

Analysing the Cooperative Model for Startups

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Abstract

A Startup refers to a small and young company that is just beginning to start its operations and that is not fully developed. These types of businesses are not famous and are known only to a few people. They also offer new products that are not currently in the market, or products that are being offered in small inferior markets. This means that they also have fewer sources of revenue and investing in them is usually considered a huge risk. The kind of business model that Startups choose to embrace is very important for the future operations and value creation. One great business model for Startups to consider is the cooperative model. The cooperative enterprise is a model that has survived many centuries and the cooperative movement has over 100 million people all over the world. The model is a unique form of business entity and the fundamental difference of the model with other firms is the issue of shareholding power. As a business model, the cooperative has a different strategic purpose to that of other models, which makes it a great choice for new emerging businesses to consider. The cooperative business enterprise enjoys many pros that make them compete in the overly competitive markets. Weaknesses in the model have also been identified, which Startups that choose to use the model need to overcome. A form of cooperative, referred to as the New Generation Cooperative is was established in the United States in the 1990s. This type seeks to overcome the weaknesses that are apparent in the cooperative model by adding value to products and allowing for more openness of membership. All business models have their own weaknesses and the cooperatives try to minimize these weaknesses through member value creation and recognition. The cooperatives face several challenges that include fewer sources of funding, lack of proper leadership and at times, reduced member benefits. The cooperative model for many years has been viewed as a mechanism for community development and regional development. The model is being used by many developing countries as a tool for economic self-advancement. This dissertation explores the cooperative organizational model and tries to understand how could Startups make use of this concept. This research proposes an approach that is then discussed in the context of an exploratory case study. Its limitations and strengths are also discussed.

**“DO NOT CARE WITH IN WHAT YOU HAVE BEEN FAILING, GET UP AND GO
FORWARDED”**

BY VIRAK CHOM

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1 Chapter 1: Introduction

1.1 Motivation for this research

In this research we would like to study how could Startups gain by following the model of Cooperatives. Startups typically start with the entrepreneur and his/her team, but they are usually pursuing their own objectives on their own and seldom look around for the possibility of creating synergies from sharing resources with other Startups. We wonder if the cooperative principles could help entrepreneurs in the construction of entrepreneurial cooperatives that would allow the construction of bigger and more powerful business entities to address the market both at home and abroad.

Cooperatives are businesses, not charitable organizations, so that they won't be the same as non-profits yet they don't exist to maximise profits, so that they won't be the same as firms owned by their shareholders (Margaret Lund 2013): Cooperatives are democratically owned and controlled; and they are operated collaboratively with regards to supplying services to those beneficiaries or people.

The Worldwide Cooperative Alliance defines a cooperative as "an autonomous association of persons under their own accord to satisfy their common economic, social and cultural needs and aspirations via a jointly-owned and democratically-controlled enterprise." (Margaret Lund 2013 p.4)

Inside a cooperative, only participants who've met the needs for membership are allowed to become proprietors. All cooperatives work on the key of "one member, one vote", so control is allotted evenly, so, any person in the cooperative will have the same vote regardless of how much cash each one has invested. Cooperatives operate for that advantage of people, and individuals' benefits are distributed compared to every member's transactions using the cooperative. Inside a cooperative, the solution to the issue of "who owns, who controls and who take advantage of the enterprise?" is definitely exactly the same - the cooperative people. Cooperatives may exist in just about any country on the planet, and be applicable in nearly every type of industry. They may be organizations of workers, consumers, or producers. (Margaret Lund 2013)

1.2 Why is this research important?

In the EU economy, we will find 250,000 cooperatives owned by 163 million citizens (1 / 3 of EU population) and employing 5.4 million people.

Cooperatives hold substantial market shares in industries such as (ec.europa.eu 2017):

- a. Agriculture: 83% within the Netherlands, 79% in Finland, 55% in Italia and 50% in France.
- b. Forestry: 60% in Norway and 31% in Finland.
- c. Banking: 50% in France, 37% in Cyprus, 35% in Finland, 31% in Austria and 21% in Germany.
- d. Retail: 36% in Finland and 20% in Norway.
- e. Pharmaceutical and healthcare: 21% in the country and 18% in Belgium.

This scenario clearly shows the relevance of cooperatives for Europe and its dimension, crossing different types of industries. This research aims at better understanding how entrepreneurs should look at this model when launching new Startups.

1.3 Summary of the methodological approach

Driven by the author's motivation, the literature review has first driven us to the identification of the literature gap, from which the following research question was derived:

1. How do Cooperative Principles impact in the Startup Business Model?
2. How do Startups face the challenge of following the path of a cooperative model?

To validate our research question used the Design Science approach, by proposing a model that is then discussed and examined in an exploratory case study using a semi-structured approach to in entrepreneur's interview.

1.4 Describes the structure of the document:

The dissertation is structured in nine parts:

Chapter 1, this chapter, presents the motivations of this research, briefly introduces the research methodology and the goals of this dissertation.

Chapter 2 presents the Cooperative model origins, the term and the concept of business models and Cooperative model. It defines in detail what is meant by business models and Cooperative model in this dissertation and how they are situated in the context of the Startup. In addition to this chapter outlines the possible uses Cooperative model concept.

Chapter 3 gives an overview of the research done in the field of Startups and Cooperative models in a literature review.

Chapter 4: In this chapter, we are presenting our research questions and methodological we consider using and adapt method into our thesis.

Chapter 5: We introduce a proposal for a Cooperative Model for Startups, we also study the detail about the Seven Cooperative Principals in the context of the proposed model.

Chapter 6: In this chapter, we have exploratory case study.

Chapter 7: At last we have the conclusion chapter where we have the conclusions of this research and proposal of future work.

2 Chapter 2: Cooperative Model

2.1 Introduction

Currently, there are more than 1000 million cooperatives around the world, spanning more than fifty-four countries and serving more than fifty million members (Borgen, 2001). One of the main reasons for the popularity of the cooperative business model is that the members are also owners who have a say in the day-to-day running of the corporation. Cooperatives around the world operate on a set of core principles that play a valuable role in guiding the actions of this particular type of organization. So, one may wonder if entrepreneurs would look at this type of organisation.

(Chesbrough 2006) defined a cooperative as an "autonomous association of persons that voluntarily come together to pursue similar cultural, economic and social needs as well as aspirations through a jointly owned and a democratically controlled enterprise." Many businesses can borrow many positive elements from the cooperative model, able to support any business model.

Currently, the business environment is very competitive with new companies emerging every day in an already competitive market where large numbers of firms compete to satisfy the needs of a large number of consumers. For a new business to survive in the context of this competition, it must adopt a solid business model to position its operations for a competitive edge over other competitors (Errasti et al., 2003). The cooperative organisational concept is one among many available to support the enterprise business model.

2.2 Defining the Concepts of Business Model and Startup

2.2.1 Business model

A Business model refers to the ways in which a company or organization structures its processes to generate revenue. It is a representation of an organization structure and management. The profits produced by a firm are used by analysts to compare the various types of business models and to know which model works best, depending on which organization generates the most revenue. There are various types of business models, ranging from the franchise, linear sales, affiliate model and many others. The business model used by any given firm is a determinant of the profits to be earned by the particular company. A Startup with a great business model may end up being more profitable than already existing large enterprises with standard business models (Desrochers and Fischer, 2005).

Business models define the way an enterprise delivers value to its customers and converts payment made by the customers into profit. Business models are also used to classify firms and make comparisons, and managers of organizations use them to plan for future development. For new and emerging Startups, using already established business models is not always the best idea (Desrochers and Fischer, 2005). Startups need to be innovative because value maximization lies in the kind of model used. Business models contain several major elements, which are outlined below.

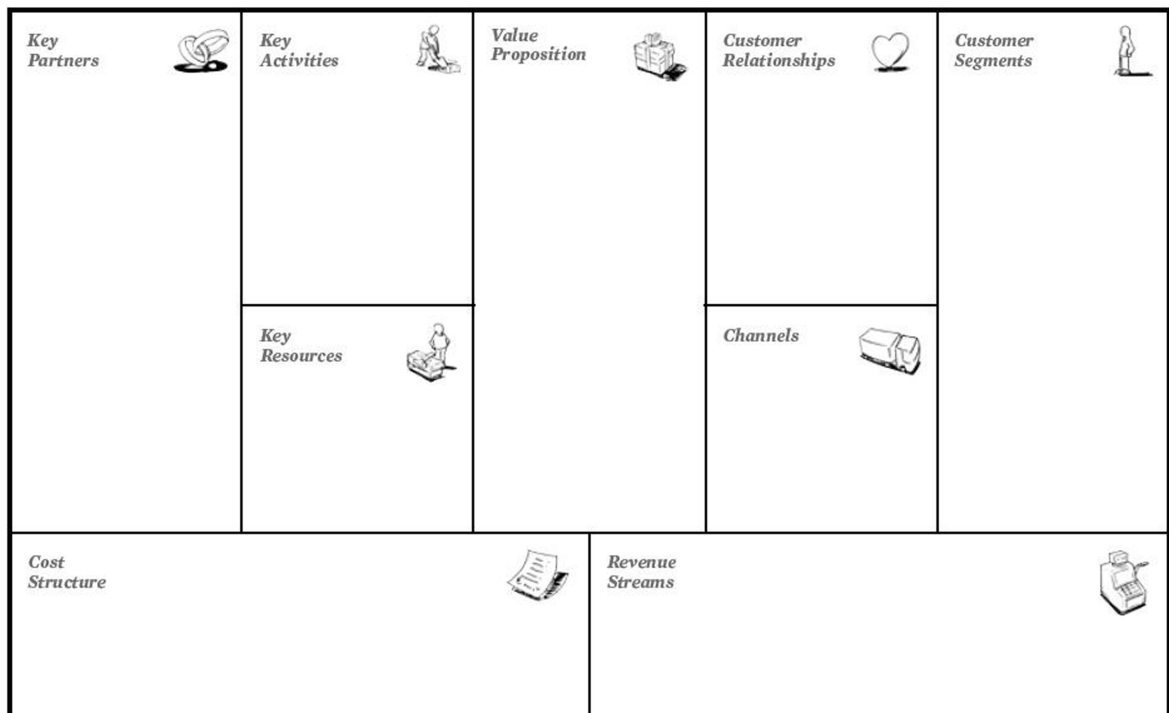


Figure 1 – Business Model Canvas by (Alexander Osterwalder, 2004)

The Business Model Canvas was initially proposed by Alexander Osterwalder based on his earlier PhD work on the so-called Business Model Ontology. Since the release of Business Model Canvas, new canvases for specific niches have appeared. (Alexander Osterwalder, 2004)

Many different business conceptualizations existed before the one proposed in Osterwalder's work. However, the approach followed by Osterwalder was the proposal of a Business Model Ontology. In doing so, it has enabled the construction of a comprehensive model that described all constructs of the Business Model thus facilitating its current use as a Business Model Canvas. With this new business model design template, an enterprise business model could be easily described. (Alexander Osterwalder, 2004)

The nine-building block describe as bellow (Alexander Osterwalder & Yves Pigneur, 2009):

- Customer Segments: defines the different groups of people or organizations an enterprise aims to reach and serve.
- Value Propositions: describes the bundle of products and services that create value for a specific Customer Segment.
- Channels: describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition.
- Customer Relationships: describes the types of relationships a company establishes with specific Customer Segments.
- Revenue Streams: represents the way a company generates cash from each Customer Segment.
- Key Resources: describes the most important assets required to make a business model work.
- Key Activities: describes the most important things a company must do to make its business model work.

- **Key Partnerships:** The Key Partnerships Building Block describes the network of suppliers and partners that make the business model work.
- **Cost Structure:** The Cost Structure describes all costs incurred to operate a business model.

2.2.2 Startup

A Startup refers to a small and young company that is just beginning its operations, and that is not yet fully developed. These companies typically offer new products that are not currently in the market or products that are being offered in small markets. This means that they also have fewer sources of revenue and investing in them is usually considered a huge risk (Downing, Volk and Schmidt, 2015). For Startups to succeed in the highly competitive market, they have to embrace the best business model. Startups come in different types, and they are mostly classified according to the domain in which they operate. The various types of Startups have different target customers due to their diverse nature of services offered. These kinds include (Downing, Volk and Schmidt, 2015):

- small businesses,
- lifestyle business,
- externally funded scalable Startup business,
- buyable/acquisition objectives
- and social Startups.

Small Business. Many Startups fall in the small business category. A good example of a small business Startup is a franchise. Unlike other business types, a franchise requires a significant amount of initial investment and provides a framework for entrepreneurs who seek structure and marketing support (Gartenstein, 2015).

Scalable Startups. Scalable Startups are those that require a substantial amount of risk capital to fund their business model. These companies need huge amounts of money for their execution (Doyon, 2012; Borgen, 2011). Scalable Startups have the ability to remain ahead of competitors, and they require top quality research and design structures. Due to their complex nature of capital structures, they have multiple sources of outside funding.

Buyable/Acquisition target Startups. Acquisition target Startups are businesses which are designed to be bought in the future by a larger company at a certain date. The goal is not mainly to gain huge profits, but to be sold to a larger organization. They are relatively small but have well-defined markets, and they are complementary to other large businesses (Cronan, 2007).

Lifestyle Business. Lifestyle businesses are Startups that allow the entrepreneurs to work on their terms and they usually pay sufficient rewards. Examples of such activities include consultancy service firms and financial advisors. They do not receive external funding since they are suited to fit the needs of their owners. They usually employ few or no employees, apart from the founder.

To gain maximum value from innovation, a Startup will need the most appropriate business model. For some emerging Startups, conventional business models cannot be applied and so a new paradigm must be devised since value depends on the model applied. The business model that a Startup chooses to embrace will define how it will deliver value to its consumers, and how value will be turned into profitable returns. One possible framework for the business model execution is the cooperative model, which has several advantages over other companies especially regarding ownership (Enke, 1945).

2.2.3 Factors to Consider When Starting a Business

For Startups, there are several factors to consider, besides the business model to use, when entering a new market. One major factor to look at is the market itself. The Startup needs to consider whether there will be a market for the products or services they are planning to sell and whether they will get a segment from the market to review their products. The size of the market also matters. Will the market be sufficient to generate value for your products? Is the business idea big enough to get an actual unique market dominated by the competitors? This is an imperative factor to look at (McDonough, 2011).

Another factor is the condition of the economy. This is the availability of money needed to finance your business (Enke, 1945). Consider if the economic growth rate is slow or high. The economy may be down in certain industries and high in others, depending on the type of products offered. Availability of funding is another factor that Startups need to put into consideration. There has to be a way to fund your business, and there should be clear sources of funding. Other factors include competition, how competitive the market is, the technology available, availability of labour and sources of raw materials.

2.3 Cooperative Model

The cooperative model is a great alternative for doing business, and it has many appealing elements that make it a most desirable model. It is a model which corresponds to all the needs of all its stakeholders, from the employees to suppliers, customers and the local community. Cooperatives are owned and controlled by their members, and there are many different types of these firms, based on their ownership.

The cooperative model has a different strategic purpose from that of other firms. The model focuses on maximizing the benefits of its members rather than maximizing the returns of the shareholders. It targets the members' needs rather than the opportunities in the market. It offers its members enhanced access to the market and reduced market risks. Through reduced prices and greater access to resources, the cooperative design gives its members superior financial benefits that other firm models do not provide.

The model also encourages community capacity building, and one of the key principles of cooperatives is a concern for the community. It is a model for the people by the people, and it takes part in the community development programs.



Figure 2: Advantages of a cooperative model (Doyon, 2002)

2.3.1 Purpose of Cooperative Model

The main reason why organizations are formed is the provision of a maximum benefit to all their members. This is through engaging the members in sustainable economic activities that result in huge profits and by intervening in the highly competitive markets (AHA, 2013). Their members enjoy reduced prices of commodities, increased buying power and also get a huge share of the profit, unlike in other firm models. Other benefits the members enjoy from this model of activity include local community development, democratic participation, where they are free to choose their leaders and define charitable initiatives. One distinguishing characteristic of this model is that the members feel like part of a collective and self-reliant community.

2.3.2 Core Principles of Cooperatives

2.3.2.1 *Voluntary and open membership*

Cooperatives are voluntary organizations. This means that they are open to all persons who are able and willing to use their services and accept the responsibilities that come with being a member of these associations. There is no discrimination regarding gender, race, religion, political or cultural background. The members are also free to come and go as they wish, and the contributions are not limited.

2.3.2.2 *Democratic member control*

Cooperatives are democratic; they are controlled by their members, who include those that participate in the services of the association, including buying the goods or use the services offered. They operate on a democratic structure, which means one vote, one member, no matter the financial status of those elected or the contribution share (Cross and Buccola, 2004). The members participate actively in the decision-making processes of the organization and in matters that concern the well-being of the association.

2.3.2.3 *Member economic participation*

Members are also owners of the enterprises, and this means that they contribute equally to the democratic control and capital of the cooperative. The economic benefits gathered from the activities of the association are returned to the members or reinvested in the cooperative. The

members usually receive limited compensation and allocate any surpluses for the benefit of the cooperative. Therefore, the more the members participate, the more they can be given back as compensation.

2.3.2.4 Autonomy and independence

Cooperative associations are owned by their members and not the shareholders, unlike companies and other models. They are autonomous and self-help organizations that are owned and controlled by their members and if they undertake any activities regarding entering into agreements with other companies, they ensure democratic control by their members (Cross and Buccola, 2004).

2.3.2.5 Cooperation among cooperatives

All cooperative organizations work together to serve their members effectively and efficiently, and this is done through local, regional, national and international structures. The rates of success are higher when they cooperate with others who are willing to cooperate.

2.3.2.6 Education, training and information

Another key principle guiding cooperatives is the provision of education and training to all their members, employees, elected representatives, and managers so as to contribute to the development of their cooperatives (Davis, 2002). They also undertake training and education to the general public to inform them about their nature and the benefits they will get if they join their association.

2.3.2.7 Concern for the community.

Cooperatives work for the overall sustainable development of their communities, while also focusing on the needs of their members. This is achieved mainly through the policies that have been accepted by their members and the principles guiding them. They volunteer in community development programs such as local charities that make an impact in the community (Fairbairn, 1994).

All cooperatives around the world operate under these set of principles which are aimed at improving the quality of life for their members. By adhering to these principles, they gain a unique set of benefits such as community assistant programs and opportunities for training and development.

2.3.3 Various Types of Cooperative Models

Cooperative businesses are divided into four generic types which entail the participatory, traditional, subsidiary, and new generation cooperative business type.

1. The traditional business is the kind that is open to all, and there is no membership fee charged to become members. Ownership is collective, and elections are on the one-member-one-vote basis. Of this type, there is no external control over the cooperative band and profits realized are not paid to the members as dividends. Instead, they are given as a patronage refund on their use. There is no professional management, and they rely on the expertise of their members when it comes to management.
2. The participatory cooperative is one in which there are both members and shareholding investors, which allows for non-members to own shares (Opie & Senior, 1929). Although the purchase of shares is voluntary, these cooperatives can restrict the purchase to members and employees only.

3. The subsidiary cooperative involves the operation of large or small parts of the business through subsidiaries whose ownership is solely based on third parties. The external capital owners are allowed voting rights (Fairbairn, 1994). One advantage of these cooperatives is their ease in acquiring external capital and hence is in a position to offer value-added services. Another advantage is that they enjoy professional management unlike other types of cooperatives.
4. The fourth type is the new generation cooperative. In this case, membership is open, and it is only restricted to individuals who have bought trading rights with the cooperation. The new generation cooperative model emerged in the USA in the 1990s and provided great potentials to redefine the collaborative model (Gartenstein, 2015).

These four types are broadly divided into other categories, based on the services offered by cooperatives.

1. Worker cooperatives: “these are organizations that are owned and governed democratically by employees. These employees later become cooperative association members. In this model, employees are the members and the owners of the organizations. These unions help to galvanize creativity and commitment of employees”. (Worker cooperatives 2017)
2. Consumer cooperative: “in this type of cooperative association, the consumers own the business. These are the customers who buy the goods and enjoy the services offered by the organization. They are established mainly to provide products and services to their members. Such services include housing, health care, and retail.” (Consumer cooperative 2017)
3. Volunteer cooperatives: “is a cooperative that is run by and for a network of volunteers, for the benefit of a defined membership or the general public, to achieve some goal, with management decisions determined by participation or sweat equity. Depending on the structure, it may be a collective or a mutual organization. The most basic form of volunteer-run cooperative is a voluntary association. A lodge or social club may be organized on this basis. A specific form of cooperative that is employee-owned and managed is known as a worker cooperative.” (Volunteer cooperatives 2017)
4. Multi-stakeholder: “these are a combination of cooperative business types. They serve the needs of different stakeholders who include employees, clients, consumers and all who are interested in the organization“. (Multi-stakeholder cooperatives 2017)
5. Producer cooperatives: These are unions that process the goods and services that are produced by their members and also market these products on members’ behalf (British Columbia Cooperative Association, 2016). These are owned by producers of commodities who join forces so as to sell their products and achieve higher sales (Cross and Buccola, 2004). They also enjoy quantity discounts for pooling their products together. A typical example of producer cooperatives is for farmers who produce common goods, independent entrepreneurs and artisans.

2.3.4 Historical Overview of Cooperatives

The history of cooperatives dates back to 1769 when the first consumer cooperative was founded in Fenwick, East Ayrshire (Ellegaard, Johansen and Drejer, 2003). In Europe, the cooperative movement began in Britain and France during the 19th century. There were several hundred organizations by 1830 and although some were initially successful, most were founded in the late 19th century. The first known cooperative society was founded in 1844 by a group of 28 members

who were weavers and other skilled workers in different trades (AHA, 2013). They also came up with a set of principles to guide their operations during that time which would aid them to sell their goods. One driving force of this group of men was the increased pressure from the changing market system. These changes included the emergence of mass production, changing production to accommodate the desires of consumers and development of new large industries.

One major factor that derived the formation of cooperatives was the pressure from large industries. These industries relied on unfair labour practices to meet their production target and did not consider the wellbeing of their employees. Employees in these industries had no control over the working conditions. They were given very low pay that did not match the efforts they put into production and worked for long unreasonable hours in bad working conditions (Emelianoff, I. V. 1942). During that time, there was no mechanism for claiming the rights of workers and this added to the growing list of frustration among employees. The bad situation demanded new forms of organizations. Many cooperatives emerged to meet mostly the needs of employees and to ensure fair treatment for all the stakeholders in organizations (Opie & Senior, 1929)

The International Cooperative Alliance (ICA) was formed by EV Neale of Rochdale and Edward Owen Greening in 1895. The main reason for its formation was to end the warfare between capital and labor and to ensure organization in the industrial peace and to promote the creation of other institutions for helping people to maintain healthy work relationships and equitable treatment of all (Johnston, 2014). The ICA has expanded and flourished in many parts of the world including Europe, Canada, USA and some parts of Africa. Many cooperatives adhere to the values that have been set by the ICA. ICA has recognized as a leader for all the unions all over the world regarding the value that it promotes in cooperative organizations.

Today, the principles that guide cooperative movements' way of doing business are accepted as the foundations upon which all the organizations operate. Although these laws have been redefined and updated, they are similar to those that were laid down in 1844 by the Rochdale pioneers.

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2.4 Conclusion

In this chapter we introduced the concepts of business model and of cooperative. Many cooperatives adhere to the values that have been set by the ICA (International Cooperative Alliance). ICA is recognized as a leader for all the unions all over the world regarding the value that it promotes in cooperative organizations.

Today, the principles that guide cooperative movements' way of doing business are accepted as the foundations upon which all the organizations operate. Although these laws have been redefined and updated, they are similar to those that were laid down in 1844 by the Rochdale pioneers.

3 Chapter 3: Entrepreneurs and the Cooperative Model

3.1 Introduction

The cooperative model of firms dates back to the late 1930s, the era in which the great depression hit the future of the capitalist economic system (Cross and Buccola, 2004). The foundations of the cooperative movement can be seen in the social collectivist ideologies that were common in the western society in the nineteenth century.

Nowak and Sigmund (2000) noted the differences between the classical and the neoclassical schools of thought, in explaining the origin of the cooperative movement. They established that unlike investor-owned enterprises, the cooperative movements seek to limit the returns gathered and also the level of ownership concentration in the movement. The main focus in a cooperative is an equitable distribution of dividends earned at the end of every year, based on patronage rather than shareholding. They stated that the cooperative movement differs from investor-owned enterprise and the Marxist collective concerning the distribution of profits (Nowak and Sigmund, 2000) Other businesses focus on the capitalist who owns the share capital within the enterprise, whereas the cooperative movement focuses on one member who is the patron of the firm.

Three general types of cooperatives had emerged by the early 20th century, according to the theory. These include the individualist cooperatives, the labour types and objective social cooperatives (Nowak and Sigmund, 2000). The theory states that the cooperative often seeks to ensure that the well-being of the community is enhanced through collective efforts of all individual members. The main economic implication of the cooperative is focusing on benefits to all its members rather than on those who own the share capital of the enterprise. Another economic fundamental of the cooperative is to remove monopoly control within the markets and seek fair VIP prices. They also serve to enhance the overall quality of products and services offered to their market segments.

3.2 Literature Review

The motivation for this research was driven by the author's interest in understanding how was the literature handling the relationship between entrepreneurship and the Cooperative Model. The idea to look at entrepreneurship was to look for a broader view, so that the research question could then be tuned.

The Literature Review was started with in SCOPUS by performing the following steps:

1. Using the search string:
KEY (cooperatives AND entrepreneurship) AND (LIMIT-
TO (LANGUAGE , "English "))
We identified 107 documents.
2. These papers were then ranked according to their relevance by reading the abstract and ranked from 1 (not relevant) to 5 (very relevant).
3. Papers ranked 4 and 5 were read and the concepts proposed by the authors were extracted as well as what they said about cooperatives.
4. After this process, several papers were excluded and the papers in Table I were the ones selected.

Table I – Result of the literature review used keyword cooperatives and entrepreneurship

Reference	Concepts proposed	What they say about Cooperatives
(Lan H., Zhu Y., Ness D., Xing K., Schneider K. 2014)	The “research findings have implications for rural community development in transitional economies in terms of developing social entrepreneurship capabilities.”	This paper “is based on in-depth interviews with several of these social entrepreneurs in multiple villages in Yunnan and Zhejiang provinces in China. It aims to explore the key issues related to the role of social entrepreneurship and leadership in developing rural cooperatives.”
(Beier M. 2006)	The following study analyses the development of cooperative capabilities in young enterprises by particularly taking into account, the mutual interference of the development of cooperative capabilities and the development of the cooperative network of a focal young enterprise	the development of cooperative capabilities in young enterprises by particularly taking into account, the mutual interference of the development of cooperative capabilities and the development of the cooperative network of a focal young enterprise.
(Adekunle B. 2011)	The “results suggest that the entrepreneurial ability and business success of people in Cooperative Thrift and Credit Societies are better as compared to non-members, and personal agency belief is a significant predictor of microenterprise performance.”	“Specific attention is focused on the impact of membership of Cooperative Thrift and Credit Societies (CTCS) and personal agency belief on microenterprise performance.”
(Hu Z., Gan D., Han Z., Chattopadhyay D. 2004)	The suggested allocation methods have theoretical advantage in assurance of equity and rationality. It is believed that the proposed methods for allocation of unit Startup costs are equitable and can be potentially useful.	Cooperative game theory is applied to allocate unit Startup costs among loads. The existence conditions of core allocation are studied by the conclusion that the allocation problem is not always a convex game. Based on the concepts of nucleolus and Shapley value, the Startup costs are allocated to each load. The advantages and disadvantages of the two methods are proposed. The allocation of unit no-load costs is also studied.
(Rajaei Y., Yaghoubi J., Donyaei H. 2011)	“Results also demonstrated that there is significant relationship between the entrepreneurial scores of managers and education level of board members, the total number of cooperatives and success level of cooperatives (...)”	“According to 44 th principle of the constitution, a special place is given to the cooperative sector in all sectors including agriculture. The purpose of this study was identifying factors affecting the development and strengthening entrepreneurship in agricultural production cooperatives (...)”

Another search was done in Scopus using the keywords: Cooperatives AND Startups. Out of the resulting 84 documents, and following the above procedure, we selected 4 papers.

1. Using the search string:

KEY (cooperatives AND Startup) AND (LIMIT-TO (LANGUAGE , "English "))

We identified 84 documents.

2. These papers were then ranked according to their relevance by reading the abstract and ranked from 1 (not relevant) to 5 (very relevant).
3. Papers ranked 4 and 5 were read and the concepts proposed by the authors were extracted as well as what they said about cooperatives.
4. After this process, several papers were excluded and the papers in Table II were the ones selected.

Table II – Result of the literature review used keyword cooperatives and Startup

Reference	Concepts proposed	What they say about Cooperatives
(Hu Z., Gan D., Han Z., Chattopadhyay D.2004)	The allocation of unit no-load costs is also studied. Then multi-period Startup cost allocation problem is discussed, and two methods are suggested. In the first method, multi-period Startup cost is allocated based on the allocation outcome of single-period allocation, while in the second method multi-period Startup cost of a trading day is allocated as a whole. The allocation results are compared. Contrasted with existing methods, the suggested allocation methods have theoretical advantage in assurance of equity and rationality. It is believed that the proposed methods for allocation of unit Startup costs are equitable and can be potentially useful.	Cooperative game theory is applied to allocate unit Startup costs among loads. The existence conditions of core allocation are studied by the conclusion that the allocation problem is not always a convex game. Based on the concepts of nucleolus and Shapley value, the Startup costs are allocated to each load.
(Toole A.A., Czarnitzki D., Rammer C. 2015)	“We find significant contributions to employment growth from university research alliances and other university connections, but scientific absorptive capacity is critical for university research alliances. Only 7% of the Startup population maintained a university research alliance, but among these firms, 3.4% of their total jobs created were attributable to their alliances.”	“This paper examines how university research alliances and other cooperative links with universities contribute to Startup employment growth. We argue that ‘scientific absorptive capacity’ at the Startup is critical for reaping the benefits from university research alliances, but not necessarily for other university connections. We also estimate the aggregate employment contribution from Startup firms and attribute those employment gains to university research alliances and other university connections.”
(Jones Keith W. 1985)	This paper presents the Startup and operational case histories with economic assessments of two large alcohol fuel projects: South Point Ethanol at South Point, Ohio, and Kentucky Agricultural Energy Corporation of Franklin,	These projects represent a 60-million-gallon-per-year fuel ethanol facility, which was constructed by refurbishing a decommissioned ammonia fertilizer complex, and a 21-million-gallon-per-year fuel ethanol facility constructed on

	Kentucky. In an effort to expedite fuel ethanol production on a commercial scale, both projects were awarded cost sharing Cooperative Agreement contracts from the Department of Energy and Loan Guarantees from the Farmers Home Administration.	a 180-acre farm. These facilities' operation and cooperative economic case histories point out major problem areas and pitfalls that should be avoided in future plant construction.
(Kingori W. 1995)	Acme Steel has incorporated one of the most innovative management-labor contracts in the steel industry.	The agreement alleviates the steelmaker's labor woes with the Startup of a new thin slab caster, while giving hourly employees a greater role and cooperative in operating the company. The new compact strip production mill will begin operation in late 1996.

The result of this literature review shows that the issue of Startups and cooperatives was not treated in the literature. Some of the selected talked about Cooperative but not on Startups, and they refer cooperatives in sector such as agriculture, the cooperative of costs construction, the cooperative on effect of financial and management..., etc., also, some of these papers mention Cooperative game theory is applied to allocate unit Startup costs among loads.

3.3 Conclusion

In this chapter presented the literature review done in the Scopus database related to our research topic. This has led to the identification of the knowledge gap. We found no references talking, at the same time in Startups in the context of the concept of cooperatives. It seems that concept of cooperative is not at all in the equation when entrepreneurs, or even researchers, study Startups. In this research, we want to give an early contribution to this discussion.

4 Chapter 4: Methodological considerations

From the literature we derived to following Research Question:

How do Cooperative Principles impact in the Startup and its Business Model?

Thus implying a qualitative approach to this research in the context of which we will use the Design Science Approach illustrated below.

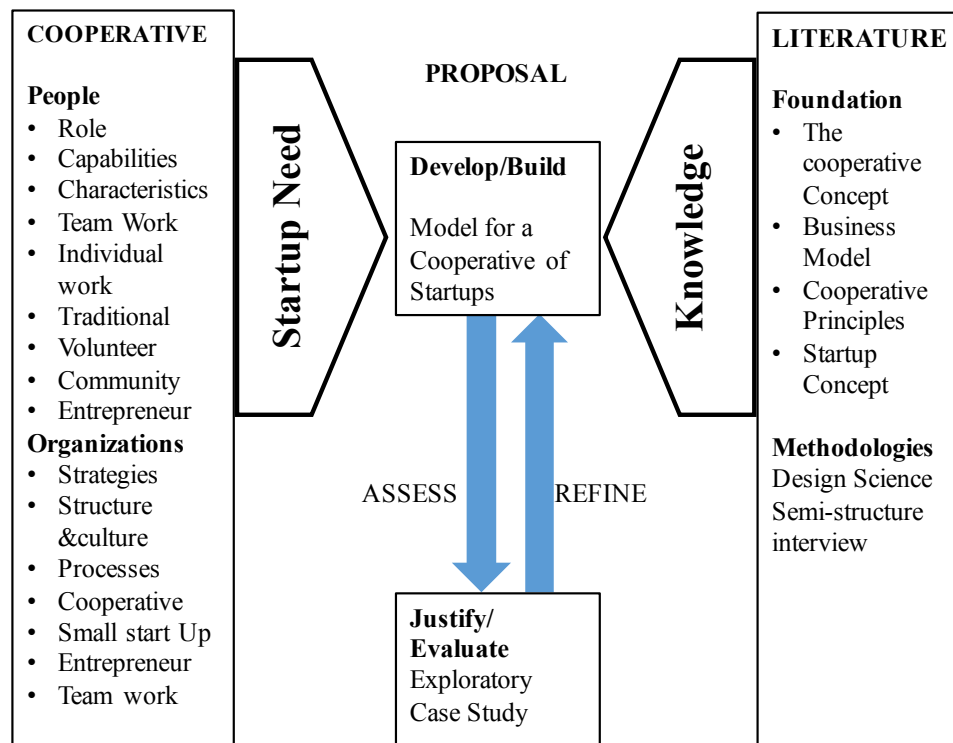


Figure 3– Design Science Approach, Source: Adapted from Hevner et al. (2004, p. 80)

This approach builds on the construction of an artefact, in this case the Model for a Cooperative of Startups, which will build both on the body of knowledge available in the literature and on the business world experiences of people and organizations. We followed to case study approach to support the development of an exploratory case study, where we want an early validation of the proposed constructs.

The proposed framework was therefore reviewed with the participation of an Entrepreneur leading a Startup at UPTEC. The interview was structured along the seven cooperative principles and organized as followed: 1) the cooperative principles were first presented and briefly discussed; 2) the proposed model was then introduced; 3) the proposed model was discussed in the context of each one of the seven principles. The interview was recorded and then transcribed for analysis. The rationale for the selection of the entrepreneur stands fundamentally on the fact that we would like to interview a person that had already several years of experience as entrepreneur, that was staying at UPTEC already for more than two years.

5 Chapter 5: Cooperative Model for Startups

5.1 Introduction

In this chapter, we propose a model for a Cooperative of Startups, and detail how we see the seven cooperative principles being applied to the proposed model.

5.2 Cooperative of Startups, the proposal of a Model

Cooperatives serve people and are owned by people, in our case, people are not only the entrepreneurs, but also their collaborators and investors in the Startup. They will all become owners of the cooperative as soon as they join it. So, we could imagine an inverted pyramid of cooperative owners, one member one vote. On the top we would have people from the Startups, the entrepreneurs and their teams, organized as individual Startups. As they join the cooperative they become cooperative members with all the implied privileges and obligations, among them, the possibility of electing a board of managers and a general manager.

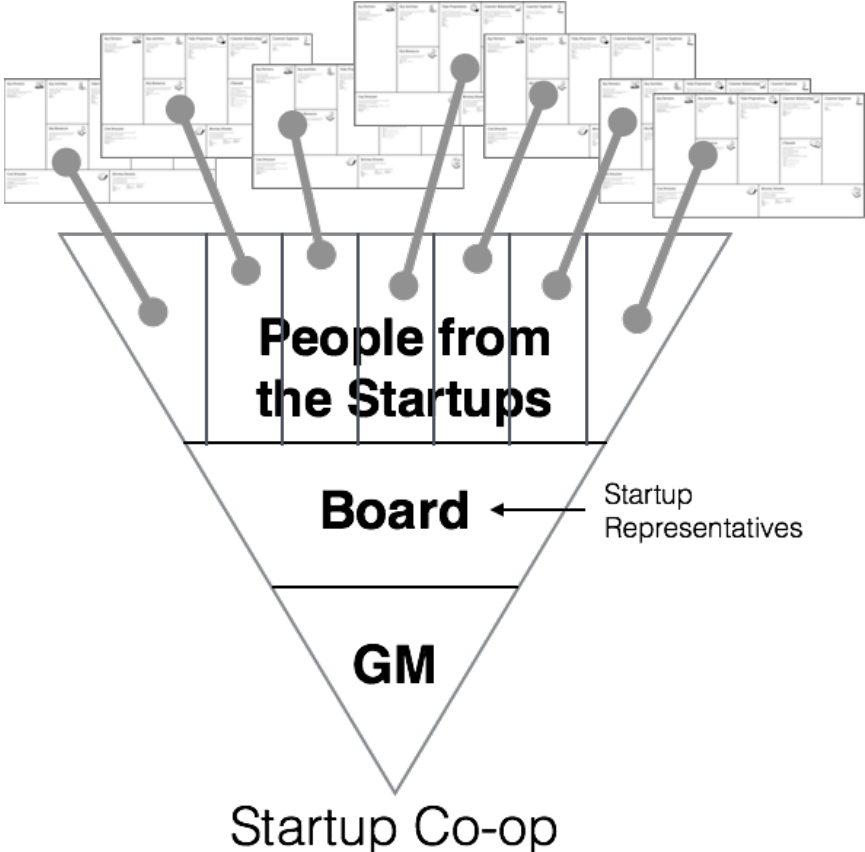


Figure 4 – Cooperative of Startups

Looking in depth into this picture we could imagine that each Startup would have its own business model, and would be using not only their own resources but would be sharing resources

with the other Startups in the cooperative. All these Startups would have to abide by the Seven Cooperative Principles, thus building on those shared values to grow and support each other. This would be specially interesting for new Startups, that would be learning from the older ones.

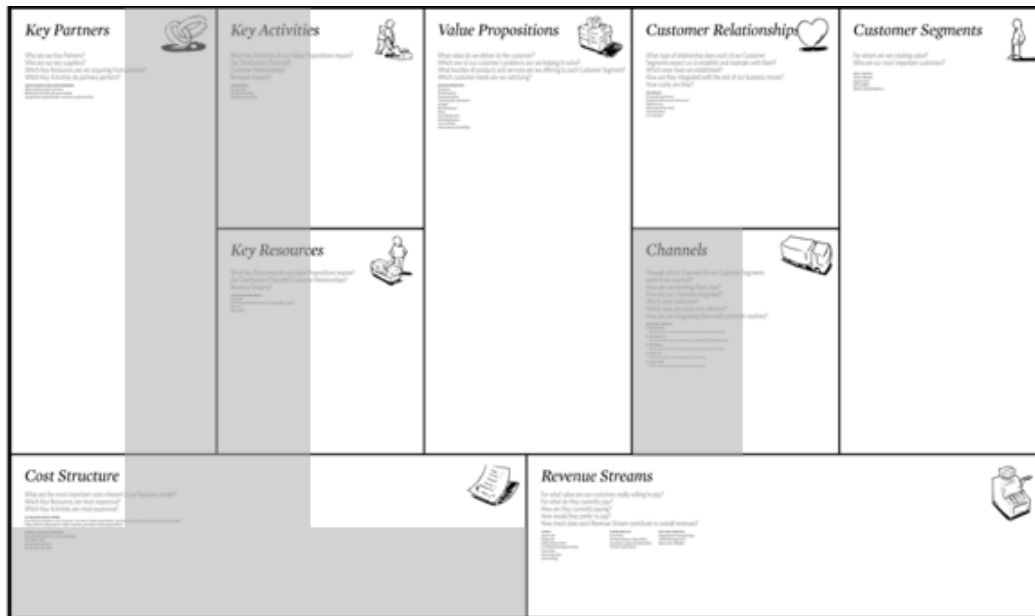


Figure 5 – Shaded area pictures the business model blocks that could be shared with those of the cooperative

Figure 5 illustrates the areas that the Startup business model would share with the cooperative. It is clear that the Startup would have operate on its own business model, however it could build on the resources, partners, activities and channels, already used by the cooperative. Keeping this in mind as well as the ideas presented in Figure 4, the following paragraphs will discuss how entrepreneurs could look at the Seven Cooperative Principles in order to decide to follow the cooperative model as an eligible path for their new venture.

The influence of **Voluntary and Open Membership**

- Cooperatives generally are voluntary organizations. This means that they are open to all persons who are able and willing to use their services and accept the responsibilities that come with being a member of these associations. There is no discrimination in terms of gender, race, and religion, political or cultural background. The members are also free to come and go as they want and the contributions are not limited. This perspective affects mostly the Key Resources of the Startup, human Resources, which will then enable the adequate delivery of the value proposition. As Startups’ join this Cooperative of Startups, they do so voluntarily and they accept all benefits and obligations that come along, both the entrepreneur and the whole team.

The influence of **Democratic Member Control**

- Cooperatives operate on a democratic structure, which means one vote, one member, no matter the financial status of those elected or the contribution share. The members participate actively in the decision-making processes of the organization and in matters that concern the wellbeing of the association. Again, and through the cooperative resources vote, the whole business is tailored to an identified need, as an example we could think about an

utility cooperative¹. For the Cooperative of Startups, this could mean that Startups could have representatives in the board in order to represent their business vision and operations in the cooperative management.

The influence of **Member Economic Participation**:

- Members are also owners of the enterprise, and this means that they contribute equally to the democratic control and capital of the cooperative. The economic benefits gathered from the activities of the cooperative are returned to the members or reinvested in the cooperative. The members usually receive limited compensation and allocate any surpluses for the benefit of the cooperative or the community. This fundamentally impacts the Key Resources, the Value Proposition and Channels, that may be extended/improved following the reinvesting of cooperative surpluses.

The influence of **Autonomy and independence**:

- Cooperative associations are owned by their members and not the shareholders. They are autonomous and self-help organizations that are owned and controlled by their members and if they undertake any activities regarding entering into agreements with other companies, they ensure democratic control by their members (Cross & Buccola, 2004). This underlies the whole Cooperative of Startups organization.

The influence of **Cooperation among cooperatives**:

- All cooperative organizations work together to serve their members effectively and efficiently and this are done through local, regional, national and international structures. This impacts the business model Key Partners and how they could relate to the Cooperative of Startups. At the same time, this give an extra strength to the new-born Startup, that, as it joins the cooperative, will immediately gain all the leverage provided by the cooperative Key Resources and, specifically, the access to already existing network of Partners and, possibly, Key Channels.

The influence of **Education, training and information**:

- Another key principle guiding cooperatives is the provision of education and training to all their members, employees, elected representatives, and managers so as to contribute to the development of their cooperatives (Davis, 2002). They also undertake training and education to the general public to inform them about their nature and the benefits they will get if they join their association. For entrepreneurs, this is very interesting because they may use the support of the General Manager, Board Members and other Startups in the organization, already more experienced, to learn from them and avoid common mistakes, thus saving time and money in the launching of the new venture. This is also about supporting the community in understanding and learning how new ventures are launched, sharing knowledge and building resources.

The influence of **Concern for the community**:

- Cooperatives work for the overall sustainable development of their communities, while also focusing on the needs of their members. This is achieved mainly through the policies

¹ North Arkansas Electric Cooperative (<http://www.naeci.com/>), Cooperativa de Electrificação A LORD, C.R.L. (<http://www.alord.pt/>)

that have been accepted by their members and the principles guiding them. They volunteer in community development programs such as local charities that make an impact in the community (Fairbairn, 1994). In this case, we could be talking about the community of entrepreneurs that are already in the cooperative, or that could join the cooperative in the future.

5.3 Conclusion

In this chapter we introduced the proposal of a Cooperative of Startups as a way to build a bigger momentum in the launching of new ventures. This approach would for sure demand a new perspective from the entrepreneur as the new venture is launched, namely because it implies a different concept of “property” of the new business venture. In the following chapter we want to assess the entrepreneur’s perspective in the context of an exploratory case study.

6 Chapter 6: Exploratory Case Study

6.1 Introduction

This exploratory case study was done in an interview with an UPTEC Startup following the process described in chapter 5. The interview was recorded and the transcription was analysed. The next few paragraphs are the result of this process.

The interview was made to Eng. Júlio Martins at IDEA.M. We are most thankful for his time and kind availability to support the author in the discussion of this concept.

6.2 Interview with the Entrepreneur

As an overall comment, the entrepreneur stressed very much the relevance of the entrepreneur mind-set when thinking about the cooperative concept. It seems that the typical entrepreneur will want to work on his/her things, and this could be a barrier the sharing concept embedded in the Cooperative organization. It was as well stressed the culture issue. However, it was recognized that there are some interesting advantages. For example, comparing the Startup mentor with the role that could be played by the cooperative manager, bringing along his/her experience and network of contacts, the latter (cooperative manager), due to his/her own role in the cooperative, would have a higher commitment to the process.

It was also clear that the whole thing “makes sense, and it could be easy to apply, but probably not in the very beginning/launching of the Startup”. It was then added “if you have just the idea and nothing else, it seems hard to believe that a cooperative would accept a Startup just on the idea”. This means that the entrepreneur should probably be able to demonstrate his/her ability to work hard and produce results before being able to be accepted in the cooperative. However, the cooperative might look at this from the perspective of training/education. In this case, the new venture could be received into the cooperative as an “incubation project”, exactly as it happens in any business incubator.

The keyword seems to be “the mind-set of people in the cooperative and, specially, of the entrepreneurs”. People will likely “have to think different in order to make this possible”.

6.2.1 Voluntary and Open membership

If you join the cooperative “you will have access to intellectual resources that you will hardly get in your own Startup, namely a committed mentor to guide you in the early days of the Startup. This is of huge value for the Startup!” Also, for Startups, it is great to “use resources such as equipment, that is shared by all cooperative members, which means that the new incoming Startup will be able to access this infrastructure at a much lower cost”.

6.2.2 Democratic membership control

“Again, this is a mind-set issue”. It seems to make sense. Each Startup has its own model of governance independently of cooperative. “The one-member one-vote is an interesting motivation for all, as the “smaller” Startups have the same “power” as the “bigger” ones”. It is “interesting to think about the idea that, when you have one-member one-vote, in the cooperative everyone is taking care of each other, each individual is interested in the best interest for everyone”.

6.2.3 Member of Economic Participation.

“This is more a policy issue. Here you don’t have the exacerbated pressure of prizes for managers. It seems wise that economic benefits are reinvested, thus overcoming the issue of having one Startup and produces higher income than another trying to have a bigger control in the process (this also supported by the Democratic Member Control of one-member one-vote)”.

Our model proposes that, as the Startup joins the cooperative, Startup will belong to the Cooperative. People working in the Startup become cooperative members. However, you could have another model, that would be very interesting for Startups as well. “The success of the process depends on the similarity of the companies”. For example, “if you think about software Startups, they could sell the software they develop to the Cooperative [they belong to] that is then responsible for selling it worldwide. On its turn, the cooperative will provide these software Startups with the access to a shared Server that they use in the development process, thus cutting costs while ensuring higher performance of this shared infrastructure.” Another example, a “group of newspapers could have a printer in a cooperative.” The starting point could be to join as a cooperative “as result of a motivation to share resources or activities”.

6.2.4 Autonomy and independence

The Cooperative model could be an interesting approach provided that the people involved share the same mind-set.

6.2.5 Cooperation among cooperatives

This seems to be natural, as “if you are in a cooperative, to have some kind of empathy with other cooperatives is likely to be bigger. It is like an incubator working with another incubator, they have a point of contact that is *incubation*”.

6.2.6 Education, training and information

“The key word here is scale. If you spend the same amount of money to train one people or ten people, you are saving money.” Also, if “you gather information from many companies and because it is not the secret for the cooperative you can share it among its members. If you have two companies doing the same with different business models, maybe one is doing much better than the other, maybe it is a business model issue, you have all the information to think about what is the best way ahead”.

6.2.7 Concern for the community.

Usually, when we think about cooperative you think about some kind of the concern with the community. “But it will depend on people that are members. If we don’t want to be concerned with the community even if you’re not the member of the cooperative association. I am really pragmatic with that.”

6.2.8 In review

In the final discussion, that idea that “we could have Startup pitch’s to be accepted into a cooperative. Instead of preparing the pitch for investors, you prepare the pitch for a cooperative. If you have an idea, imagine that SONAE is cooperative. You could be thinking about pitching to SONAE because you want to be the part of the group, but SONAE is not a cooperative. But if it were, why not? Some of the Startup companies would prefer to be a part of cooperative rather than being managed by an investor. Someone put 20000\$ in your company, but you are on your own. On the other hand, if you take part in the cooperative, you get the money and you get the

environments, probably also the customer from another company that is by your side in the cooperative. It builds several synergies. First you need to have a big cooperative of companies, imagine company trying to enter into Mondragon, how many electronic companies would love to be part of FAGOR? They are like investors, but they are not investor they are cooperative.”

6.3 Discussion

All cooperatives around the world operate under the same set of principles which are aimed at improving the quality of life for their members and community. By adhering to these principles, as new Startups join the Cooperative of Startups, they will gain access to a unique set of benefits provided by both the actual cooperative and by its partner network. This Cooperative of Startups would as well play an important role in the society for training new entrepreneurs and to develop the entrepreneurial mind-set.

The mind-set, the culture of sharing property and results, is probably the starting point to make this possible. The discussion with the entrepreneur also raised an interesting perspective, the one that the cooperative could be built around sharing common critical and expensive resources, such as high performance computer servers, specially for Information Technology Startups. This idea is in fact similar to the Wine Cooperatives, where, resources for wine production and distribution are indeed shared by the cooperative members. In this case, the members of the cooperative wouldn't be the entrepreneur and his/her team, but the actual Startup as legal entity.

The idea of pitching to enter the cooperative seems very interesting, especially if one combines it with a kind of pre-incubation and mentorship, from Cooperative members. This could somehow assume a role that would be similar to business incubators.

6.4 Limitation of this study

This research work generated some interesting findings in the field of analysing the Cooperative Model for Startups. We can nevertheless mention that there are several limitations:

- We have only one exploratory case study, which is indeed a limitation, but allowed the exploration and further discussion of this issue. One could therefore look at this as a starting point for further research.
- The exploratory case study involved only one interview with one entrepreneur. This is far from the ideal situation, but it allowed some important issues to be raised and, as a result, to have a good starting point for the refinement of the proposed model: 1) considering that the Startup could join the cooperative by merging with the cooperative (all its members and resources enter the cooperative), or 2) by having the Startup legal entity as the cooperative member.

Finally, it was clear from the interview that the culture and mind-set will be critical in making cooperatives popular among the young to-be entrepreneurs. This mind-set is, indeed, about being willing to cooperating and sharing.

7 Chapter 7: Conclusions

Despite the apparent limitations that cooperative organizations face, it is clear that the benefits derived from this model outweigh the limitations. For Startups wanting to choose an organisational model to work with, the cooperative model is a great choice. It is clear that the many benefits offered by this type of model will be of great importance for the growth and development of Startups. There are hundreds of models to choose from, and for Startups wanting to use the cooperative model, they will enjoy maximum benefits and will eventually succeed over competition (McDonough, 2011).

In the modern society, as an example, today's agricultural cooperatives, large and small, are an important part of the global market. They have formed marketing agencies-in-common to jointly export their products, and continue to serve their members by looking for growth opportunities and the use of new technologies. The mission of cooperatives, however, always remains the same, to serve members. Cooperatives have also created numerous employment opportunities around the globe, due to their fairness and openness of membership. (Deanne Hackman, 2012)

This dissertation proposed a model for a Cooperatives of Startups. As an outcome of the validation process in an exploratory case study the authors realised that there would be typically two options for Startup as a cooperative: option 1) by allowing the Startup to merge with the cooperative (all its members and resources enter the cooperative); or option 2) by allowing the Startup to remain an independent entity, and having this legal entity as the cooperative member. In both cases, and specially for technology Startups, it could make sense to organize the Cooperative around a critical resource that would be of value to all involved Startups. In the exploratory study the point was made around a Physical Resource, but it is our belief that it could be done as well around Human Resources, for example, wouldn't it make sense to have a shared sales team for several Startups?

The limitations of this research clearly point to the open possibilities for future work. As an example, we would highlight:

- Interviewing leaders of several cooperatives to have a better insight of what actually lead them to adhere to the cooperative movement.
- An in-depth understanding of the reasons of why people adhere to the cooperative movement and how and why they organize the cooperative in a particular way. It would be interesting to understand if they are really organizing the cooperative members around the critical resources, and this could help confirm our feelings.
- Expand the interviews to more Startups, specially technology Startups, in order to gather a bigger sample of perspectives on this issue.
- It would be interesting as well to bring into this research the issue of cooperation among people. What is it that makes people cooperate and why? How does this change with the region culture and how does culture affects this cooperation? Would people willingness to cooperate affect their attitude towards the cooperative movement?

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