Entrepreneurial Management & Risk Investment

César Zapata-Molina¹, Juan Manuel Montes-Hincapie², Carmen Helena Romero Díaz², Dr. Pedro A. Romero D⁴, Mariana Bravo Sepúlveda⁵, David Alberto Bedoya Londoño⁶

¹⁵Teconológico de Antioquia University Institution, Faculty of Administrative and Economic Sciences. Calle 78b #72 A-220, Medellín, Colombia; E-mail: czapata@udemedellin.edu.co

²⁵Universidad de Medellín, Faculty of Economic and Administrative Sciences. Cra. 87 #30-65, Medellín, Colombia.

⁴Professor at Miami Dade College

⁵Universidad de Medellín, Faculty of engineering. Cra. 87 #30-65, Medellín, Colombia.

Abstracts: Introduction. Most of the new ventures are immersed in a risk or failure situation due to the lack of knowledge about a management process structured specifically for them, and to the ignorance of new terminology used in risk investment for raising capital. Objective. The purpose of this research is to describe the terminology currently used on risk investment for ventures and managerial actions that guarantee their sustainability, based on a bibliometric analysis of the literature on the research topic, considering the practices of innovative entrepreneurship worldwide with managerial actions that allowed us to recognize gaps, challenges, and opportunities. Analysis. The bibliometric analysis began with a search equation on entrepreneurship management from 1979. Data was processed with VOSviewer and the content analysis was performed with ATLAS.ti. Results. As a result, co-occurring terms emerged in the literature; business management, innovation, risk management, investments, and risk assessment stand out. There are other innovative terms that are used in the current dynamics of venture investment for startups. They are one of the contributions of this research. Conclusions. The conclusions present the best management practices that guarantee the sustainability of startups, as well as findings that reveal the new terminology in risk investment. They become facilitators for the permanence of incipient startups over time.

Keywords: Entrepreneurship, Valley of Death, Entrepreneurship Management, Venture Capital, Investment.

1. INTRODUCTION

Latin American startups have a high chance of failing during the first five years of existence in the period called Valley of Death, among other factors, due to the lack of knowledge of a management process structured specifically for this type of early-stage companies and, also, due to the lack of knowledge of new terminology used in the world of risk investment for capital raising. That knowledge would allow startups to last and profit from the operation, thus making them able to sustain and grow [1].

According to the Organization for Economic Cooperation and Development [2], entrepreneurship training plays an important role in guaranteeing the permanence of early-stage companies over time by avoiding failures in administration. The goal is that they do not fail and have a management infrastructure to face the challenges of companies, even more so when they are starting [3,4,5,6,7,8].

In addition, the capacity of entrepreneurs plays a very important role in raising resources through risk investment, thus their start-ups are able to solve their finances while overcoming the absence of liquidity. This means that it is necessary to close the gap between the initial financing of the company and the marketing of products or services that increase the cash flow [9,10,11,12]. Raising venture capital has become more difficult for early-stage companies because investors are more careful when taking risks in the investments they make [13,14].

However, this difficulty increases even more for entrepreneurs when they do not know the terms used in an investment round and the indicators that investors are really interested in. Such terminology is not documented in scientific articles, they are everyday terms used in the world of venture capital. At this point, it is worth mentioning 966
that this research also seeks to clarify these terms and their respective descriptions to make them available to the guild. Therefore, and to promote early-stage risk investment, it is important that entrepreneurs, researchers, teachers, and legislators know and be documented about the terms and indicators around entrepreneurship, not only theoretically, but contextually according to cutting-edge jargon among investors [4,15].

From the above, the research question arises: What are the descriptive elements of the entrepreneurial management process and the innovative terms used in risk investment to guarantee their permanence over time? To answer this question, the objective of the research was to elaborate on the phases and descriptive elements of the management process of ventures and the innovative terms used in risk investment through a documentary analysis of the literature.

This document has an introductory section that presents the topic addressed, the problems of entrepreneurship, the question of the study, and the research objective. Section two presents the research methodology according to the technique and processing of information from the literature. Section three corresponds to the development of the document, which involves the analysis of literature with the respective findings step by step. Section four corresponds to the conclusions.

The contributions of this research demonstrate its theoretical value because it amplifies the knowledge on innovative concepts, which are currently indispensable in the development of ventures. This document presents their respective descriptions, scope, and operational space. Likewise, in the economic field, this research offers elements that entrepreneurs who undertake their businesses and who require documentation should consider, not only the new terminology, but also those that need to know about the strategic management of their ventures. They could take this work as a guiding basis for various elements that entail strategic management according to their needs and requirements, adapted to the nature of the ventures.

From a social point of view, providing the knowledge described above contributes to the harmonious and sustainable development of enterprises, which stabilizes and promotes social welfare for their respective families and the community to whom products, goods, and services are provided. In turn, this input has a positive impact on social and economic development; it fosters the economy through small and medium industries, as well as entrepreneurship.

2. MATERIEL AND METHODS

This work is of a qualitative and documentary nature, supported by a bibliometric analysis of the literature. The first phase is the use of the Citation Pearl Growing technique [16] to create the search equation; then, it was entered into the SCOPUS database: (TITLE-ABS-KEY("entrepreneurship management") OR TITLE-ABS-KEY("enterprise management") AND TITLE-ABS-KEY(innovation) OR TITLE-ABS-KEY(terminology) OR TITLE-ABS-KEY("investment") OR TITLE-ABS-KEY(risk)). This search yielded 888 scientific articles from 1979 to 2022.

Subsequently, the data was entered into the VOSviewer® software for the analysis of co-occurrence of terms. Groups of terms emerged in clusters that were analyzed and contextually regrouped. For the content analysis, these data were entered into the ATLAS.ti® software. Figure 1 shows the steps followed during the bibliometric analysis.
3. RESULTS

This section presents a first phase, i.e., the result of the study through the systematic processing of documents, which began with the bibliometric analysis. The second phase presents the analysis of the selected literature.

3.1. Phase One

The figures resulting from the first phase of this analysis are presented below. They show the evolution of research on the subject of study. To understand the importance of investigating entrepreneurial management, a systematic literature review was carried out in SCOPUS; 888 articles published from 1979 to 2022 were found, thus showing an increasing interest in this topic over the years, as can be seen in Figure 2.

Figure 2. Evolution of SCOPUS publications on entrepreneurial management
Source: Own elaboration with SCOPUS

China has carried out most of the research on entrepreneurial management, followed by Russia and the United States, as shown in Figure 3. For its part, Figure 4 shows the results in Latin American territory.
Likewise, areas of interest for business ventures stand out, including engineering, computing, management, and business, as can be seen in Figure 5.

Figure 3. Countries with the most articles on entrepreneurial management published in SCOPUS
Source: Own elaboration from SCOPUS data.

Figure 4. Latin American countries with the most articles on entrepreneurial management published in SCOPUS
Source: Own elaboration from SCOPUS data.

Figure 5. Areas of interest in articles published in SCOPUS concerning entrepreneurial management
Figure 6 shows the links of occurrence and co-occurrence between the terms identified in the articles found in SCOPUS on entrepreneurship management.

![Graph showing occurrence and co-occurrence among authors of entrepreneurial management articles.](image)

Source: Own elaboration with VOSviewer

### 3.2. Phase Two

This phase includes the literature from the methodological process of research—bibliometric analysis—considering the management of the venture and the new risk investment terminology. The advancement of the literature was analyzed by studying the research background and the theoretical foundations on the categories described above.

The economies with the greatest relevance worldwide are supported by micro, small, and medium-sized enterprises, and it is important to guarantee their permanence over time. In this matter, the management process plays an important role as a differential component. Various methods could be used to design the phases of the ventures’ management process and facilitate the permanence of the new companies over time [18,19].

As part of it, the total quality cycle known as PDCA is described, which consists of 4 stages [20]. The first stage to Plan; here, the objectives are defined, how to achieve them, and how to measure them, being clear about the goal. Second, there is the Do stage, in which what is planned is executed. In the context of entrepreneurship, this stage should be developed with a minimum viable product on a small scale of the target market to validate the product or service in a controlled environment. The third stage is to Check, where the information obtained from the tests carried out in the previous stage is analyzed to identify possible opportunities for improvement. Finally, there is the Act stage, where adjustments and improvements are made to the minimum viable product placed on the market, according to the information collected in the check stage. Once this stage is finished, the cycle starts again with feedback.

The PDCA cycle has significant similarities with the Lean Start Up cycle, which is used as a guide for entrepreneurs in the entrepreneurship ecosystem. This cycle is made up of 3 stages: create, measure, and learn. The first stage is to create the minimum viable product or service. The second stage refers to putting the product
on the market and making quantitative and qualitative measurements of the acceptance or non-acceptance of customers or consumers through a feedback process. The third stage includes what was learned with the previous stages to make adjustments to the product or service and start the cycle again, or definitively pivot, by discarding it or making significant changes [21].

The study of management processes involves recalling some methodologies that usually maintain their importance because they help each organization according to its nature. Michael Porter [22] competitive forces, the Lean Canvas [21] as an evolution of Alex Osterwalder's Canvas model, and the SWOT matrix stand out. One of the fundamental components of management is planning, which defines the direction in which the company should go, in addition to describing the vision, mission, and strategic objectives. Likewise, the implementation process in an organization is vital: what must be done to meet the objectives of the company through the execution of strategic management projects.

Some of the aforementioned methodologies, applicable in entrepreneurship, have revealed an isolated procedure during the accompaniment of entrepreneurs in the business ecosystem, it loses its meaning by dispersing the focus of entrepreneurs since it is not seen as a systemic process. This situation explains the theoretical gap involving management specifications adapted to the needs and requirements of new ventures. The management process is important for the growth of each company, helping it to generate profits and remain in the market. Then, they must be clear about where they are going, that is, they must have a defined strategic direction. The strategic plan has fundamental components, where the diagnosis represents its first stage and is oriented to understanding the internal and external environment of the companies, thus allowing them to know the current state of the organizations and their position in the market [23].

In this regard, from this first phase, there are several ways to direct the strategic plan. Such is the contribution of Michael Porter’s competitive forces [22], which are based on identifying the bargaining power of suppliers, the bargaining power of customers, the potential entry of substitute products, the rivalry between existing companies, and the potential development of substitute products. Beyond this analysis, it is important for entrepreneurs to identify how they can use competitive forces as a differential advantage that materializes with a privileged position of the company in the market. In this way, the permanence of the venture over time is guaranteed. In case the competitive forces are not favorable for the entrepreneur, they will be able to analyze and understand their position to look for strategies that allow them to transform the competitive forces in their favor.

In this regard, another way to develop the phase of strategic direction, through a diagnosis, is Ash Maurya’s bet [21], who establishes the Lean Canvas process as the way to capture a business model on a single sheet through 9 steps. As can be seen in Table 1, the first is customer segment, looking for an entrepreneur to know who their customers are from a geographical, demographic and psychographic point of view, and to have clarity on how to effectively reach customers. Additionally, the tool called Buyer Persona [24] enables us to create an ideal customer or user with all its characteristics, which provides a better understanding of the customer segment. The second step is to describe the main problems that the customer segment wants to solve with the company's product or service. The third is the unique value proposition, which describes why the company is different from others. The fourth step is the solution, which explains how the product or service solves the problem of the customer segment and the keys to the venture’s success. The fifth step refers to the channels, where the potential ways in which the products or services could reach the final consumer are named to determine which channels are more profitable, either by volume of sales or margin for the company. Emphasis should be put on them, remembering the Pareto principle, and priority should be given to 20% of the customers who make 80% of the purchases or consume the services. The sixth and seventh steps correspond to the revenue stream and cost structure, respectively. At these points it is very important to know what the costs and expenses of the company are to correctly determine the prices of the products or services which allow them to generate surpluses. The eighth step corresponds to the key metrics, which allow evaluating the operation of the company and must be useful for decision-making. Finally, the ninth step corresponds to the competitive advantage, as a differentiator of the product or service, what is difficult to copy or buy and allows the company to have a privileged position in the market, so that customers prefer it over the competition.
Another useful tool to understand the internal and external environment of the organization for its diagnosis is the SWOT Analysis [25]. It can be used to assess the strengths and weaknesses of the company in the internal environment and the opportunities and threats of the external environment. In this way, the importance of describing their respective Process Map is emphasized for entrepreneurs; there, they must be clear about the strategic, missionary and support processes to guide their strategies in a successful way in search of fulfilling the purpose of the company.

The second component of strategic planning is formulation, in which the entrepreneur must be clear about the vision, mission, and strategic objectives of the company. Bearing in mind that the vision must contain a higher, compromising, and dominant objective that the company wishes to achieve and set a period of time to fulfill it. The mission on its part must describe what the company already is; the organization is described in all its dimensions as well as the strategic objectives that establish the results the company must achieve to fulfill its mission and vision through the execution of strategic projects that make it more competitive [23].

For its part, [26] says that, to make decisions in companies, it is essential to be clear about their overall objectives, because they are immersed in the strategic process of formulation. The latter presents the mission and vision, which are oriented towards the essential purpose of the organization. They become decisive when making a strategic plan because they guide the interests of the organization and the people who are part of it towards lasting over time. In addition, the mission and vision are permeated by strategic analysis, which leads to the development of organizational strategies designed to ensure the sustainability of companies.

The third component of strategic planning is implementation. At this stage, the correct execution of strategic management projects is addressed through control charts describing the macro activities of each project. They also show who is responsible of each one, the deadlines, the percentage of progress, the weighting against the total of the project, and the general compliance of the project [27].

Moreover, due to the importance of sustaining companies and their work in the face of risks, the strategic management process is fundamental for the continuity of organizations during their early stage, but they must seek to provide goods or services that allow the replacement of the resources used. To achieve this, some companies that fail to raise risk investment in the early stage use the bootstrapping technique. It consists of economically leveraging the company without external financing, but by the own resources generated from the goods or services offered. This technique avoids wasting resources that do not generate value for the company, as sometimes happens in companies that raise venture capital. However, the growth of these companies is slower due to the scarcity of resources to achieve an outstanding positioning in the market. Therefore, achieving risk investments in the early stage is a prominent factor to guarantee the permanence of companies over time [21,28].

Traditional investment funds consider various indicators to invest in a company. One of them is EBITDA, which corresponds to earnings before interest, taxes, depreciation and amortization. This is a performance metric used to value traditional companies and measure management performance [29]. Another indicator is the Gross Margin, which results from the difference between income and direct expenses of the company's activity [30]. The Net Profit Margin is an indicator of profitability or performance of the company; it is the result of dividing net profit by total sales [31]. The ROA is the indicator of performance or ability to generate profits from the company's assets, while the ROE is the return on capital and reflects the return that shareholders obtain on the company's equity.
Likewise, the Current Ratio indicates the company’s immediate liquidity capacity to cover short-term obligations [33]. Free cash flow is also one of the most used methods for valuing companies. It indicates their ability to generate future cash flows, which allow them to meet credit obligations and obligations to shareholders [34]. All these indicators are usually negative in early-stage companies, being unattractive for venture capital investment from traditional investment funds, which are commonly found in Latin America.

Although all of the above about the investment fund indicators used by investors in a traditional way is well known, interviews with entrepreneurs and entrepreneurship experts from the Medellin ecosystem, highlighted a different way in which investment funds face risk. This refers to a series of actions involving terminology that has not been sufficiently documented and describes how risk investment is made currently. These are being developed and have influence when making decisions that allow the permanence of these organizations.

On this aspect, the indicators that risk investors are currently using to make the investment decision are the following: the cost of acquisition of a client – CAC; the costumer lifetime value – CLV, which indicates how much a customer generates for the company during their time as a consumer of the company’s products or services; the CLV/CAC ratio, which indicates how many times a customer gives back to the company what it costs to acquire it. The Burn Rate indicates how much money the company “burns” monthly, which would be oriented to leverage the company and promote its growth. In addition, the Churn Rate is the customer attrition rate, and the Run Way is the company’s liquidity time limit. They also analyze the Key Metrics, which are the ones the company uses to grow and vary according to the economic sector of the company.

Moreover, the key to success when presenting the information to risk investors and to raising capital is the Elevator Pitch. It consists of a short presentation, usually 3 to 5 minutes, where the most relevant information of greatest interest to investors is presented [35]. In these presentations, the Storytelling technique has been incorporated by presenting the product or service through a short story that puts the investor in the position of the company's client [36].

It is important to know the terms used by investors when interacting with the founding partners for raising venture capital. However, there is little research on this terminology, so experts were consulted in an exploratory way. Below we present some frequently used terms and their respective definitions.

Cash in is the money that enters the company, which increases its capital. Cash out is the outflow of money from the company to the investor or the founders. Cap Table is the analysis of the distribution of the company’s ownership percentages between founders and investors. Closing is the materialization of the agreements and contracts signed.

Additionally, Convertible Debt or Venture Debt are loans whose guarantee is a round of future capital raising. This is a bank loan. For its part, the Due diligence is the analysis that an investor makes of all the factors required to invest, such as financial statements, legal issues, and the potential growth of the company. The SAFE is a convertible investment mechanism that allows the entrepreneur to receive resources without issuing new shares before a round of qualified financing (to Equity) once the investor receives preferential shares when a round is made to Equity regardless of their value. In turn, an indicator that investors generally require in an investment round is Unit economics. It refers to the behavior of a unit sold in the company (how much it is sold, how much it costs to do it), that is, the Gross margin by one unit, discriminating the unit CAC in marketing and commercial.

When it comes to investment rounds, another conglomerate of innovative terms appears, among them the so-called Friends and Family Round. In this one, investors are people close to the founding partners. Then, the Pre-seed round, which is the pre-seed investment, this round is carried out at a stage where companies are incipient. This financing modality is gaining followers because companies with potential have a low valuation at this stage, if they succeed, it generates great benefits for investors; however, this stage is also too risky to invest. Then, there is the seed stage, which is carried out in the early stage. i.e., there is a minimum viable product that has potential for
investors. In addition, Series A Funding is usually the first round to Equity (shares are issued and the previously signed convertible mechanisms are converted), which is less risky than the previous one, but the future valuation of the company has the potential for exponential growth, so it is attractive for investors. Some funds focused on Early-Stage investments typically invest in this series.

In turn, Series B and subsequent rounds allow companies to have resources to continue growing and increasing shareholder profitability through the valuation of the company. Sometimes there are rounds called DownRounds, which are not well seen by shareholders, since shares are sold below their previous value, but sometimes they are necessary to guarantee the permanence of the company and make strategic investments at times when raising capital is difficult. Bridge rounds as well are rounds between "official" rounds and are made when the company needs resources to reach the milestones it needs to achieve the valuation of the next round.

Another of the meanings when referring to the size of the Startup, in terms of value in investment rounds, is the term My Little Ponies (MLPs). It refers to companies with a valuation between 10 and 99.9 million dollars. After this valuation, the companies become Centaurs; those valued between 100 and 999.9 million dollars; finally, companies that have an investment round value of more than 1,000 million dollars are called Unicorns.

Regarding the innovative terms, specifically descriptions that define investors, Lead investor corresponds to the investor who injects most of the capital in a specific investment round. In turn, the term Employee Option Pool, or Stock Option Pool, refers to the right to purchase shares at a preferential price that founders can grant to employees. They are generally granted as an incentive for completed projects or as a salary supplement to retain talented people. Usually, this shareholding is delivered under Vesting, which entitles an employee or someone external to the company to purchase or receive shares for the contributions provided, like being consultants, part of the board, making business contacts, or raising capital. There is also the Silent Partner, the investor who only contributes capital and has no responsibility or voice in the administrative process of the company.

Currently, there are pre-investment activities with particular names, like the development of a Letter of Intent. This is an initial document that describes the objectives of the interested parties to subsequently stipulate the TermSheets, which are the agreements that describe the terms of the investment to be made. This and other things help determine if the value of the shares will be Pre-money valuation, that is, consider the value of the company before the valuation by the investment round, or Post-money valuation that corresponds to the value of the company after the entry of the capital of the round. This entire process enables the Share Purchase Agreement (SPA), which corresponds to the final contract established by the terms of the negotiation.

DISCUSSION AND CONCLUSIONS

The indicators analyzed by traditional investment funds differ completely from those reviewed by venture investment funds, which are the ones that leverage early-stage ventures. The main difference between these funds and the traditional ones is that they do not expect the return on investment through the generation of profits, but by increasing the value of the company in subsequent investment rounds until they quit from their participation in the company and recover their investment and the surpluses of the valuation. Venture capital funds are more interested in knowing how much the business will grow and how easy it will be to raise more investments, rather than paying primary attention to the company's past and current performance. This is why there are companies valued in millions of dollars that generate losses and have compromised their assets and, despite this, they remain attractive to venture capital investors.

However, convergent situations that impact and determine the continuity of the ventures are added. Such is the case of the new terminology in risk investment presented in this research, based on the exploratory study, to make it available and in a documented manner to all the public interested in this subject. Terms such as Cap Table, Convertible Debt, Stock Option Pool, Vesting, Burn Rate, Churn Rate, Run Way, Key Metrics, and Unit economics are explained in this study.

In the investment search process, the main difficulty in Colombia is linked to the characteristics of traditional
investors, which limits the path to achieve risk investment for early-stage companies and compromises their permanence over time. These investors base their thinking on the return from business surpluses and not on the return by the valuation of the company, as international risk funds do.

Local investors in Medellin, Colombia, seek to review traditional indicators at the early stage of ventures to be sure that the company is in profitable conditions. However, due to the short existence of these ventures, such actions are generally negative to favor an investment during the early stage, because it prevents traditional funds from making investments. In addition, the exponential growth of companies that resort to their own resources to survive in a stage where they are just entering the market is becoming impossible.

As for the management process associated with entrepreneurship, there are multiple methods and tools that contribute to business excellence. However, the applicability of such managerial resources in new companies has not been satisfactory because each entrepreneur appropriates some of the tools or methods independently. This can segregate some of the fundamental aspects of the business system. Generally, at the training of entrepreneurs, they are instructed to apply one of the tools or methods, thus they acquire knowledge about their situational experience and limit other resources that guarantee the continuity of their companies.

The dynamics of entrepreneurship within the local ecosystem requires not only to analyze the business model through the Lean Canvas, but also other revisions such as the SWOT analysis, the observation of competitive forces, as well as other studies that offer a wider view of the variables that intervene and determine the progress and sustainability of entrepreneurship. These considerations allow us to be more certain about the diagnosis of companies in their early stage, and then move on to the formulation, where the mission, vision, and respective strategic objectives of the business are clarified. With this sequence about the strategic management process, it is possible to access the implementation phase, where the strategic management projects aimed at sustaining companies over time are executed. In the case of ventures, they have their own characteristics in terms of size and nature for each business, thus completing a strategic management process oriented to the needs of the venture.

REFERENCES


https://doi.org/10.1016/j.technovation.2020.102162


DOI: https://doi.org/10.15379/ijmst.v10i3.1639

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/3.0/), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.