Understanding the process of agricultural entrepreneurship

Islas-Moreno, Asael; Muñoz-Rodríguez, Manrrubio; Santoyo-Cortés, Vinicio Horacio; Aguilar-Gallegos, Norman; Martínez-González, Enrique Genaro; Morris, Wyn

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Understanding the process of agricultural entrepreneurship: perspective from strategic movements and entrepreneurial families

Abstract

Purpose – Thise study analyszes the sequence of actions carried out by successful enterprisesassociated with high business performance in the agricultural sector and aims to understand the logic followed with such actions and the differences related to the types of families that develop them.

Methodology – Through a multiple case study approach, the business and family trajectories of 14 successful agricultural enterprises with high performance in Mexico were analyszed. The actions carried out by enterprises are conceptualized as strategic movements and are classified into seven categories: 1) growth and intensification, 2) reconversion, 3) diversification, 4) integration, 5) differentiation, 6) outsourcing, and 7) digitization. Depending on their relationship with agriculture, entrepreneurial families are classified into three categories: 1) continuing families, 2) returning families, and 3) incoming families.

Findings – The entrepreneurship logic follows three stages; evaluation, expansion and consolidation, through which different activities are tested, then the one that produces the best results is expanded and adopted as the main activity, and finally the expansion of the main activity and its evaluation are combined by comparing and complementing it with other agricultural activities. The difference is that continuing families adhere more to the traditional productivist model based on growth in scale and improvedment of the productivity of primary production. On the other hand, actions that imply a distinction in the quality of production such as integration and differentiation and that require links with other organizations such as outsourcing are more frequently carried out by returning and incoming families.

Research limitations – The findings obtained through case studies cannot be statistically generalized to a specific population, however, our perspective can be transferred to other cases to obtain analogous findings.

Policy implications - The importance of introducing iterative learning in training programs is revealed so that agro-entrepreneurs evolve from continuous experimentation and exploitation of relevant opportunities.

Originality/value – The study is a unique piece in terms of the analysis of how families with different degrees of proximity to agriculture develop high performancesuccessful enterprises.

Keywords - Agriculture; Entrepreneurship; Family business; Strategy; Entrepreneurial process.

Paper Type – Research paper.

1 Introduction

Agricultural entrepreneurship has been less studied in developing countries, despite the fact that agriculture contributinges a higher percentage to their GDP whenof these countries compared to developed countries (Islas-Moreno *et al.*, 2021). It is widely known that in the development of their economic activity, farmers face adversities associated with the climate change, the spread of pests and diseases, the availability of quality soil and water, and the

perishable nature of their production. Added to this, the liberalization and globalization of agricultural markets adds new challenges related to competition and price fluctuations (Dias *et al*., 2019a). These accumulated challenges demand that farmers expand their entrepreneurial skills, especially those related to knowledge management, market integration, use of new technologies, organization and networking (McElwee, 2006; Morris *et al*., 2017). It has never been so disturbing to learn how agricultural entrepreneurs overcome challenges and perform successfully.

In two iconic works of business management, "Blue ocean strategy" (Chan Kim and Marbougne, 2005) and "Built to last" (Collins and Porras, 2006), it is mentioned that high and sustained performance is explained by a constant realization of different types of strategic actions over time. In the agricultural sector, the sequencing of actions associated with high business performance has been approached only tangentially. Morris *et al*. (2017) mention that farmers can use diversification and specialization sequentially to improve household income levels, whether they first seek off-farm activities and then finance technology to improve farm efficiency, or first improve efficiency to later finance off-farm diversification. Escribano *et al*. (2020) find that the differentiation by quality that results from market segmentation and the improvement in the value of products works better if it is accompanied by a diversification of markets. For their part, De Roest *et al*. (2018) show that when diversification combines activities that do not use the samewhose production factors cannot be shared, it can only be economically viable if it is combined with actions to add value to products and if they are destined for niche markets. Similarly, De Roest *et al*. (2018) reportmention that in thethe current context of deregulation and high price volatility in basic products, specialization is only viable when it is enrolled in contract farming schemes. To enrich this knowledgeconversation, thise study aims to answers the question: what is the logic of the sequencing of actions developed by the successful agricultural enterprises with the highest performance?

Regarding to the executors of the chain of actions, the most recent studies recommend referring to families and not to individual entrepreneurs as a unit of analysis, assince in practice it is different members of the household intervene inwho influence the decisions ofmade in agricultural enterprises (Dias *et al*., 2019a). The families that have been predominantly studied are those that give continuity to agricultural activity through generational succession (Dobryagina, 2019). However, the new generation of peasants described by Van der Ploeg (2018), includes young and retired professionals who come to the agricultural sector to innovate and adopt a new lifestyle. Similarly, a type of entrepreneurial family that has shown different behaviorsbehaviours are the so-called returnees (Bruce, 2019) or repatriated (Müller, 2014). For this reason, Dobryagina (2019) recommends extending research and policy on agricultural entrepreneurship to consider the heterogeneity of entrepreneurial families. Based on this agenda, thise study aims to answers the question: how does the logic of the sequencing of actions change depending on the type of family that develops the entrepreneurship process?

To answer the research questions, the study is conducted through a multiple case study, an appropriate design to achieve a greater understanding in situations of business evolution (Villarreal, 2017). With the help of expert informants, highly knowledgeable about the agricultural sector in Jalisco, the federal entity that leads agricultural production in Mexico,

14 successful agricultural enterprises in Mexico~~that stand out for their performance among their peers~~ were selected. The leaders of the enterprises were interviewed to build the business and family trajectories. Three types of entrepreneurial families are defined (~~-~~continuing, returning and incoming families)~~–~~ and seven categories of entrepreneurial actions ~~-~~(~~—~~growth and intensification, reconversion, diversification, integration, differentiation, outsourcing and digitization)~~–~~. We adopt the concept of strategic movements from Chan Kim and Marbougne (2005) to refer to the actions that entrepreneurial families sequence throughout their business trajectories. According to the authors, strategic movements are "actions and decisions taken by management in order to produce a significant offer leading to the creation of a market". The general logic of the enterprises and the differences between types of families are analyzed by comparing the sequences of strategic movements.

The study delimits four contributions that improve the understanding of the agricultural entrepreneurship process. The first two contributions are related to the general logic followed by the three types of entrepreneurial families. Firstly~~In the first place~~, three stages are delimited these being~~:~~ evaluation, expansion and consolidation, through which families compare the results of different activities, then choose the one that produces the best results to expand it and make it their main activity, and in a third moment they combine the expansion of the main activity and its evaluation by comparing and complementing it with other agricultural activities. Secondly, it is shown how some categories of strategic movements can express different situations according to the stage of the entrepreneurial process in which they are carry out~~executed~~.

The two remaining contributions are related to the differences in the logic of the agricultural entrepreneurship process depending on the type of family that develops it. Firstly, it is shown that continuing families adhere more to the traditional productivist model based on growth in scale and improvements in the productivity of primary activity. On the other hand, actions that imply a distinction in the quality of production and a link with other organizations are more frequently carried out by families with a greater connection outside the agricultural sphere (~~—~~returning and incoming families)~~–~~. In turn, these families also show faster sequencing of entrepreneurial actions and manage to move to entrepreneurship by opportunity earlier. Second, it highlights from the returning families that their experience on and off the farm~~s~~ allows them to make better decisions regarding their aspirations, and the incoming families stand out for their contribution to job creation and for their role as role models.

2 Literature review

2.1 Typology and characteristics of strategic movements

Seven categories of strategic movements were defin~~identifi~~ed ~~in the agricultural sector~~: 1) growth and intensification, 2) reconversion, 3) diversification, 4) integration, 5) differentiation, 6) outsourcing, and 7) digitization.

2.1.1 *Growth and intensification*

For decades, the modernization ~~paradigm~~ of agriculture has been based on the increase in scale and intensification, which seeks to generate economies of scale and achieve a highly efficient production system~~in technical terms~~ (De Roest *et al*., 2018). Regarding growth in scale, the availability and access to land is decisive. Some agricultural entrepreneurs receive land by inheritance, although it is usually a smaller portion because the agricultural area~~properties are~~ is repeatedly divided between different heirs (Wairegi *et al.*, 2018). In such a situation, buying or renting of land are often the only options (Stenholm and Hytti, 2014). A~~, a~~lthough there is also the possibility of partnering with other farmers (McElwee, 2006). ~~Young farmers are the ones who mostly resort to renting and associating to access land, and for this type of arrangement to be optimal they Should~~Ideally, the rental and association agreements must be established for a minimum ~~number~~ of years according to the biological and investment cycle of the crop or livestock species (Wairegi *et al.*, 2018).

With regard to intensification, it is an approach that builds competitive advantages on the basis of engineering and technology to improve efficiency (Hurwitz *et al*., 2015; Morone, 1989). The adoption of improved varieties and crop management practices, the use of agrochemicals and fertilizers, protected agriculture and the use of agricultural machinery are forms of intensification (Mottaleb *et al*., 2016; Wairegi *et al.*, 2018; Mensah *et al.*, 2021). ~~Young farmers are also the most likely to adopt new technologies, and for this access to credit and training is essential (Wairegi *et al*., 2018).~~

~~Growth and intensification are influenced by the characteristics of the home. For the poorest households with fewer resources, they are usually the first steps in their progress plans (Kamau *et al*., 2018). However, any agricultural household is willing to grow and intensify in an activity that is significantly profitable (Wairegi *et al*., 2018). Growth and intensification can also be an expression of an aversion to risk that implies the exploration of other crops or economic activities, the result of limited access to alternative markets, or the reflection of the attachment and identity that the household maintains with an activity (Anderzén *et al*., 2020). The downsides are that farmers become highly dependent on the fluctuating commodity markets in which they operate, and that growth and intensification sometimes lead to increased negative environmental externalities, a situation that is punished by modern consumers concerned about the environment (De Roest *et al*., 2018).~~

2.1.2 *Reconversion*

It consists of transferring all or part of the resources land, capital and ~~labor~~labour of an activity to a new one. ~~The~~R~~ reallocation of r~~esources can be reallocated~~carried out~~ towards other forms of agriculture, livestock or~~and even~~ towards activities outside the agricultural sector (Barbieri and Mahoney, 2009; McElwee, 2006). There are several reasons to provide new uses to resources: due to changes in the physical attributes of the land and the environment, due to market signals such as increases in the demand and price of certain products, due to changes in trade rules, due to advances in technology and infrastructure, due to personal preferences, or to take advantage of agricultural policies for crop assurance, extension ~~of~~ services and subsidies (FAO, 2017; OECD, 2017). Economic factors ~~are those that~~ usually have the greatest weight in the decision to change the use of agricultural

resources~~, especially land, over technical, personal, social and political factors~~ (Islam *et al.*, 2020)~~. Young farmers are the ones who mostly carry out the reconversion, a movement that they carry out to migrate to more profitable activities, with faster returns, that require a greater degree of knowledge and that usually require a greater amount of labor (Wairegi *et al.*, 2018).~~

2.1.3 Diversification

Diversification is a way of reducing market risks and optimizing the resources of agricultural families, from the performance of two or more productive activities (De Roest *et al*., 2018). In the agricultural sector, this movement can take various forms: 1) carrying out two or more agricultural activities (~~Barbieri and Mahoney, 2009;~~ Valliant *et al*., 2017); 2) provision of services that involve the use of machinery and equipment (~~Barbieri and Mahoney, 2009;~~ Mottaleb *et al*., 2016); 3) alternative use of farm resources to offer recreation, tourism and lodging services (~~Barbieri and Mahoney, 2009;~~ Grande *et al*., 2011); 4) generation of environmental services (Dias *et al*., 2019a); 5) leases and granting of land easements (Barbieri and Mahoney, 2009); and 6) education and consulting (Barbieri and Mahoney, 2009). The concept of pluriactivity has been used to describe the dynamics of diversification within the field of the agricultural sector (Dias *et al*., 2019a).

Pluriactivity seeks to generate economies of scope, which arise when farmers can produce two or more products or services with the same inputs and assets, thus reducing the cost of producing them separately (De Roest *et al*., 2018). However, diversification also extends to alternatives outside the agricultural sector, such as ~~migration to~~ non-agricultural employment (McElwee, 2006) and off-farm entrepreneurship (Bowen and Morris, 2019; McElwee, 2006). ~~The concept of portfolio entrepreneurship has been used to refer to diversification that includes activities from various economic sectors (Dias *et al*., 2019a).~~ Finally, market diversification is~~has also been~~ recognized as a means of dispersing the risks associated with agricultural enterprises (Bowen and Morris, 2019~~; Dias *et al*., 2019b~~).

~~Households headed by younger farmers (Dias *et al*., 2019b) and where women participate (Alobo, 2019; Valliant *et al*., 2017) are more likely to diversify. Diversification is especially important for small farmers to strengthen their livelihoods and mitigate the adversities of climate change and the highly volatile international markets in which they operate (Anderzén *et al*., 2020; Kamau *et al*., 2018). However, in practice, the families that diversify the most are those that have larger extensions of land, greater availability of labor and more productive, higher income generating and with a greater amount of accumulated assets, greater access to financing, knowledge and specialized services, which combine to diversify both in the agricultural sector (Valliant *et al*., 2017; Anderzén *et al*., 2020) and in other sectors (Alobo, 2019; Wairegi *et al*., 2018). Therefore, a disadvantage of diversification with respect to growth and intensification is that it requires greater resources and a broader repertoire of knowledge in agriculture, management, administration, marketing and finance (Dias *et al*., 2019a). Furthermore, diversification performance may be uncertain, as the farm's main business can be damaged by disproportionate amounts of resources allocated to secondary activities with lower returns (Grande, 2011). Finally, the increase in the levels of diversification is not always a good thing, sometimes it is a sign of anguish and survival of the lower performing agricultural enterprises (Alobo, 2019).~~

2.1.4 *Integration*

The concept of agribusiness arises from the need to ensure that agriculture, through vertical integration, achieves economic stability comparable to that of industry (Davis, 1956). In an agribusiness, agricultural production becomes a minor part of the business because enterprises are in charge of the manufacture of inputs and machinery, agricultural production, conditioning, processing, storage, distribution and marketing (Van Fleet, 2016). Therefore, integration consists of adding activities of the value chain within the scope of action of the agricultural enterprise. This~~, and it~~ can be carried out "upstream" towards natural resource management activities to produce a primary product, or "downstream" towards activities that add value to primary products (Badraoui, 2013). Among the activities that add value to agricultural products are cleaning, selection, transformation, packaging, wholesale distribution and direct marketing to the consumer (Dias *et al*., 2019a; ~~Islas *et al*., 2020;~~ Milone and Ventura, 2019). In addition to adding value and capturing value for the enterprise, integration reduces direct price competition and extends the shelf life of the crops~~, although its disadvantage is that in most cases its execution requires specialized knowledge and high investment assets for the different activities of the value chain~~ (Barbieri and Mahoney, 2009; McElwee *et al*., 2006).

2.1.5 *Differentiation*

Differentiation is one of the three generic strategies proposed~~mentioned~~ by Porter (1980) to produce competitive advantages in enterprises and industries, and consists of endowing a product or service with a distinctive quality attribute. The difference in quality in agricultural products and services can be material, symbolic or relational (Daviron and Ponte, 2005). Material quality is expressed through improvements in the physical state, chemical composition or microbiological state of the product, which can be objectively measured by ~~means of~~ an instrument or procedure (Escribano *et al*., 2020). Some forms of material differentiation are the incorporation of unconventional crop varieties or~~and~~ livestock species ~~(Barbieri and Mahoney, 2009; Valliant *et al*., 2017)~~, and ~~unusual~~ practices such as organic agriculture and free grazing (Barbieri and Mahoney, 2009~~; Bouttes *et al*., 2019~~).

For its part, the symbolic quality is subjective, not quantifiable and ~~what it~~ seeks ~~is~~ to generate trust and connections of a civic and emotional nature with the consumer. The use of brands and geographical indications (Neilson *et al*., 2018; Mano Raj, 2021), socially responsible entrepreneurship (Monteiro Mello *et al.*, 2020), sustainable production certifications such as Global GAP (Larsson, 2012), craftsmanship in the process (Escribano *et al*., 2020) and the association of the product with celebrities (Tantiseneepong *et al*., 2012), are forms of symbolic differentiation. Lastly, the relational or service quality derives from the experience offered during the purchase or consumption of the product; for example, some farms offer their customers the opportunity to harvest their products (Barbieri and Mahoney, 2009; Bruce, 2019).

~~Differentiation implies introducing unconventional products and production systems that imply greater difficulties in production and marketing (Valliant *et al*., 2017). For this reason, differentiation movements such as certified organic agriculture are more recurrent in agricultural families with higher incomes, greater staff, stronger social networks and greater~~

~~access to market (Kamau *et al.*, 2018). Daviron and Ponte (2005) state that as long as the actors in the value chain that are "upstream" do not highlight some attribute of their production, they will be confined to the problem of undifferentiated products and low profit margins.~~

2.1.6 Outsourcing

Outsourcing occurs when an enterprise excludes from its scope of action a production, transformation or commercialization activity, and acquires the products or services associated with that activity with an external or associate supplier (Memili *et al.*, 2011). Through the subcontracting of services, farmers with low capital to acquire their own machinery access the benefits of agricultural mechanization (Mottaleb *et al.*, 2016). In turn, contract farming represents a way of outsourcing transformation, distribution and marketing tasks to another enterprise, whilste ensuring the sale at a certain price ~~level~~ (De Roest *et al.*, 2018). Outsourcing allowsgives ~~up capturing the value of delegated activities, however, it leaves~~ the enterprise ~~free~~ to focus ~~more intensely~~ on its core activity (Kotler and Armstrong, 2012). Similarly, the construction of strategic alliances increases access to more dynamic markets and information on the development and commercialization of products (Grande, 2011). ~~Milone and Ventura (2014) point out that young people are the ones who are radically changing the way the farm interacts with its environment, from the development of relationships that involve multiple actors and in which suppliers and peers are becoming partners and clients in co-producers.~~

2.1.7 Digitization

Digitizing is transforming ~~analog~~analogue information into a digital format ~~so~~ that ~~it~~ can be stored, consulted and manipulated. In the business sphere, digitization is associated with improvements in the operational, administrative, commercial and communication functions of enterprises, taking advantage of digital technologies (Villaseca, 2016). In the agricultural sector~~field~~, the~~an~~ issue of~~as basic for digitization as~~ internet access continues to be a limitation for most farmers, especially the smallest (Bowen and Morris, 2019). However, artificial intelligence is revolutionizing agriculture. Through sensors integrated into robots and drones, the efficiency in the use of water, nutrients, pesticides and herbicides has been maximized; soil fertility is monitored and maintained, and the efficiency of human work has also been improved, increasing~~raising its~~ productivity and quality (Talaviya *et al.*, 2020). Farm Management Information Systems (FMIS) and Enterprise Resource Planning systems (ERPs) have also been implemented, their~~whose~~ main advantage is to~~hat they~~ provide a basis for the registration and communication of accurate and timely information~~, for the integrated management of processes~~ in agricultural enterprises (Verdouw *et al.*, 2015). In addition, another analytical tool such as discrete event simulation has been applied in livestock management (Gittins *et al.*, 2020).

~~Digitization leads to improvements in productivity and diversification, and opens the door to the internationalization of markets (Bowen and Morris, 2019). The agricultural enterprises with the greatest advances in digitization are those in which young farmers have interference and in which there are specialists capable of taking advantage of technology (Michels *et al.*, 2020).~~

2.2 *Typology and characteristics of entrepreneurial families*

Three types of entrepreneurial families were identified in the agricultural sector: 1) continuing ~~entrepreneurial~~ families, 2) returning ~~entrepreneurial~~ families, and 3) incoming ~~entrepreneurial~~ families.

2.2.1 *Continuing entrepreneurial families*

These~~y~~ are transgenerational agricultural families, which~~that is, they~~ inherit the agricultural tradition from one generation to another (Dobryagina, 2019). They are the ~~type of~~ family type that has received the most attention in research and ~~in most studies,~~ compared to entrepreneurs from other economic sectors, they are described as households with a high reluctance to change, a tendency to fatalism and reduced entrepreneurial skills (Mc Fadden and Gorman, 2016). They are also associated~~related~~ to a ~~behavior~~behaviour highly dependent on the direction dictated by political actors and local networks ~~made up of other relatives and neighbors~~ (Klocker *et al.*, 2018). However, it has been observed~~seen~~ that not~~this pattern does not apply to~~ all continuing ~~agricultural~~ families act like this, since although norms, values and ~~agricultural~~ practices are transmitted, these are reinterpreted and adapted according to the changing conditions and the personality introduced by the successors (Joosse and Grubbström, 2017). ~~Even in some farms old and young farmers coexist and act according to the advice of the former and the changes introduced by the successors (Joosse and Grubbström, 2017).~~

Although ~~it has been shown that~~ continuing ~~agricultural~~ families also innovate, it is~~continues to be~~ recognized that their entrepreneurial ~~behavior~~behaviour is predominantly based on growth in scale and the improvement of productivity through technological modernization (Bruce, 2019; Dobryagina, 2019). There are varying~~different~~ reasons to keep this path. In the first place, these types of families inherit land, machinery, facilities and skills with which it is easier and more convenient to continue with the inertia of the inherited entrepreneurship instead of looking for a new path (Pindado and Sánchez, 2017). On the other hand, they have strong emotional ties to their ~~ventures and their~~ specific agricultural activities, and these attachments can block more substantial changes (Brown *et al.*, 2016). Likewise, they show greater aversion to ~~the~~ risk that would imply moving away from the limits of their activity, because they feel a strong responsibility to preserve the family heritage and inherit the lifestyle that was granted to them (Dobryagina, 2019).

Continuing families predominantly develop~~ascend~~ through growth and intensification, but reach a crucial tipping point at which they decide to change, either out of necessity or opportunity (Arafat *et al.*, 2020). N~~By n~~ecessity ~~it~~ occurs ~~as~~ when the fall in prices of basic products encourages farmers to seek alternatives such as organic agriculture, crop diversification, integration of agro-industrial activities and direct marketing to consumers, as witnessed~~happened~~ in the 1980s in USA (Bruce, 2019). It occurs~~And~~ by opportunity ~~it happens~~ when families take advantage of their accumulated experience in the sector to undertake initiatives, for example, to accommodate future generations in their family businesses (Barbieri and Mahoney, 2009). ~~The training provided by grassroots organizations facilitates the realization of changes that involve moving away from growth and intensification in continuing agricultural families (Bruce, 2019).~~

2.2.2 *Returning entrepreneurial families*

~~Returning farmers are a group underserved by entrepreneurship research.~~ These~~y~~ have a direct and complex connection with agricultur~~eal activity~~ because they grew up on a farm, worked on it and even participated in its administration; then, they leave the agricultural activity to pursue higher studies in non-agricultural areas or work in other organizations, and later return~~resume the activity they left~~ (Bruce, 2019). When they return, they follow a less linear and more complex path in their businesses~~ventures~~. T~~, because t~~hey take advantage of their agricultural experience and inherited assets and combine them with economic resources, new skills and professional networks that they acquired outside the sector (Bruce, 2019). Models of direct sales to consumers, agritourism, land rental and non-agricultural businesses are some of the actions that returning families undertake~~carry out~~ (Bruce, 2019). In her study of rural entrepreneurs, Müller (2014) ~~also~~ finds "repatriated" entrepreneurs, who upon their return to the territory from which they originate and after expanding their perspectives, detect business opportunities, develop them and contribute to local development. However, l~~L~~ittle is yet known about how returning ~~entrepreneurial~~ families take advantage of the perspective they develop with experience on and off the farm.

2.2.3 *Incoming entrepreneurial families*

These~~y~~ are families that enter the agricultural sector because they find it~~in this sphere of the economy~~ an attractive alternative for self-realization, financial freedom and innovation (Dobryagina, 2019). They are usually headed by young people around 30 years old or retirees around 60 who frequently develop agriculture as a second activity, and see the farm as a good place to live and raise their children (Bruce, 2019). T~~As t~~hey do not come from agricultural families and~~, they~~ lack experience, knowledge and skills in the sector, with no~~and they do not have the~~ possibility of inheriting land and other assets such as machinery and equipment, but do possess~~they have~~ other types of resources and skills (Bruce, 2019).

Incoming families have wealth and non-agricultural income which~~that they~~ can be used to acquire or rent land, machinery and equipment to start their ventures (Bruce, 2019). In turn, these new entrants are equipped with attitudes, skills, and networks to develop dynamic agricultural enterprises that adapt to contemporary needs (Lobley, 2016). These resources and skills have their origin in the work or entrepreneurial experience outside the farms (Mc Fadden and Gorman, 2016; Grande, 2011) and in a greater professional preparation compared to continuing agricultural families (Dobryagina, 2019). They compensate for their inexperience in agriculture by resorting to formal sources of knowledge (Bruce, 2019). T~~; in fact, t~~hey constantly build networks that~~, which~~ are not limited to the productive issue ~~of their ventures~~, but are extended to commercial objectives (Dobryagina, 2019). In addition, the antecedents of the new participants are reflected in greater capacities for experimentation (Klocker *et al.*, 2018), management (Mc Fadden and Gorman, 2016) and generating ideas (Grande, 2011). Regarding attitudes, they have greater confidence in making their own decisions and assuming their responsibilities (Mc Fadden and Gorman, 2016) and are less averse to financial risk, which allows them to expand their ventures more quickly (Grande, 2011).

Incoming entrepreneurial families are exposed to more business opportunities and are more receptive to them, so contrary to continuing families in which the path of growth and intensification predominates, incoming families are faced with a wider range of alternatives ~~and its decision process is characterized by objectives that are in competition with each other~~ (Shepherd, 2016). They reduce the risk of agricultural inexperience by betting on a diversity in crops (Klocker *et al.*, 2018) and complement it with non-agricultural jobs and retirement income (Bruce, 2019). They develop businesses that give a complementary use to the resources of the farms through agritourism and the holding of educational workshops (~~Bruce, 2019;~~ Mc Fadden and Gorman, 2016). Likewise, they introduce new strategies and contemporary approaches such as organic agriculture, local certification schemes and direct sale to consumers (EIP-AGRI, 2016).

The entrepreneurial families that enter the agricultural sector contribute to diversifying knowledge, networks, sources of financial capital, organizational models and business models. This broadens the ~~deck of~~ options available ~~and understood~~ for traditional farmers who tend to adopt what they see as working well for their ~~neighbors~~neighbours (Howden *et al.*, 2014). ~~In the study by Klocker *et al*. (2018) the testimony of the director of a council of ethnic communities in Australia is rescued about the role of new entrants in agriculture: "if you really want this place to get going, get out of the way and let some people take the lead. And walk with them because they see this place in a completely different light".~~

3 Methodology

3.1 Study space

The study~~empirical stage of the research~~ was carried out in Jalisco, a federative entity of the central-western region of Mexico, selected for the relevance of its agricultural sector ~~for the country~~ in the~~terms of~~ generation of wealth, employment and foreign exchange for the country. It is the entity that leads the national production of berries, sugar cane, corn, beef, pork, milk and eggs; and is the ~~center~~centre of origin of Tequila, a ~~spirit~~ drink with a strong presence in export markets; likewise, Jalisco is the second entity with the highest production of avocado, a fruit whose global demand has shown a vigorous development in recent years (SIAP-SAGARPA, 2018). The foregoing makes Jalisco the federal entity that contributes the most to Mexico's agricultural and agri-food GDP, with 11.7% and 16%, respectively (INEGI, 2018a). Regarding employment, 10% of the Economically Active Population of Jalisco owns or works in an enterprise in the agricultural sector (INEGI, 2018b). Finally, Jalisco stands out for having increased the value of its agri-food exports by 50% from 2012 to 2017 (INEGI, 2018a), being decisive for the agri-food trade balance of Mexico to present surplus balances in recent years.

3.2 Selection of cases

To understand the logic of the entrepreneurship process carried out by different types of families, a case study design was adopted, which is a research strategy that seeks to illuminate complex phenomena that are difficult to isolate~~can hardly be separated~~ from their real context (Yin, 1994). Business evolution situations have frequently been studied through case studies as~~because it has been seen that~~ interaction with those involved, access to multiple sources of

evidencefirst-hand information and in-depth analysis facilitateallow reaching degrees of understanding regarded impossible to achieve from research based on a high number of observations (Villarreal, 2017).

Therefore, the cases were selected by theoretical sampling; that is, they were selected because they maximize offer greater opportunities to optimize the learning opportunity that is obtained from them (Stake, 1999). We went to highly knowledgeable actors of the agricultural sector of Jalisco, including public officials, consultants, funders and guildunion leaders so that they could recommend successful enterprises that stood out for their performance. These informants helped us establish a first contact with the leaders of the enterprises they recommended. The enterprise was preliminarily added to the sample when its leaders expressed their willingness to provide information. The enterprise was definitively added to the sample when the authors confirmed, after the first interview, that the successperformance was genuine and was not due to factorselements such as subsidies and remittances. Finally, since literal replication and theoretical replication are essential to transfer the contributions of the study to other contexts (Eisenhardt and Graebner, 2007), we carried out multiple cases. In the final sample, at least one enterprise from the main productive chains of Jalisco was present: beef cattle, milk cattle, poultry meat, berries, avocado, corn, pig farming, sugar cane, agave tequila, tomato, pineapple and banana.

3.3 Data collection

The data for each enterprise was collected from face-to-face interviews with their current leaders. These were all conducted, at the enterprise premisesfacilities from May 2019 to February 2020. The interviews were scheduled in three sessions. In the first the business trajectory was investigatedasked, wherefor this the interviewees were asked to mention the strategic movements that had been made, indicating the year, the specific action or decision, and the socio-economic, physical and technical circumstances that made them possible. The starting point was the year in which the first tangible or intangible asset was obtained, which, according to the interviewees, was essential for the development and evolution of the enterprises. For this reason, there are enterprises that are currently run by the founders and others that are in the hands of the second or third generation. In the second session, the family trajectory was investigatedasked, wherefor this the interviewees were asked to mention family events such as births, deaths, marriages, migrations, and associations andor conflictsseparations between family members. In the third session, the business and family trajectories were shared with the interviewees so that they could refine and validate them.

Interviews are the main method for collecting data in case studies and are especially effective when retrieving data on events highly relevant to the interviewees (Eisenhardt and Graebner, 2007). Such is the case of the events recovered in our study whichsince they represented turning points in the business and family life of the interviewees. However, interviews can add bias when respondents have memory weaknesses (Golden, 1992) or when they try to manage impressions (Huber and Power, 1985). The scheduling of interviews in different sessions, the validation with the interviewees and the confirmation of results with external actors (–who recommended to the enterprises)– are measures recommended by the scholars of the case studies (Gibbert *et al*., 2008; Villarreal, 2017), which and that we take to mitigate

the biases~~ that usually appear in interviews~~. Likewise, to strengthen the reliability of the study, we audio recorded and transcribed all the interviews to recover every detail of them.

3.4 Data analysis

In the analysis, the concepts of constant comparison and theoretical sampling of the grounded theory were followed. C~~; c~~onstant comparison refers to the fact that the data collection and analysis were carried out simultaneously, and theoretical sampling indicates that data collection decisions were determined by evolution in analysis (Glaser and Strauss, 1967). The raw data from the interviews were processed using open coding techniques (Strauss and Corbin, 1998), where~~so that~~ each line of the transcripts was reviewed and assigned according to its content to the categories of strategic movements and entrepreneurial families. Once the data had been classified, the business and family trajectories of each case were constructed by~~,~~ ordering the strategic movements and family events chronologically.

The analysis continued with the comparison of the strategic movements made by the different types of entrepreneurial families. ~~A first analysis was carried out comparing the complete sequences of strategic movements, but T~~to obtain more detail~~ about the entrepreneurship logic of the different types of families, a comparative analysis of the trajectories by thirds was carried out in a second moment. For this, depending on the number of registered strategic movements~~, the trajectories of the enterprises were divided into three parts. For example, if 15 strategic movements were identified for an enterprise throughout its trajectory, in the first third the first five strategic movements were considered, in the second third the movements from six to ten and in the last third the movements of 11 to 15. Therefore, each third represents a third of the actions and decisions made, but not necessarily a third of the time of the enterprise's history. To aid the comparative analysis,~~For comparison, we use~~ basic descriptive statistics operations such as counts, proportions~~,~~ and averages were used,~~ as well as a double-entry table~~ and a stacked column chart was constructed. The use of quantitative data is common in case studies and desirable for~~ methodological~~ triangulation purposes~~ a~~ (Yin, 1994).

The patterns of similarity and differences between the sequences of strategic movements of the~~ different~~ types of entrepreneurial families were identified by resorting to a convergence of ideas (De Massis and Kotlar, 2014). For this, the~~ first and second~~ authors ~~analyzed~~analysed each separately and then met to consolidate the coinciding ideas. In turn, these patterns were constantly compared with those found in previous studies. The collection and analysis ended when each type of entrepreneurial family was represented with at least three cases~~repetitions~~. The total number of enterprises ~~analyzed~~analysed was 14.

4 Results

Each ~~of the 14 agricultural~~ enterprise~~s analyzed~~ has carried out a unique entrepreneurship sequence that is reflected in the~~ir~~ execution of different strategic movements throughout its~~their~~ trajectory~~ies~~ (Table 1)~~, which have allowed them to stand out among their peers in their respective productive chains~~. Among a total of 154 strategic movements executed by the 14~~ agricultural~~ enterprises, growth and intensification is the predominant category with a total of 67 strategic movements (43.5%), followed far by diversification (31 = 20.1%),

integration (19 = 12.3%), reconversion (17 = 11%), differentiation (15 = 9.7%), outsourcing (4 = 2.6%) and digitization (1 = 0.6%).

Six ~~of the~~ enterprises belong~~correspond~~ to continuing entrepreneurial families, t~~; that is to say, families that inherited the agricultural tradition and continue with it. T~~hree to ~~enterprises are run by~~ returning entrepreneurial families and~~, which had an agricultural tradition, but interrupted their ventures to emigrate to the United States with the purpose of capitalizing and when they returned, they resumed their agricultural activities. Finally,~~ five ~~enterprises correspond~~ to incoming entrepreneurial families~~ , that is, they entered the agricultural activity for the first time at an intermediate point in the trajectory documented in this study.~~

~~The agricultural enterprises analyzed begin their entrepreneurial sequence diversifying, in 10 cases, or growing and intensifying, in four cases. The initial movement seems to be related to the type of entrepreneurial family, since the total of cases that began with growth and intensification are continuing entrepreneurial families and of the ten cases that began with diversification, eight are returning or incoming families. In fact, all the returning and incoming families began with diversification.~~ An~~other~~ important difference between entrepreneurial families is the speed with which they~~the~~ ~~different entrepreneurial families studied~~ conceive and carry out their strategic movements. On average, continuing families execute a strategic move every 5.4 years, returning families every 4.4 years, and incoming families every 3.3 years. There is also a notable difference in the number of jobs created ~~currently being created~~. On average, the continuing families employ 42 people, the returning 15 and the incoming 616.

[Table 1 here]

~~In addition to the way in which they begin and the speed with which they are formed, the sequences of strategic movements are different in terms of their composition among entrepreneurial families (Table 2). The category of growth and intensification is the most recurrent in the three types of entrepreneurial family. Regarding the reconversion, the incoming families are the ones that reconvert the most, secondly the continuing families and returning families make very little use of this movement. Diversification occupies an important place in the sequences of the three types of family, but it is more carried out by returning families, followed by incoming families and finally continuing families. Together, growth and intensification, reconversion and diversification add up to 84.7%, 77.7% and 62.7% of all strategic movements executed by continuing, returning and incoming families, respectively. The remaining proportion is made up of the differentiation mostly used by returning and incoming families and is very little used by continuing families; and integration, which is considerably more important for incoming families, compared to continuing and returning families. Outsourcing is applied by the three types of entrepreneurial families, the incoming ones first, second the returning and finally the continuing ones. Finally, digitization was only found in one case of continuing families.~~

~~[Table 2 here]~~

Figure 1 shows how the entrepreneurial logic for each type of entrepreneurial family is different, due to the contribution~~weight~~ that the different categories of strategic movements have in each third of the trajectory. These results are developed in the following subsections.

[Figure 1 here]

4.1 Sequence of strategic movements in continuing entrepreneurial families

In the first third they grow and intensify (65%), diversify (25%) and reconvert (10%). Of the movements of growth and intensification, 61% are increases in scale, predominantly through land purchases (75%), and 39% are increases in productivity due to technological improvements. Diversification is carried out mainly within the field of the agricultural sector (80%) through the incorporation of new agricultural crops or livestock species, and ~~it stands out that it~~ is preceded by reconversion movements.

In the second third they continue to grow and intensify (50%), diversify (15%) and reconvert (10%), although they reduce growth and intensification and diversification to give rise to integration (15%) and differentiation (10%). The growth and intensification are distributed 65% via increase in scale and 35% via increase in productivity by~~with~~ technological improvements. An important difference with respect to the first third is that 69% of the increases in scale are made through land rent or association with relatives and non-family partners. Again, the diversifications are made towards new agricultural crops or livestock species and are preceded by reconversions. The integration occurs~~is done~~ "downstream", approaching the final consumer through the incorporation of industrial activities such as the selection and packaging of fruits and the slaughter and processing of livestock species, as well as the integration of marketing activities such as direct delivery to the retailer. Finally, differentiation is expressed through initiatives such as organic agriculture and quality improvement in aspects of food safety.

In the last third of their trajectories, continuing families no longer perform differentiation and reduce diversification (10.5%) and integration (10.5%), to give place to outsourcing (5.3%) and digitization (5.3%) and increase growth and intensification (52.6%) and reconversion (15.8%). Of the growth and intensification, 55% is by~~with~~ increases in scale and 45% by~~with~~ increases in productivity through technological improvements. The growth in scale is mainly through association with relatives (54%). It is striking that, contrary to the first two thirds, now the reconversion movements are preceded by diversification movements. The integration is carried out "downstream" and "upstream", adding industrialization tasks such as the establishment of slaughterhouses for the slaughter and processing of livestock species, and input production tasks such as the sowing of grains and forage for livestock feeding. Outsourcing is used to delegate marketing tasks and digitization manifests the implementation of an enterprise resource planning (ERP) system.

4.2 Sequence of strategic movements in returning entrepreneurial families

In the first third they grow and intensify and diversify in the same proportion. Of the growth and intensification movements, 62.5% were based on growth in scale and 37.5% on productivity improvements through technology. Of the growth in scale, 40% were via land

rent, 33% via purchase and 27% via associations with family members. On the other hand, 50% of the diversifications were carried out by incorporating new livestock species or by selling services in agricultural tasks that require the use of machinery, in 33% non-agricultural employment was included and in 17% began a non-agricultural activity such as manufacturing of building materials.

In the second third, they reduce growth and intensification (41.7%) and especially diversification (8.3%), to give rise mainly to differentiation (25%) and other movements such as reconversion (8.3%), integration (8.3%) and outsourcing (8.3%). Of the growth and intensification, 70% consists of growth in scale and 30% in productivity improvements through technology; it stands out that rent or association remain the predominant means of growth in scale (85%), only now associations also include non-family partners. The reconversion is made towards a new livestock activity that was previously included through diversification. The differentiation is applied by acquiring cattle of better genetic quality for the sale of breeding stock. The integration is done "downstream" adding the industrialization of the agave to obtain Tequila and in the outsourcing the commercialization is the activity delegated.

In the final third of their trajectories, returning families maintain their level of differentiation (25%), but stop reconversion, integration and outsourcing to increase growth and intensification (58.3%) and diversification (16.7%). The growth and intensification are distributed 71% in scale increases and 29% in productivity increases with technology. The difference in this last third is that 60% of the growth in scale is via the purchase of land or heads of cattle. The differentiation includes certifications of organic agricultureproduction and the improvement of genetic quality is repeated for the sale of breeding stockcattle for reproduction. Diversification is carried out within the agricultural field and is reflected in the opening of new export markets and in the sale of services in agricultural tasks that require the use of machinery.

4.3 Sequence of strategic movements in incoming entrepreneurial families

In the first third they diversify (30%), reconvert (30%), integrate (20%), grow and intensify (15%) and outsource (5%). Of the diversification movements, 50% are in activities related to the agricultureal sector, such as the sale of agricultural mechanization servicesservices for both agricultural work by contract and technical advisory servicesee, and the diversification of agricultural markets; the remaining 50% of the diversifications are in non-agricultural activities such as bread making, clothing trade and lime manufacture. Reconversions are preceded by diversification. The integration is carried out "upstream" by adding tomato cultivation in a case that was originally dedicated solely to its commercialization, and "downstream" by acquiring warehouses for the direct sale of fruits and vegetables to the national and export wholesale market. The growth and intensification are formed 66% with increases in scale and 33% with increases in productivity with technological improvements, and of the growth in scale, 50% are via purchase and 50% via family association. Finally, the commercialization of the production is the task that is outsourced.

In the second third, they maintain outsourcing (5.3%), but diversification (15.8%), reconversion (10.5%) and integration (15.8%) are reduced, to give rise to differentiation

(10.5%) and considerably increase growth and intensification (42.1%). Of the movements of growth and intensification 62.5% are increases in scale and 37.5% productivity improvements with technology. Of the growth in scale, 66% are via purchase and 33% via rent or non-family association. Diversification incorporates new agricultural crops or livestock species and the sale of balanced feed for different livestock species. In the reconversion, part of the resources is transferred to the avocado, a fruit of high commercial value, but without abandoning the main activity. The differentiation is manifested with organic agriculture and the adoption of fruit varieties with improved sensory characteristics. The integration is done "upstream" by adding the manufacture of balanced feed for animals, and "downstream" by adding the haymaking of pastures for livestock feed, and the acquisition of warehouses for direct sale to wholesale markets. In outsourcing, marketing tasks are delegated.

Finally, in the last third, incoming families no longer carry out new outsourcing, they continue to diversify (15%), reduce growth and intensification (25%) and reconversion (5%), and increase integration (30%) and differentiation (25%). The integration is carried out "upstream" through the establishment of an incubation room to obtain chicks for fattening; and “downstream” through the establishment of fruit packing warehouses and industrial kitchens to produce meat products, and the acquisition of warehouses for direct sale to the export wholesale market. Of the growth and intensification, 80% is based on increases in scale and 20% on productivity improvements through technology; and of the growth in scale, 75% is via rent and 25% via land purchase. Differentiation is expressed through initiatives such as organic agriculture, the production of specialty varieties in tomato and the establishment of packaging lines for the sale of balanced food ~~in bags and~~ with brand~~s~~. Diversification is within ~~the~~ agricultur~~cal field~~ and ~~–~~ consists of the incorporation~~ng~~ ~~the production~~ of new agricultural crops or livestock species, or the manufacture of packaging and harvest boxes for different fruits. Reconversion occurs to divest less profitable activities and transfer the resources to the main activity.

5 Discussion

The entrepreneurship process in the agricultural sector, seen from the perspective of the sequence of strategic movements carried out, varies~~is different~~ depending on the type of entrepreneurial family that develops it.

In the case of continuing families, the first stage is the evaluation of the agricultural activity practiced by the previous generation. On this activity, they begin by growing in scale and improving productivity. If this achieves~~; in case of achieving~~ satisfactory results compared to those of other activities then~~,~~ it is continued, otherwise, it is stopped~~left~~ and other options are tried. The intergenerational coexistence between founders and successors produces these first changes (Joosse and Grubbström, 2017). In most cases (83%), continuity activity remained the main activity throughout the first third of the trajectory. In the cases where the reconversion took place, it was towards closely related activities, for example, from producing coconut for oil to producing coconut for fruit, or towards activities that were already done, for example, from growing corn and raising cattle to removing the livestock and reallocating~~e~~ resources solely towards growing corn. In the first stage, continuing families choose to follow the productivist model by growing and intensifying their inherited

activity, a ~~behavior~~behaviour that hereditary farmers have shown in other studies as a reflection of: i) the advantage of leveraging inherited assets and skills (Pindado and Sánchez, 2017), ii) the emotional attachment to specific agricultural activities (Brown *et al*., 2016), and iii) the aversion to risk that implies moving away from the traditional productivist model of the agricultural activities (Dobryagina, 2019).

On the other hand, the first stage for~~in~~ returning families is back to the agricultural activity practiced prior to emigration and its complementation. Upon their return ~~from the USA~~, they resume the activity they had before emigrating, ~~the tradition of~~ which they inherited from the previous generation and complement it with another agricultural activity, non-agricultural employment or a non-agricultural business. The resumed activity grows and intensifies with a distribution between scale and productivity as shown with~~like that of the~~ continuing families, although the difference is that in the returning families the growth in scale is carried out mainly through rent and associations rather than~~and not through~~ land purchases. These returning entrepreneurs, as in the study by Bruce (2019), exploit their new resources, contacts and experiences by stacking activities that disperse the risk involved in practicing a single agricultural activity.

Finally, in incoming families, the first stage is the evaluation of the agricultural sector as an investment alternative. These families start by carrying out different agricultural activities and~~, but also~~ non-agricultural activities in order to reduce the risk of agricultural inexperience (Bruce, 2019) and to compare the performance of different options (Klocker *et al*., 2018). When they decide to reconvert, they do so by transferring resources to the activity that demonstrated the best economic results in a previous diversification, which shows the capacity for experimentation of the families coming in~~that income~~ to the sector (Klocker *et al*., 2018). In turn, these families often take advantage of their networks and skills to integrate business activities ~~that~~ bringing them closer to consumers in the value chain (Dobryagina, 2019).

In the second stage of the entrepreneurship process, the three types of families continue to evaluate the results of different activities, but there is one that gradually grows in importance, is selected as the main one and is expanded. In 67% and 100% of the cases of continuing and returning families, respectively, the activity of the predecessors continued to be the main one. For their part, incoming families consolidate their entry into the agricultural sector convinced that they have found an attractive ~~sector and a relevant~~ agricultural activity to invest in. In the three types of families the expansion of the main activity is carried out mainly by scale growth and technological improvements that increase productivity. Wairegi *et al*. (2018) mention that when an activity is profitable, the best alternative for farmers is to grow in scale and intensify it as do the entrepreneurial families studied with their activities ~~they have~~ selected as the main ones.

In the expansion of the main activity, differentiation and integration are also added, strategic movements whose execution is carried out by households with greater financial resources and better access to specialized knowledge (Barbieri and Mahoney, 2009; ~~Kamau *et al*., 2018;~~ Valliant *et al*., 2017), a condition reached by the three types of entrepreneurial families in the second stage. At this stage, the generational change or the combination of ideas between founders and successors produces changes that go beyond the productivist model

and represent an approach to the concepts of agribusiness through vertical integration (Van Fleet, 2016), and of differentiation in material and symbolic terms (Daviron and Ponte, 2005). Similarly, the strategic movements of outsourcing of commercialization tasks appears in returning and incoming families, which reflects~~is a reflection of~~ the greater capacities that families with greater connections outside the farm have to insert themselves into the commercialization schemes of~~fered by~~ other organizations (Dobryagina, 2019). Finally, it is noteworthy that in returning families reconversion occurs only in the second stage and is preceded by diversification, which is why it is the result of testing and comparing different agricultural and non-agricultural activities.

The third stage of the entrepreneurship process expresses a consolidation~~ of agricultural enterprises~~. In continuing families, it is reflected in a more marked definition of the main activity, which continues to expand mainly through growth and intensification~~, this time having a greater contribution from family partners for growth in scale~~. Most continuing families (67%) continue with the activity of the predecessors as the main one, but the remaining 33% abandon it almost completely to transfer more resources to their new main ~~and more profitable~~ activity~~, such as avocado production~~. Another sign of consolidation is that in this stage continuing families go from action by necessity to action by opportunity when reconverting after diversifying and not the other way around, ~~behavior~~behaviour that returning families adopted in the second stage and incoming families from the first. For continuing families, it is logical that as the enterprise grows and matures, it goes from action by necessity to action by opportunity (Arafat *et al.*, 2020). While in returning and incoming families, action by opportunity is expressed earlier because they return or enter the sector equipped with greater capacities for experimentation (Klocker *et al.*, 2018), management (Mc Fadden and Gorman, 2016) and generation of ideas (Grande, 2011), and therefore, with greater judgment capacity to make decisions under~~ uncertainty~~ scenarios where alternatives with different levels of risk converge (Casson, 1982). In fact, the return and entry into ~~the~~ agricultur~~eal sector~~ represent~~s~~ a decision by opportunity on the part of returning and incoming families.

In returning families, the~~ business~~ consolidation~~ of the third stage~~ is carried out by deepening the main activity and a new complementation. The main activity continues to be that inherited~~the~~ by the previous generation and that was resumed, which~~activity of family tradition that~~ they deepen~~ resumed upon their return from the USA, and they deepen it~~ showing the highest level of growth and intensification of their trajectory and maintaining the level of differentiation of the previous stage. Unlike the previous stages, they are now able to base their scale growth on purchases and not on rent or partnerships. Finally, they incorporate new activities that derive from an alternative or secondary exploitation of the assets they use for the development of their main activity. The increase in growth and intensification and the loyalty to the agricultural activity resumed express their attachment to the productivist model, which is followed by agricultural families by inheritance (Bruce, 2019). However,~~But~~ the development of businesses that give a complementary use to the resources of the farms and the differentiation in the quality of production, are ~~behaviors~~behaviours identified in families that have only just entered~~ the~~ agricultur~~eal sector~~ (Bruce, 2019; Mc Fadden and Gorman, 2016). Therefore, at this stage~~ of entrepreneurship~~, returning families seem to express their dual entrepreneurial nature more clearly.

For its part, the consolidation ~~in the third stage of the entrepreneurship process~~ in incoming families occurs with a greater orientation towards vertical integration. These families reduce efforts to grow in scale and improve the productivity of the main activity, and instead increase the integration of productive links and the improvement of the quality of production. In~~At~~ this third stage, there is access to specialized knowledge and it is possible to acquire the high investment assets required to integrate the different activities of the value chain (Barbieri and Mahoney, 2009; McElwee *et al*., 2006). This allows enterprises to improve their income, avoid direct competition for prices, extend the useful life of crops and depend less on the results of primary production~~, because this activity becomes a minor part of the business by integrating activities related to inputs, agro-industrial processing, distribution and commercialization~~ (Van Fleet, 2016).

6 Contribution

In the literature related to agricultural entrepreneurship, it is recognized that business success does not depend on a single type of action carried out at a given moment, but on a set of actions carried out over time. Despite this consensus, the study of the sequencing of actions carried out by successful enterprises~~related to higher performance~~ has been sparsely~~very little~~ addressed. Due to this, the study sought to answer the question: what is the logic of the sequencing of actions developed by successful~~the~~ agricultural enterprises ~~with the highest performance~~? In this regard, the study makes two contributions.

Firstly, the study defines~~recognizes~~ three stages in the entrepreneurship process: evaluation, expansion and consolidation. In the evaluation, families diversify to compare different alternatives under the limits of their resources and their attachments; continuing families compare inherited agricultural activity with another highly related one, returning families compare inherited agricultural activity with another that may or may not~~can~~ be related to agriculture~~within or outside the agricultural sector~~, and continuing families compare agricultural activity with another outside the agricultural sector. In the expansion stage, families define as the main activity the one that produced the best results in the previous stage and use various means, mainly growth and intensification, to obtain the greatest benefits from that activity~~it~~. Finally, in the consolidation stage, families combine the expansion of the main activity and its evaluation by comparing and complementing it with other agricultural activities, so that at this stage the three types of families are already settled in the agricultural sector. Given this complexity, we agree with other studies (Milone and Ventura, 2019; Yaseen *et al*., 2018) regarding the importance of iterative learning for the training of agri-entrepreneurs capable of developing sequences of actions, name~~all~~ed strategic movements in this study, that allow generating competitive advantages in a sustainable way.

As a second contribution, the analysis of the logic of the entrepreneurship process allowed us to understand different interpretations in the strategic movements. For example, growth and intensification at the beginning of the entrepreneurial process may be the expression of aversion to risk and the lack of resources and skills to carry out more than one activity or carry out activities that add value to primary production (Anderzén *et al.*, 2020). However, growth and intensification in mature stages of the entrepreneurship process may be a sign that a profitable activity has been found, a scenario in which the best alternative is to increase its scale and improve efficiency (Wairegi *et al.*, 2018). In the same sense, diversification in

the early stages of the process can be a ~~defense~~defence and survival mechanism of agricultural enterprises (Alobo, 2019), and in later stages it can be a reflection of the use of a broader repertoire of knowledge, skills and economic resources (Dias *et al*., 2019a).

Specifically~~In a more specific sense~~, academics have recommended studying the entrepreneurial ~~behavior~~behaviour of the different types of agribusiness families ~~that do business in the agricultural sector~~. Based on this research agenda, the study sought to answer the question: how does the logic of the sequencing of actions change depending on the type of family that develops the entrepreneurship process? In this regard, the study makes two contributions.

Firstly, it was found that continuing families carry out their entrepreneurship process with greater adherence to the traditional productivist model, which is represented by the strategic movement of growth and intensification and is based on increases in scale and productivity in primary activity. On the other hand, strategic movements such as differentiation and integration that imply a distinction in the quality of production, and outsourcing that implies a link with other organizations, are more frequent in enterprises developed by families with a greater connection outside the agricultural sphere (~~–~~returning and incoming families)~~–~~. This occurs~~happens~~ because these families have economic resources, attitudes, skills and networks that allow them to expand their enterprises beyond the traditional productivist model (Bruce, 2019; Lobley, 2016). It is also evidenced~~shown~~ that families which~~that~~ come from other areas of the economy or that have had some experience with other sectors manage to sequence strategic movements more quickly and manage to act by opportunity earlier by conceiving diversification as indicated by Mc Fadden and Gorman (2016), not as an end, but as a path to potential innovation once they find a high-value activity~~vein~~.

The second contribution is with respect to the families that have received the least attention from researchers in the agricultural entrepreneurship process (~~—~~returning and incoming families)~~—~~. Of the returning families, it is striking that they make very little use of the reconversion. This may be since their perspective developed with experiences on and off the farm~~s~~ allows them to make the right decisions, at least with respect to their entrepreneurial aspirations (Bruce, 2019). For their part, incoming families stand out for their contribution to job creation and for their role as role models. The ability to generate jobs is explained by the fact that families that enter agriculture choose more profitable crops that require a greater amount of ~~labor~~labour (Wairegi *et al.*, 2018). Regarding the role as role models, one of the current leaders of the AE11 enterprise mentioned "in 1998 we were the only ones who had an avocado packing plant here, but we have trained many people and currently there are 25".

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Table 1. Strategic movements and characteristics of the agricultural enterprises analysed~~studied~~

Case	Current activities	Strategic movements executed along the trajectories	Antiquity	One SM each:	Current jobs
AE01 (***)	Banana and coconut growing	IF-RC-DV-DV-IF-IG-DF-IG-IF-TR-IF	89 years (since 1931)	8 years	72
AE02 (***)	Sale of technical agricultural advisory services and maize, agave and avocado growing	DV-IF-IF-RC-RC-IF	22 years (since 1998)	3.7 years	13
AE03 (***)	Cow milk production	IF-IF-IF-DF-IF-IF-IF	47 years (since 1973)	6.7 years	4
AE04 (***)	Cattle breeding	IF-IF-IF-IF-IG-IF	41 years (since 1979)	6.8 years	2
AE05 (***)	Raising and fattening pigs and sheep, egg production and sale of home floors	DV-IF-IF-IF-IF-IF-IF-DV-IF-IF-IG-IF-DV-RC-DG-IG-IF-IF	34 years (since 1986)	1.9 years	100
AE06 (***)	Avocado, cane, jicama and tomatillo growing	IF-RC-DV-IF-RC-DV-IF-DV-RC-IF-DV	60 years (since 1960)	5.4 years	60
AE07 (**)	Maize, wheat and agave growing and brick making	DV-IF-IF-IF-IF-DV	22 years (since 1998)	3.7 years	8
AE08 (**)	Agave growing and Tequila production	DV-IF-IF-IF-IG-TR-DF-IF-IF-DV	49 years (since 1971)	4.9 years	14
AE09 (**)	Reproduction of high bovine genetics	DV-DV-IF-DV-IF-IF-DV-DV-RC-DF-IF-DF-IF-DF-DF-DF-IF-IF-IF-IF	93 years (since 1927)	4.7 years	22
AE10 (*)	Tomato and avocado growing and gathering of fruits and vegetables	DV-IF-IG-IG-IG-TR-IG-DV-IF-IG-IF-IF-IF-RC-IF-DF-IG-DV-DF-DF-IG	69 years (since 1951)	3.4 years	1300
AE11 (*)	Avocado growing	DV-IF-DV-IG-RC-IF-IG-IG-DV-DF	55 years (since 1965)	5.5 years	1210
AE12 (*)	Organic blueberry growing	DV-RC-RC-TR-DF-IF-RC-IF	13 years (since 2007)	1.6 years	250
AE13 (*)	Pineapple growing	DV-RC-IF-IF-DF-IG-IF-IF	16 years (since 2004)	2 years	54
AE14 (*)	Sale of services of hatchery and transport, sale of chick and balanced feed, fattening of chicken and pork and elaboration of chicken-based meat products	DV-RC-RC-RC-DV-IG-DV-IF-IG-DF-IG-DV	49 years (since 1971)	4.5 years	265

*SM means strategic movement, IF growth and intensification, DV diversification, RC reconversion, IG integration, DF differentiation, TR outsourcing and DG digitization.
(***) *Continuing* entrepreneurial families. (**) *Returning* entrepreneurial families. (*) *Incoming* entrepreneurial families.
Source: prepared by the authors with information 2019-2020.

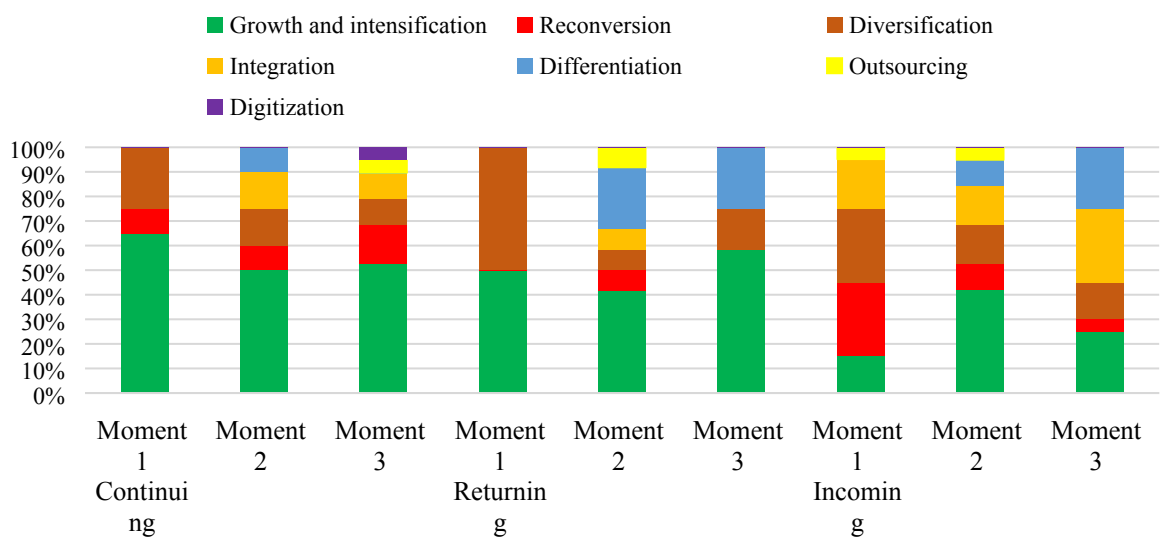

Figure 1. Composition of the sequences of strategic movements (SM) by thirds of the trajectory and by type of entrepreneurial family in the agricultural sector

*_Continuing_ ~~entrepreneurial~~ families (six enterprises with 59 SM~~strategic movements~~); _Returning_ ~~entrepreneurial~~ families (three enterprises with 36 SM~~strategic movements~~); and _Incoming_ ~~entrepreneurial~~ families (five enterprises with 59 SM~~strategic movements~~).

Source: prepared by the authors with information 2019-2020.