A conceptual and semantic framework of the startup: A systematic review of the literature through a qualitative study

Un cadre conceptuel et sémantique de la startup: Une revue systématique de la literature à travers une etude qualitative

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Abstract

This article aims to analyze the conceptual and semantic framework of the notion of startup. The results of our study come from a lexical and thematic processing of more than 274 definitions from scientific articles that were processed using Nvivo, a qualitative data analysis software made by QSR internationals. It appears that Anglophones authors share the definition by which the startup is an embryonic phase aiming to research and validate the business model. In contrast, in francophone research, the startup is a young innovative and technological company. Moreover, based on the plurality of semantic names attributed to the notion of a startup, this article aims to categorize startups according to several typologies. At the end of this work, we propose three major criteria to define the startup: the use of Lean Startup approaches (ALS) or agile methods, the research and validation of Innovation Business Model (IBM) and finally, the provisional character of the organization.

Keywords : Startup; Innovative Business Model; Lean Startup; Agility; Minimum Viable Product

Résumé

Cet article vise à analyser le cadre conceptuel et sémantique de la notion de startup. Les résultats de notre étude proviennent d'un traitement lexical et thématique de plus de 274 définitions issues d'articles scientifiques qui ont été traitées à l'aide de Nvivo, un logiciel d'analyse de données qualitatives réalisé par QSR internationals. Il apparaît que les auteurs anglophones partagent la définition selon laquelle la startup est une phase embryonnaire visant à rechercher et valider le modèle économique. En revanche, dans la recherche francophone, la startup est une jeune entreprise innovante et technologique. Par ailleurs, sur la base de la pluralité des noms sémantiques attribués à la notion de startup, cet article vise à catégoriser les startups selon plusieurs typologies. A l'issue de ce travail, nous proposons trois critères majeurs pour définir la startup : l'utilisation des approches Lean Startup (ALS) ou des méthodes agiles, la recherche et la validation d'Innovation Business Model (IBM) et enfin, le caractère provisoire de l'organisation.

Mots clés : Startup ; Modèle d'entreprise innovant ; Lean Startup ; Agilité ; Produit minimal viable (PMV)

Introduction

The heterogeneity and scarcity of academic studies on startups is partly explained by the lack of consensus on its conceptual framework. Within the startup literature, many authors have described the concept of the startup in different ways. The objective of the conceptual and semantic clarification of the notion of the startup is to allow the identification of samples during empirical studies in order not to confuse startups and traditional SMEs, especially technological or innovative ones. In the scientific works examined, we are currently in the presence of a conceptual framework of the startup where the Anglophone and Francophone definitions cohabit. It is not always possible to confirm that the Anglophone definition is necessarily the preeminent. Thus, the conceptual and semantic framework must be unified and clarified.

Among Anglophone authors, the notion of the startup is subject to fairly significant change depending on the context of the study. But in general, this notion is linked to the process of research and validation of a business model **(Ries, 2011).** Moreover, these same authors do not consider a company that executes a valid business model to be a startup, regardless of the sector of activity.

In the francophone literature, the concept of a startup has been confused with traditional small technological or innovative companies. Francophone authors describe startups through certain descriptive criteria that have not been unanimously agreed upon among authors, such as: innovation, use of technology, size and age.

Contrary to francophone studies, many Anglophone studies tend to show that the startup is not exclusively linked to entrepreneurship nor can it be considered as a reduced model of a large company **(Blank, 2015)**. The startup can be launched by a young entrepreneur, a state, a public administration or an association.

Another element that characterizes the scientific debates is the interest in the plurality of semantic names that have been attributed to the startup and that has complicated the unification of the conceptual framework. Among the semantic names that we have identified among Anglophones authors, we can cite: *New ventures; New company; Emerging organization; High-Technology ventures; Spin-off; Academic spin-offs*. While in francophone works we find: *the young innovative company, the young company in technological innovation, the young high-tech company, the ICT entrepreneurship or the young shoot* **(Song, and al., 2008).**

The plurality of semantic frameworks has caused conceptual ambiguity, so it seems useful to analyze the perception of the startup concept by the authors of Anglophone and Francophone works. Our analysis attempts to answer the following research questions:

How has the startup been defined in the literature? What are the different semantic names that have been given to the startup? And to what extent is this terminological diversity at the root of conceptual ambiguity?

To understand and analyze the significance of such research questions, a qualitative study was conducted to address the conceptual framework and the semantic framework of the startup. These two themes are related in that the diversification of semantic names has led to conceptual ambiguities. To examine these themes, we used lexical and thematic study assisted by Nvivo 11 software.

Indeed, this research paper is structured in four points: we will present in the first point, the theoretical framework of our research by exposing more particularly a synthesis of the literature review of the notion startup, then we switch to the presentation of the methodological approach in the second point by which we detail the qualitative approach that we adopted and then, we present and analyze the result obtained in the third point. Finally, the fourth point is devoted to the proposal of a conceptual and semantic framework of the notion startup.

1. Theoretical framework

The literature review on the notion of the startup has shown that the Anglophone and Francophone approaches do not share the same definition of the startup concept. The former considers the start-up as a temporary organization that seeks and validates an innovative business model using Lean start-up or agility methods **(Ries, 2011)**. In the francophone approach, the start-up is a permanent organization that executes a business model characterized by innovation, growth, size and age **(Lasch, and al., 2005).**

The Anglophone approach defines the start-up as a dynamic and reactive mode of organization and obeys the theory of organizational adaptation in order to adapt to the needs of the customers as stated in the Lean Start Approaches (SLA) or the agile methods **(Blank, 2015).** Thus, a start-up, according to this approach, is characterized by a functional organizational chart, a validated product and a viable business model (markets, customers and products are known). However, in start-ups, there is no functional organization chart. The

product and the customers are not known and therefore do not have a stable, industrializable, sustainable and profitable business model **(Andreesen, 2007).**

We can also note that the two approaches do not share the same semantic names attributed to the start-up. The semantic names of the start-up according to the Anglophone approach were assigned according to two criteria: the destination (entrepreneurial and non-entrepreneurial) and the characteristics (use of research and technology, growth and scalability). The semantic names according to the francophone approach are made up of the concatenation of the concept of "young enterprise" and the characteristics that make it special.

According to Steve Blank, the start-up is a temporary organization intended to seek a reproducible and evolving innovation business model (Blank, 2015). Although this definition is the most mentioned in the literature, it lacks theoretical and methodological clarification on the duration and delimitation of this temporary phase. The theoretical basis proposed by some authors complements Blank's definition by which the start-up ceases to exist once the business model is validated Source specified invalid (Blank, 2015; Yves & Alexander, 2011). This validation translates into the confirmation of the fit between the problem and the solution, or the fit between the product and the market Specified source invalid. Similarly, this fit begins when the founders find a wide range of customers interested in paying for the service created or provided, called the value proposition.

In this same context Ries and Andreesen, pointed out that the start-up ceases to exist with the validation of the Minimum viable Product (Ries, 2011; Yves & Alexander, 2011). The latter consists in designing a basic product with a minimum of functionality to test its potentialities before its final acceptance and its launch on the market.

Finally, the theoretical definition of the notion of start-up was proposed taking into account the results of our study. The notion of the start-up has been defined through three criteria: the innovation business model, the agile or Lean start-up methods and the provisional character of the organization. To conclude, for reasons of semantic unification, we suggest the use of all the semantic designations around the word "start-up".

2. Methodological Approach

In our approach, we carried out a systematic documentary research, which consists of searching in electronic databases the published scientific articles dealing with the startup. The choice of our databases is justified by the validity and reliability of the information contained in these articles. To search for these scientific articles, the following keywords were used:

- ✓ *New ventures; New company; Emerging organization; High-Technology ventures; Spin-off; Academic spin-off; University spin-offs; Research-based spin-offs; High-tech firm; spin-off venturing; Spin-off ventures; startup; Software startups; Startup company; Startup stage; Hardware startups; Startup corporation; Internal startup; External startup; Pre-startup; the embryonic firm; the startup firm; the growth firm; the mature multiline firm; Technology venture startup; High-tech startup; New technology-based firms; Technology spin-offs*.

The selection of these databases is justified by the fact that their acceptance of scientific articles is subject to an evaluation of the validity and reliability of the information contained in a journal article and by the richness of the start-up's work *(table 1)*.

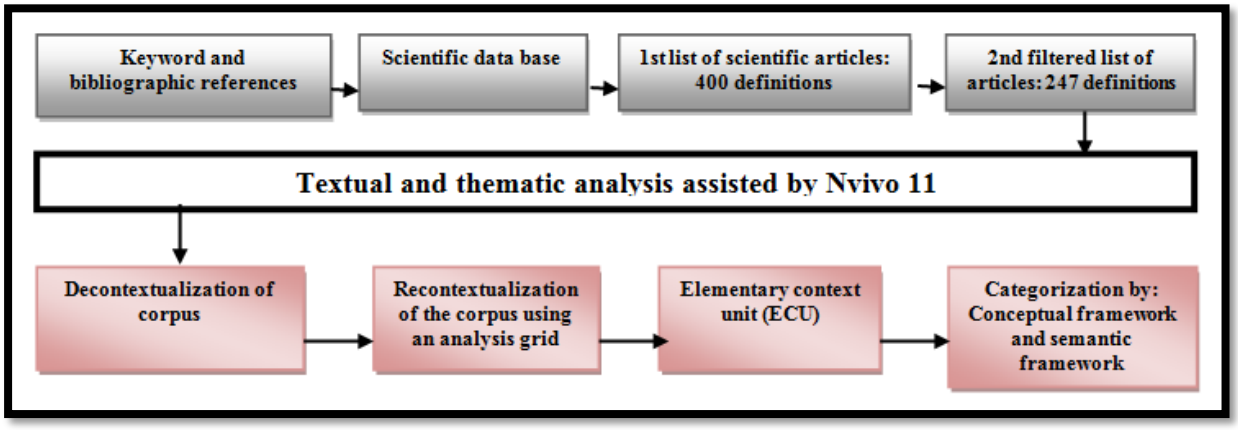
Table 1: List of scientific databases used

FIRST LIST	SECOND LIST
Sciencedirect ;	*Bankinge Institute Of Technology;*
Google Scholar ;	*The Strategic Management Journal (SMJ);*
IEEE ISMOT;	*Researchgate;*
Harvard Business Review;	*Ibm Research;*
ISSS (International Society For The Systems Sciences) ;	*Journal Of International Marketing;*
Kluwer Academic Publishers;	*Elsevier ;*
Emerald Group Publishing Limited;	*JSTOR;*
Entrepreneurship Theory And Practice;	*German Research Foundation;*
The Journal Of Entreprenuerial Finance;	*Taylor & Francis Group;*
Journal Of Small Business Management;	*Springer Link.*
The National Bureau Of Economic Research;	

Source: Self-elaboration

Of the 400 sources found, the literature review revealed 247 definitions that were compiled into a single corpus. Then, using Nvivo 11 software, we performed a 4-step analysis:

Figure N°1 : Research protocol



Source: Self-elaboration

- **Step 1:** Decontextualize our corpus to define the content by coding each definition by authors and year according to the first group of nodes;
- **Step 2:** recontextualize this corpus by performing a query on the most frequent words which are then grouped by elementary context unit (ECU). This work was carried out on the basis of an analysis grid;
- **Step 3:** Analyze the concepts according to our research themes by using the contextual analysis method to situate these words in a literary movement in order to understand how authors studied and used these words;
- **Step 4:** Categorize the words generated according to the conceptual framework and the semantic framework

3. Analysis of the results

3.1. The concept of the startup

3.1.1. The concept of the startup according to the Anglophone point of view

In the Anglophone literature, the notion of the startup is both ambiguous and evolving. It is ambiguous because it is represented according to three approaches: temporary organizational approach, procedural approach and cyclical approach. It is evolutionary because it has been defined as a process of research and validation of a minimum viable product (MVP). This

search and validation process was later extended to the search and validation of an innovation business model **(Blank, 2015; Ries, 2011).**

At the Anglophone level, the qualitative analysis of our corpus revealed several definitions that have been given to the notion of a startup. For reasons related to conceptual clarification, these definitions have been grouped into three main approaches: the temporary organizational approach, the procedural approach and the cyclical approach.

- **Temporary Organizational Approach**

The Anglophone stream brings together researchers whose perception of the notion of a startup has been strongly inspired by the startup spirit and the startup ecosystem according to the American success story model **(Eunju, and al., 2020).** According to these authors, it is a provisional or temporary organization that aims to pursue an unproven business model.

The organizational approach distinguishes between a commercially oriented and a non-commercially oriented startup. This means, in principle, that it can be launched by individuals or a team gathered informally and agile to develop a solution to a problem **(Bach, 1998).**

For Steve Blank, the startup is a temporary organization intended to seek a replicable and scalable innovation business model **(Blank, 2019).** Although this definition is the most mentioned in the literature, it lacks theoretical and methodological clarification on the duration and delineation of this temporary phase.

The theoretical foundation proposed by some authors complements Blank's definition whereby the startup ceases to exist once the business model is validated (**Burgelman, 1983; Johannisson, and al., 1994; Yves & Alexander., 2011).** This validation results in the confirmation of the fit between the problem and the solution, or the fit between the product and the market **(Andreesen, 2007).** Similarly, this fit begins when the founders find a wide range of customers interested in paying for the service created or provided, called the value proposition.

In this same context Ries and Andreesen, pointed out that the startup ceases to exist with the validation of the Minimum viable Product **(Blank, 2019; Ries, 2011; Andreesen, 2007).** The latter consists of designing a basic product with a minimum of functionality to test its potentialities before its final acceptance and launch on the market.

These temporary organizations are also characterized by a high level of risk and agile development of a product or solution. This is why the startup is a human institution designed to create new products and services under conditions of extreme uncertainty incertitude **(Bernasconi & Mosted, 2000; Ries, 2011).**

Moreover, innovation is a major character that distinguishes these temporary organizations. In other words, this entrepreneurial project aims to introduce a disruptive or breakthrough technology that has never been used by customers while changing the rules of the market game **(Stopford, and al., 1994).**

The startup is not necessarily launched by an entrepreneur. Some authors consider it to be an internal project initiated by another formal institution (parent company, university, R&D laboratory, etc.) to exploit research and development result. In this context, this process leads to the creation of a project often referred to as an internal startup **(Burgelman, 1983; McQueen & Wallmark, 1982; Roberts, 1968).** The notorious example is that of the military defense administration mobilizing its research laboratories to create a startup in the form of military weapons technologies.

- **Procedural approach:**

Some authors describe the startup as a set of steps from the idea to validation of a business model **(Alexander, and al., 2002; Johannisson, and al., 1994).** According to this approach, the startup originates in the realization of a number of non-linear tasks that lead to one or more objectives objectifs **(Grinyer, and al., 1986; Shuman & Seeger, 1986; Sexton & Bowman-Upton, 1991; Venkatraman, and al., 1986).** These tasks consist primarily of development, pivoting, market and customer development, and data collection and analysis and learning.

All activities and tasks performed by the founders of a startup are aimed at validating an innovative business model *(table 2).* The literature review underlines the importance of this search for adequacy, which means building, testing and repeating rapidly **(Ries, 2011)**. It is an iterative process in that non-validation leads to a change in strategy called pivoting.

Table 2: The main activities of the startup according to the procedural approach

Activities or tasks	Explanations
Development	The main mission of the startup is to develop a business model or a solution to a problem. This development process is based on trials and tests conducted by the founders to validate a prototype, a market, or an opportunity. It also involves implicitly involving users in the design process of the solution without their knowledge.
Pivoting action	The search for a viable business model leads startups to operate in an agile and lean mode allowing them to adapt to changes imposed by the market or by customers
Market prospecting and customer development	The startup aims to develop and research a steeply sloping market by launching basic products to get the customer on board with the solution development process.
Data collection, analysis and learning	To develop a new business model for innovation, the founders of a startup collect quantitative and qualitative data on customers, products or markets. The analysis of this data allows them to validate or not the functionalities offered by the minimum viable product.

Source: Self-elaboration

- **Cyclical approach:**

The cyclical approach highlights mainly two modalities to describe the notion of a startup: either as one phase among other phases of the life-cycle of an organization or product, or as a complete life-cycle comprising several phases.

In the first case, it is a temporary organization or team that is in the so-called startup phase with the prospect of reaching the following phases which are the stabilization, growth and evolution phase or the growth phase **(Crowne, 2002; Meyer & Roberts, 1988; Mueller, and al., 2012).**

In the second case, the concept of a startup is defined as a process subdivided into several phases from the idea phase to the maturity phase. This cyclical approach describes how a project, an idea or a product, is born and then tested and validated in the market.

As mentioned in *Table 3* below, the authors reviewed do not share the same phases that exist between the initial and final phase. Since it is difficult to find common ground in the transitional phases, we have examined the initial and final phases of the different models related to the life-cycle of a startup by grouping the different phases into three stages: Initial; Transitional and Final. This analysis will allow us to define the life-cycle that characterizes the startup.

Our qualitative analysis revealed several models of the life-cycle of a startup. These models describe the processes of birth, research and validation of an idea, product or project. Moreover, these life-cycle models share more or less the same observation regarding the initial and final phase.

The startup begins with the research of an idea or concept. In this case, we talk about the phase: seed; research; problem; research and development; discovery; traction; concept; startup preparation; incubation; emergence; startup; launch.

Then, the startup aims to reach a certain level of maturity or stability of the product, idea or project. The following names have been used to characterize it: creation (of the company); growth; maturity; prosperity; efficiency; growth; disconnection from the incubator; expansion.

However, one of the difficulties of this cyclical approach is identifying the boundaries between the different phases. The phases of a startup's life-cycle are not homogeneous in the literature and can be composed of 2 or more phases.

Table 3: Different phases of a startup life-cycle

Number of phases	Initial stage	Transitional stage	Final stage	Reference
2	Emergence	-	First growth	**(Pirolo & Presutti, 2010)**
3	Seed	Launch	Creation	**(Aidin, and al., 2015)**
3	Research	Construction	Growth	**(Blank, 2015)**
3	Incubation	Growth	Maturity	**(Yoon-Jun, 2010)**
3	Discovery	Validation	Efficiency	**(Startup Genome, 2011)**
3	Traction	Transition	Growth	**(Brian, 2013)**
3	Startup	Growth and development	Expansion	**(Ng, and al., 2014)**
4	Launch	Young/growth	Maturity	**(Bocken, 2015)**

4	Launch	Early/growth	Expansion	**(Santisteban, and al., 2017)**
5	Problem	Solution/Minimum Viable Product/Market fit/Evolution	Maturity	**(Morgan, 2016)**
6	Research and development	Birth/Survival/Early Success/Startup	Prosperity	**(Ezratty, 2019)**
6	Concept	Development/Functional prototype/Functional product with limited user/high growth functional product	Mature product	**(Xiaofeng, and al., 2016)**
6	Preparation for startup	Incubation process/Incubation performance/exist policy/Parental care	Incubator Disconnect	**(Wing-Ki, and al., 2005)**

Source: Self-elaboration

To conclude, the startup according to the Anglophone approach is thus understood as a series of embryonic developments of a project. It requires a minimum of flexibility in the human organization as well as in the way tasks and activities are carried out. This embryonic development phase consists of forming a human or organizational team working with Lean Startup Approaches (LSA) or agility to find and validate an innovation Business Model (BMI).

3.1.2. The notion of the startup according to francophone perspective

The conceptual framework of the notion of a startup according to the francophone journals operates at two complementary levels: the first is that of the organizational form for which the startup is a young company, this last term is interchanged with startups, small business, micro business. The second level concerns the characteristics that distinguish these startups from other traditional forms of business (descriptive approach).

- **Permanent organizational approach:**

Contrary to the temporary organizational approach postulated by Anglophones authors, the concept of the startup presents a permanent organizational form to which are added certain

characteristics that make it special compared to traditional enterprises. In the absence of a stable organizational form in the Anglophone theoretical foundations, the Francophone definition is, however, more practical in empirical studies, as it facilitates the identification of samples.

The permanent organizational approach postulated by the francophone authors defines the startup as an innovative young company. The latter has been defined according to three criteria: size, age and the budget devoted to research and development. Thus, in France, a young innovative company is a small medium-sized enterprise (SME) that is less than 8 years old and that devotes at least 15% of its budget to research and development.

The definition of an SME[1] differs from one country to another. It is difficult to find unanimity on its definition. According to the OECD, SMEs are defined as independent enterprises that are characterized by two features: 1) a limited number of employees, and this number varies according to the statistical systems of each country; 2) a financial balance sheet and a turnover that does not exceed a threshold that differs from one country to another Source spécifiée non valide..

In France, for example, an SME is an enterprise that is less than 8 years old, employs fewer than 250 people, and has a turnover not exceeding 50 million euros. The European Commission defines SME as an enterprise that employs fewer than 50 people, has a turnover of less than 10 million euros and a balance sheet total of less than 10 million euros. In Canada, an SME is a business with between 1 and 99 employees. The United States considers SMEs to include all pre-established companies with 500 employees. For the European Observatory of SMEs, SMEs are those with an annual turnover not exceeding 40 million euros or a balance sheet value not exceeding 27 million euros.

- **Descriptive approach:**

This approach postulates that the notion of the startup is attached to a small or young company often characterized by certain criteria that are not always tautological. Among the most cited characteristics, we find: innovation, technology, size, research and development, growth in terms of turnover or number of employees. Based on a qualitative analysis of the journals consulted, we will describe the features that characterize startups as follows:

[1] Several concepts revolve around SMEs such as: ETI (intermediate-sized company), TPE (very small company) and PE (small company).

Innovation: the startup is based on innovation that aims to introduce new products and create a distinctive core or breakthrough technology **(Meyer & Roberts, 1988).** It can be a new scientific discovery or the reuse of existing technology **(Ayadi, and al., 2005; Cauvin & Bescos, 2011).**

Technology: it is related to the use of scientific skills and the technical potential of the materials or software used to develop a solution of the startup. The scientific and technical skills of the individual include know-how, talents, engineering knowledge **(Meyer & Roberts, 1988).** The technical potential of the materials used includes making a distinctive technological core such as products, ideas, and prototypes that are generated in the R&D labs **(Roberts, 1968).** Technology is defined as: industrial high technology, ICT services such as computer and software solutions, non-academic research and development. It also includes other knowledge-intensive activities such as engineering design and testing by eliminating the domestic telecommunications sector, aeronautics, pharmaceutical and space manufacturing **(Lasch, and al., 2005).**

Size: Startups are generally characterized by a small size of a startup. Founders want to test proposed functional and business hypotheses with minimal initial investment. There is a risk of entrepreneurial failure if the startup invests too much money and time in building a solution that does not guarantee a return on investment.

Research and Development: The definition of a startup is related to the use of the research and development function that allows the development within research laboratories of inventions or innovations that can lead to the creation of a commercial enterprise.

Growth: is the most important characteristic of the life of a startup. This growth was expressed according to several criteria such as the evolution of the number of employees, popularity, revenue, number of customers and value of the company **(Cauvin & Bescos, 2011; Tarillon, 2014).**

In conclusion, the startup according to the Francophone approach is therefore understood as a pre-established young company that is characterized by the following features: innovation, use of technology, size, use of the research and development function and growth. The conceptual definition of the concept of a startup and its characteristics are very divergent in the literature.

We can then distinguish two definitions of the startup concept based on our lexical and thematic analysis:

- The startup according to the Anglophone approach is a temporary organization that uses agile and lean methods to research and validate an innovation business model that is in the process of validation;
- The startup according to the francophone approach is a permanent organization (young company) that executes an already validated business model and that is characterized by particularities such as innovation, technology, size, research and development and growth.

3.2. The semantic framework of the notion startup

The scientific work is guided by the choice of words determining the object of study. Thus, the absence of semantic delimitation risks to move us away from the objective fixed in our research, because a plurality of names leads to a conceptual and theoretical ambiguity. It seems important to us to analyze the semantic framework of the startup by describing the different terms that have been used for the startup according to our two approaches: Anglophone and Francophone.

3.2.1. Semantic designations according to the Anglophone literature

In the conceptual clarification, not only does the theoretical notion of a startup require a lexical and thematic analysis, but it must give importance to the influence exerted by the plurality of semantic names. Several semantic nouns have been assigned to the startup *(Table 4)* and based on the classification criteria mentioned in the *table 4* below, we have grouped these semantic nouns to emerge six categories of startups.

Table 4: Semantic names and categorization of startups according to the Anglophone approach

Startup category	Semantic names	Definitions
Research-based Startup	Spin-off; Academic spin-off; University spin-offs; Research-based spin-offs; Spin-offs venturing; Technology spin-offs	Known in French as a driven company, this is a particular type of startup that is created with the aim of commercializing one or more research discoveries outside the activities of individuals (founders) or companies. These types of startups generally emanate from institutions that conduct significant discovery research, such as universities or research laboratories belonging to large companies.
Technology-Based Startup	High-Technology ventures; High-tech firm; Technology venture startup; High-tech startup; New technology-based firms; Software startups; hardware startups	include a category of startups that, due to their technological products, is characterized by a high level of innovation, by the massive use of technical and technological knowledge assets and processes.
Entrepreneurial Startup	Startup corporation; startup company; the startup firm; the mature multiline firm; Internal startup; External startup; High-tech firm; New technology-based firms; the growth firm; the embryonic firm; New company; Emerging organization; the embryonic firm	Refers to a form of entrepreneurial startups whose founders research, develop and validate a scalable business model that will exclusively result in the creation of a commercial enterprise.
Scalable Startup	Scaleup, Licorns, décacorns ou hectacorns ;	Regroups a category of startups that achieves a high and evolving return. In addition, these

	the growth firms	startups are characterized by a fairly high financial and stock market valuation. The notion of scaleup constitutes temporary projects realizing an average annualized return of at least 20% over 3 years and employing fewer than 10 employees at launch. The notion of Unicorns refers to a startup with a valuation of more than $1 billion. The notion of Decacorns, on the other hand, is a startup whose valuation is greater than $10 billion. Finally, the notion of Hectocorns refers to startups valued at over $100 billion.
StartUp Venture	High-Technology ventures; Technology venture startup; New ventures	include startups considered particularly risky, but with high growth potential. These categories of startups are linked to a financing method called "venture capital."
Public Startup	Startup State[2]	Synthesizes startups that develop digital solutions to address a problem related to public policy implemented by the State. This category of startups does not necessarily lead to the creation of a legal personality independent of the State.

Source: Self-elaboration

According to *Table 4* above, the plurality of semantic names for the startup is a source of conceptual ambiguity. This plurality is due to the diversity:

- Of the actors who can launch the startup (founders, traditional companies, research laboratories and the state);
- The sectors of activity (high-tech, green economy, public services, etc.);
- The objective of the startup (creation of a company, an internal solution, a public service, etc.);

[2] Originally, startups were born in military research laboratories as an embryonic project. Previously, this type of project was aimed at finding solutions to problems of an emergency nature. Then the concept of startups gradually expanded to entrepreneurship during the bursting of the Internet bubble in the 1990s.

- The elements that characterize startups (growth, technology, R&D, size, etc.).

3.2.2. Semantic designations according to the francophone literature

In the francophone research literature, several attempts have been made to translate these terms into French. This resulted in the production of multiple names in the Francophone journals examined, which were grouped according to criteria related to innovation, technology and knowledge to identify 3 categories of startups *(Table 5)*.

According to *Table 5*, despite the plurality of semantic names and the existence of three categories of startups, the word startup in the francophone literature refers to innovative companies that offer innovations in the field of high technology **(Albert, 2000; Song, and al., 2008; Tarillon, 2014)**

Table 5: Semantic names and categorization of startups according to the Francophone approach

Startup category	Semantic names	Definitions
Young company based on innovation	Young innovative company; young company in technological innovation; innovative company;	Is a startup with an innovative business idea and characterized by the design of a new product, service or manufacturing and organizational process.
Technology-based startup company	Young company in technological innovation; the young high-tech company; ICT entrepreneurship; advanced technology company; new technology-based company	Designates a category of startups that mobilize tools, machines, technical and scientific knowledge to solve a real-world problem.
Knowledge-based startup company	Knowledge-based company	Refers to a category of startups that rely on the use of information, know-how, distinctive skills, and learning to create, deliver, and capture value (BMI).

Source: Self-elaboration

In conclusion, the semantic framework according to the Anglophone and Francophone approach can be summarized as follows:

- ✓ For the Anglophone approach, the semantic names of the startup concept are assigned according to two criteria: the destination of the startup and its characteristic. Regarding the destination, we distinguish between a startup with an entrepreneurial destination (e.g.: Entrepreneurial Startup) and a startup with a non-entrepreneurial destination (e.g.: Startup State). As for the characteristic, the startup is distinguished by the use of research and technology, growth and scalability.
- ✓ As for the Francophone approach, the semantic names of the startup concept are defined by a concatenation of the concept of "young enterprise" and its characteristic. This semantic name is linked to the conceptual definition of the startup as a permanent organization that is characterized by features such as innovation, technology and knowledge.

3.3. Proposal for a conceptual and semantic framework of the notion of a startup

The lexical and thematic analysis that we have carried out constitutes an important field of action towards the conceptual and semantic clarification of the notion of a startup. We have retained the theoretical framework proposed by Blank with a certain adjustment linked to the process of validation of the innovation's business model.

If Blank proposes to consider the startup as a temporary organization designed to seek a replicable and scalable business model **(Blank, 2019)**, we propose the following definition:

"The startup is a temporary organization that uses agile methods or lean startup approaches to research and validate a replicable and scalable business model."

We preferred this definition for the following reasons:

- This conceptual framework is based on the criterion of the innovation business model whose validation by the founders constitutes the boundary between the startup phase and the mature organization phase. By mature organization, we mean structures and companies that have already validated their business model and are in the process of executing that business model. This means that the startup phase is upstream, which moves downstream either to the creation of a mature organization or to an entrepreneurial failure. Entrepreneurial failure expresses the inability of a startup to validate their business model and/or transform into a successful company.

- A startup is a temporary organization designed to pursue an evolving business model while a mature organization is a permanent organization designed to execute a proven business model. This is the reason why the theoretical foundation of the startup concept in the French-language journal is not suggested;
- A startup mobilizes agile methods or lean startup approaches to validate the innovation business model;
- We have shown that innovation and technology are no longer criteria that define a startup. As for other criteria such as age, growth and financing mode, they are also criteria that are no longer exclusive to the startup. For example, the criterion of age, which expresses the length of time needed to validate a business model, differs from one startup to another. Moreover, not all startups manage to achieve scalable growth. A scalable (growing) startup is one that is called a scaleup. The latter takes several forms of startups such as "Unicorns," "Decacorns," or "Hectocrn." These startups are valued at more than a billion dollars and they have already validated their business model.

Conclusion

Our research intends to contribute to the conceptual and semantic clarification of the concept of a startup by studying more specifically the Anglophone and Francophone literature. In general, our study has shown that the Anglophone and Francophone approaches do not share the same definition of the concept of the startup. The former considers the startup as a temporary organization that seeks and validates a business model of innovation using the methods of leans startups or agility. In the francophone approach, the startup or young company is a permanent organization that executes a business model characterized by innovation, growth, size and age.

The Anglophone approach defines the startup as a dynamic and reactive mode of organization and obeys the theory of organizational adaptation in order to adapt to the needs of customers as stated in the Lean Start Approaches (SLA) or agile methods **(Cauvin & Bescos, 2011)**. Thus, a startup, according to this approach, is characterized by a functional organizational chart, a validated product and a viable business model (markets, customers and products are known). However, in startups, there is no functional organization chart. The product and the customers are not known and therefore do not have a stable, industrializable, sustainable and profitable business model.

We can also note that the two approaches do not share the same semantic names attributed to the startup. The semantic names of the startup according to the Anglophone approach was assigned according to two criteria: the destination (entrepreneurial and non-entrepreneurial) and the characteristics (use of research and technology, growth and scalability). The semantic names according to the francophone approach are made up of the concatenation of the concept of "young enterprise" and the characteristics that make it special.

On the managerial level, this research work allows founders and actors in the startup ecosystem to situate the startup phase and to differentiate it from the phase of a mature company in order to take into consideration the particularity of this embryonic phase whose risk is very high. On the scientific level, our study made it possible to reduce the semantic and conceptual ambiguity of the start-up by clarifying this conceptual and semantic framework with regard to Anglophone and Francophone research work. This theoretical and semantic clarification will facilitate the tasks of scientific studies that have not been sufficiently studied because of this ambiguity of the theoretical framework, in particular studies relating to the factors of success and failure of startups. The conceptual and semantic definitions of the notion of startup according to two approaches question the reliability of scientific studies on startups and to what extent these results can be fluctuating according to changes in the theoretical and semantic framework between Anglophones and Francophones.

Finally, the theoretical definition of the notion of a startup was proposed taking into account the results of our study. The notion of the startup has been defined through three criteria: the innovation business model, the agile or lean startup methods and the provisional character of the organization. To conclude, for reasons of semantic unification, we suggest the use of all the semantic designations around the word "startup."

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