literature on agritourism in social entrepreneurship to fill the void of unavailability of any such research that would analytically and objectively determine the main research poles in this domain. After that, a study model was constructed, and primary data was collected using qualitative and quantitative approaches. First, in-depth interviews with rural lodge entrepreneurs were conducted to highlight the main research problem and better understand the main variables of the study. In the quantitative part, a questionnaire was developed and distributed to Tunisian entrepreneurs to understand the structure of their entrepreneurial behavior. After testing the collected questionnaire, only 100 questionnaires were valid and used for the analysis part. The data was analyzed using the SPSS 26 and SmartPLS 3.0 programs, and the various statistical tests were applied focusing on the analysis of the modeling of structural equations. The results of this research revealed the following main conclusions:*

1. Social capital positively affects the functional skills of the entrepreneur. If social relationships connected to the network are poorly managed, they risk negatively influencing the functional skills of the entrepreneur and risk no longer providing information channels that reduce the time and effort required to collect information.
2. The effect of social capital dimensions on the development of the social identity of the entrepreneur confirm the existence of a positive and significant link between the two constructs. The results found to confirm that the social identity of entrepreneurs is a result of a large portfolio of social capital. In other words, an entrepreneur who has an important base of social capital tends to positively develop his social identity.
3. The functional competencies of an entrepreneur is favored by the development of different social identities and activities when launching a rural business.
4. An entrepreneur who holds an important base of social capital and more especially a base of relational capital, tends to be socially motivated. His behaviors and interactions with social capital and networking reveal the motivation of socialization for him-self to move forward in business.
5. The results showed that entrepreneurs are not motivated to improve and develop businesses in agritourism. We can deduce that perhaps because of the current situation that the whole world is living in during this period of a pandemic. COVID-19 has prevented the survival of most sectors,

including the agritourism sector which is emerging as a new sector, and which is linked by the visits of local or international tourists.

6. With the importance of the functional competencies that an entrepreneur must have, the latter is encouraged to participate in the development of agrotourism business whether on-farm or off-farm.

7. The social capital effect on participation in the development of agritourism business.

The social identity mediation relationship of the relationship between social capital functional competencies. Unlike social motivation, it does not contribute to mediate the relationship between social capital and participation in the development of agritourism business.

The results show that a higher level of social innovation would strengthen the positive relationship between social capital and participation in the development of agritourism business. In addition, the results reveal that at higher level of social innovation, the social capital was found to have a stronger impact on participation in the development of agritourism business.

Given the novelty of the field of study, this research is one of the pioneering works that can serve as a benchmark for the future work of academics and researchers. More importantly, the results of this study can provide useful information for entrepreneurs in the agricultural and tourism sector who plan to fully understand the behavior of an agritourism entrepreneur before offering an appropriate product or service to consumers. The results of this study can be used by the territorial managers and the managers of the rural lodges or the managers of the agritourism sector interested to improve their strategies and policies regarding this sector. In addition, agritourism entrepreneurs can use the results of this study to develop more competitive communication strategies and provide them with a better understanding of the main variables that could affect the behavior of their entrepreneurs to fully understand the behavior of their consumers.

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Appendix 2: Summary of quality indicators for principal component factor analyzes.

Indicators	Acceptance criteria
<b>Data Review</b>	
Bartlett's sphericity test	0.05
Global Suitability Measure (KMO)	0.60
Number of factors retained	
Own value	1
Percentage of variance explained	0.60
Selection of items	
Communities	0.50
Factorial weights	0.50
Scale reliability	
Cronbach's alpha	0.60

### Appendix 3: Description and detailed illustration of all constructs.

Concepts	Description	Illustration
<i>Social capital</i>	<b>First-order</b> The three exogenous latent constructs ‘Structural social capital’ referred to as SCS and ‘Relational social capital’ referred to as SCR, and ‘Cognitive social capital’ referred to as SCC covering the concrete traits of the construct ‘Social capital’ are modeled as reflectively measured constructs (i.e., relationships are from the latent constructs to the corresponding indicators). The three latent constructs are related respectively to their observed indicators referred to as Mode A in SmartPLS. SCS reflects the indicators SCS1, SCS2 and SCS3; SCR reflects the indicators SCR4, SCR5, SCR6 and SCR7; and SCC reflects the indicators SCC8, SCC9 and SCC10.	
	<b>Second-order</b> Social capital is a reflective- reflective second-order construct with ‘Structural social capital’ (SCS); ‘Relational social capital’ (SCR) and ‘Cognitive social capital’ (SIM) as first-order constructs.	
<i>Social identity</i>	<b>First-order</b> The three exogenous latent constructs ‘Darwinian identity’ referred to as SID and ‘Communitarian identity’ referred to as SIC, and ‘Missionary identity’ referred to as SIM covering the concrete traits of the construct ‘Social identity’ are modeled as reflectively measured constructs (i.e., relationships are from the latent constructs to the corresponding indicators). The three latent constructs are related respectively to their observed indicators referred to as Mode A in SmartPL. SID reflects the indicators SID1, SID2 and SID4; SIC reflects the indicators SIC5, SIC6 and SIC7; and SIM reflects the indicators SIM8, SIM10 and SIM11.	
	<b>Second-order</b> Social identity is a reflective- reflective second-order construct with ‘Darwinian identity’ (SID); ‘Communitarian identity’ (SIC) and ‘Missionary identity’ (SIM) as first-order constructs.	

<i>Participation on the development in agritourism business</i>	<b>First-order</b>	The two exogenous latent constructs ‘Agritourism on-farm’ referred to as ADONF and ‘Agritourism off-farm’ referred to as ADOFF covering the concrete traits of the construct ‘Participation on the development of agritourism businesses are modeled as reflectively measured constructs (i.e., relationships are from the latent constructs to the corresponding indicators). The two latent constructs are related respectively to their observed indicators referred to as Mode A in SmartPLS. ADONN reflects the indicators ADONN 1, ADONN 2, ADONN3 and ADONN4; and ADOFF reflects the indicators ADOFF1, ADOFF2, ADOFF3, ADOFF5, ADOFF6, ADOFF7, ADOFF8 and ADOFF9.	
	<b>Second-order</b>	Participation on the development in agritourism business is a reflective- reflective second- order construct with ‘Agritourism on-farm’ (ADONF); and ‘Agritourism of- farm’ (ADOFF) as first-order constructs.	
<i>Functional competencies</i>	<b>First-order</b>	In our research framework the latent construct ‘Functional competencies’ is unidimensional. In the measurement model, the construct ‘Functional competencies’ is operationalized as reflective wherein the corresponding indicators or items are being caused i.e., the causality flows from the latent construct ‘Functional competencies’ to the indicators or items which are respectively: FC1, FC2, FC3, FC4, FC6, FC8 and FC9.	
<i>Social motivation</i>	<b>First-order</b>	Within our measurement model, the construct ‘Social motivation’ is operationalized as a reflective construct related to its indicators which are: SM1, SM2, SM3, SM4, SM5, SM6, SM7, SM8, SM9, SM10 and SM11.	
<i>Social innovation</i>	<b>First-order</b>	The construct ‘Social innovation’ is represented in the measurement model as a reflective construct related to its corresponding manifest indicators which are respectively: SINN1, SINN2 and SINN3.	

## Appendix 4: Summary of the quality indicators of a PLS model.

	Indicators	Acceptance criteria
<b>Measurement model</b>	Reliability	
	-Correlation of items with latent variable	$\geq 0,55$
	-Alpha of Cronbach	
	-Index of concordance (composite Reliability)	$\geq 0,60$ $\geq 0,70$
	-Convergent and discriminant validity	0.50
	-AVE index	Must be greater than any other correlation located in the lower part of the diagonal of the correlation matrix
<b>Overall quality of the model</b>	-Cv-redundancy & Cv-communality	$\geq 0,30$
	-GoF Index	$\geq 0,30$
<b>Causal model</b>	Path coefficients	
	-Student's t test after bootstrap	$\geq 1,64$

## Appendix 5: Summary of the conceptual model evaluation protocol in PLS-SEM.

STEP	MEASUREMENT OBJECTIVES	MEASUREMENT CRITERION
<b>Evaluation of the measurement model (outer model)</b>	<b>Reliability of internal consistency</b>	-Composite reliability should be greater than 0.70 (in exploratory research 0.60 is acceptable).
	<b>Reliability of indicators</b>	-The reliability of the indicators or "indicator reliability" items evaluated through the "Loading" loads which should be greater than 0.70.
	<b>Convergent validity</b>	- The average variance extracted "AVE" must be greater than 0.50. - Cronbach's alpha must be greater than 0.7 (eigen value).
	<b>Discriminant validity</b>	- The "Fornell- Larcker" criterion requiring the AVE of each latent construct must be greater than the highest squared correlation of the construct with any other latent construct - The loads of a "Cross loading" indicator must be greater than all its cross loads.
	<b>R<sup>2</sup></b>	- The values of the coefficient of determination R <sup>2</sup> of the structural prediction of the endogenous latent variables are described as substantial for a value of 0.75, moderate for a value of 0.50 and low for a value of (0.20).
	<b>Path coefficient / Bootstrapping</b>	- The technique of priming or "Bootstrapping" resampling to evaluate the significance of the path coefficients or of the "Path coefficient" regression. it ensures data stability. The minimum number of bootstrap samples is 5,000 - The critical t values for a two-tailed test are 1.65 (significance level = 10%), 1.96 (significance level = 5%) and 2.58 (significance level = 1%).
	<b>Predictive relevance / Blindfolding</b>	-Use of the "Blindfolding" technique to obtain cross redundancy measurements and validated for each construction.
<b>Evaluation of the structure model (inner model)</b>	<b>Q<sup>2</sup></b>	-The resulting nomological validity Q <sup>2</sup> values greater than zero indicate that the exogenous constructs have predictive relevance for the endogenous construct.
	<b>Heterogeneity</b>	-If theory supports the existence of alternative datasets, perform multigroup or PLS-SEM moderator analyzes. - If no theory or information on the underlying datasets is available, assess unobserved heterogeneity conducted using the FIMIX-PLS method.

## Appendix 6: Summary of all items; source: own editing based on literature review and qualitative study

Variables	Items	
<b>Social capital</b>	For you, the number of social ties with business experience in agritourism is very important.	<b>Nahapiet &amp; Ghoshal (1998)</b>
	For you, work experience in the tourism sector is very important.	
	For you, being village leaders is very important.	
	For you, willingness to exchange employment and investment information is very important.	
	For you, willingness to exchange money and other assets is very important.	
	For you, confidence in family and friends for strong support in a crisis is very important.	
	For you, trustworthiness to family and friends is very important.	
	For you, encouraging young people to become independent by operating a business is very important.	
	For you, paying close attention to and admiring successful entrepreneurs is very important.	
	For you, attitude towards employment in tourism/ hospitality is very important.	
<b>Social identity</b>	For you, the opportunity to create economic value and to create personal wealth over time has been an important driving force.	<b>Fauchart &amp; Gruber (2011) and Sieger et al., (2016)</b>
	For you, the focus on profitability is very important.	
	For you, success is that your business shows better financial performance compared to competitors.	
	For you, your main motivation is to show your personality traits as an entrepreneurship.	
	For you, your main motivation is related to offering a good and novel product that you know people have use for.	
	For you, to be true to the original idea and deliver products of high quality to your customer segments, is most important.	
	For you, success is that your products work well for those that are supposed to use them.	
	For you, the main motivation is that through your firm, you can pursue values that are important to you or a particular cause.	
	For you, success is that the firm can contribute to changes that make society a better place.	
	For you, it is important to you that you manage to show that there are other and better ways to do things in accordance with your values.	
<b>Social motivation</b>	For you, eco- entrepreneur responsibility has been an important driving force to create your agritourism business.	<b>Bartha, et al (2019)</b>
	For you, to start a business in agritourism help you to make money and become rich.	
	For you, to start a business in agritourism is mainly to achieve financial success.	
	For you, to start a business in agritourism is to advance your career in the business world.	
	For you, to start a business in agritourism is to be able to signal your capabilities to others.	
	For you, to start a business in agritourism is to solve a specific problem for a group of people that you strongly identify with.	
	For you, to start a business in agritourism is to play a proactive role with the companion of guests.	
	For you, to start a business in agritourism is to meet the needs of the leisure that the government encourages with their tax incentives.	
	For you, to start a business in agritourism is to do something that allows you to enact values that are core to who you are.	
	For you, to start a business in agritourism help you to solve a societal problem that government encourages with their new programs.	
For you, to start a business in agritourism is to define an image of the entrepreneur.		
For you, to start a business in agritourism is to be an entrepreneurial innovator.		
For you, a business in agritourism helps the ability to take responsibility for		

<b>Functional competencies</b>	solving a problem.	<b>Lichtenstein and Lyons (2001) and Phelan C. (2010)</b>
	For you, a business in agritourism helps the emotional ability to cope with a problem.	
	For you, a business in agritourism helps the ability to think critically.	
	For you, a business in agritourism helps the ability to cooperate with others, networking and utilizing contacts.	
	For you, a business in agritourism helps the ability to reflect and to be introspective.	
	For you, a business in agritourism helps the ability to recognize market gap, exploit market opportunity.	
	For you, a business in agritourism helps the ability to do a business and strategic planning.	
	For you, a business in agritourism helps the ability to set personal goals, reach them and set new ones.	
<b>Participation on the development of agritourism business</b>	For you, a business in agritourism helps the ability to make a persuasive communication and negotiation skills.	<b>Durrande-Moreau et al (2017)</b>
	For you, a business in agritourism helps development in off- farm accommodation.	
	For you, a business in agritourism helps development of off- farm catering.	
	For you, a business in agritourism helps development of off- farm agritourist tours.	
	For you, a business in agritourism helps the sales development of regional off- farm products.	
	For you, a business in agritourism helps the development of visits to regional museums.	
	For you, a business in agritourism helps the development of themed stays.	
	For you, a business in agritourism helps the development of regional events.	
	For you, a business in agritourism helps the development of themed routes (cheese road, wine road...).	
	For you, a business in agritourism helps the development of themed trails (hiking, equestrian trails...).	
	For you, a business in agritourism helps development in farm accommodation.	
	For you, a business in agritourism helps development in farm catering.	
For you, a business in agritourism helps development of farm visits.		
For you, a business in agritourism helps development of direct farm sales.		
<b>Social innovation</b>	For you, a business in agritourism helps the development of new services in response to social needs.	<b>Edwards-Schachter &amp; Wallace (2017) and van der Have &amp; Rubalcaba (2016)</b>
	For you, a business in agritourism helps to produce of innovative solutions to socio- technical challenges or social problems	
	For you, a business in agritourism helps the ability of further development of tourist regions.	



Appendix 7: Square root values of AVEs and Fornell - Larcker discriminant validity test.

	AG OF F_A G	AG ON N_ AG	SCC_ SC	SCR_ SC	SCS _SC	SIC _SI	SID _SI	SI M_ SI	FC	AG	SC	SI	SI NN	SM
<b>ADOFF_AG</b>	<b>0.94</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>ADONN_AG</b>	0.89 7	<b>0.98</b> 0	-	-	-	-	-	-	-	-	-	-	-	-
<b>SCC_SC</b>	0.48 6	0.43 9	<b>0.914</b>	-	-	-	-	-	-	-	-	-	-	-
<b>SCR_SC</b>	0.40 5	0.34 2	0.843	<b>0.840</b>	-	-	-	-	-	-	-	-	-	-
<b>SCS_SC</b>	0.33 1	0.32 5	0.847	0.834	<b>0.87</b> 6	-	-	-	-	-	-	-	-	-
<b>SIC_SI</b>	0.64 8	0.71 0	0.422	0.376	0.46 2	<b>0.91</b> 9	-	-	-	-	-	-	-	-
<b>SID_SI</b>	0.73 4	0.77 4	0.409	0.395	0.45 7	0.80 5	<b>0.91</b> 4	-	-	-	-	-	-	-
<b>SIM_SI</b>	0.54 3	0.57 9	0.341	0.359	0.41 5	0.89 2	0.90 7	<b>0.9</b> 53	-	-	-	-	-	-
<b>FC</b>	0.91 0	0.89 3	0.464	0.413	0.33 5	0.57 3	0.67 3	0.4 81	<b>0.731</b>	-	-	-	-	-
<b>AG</b>	0.98 8	0.98 7	0.470	0.379	0.33 3	0.68 7	0.76 3	0.5 67	0.614	<b>0.923</b>	-	-	-	-
<b>SC</b>	0.43 5	0.39 2	0.947	0.952	0.93 9	0.44 1	0.44 2	0.3 91	0.432	0.420	<b>0.823</b>	-	-	-
<b>SI</b>	0.67 2	0.71 9	0.405	0.392	0.45 9	0.96 2	0.97 8	0.9 67	0.605	0.703	0.440	<b>0.86</b> 2	-	-
<b>SINN</b>	0.14 2	0.16 5	0.040	0.030	0.07 2	0.15 1	0.09 1	0.0 17	0.150	0.155	0.048	0.08 5	<b>0.9</b> 44	-
<b>SM</b>	0.46 5	0.42 8	0.490	0.636	0.47 9	0.31 7	0.36 8	0.2 46	0.529	0.453	0.575	0.32 5	0.0 60	<b>0.7</b> 73

Note: The bold numbers in diagonal are square root of AVE of each construct, and other numbers are correlation between constructs

## Appendix 8: Interview guideline.

### Phase 1:

#### Introduction to share capital

1. *In your opinion, who was most important to you during this period in terms of information and acquiring knowledge?*
2. *Have you actively used your network to obtain information useful for your rural lodging development?*

#### Network of opportunities

1. *When did you think about starting a rural house for the first time? alone or with others?*
3. *How did you discover the possibilities of creating a rural lodge?*
4. *How have you used your past experience in this process?*
5. *How did you obtain information about the existence of such an opportunity (from whom)?*
6. *When you saw that this opportunity was there, how do you continue the process?*
7. *Who have you been in contact with during this process?*
8. *How did they help you along the way?*
9. *How did you use the network that you had created during this period?*
10. *How did you look for relevant information on starting a rural house?*
11. *Who did you contact?*
12. *How would you describe what your network looked like at that time?*
13. *Among the most important person during this period, how would you describe the relationship you had with him?*

#### Support network

1. *How important was the network after you decided to start a rural house?*
2. *Which new players did you have to contact during this period?*
3. *What was the most difficult during the creation phase?*
4. *Did you get help to solve these problems?*
3. *Who were the most important people during this period?*
4. *How did your network develop towards the completion of a rural lodge?*

#### Resource network

1. *How did you use the network to get the resources you needed?*
2. *Who did you collaborate with in this process?*
3. *Who were the most important people?*
4. *Did you need to get new contacts on the network to access the relevant resources?*

#### Funding network

1. *How did you finance the rural lodging?*
2. *How did you use the network to obtain capital?*
3. *How important was the network to get the funds?*

### Phase 2:

#### Participation in the development of agritourism business

1. *Can you present us your offers in your rural lodging? And what do visitors like the most?*
2. *Do you have offers off the farm?*
3. *What are visitors looking for in you?*

#### Social identity

1. *How did you develop your idea of a rural lodging?*
2. *What is your main objective when you started your rural lodging project?*
3. *Have you thought about your personal interests?*
4. *Have you launched this project to develop your area and give a good image of the region?*
5. *Does your project help the development of the region and offer other monetary sources to the rural community of the region?*
6. *What did you think when launching your project? your personal interest first or the community interest or both in parallel?*

### **Social motivation**

- 1. What motivated you to launch this project?*
- 2. How do you feel about further developing your agritourism activities?*

### **Conclusion**

- 1. Do you want to address a specific point that we would not have discussed, and which seems important to you for this study?*
- 2. Do you want to add something?*

## Appendix 9: Questionnaire

### Dear Participant,

My name is Nesrine Khazami, a Ph.D student at Hungarian University of Agriculture and Life Sciences. For my Ph.D. dissertation, I am examining “The effects of entrepreneurial social factors on agritourism: A study of rural lodgings”. Because you are within the research sample, I am inviting you to participate in this research study by completing the attached surveys.

As part of a doctoral work, we carry out a survey on the importance of social capital in the development of start-ups in agritourism. The data that will be collected during this questionnaire will help us to progress better in our research and it will not be done of commercial exploitation. The information collected by means of the attached questionnaire will naturally remain **totally anonymous and confidential**.

Your opinion is **very important** for the success of this research. We kindly ask you to answer in the most free and sincere way possible to the following questionnaire. Of course, there is no right or wrong answer. Only your opinion is the best answer. Please make sure that you answer all the questions even if you are not sure of the answer.

If you have any comments, questions, or concerns with regards to the survey, the questions, or the purpose of the study, please contact me at: [nessrinekhazami@gmail.com](mailto:nessrinekhazami@gmail.com).

I thank you in advance for your kind participation in this survey.

**NB: you only need about 15 minutes to answer the following questionnaire.**

Practical tips for answering the questionnaire. To answer the questions, you need to:

- ✓ Write your answer in the space provided.
- ✓ Check the box that corresponds to the correct answer.
- ✓ Circle the number that best fits your degree of agreement or disagreement with the statements made previously.

- 1- What is the name of your rural lodging? -----
  - 2- How much time did you take to launch this business? -----
- 

Simply circle in front of each question the answer closest to your opinion.

1- Opinions about social capital for agritourism Entrepreneurs	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
For you, the number of social ties with business experience in agritourism is very important					
For you, work experience in the tourism sector is very important					
For you, being village leaders is very important					
For you, willingness to exchange employment and investment information is very important					
For you, willingness to exchange money and other assets is very important					
For you, confidence in family and friends for strong support in a crisis is very important					
For you, trustworthiness to family and friends is very important					
For you, encouraging young people to become independent by operating a business is very important					
For you, paying close attention to and admiring successful entrepreneurs is very important					

For you, attitude towards employment in tourism/ hospitality is very important

**2- Opinions about social identity for agritourism Entrepreneurs**

**Strongly agree    Agree    Neutral    Disagree    Strongly disagree**

- For you, the opportunity to create economic value and to create personal wealth over time has been an important driving force
- For you, the focus on profitability is very important
- For you, success is that your business shows better financial performance compared to competitors
- For you, your main motivation is to show your personality traits as an entrepreneurship
- For you, your main motivation is related to offering a good and novel product that you know people have use for
- For you, to be true to the original idea and deliver products of high quality to your customer segments, is most important
- For you, success is that your products work well for those that are supposed to use them
- For you, the main motivation is that through your firm, you can pursue values that are important to you or a particular cause
- For you, success is that the firm can contribute to changes that make society a better place
- For you, It is important to you that you manage to show that there are other and better ways to do things in accordance with your values
- For you, eco- entrepreneur responsibility has been an important driving force to create your agritourism business

**3- Opinions about the motivation for agritourism Entrepreneurs**

**Strongly agree    Agree    Neutral    Disagree    Strongly disagree**

- For you, to start a business in agritourism help you to make money and become rich
- For you, to start a business in agritourism is mainly to achieve financial success
- For you, to start a business in agritourism is to advance your career in the business world
- For you, to start a business in agritourism is to be able to signal your capabilities to others
- For you, to start a business in agritourism is to solve a specific problem for a group of people that you strongly identify with
- For you, to start a business in agritourism is to play a proactive role with the companion of guests
- For you, to start a business in agritourism is to meet the needs of the leisure that the government encourages with their tax incentives
- For you, to start a business in agritourism is to do something that allows you to enact values that are core to who you are
- For you, to start a business in agritourism help you to solve a societal problem that government encourages with their new programs
- For you, to start a business in agritourism is to define an image of the entrepreneur
- For you, to start a business in agritourism is to be an entrepreneurial innovator



**To know you well ...**

**1- Your gender?**      Male            Female     

**2- Your age?**

18- 35            36- 50            51- 65            66 +     

**3- Your education?**

Elementary school  
 Bachelor

Secondary school  
 Master

High school  
 + 5 years

**4- Your income?**

**1300- 4000 DT**            **4000+**     

*Thank you for your reply*

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