

**The Venture capital:
It's a way of financing the innovative start-ups**

**Le Capital Risque:
C'est un mode de financement des startups innovantes**

Soufiane EL HSSINI

Faculté des Sciences Juridiques, Economiques et Sociales de Tétouan / Maroc
Economie, Gestion et Développement durable
elhssini_soufiane@hotmail.fr

Pr. Mohammed BENTAHAR

Faculté des Sciences Juridiques, Economiques et Sociales de Tétouan / Maroc
Economie, Gestion et Développement durable
bentahar777@gmail.com

Abstract :

The offer of financing on the Moroccan financial market is insufficient, and that some start-ups consider external financing as a brake on their development, either because they can not access it, or because the conditions of obtaining are considered unreasonable, so we must discover elsewhere the origin of the problem. Start from discussions with young entrepreneurs, researchers, funders and bankers have led us to a common point of the problem, the identification of the risk assessment related to innovation projects. So the financing of start-ups and their innovation projects remains a problematic.

Keywords: The risks, Innovation Project, Start-ups, The offer financing, Venture capital

Résumé :

L'offre de financement sur le marché financier marocain est insuffisante et que certaines start-ups considèrent le financement externe comme un frein à leur développement soit parce qu'elles ne peuvent y accéder, soit parce que les conditions d'obtention sont jugées non raisonnables, donc il faut découvrir ailleurs l'origine du problème. Des discussions avec des jeunes entrepreneurs, chercheurs, des bailleurs de fonds et des banquiers nous ont dirigées vers un point commun du problème, soit l'identification de l'évaluation du risque lié aux projets d'innovation. Donc le financement des startups et de leurs projets d'innovation reste problématique.

Mots clés: Les risques, Projet d'innovation, startups, Offre de financement, Capital Risque.

Introduction

The uncertainty and information asymmetries that characterize the start-ups, are magnified for innovative start-ups, which makes it more difficult for them to access financing. Firstly, the profitability of innovative activities is often fluctuating and highly uncertain. Secondly, the entrepreneurs may have more information about the nature and characteristics of their products and procedures than their potential funders. Thirdly, the innovative activities are generally immaterial, making it difficult to assess their monetary values, that they do not bear fruit on the commercial level. The financing innovative start-ups is therefore very risky and uncertain, which makes it difficult to develop mutually satisfactory financing contracts. This situation has led to a proliferation of public programs aimed at filling the funding gaps that innovative startups seem to be facing, before moving to the innovation financing stage, we must see if we can not reduce the risk of innovation by using certain tools to reduce it mitigation tools. All financing contracts are defined according to the risk of the financed activity. It is therefore in the interest of any project promoter to reduce or control the risk of his activity in order to obtain the best possible financing conditions. These should not increase the total risk of the project, which is equal to the risk of the project itself (business risk) increased by the risk associated with its method of financing. The risk to pay therefore becomes the total risk of the innovation project in start-ups minus the hedging or mitigation elements. The offer of financing for innovation projects is relatively important, even for startups. But, innovation projects presented by a young startup, led by a entrepreneur with no management experience, presents a financing challenge that the financial markets do not seem ready to tackle alone. It is the same for the activities of innovation on intangible assets, the degree of uncertainty of which is very different from the financial ones. However, as this type of project is conducive to economic development and job creation, we must find the right way to evaluate them and the best supporters; In this case, the public authorities in general can play an important role. The financing of start-ups and their innovation projects, remains a problematic, and the latter, presents the difficulties of estimating the level of projects risk, as well as the financing conditions that should result from them. This article is an answer to the question: **what are the stakes of financing innovation at the startups?** To answer this, we start from a following hypothesis: that the effectiveness of the financial market, regardless of the traditional market, be demonstrated through Venture Capital companies both to meet the needs of innovative startups and to provide them with a financial and managerial support.

After consulting the main financing ways of the innovation project at start-ups, we will justify the adoption of the ST-Pierre, 2004 model.

The three types of equity financing are: The venture capital companies, the angels (Business Angels) and the public offer of capitals. Starting from these classes and the themes, we will take a studies and works that realised by the Moroccan Association of Capital Investors and the Moroccan Center of Innovation, to demonstrate the importance of venture capital. On the financial market. The latter can be an effective way to facilitate the financing and development of innovative start-ups in Morocco. So this paper is structured around two main axes: the first is about approach to the characteristics of innovation at the start-ups, and the second is about the presentation of the main financing ways that exist on the financial market.

I. THE CHARACTERISTICS OF INNOVATION AT THE START UPS

1.1 The definition of innovation

In developed economies, innovation is now a recognized source of wealth, growth and jobs. The SME (Small and Medium Enterprise). Are at the heart of the innovation process given their ability to bring about radical innovations, particularly in the form of new products. But the innovation remains an expensive and risky process. (Lorenzi, & Villemeur, 2007). The innovation can be defined according to (OCDE, 1997) : "*Product technological innovation is the development / commercialization of a more efficient product in order to provide consumers with objectively new and improved services. By technological innovation of process, we hear the focus of the method of production and distribution a new significantly improved. It can involve changes affecting - separately or simultaneously - equipment, human resources or working methods.*"

According to this definition, we can see that innovation is a phenomenon that no longer depends solely on the use of tangible factors such as financial resources and advanced technologies, but it is increasingly dependent on how companies use intangible factors such as the mobilization of knowledge associated with both internal and external factors to companies (Landry & Amara, 2002, p.4). The study of an innovation project requires consideration of the three elements: The type of innovation, the phase of the project being financed and the intensity of the innovation activity.

1.2 The type of innovation

In every innovation activity in a company, there are three different types (Beaudoin & Bourgeois, 1999):

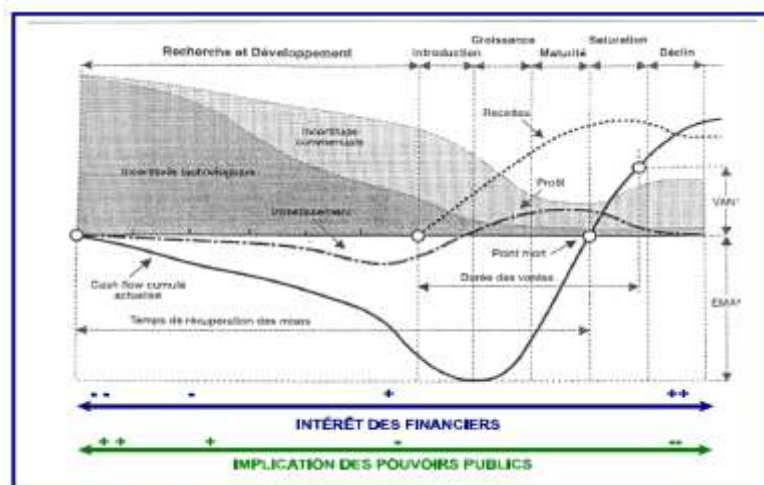
- **Innovation in products:** These activities directly affect the market and the company's customers. Continuous improvements to existing products, as well as research and development of new products for which there is or are not a market, are cited. These activities therefore involve the company's stocks.
- **Process innovation** : These activities affect the company's ways of doing things. In the case of a manufacturing company for example, innovation in its processes should enable it to produce cheaper and more efficiently. It is suggested among other things that the introduction of new production management processes should improve efficiency by reducing time and waste. The implementation of a just-in-time system is an example. It is therefore essentially activities on intangible assets.
- **Innovation in the equipments:** These activities are aimed at improving the efficiency of equipment in place or replace existing equipment with newer, more modern and more efficient.

L'innovation dans les produits et précédés se sont les activités les plus risquées car elles introduisent souvent des actifs intangible ou bien immatériels.

1.3 The phase of the innovation project

The innovation projects go through four major phases of development: research and development, introduction, growth and maturity... as it shows the figure below:

Figure 1: The development phases of the innovation project in SME



Adapté de Guinet (1995) et de Lachman (1996)

Source: Guinet (1995) & Lachman (1996)

From the figure we found that the first two phases of project development are crucial for the SME (Small and Medium Enterprise). First, when designing the product, the SME face a significant technological uncertainties in the success of their R -D activities. During this phase, the failure rate can reach 70% (Lachman, 1996). The introductory phase must ensure the production and marketing of the product. At this level, the failure rate is between 30 and 50% (Lachman,1996). For the last two phases that the company must make the project profitable. During growth, the technological risk has almost disappeared and the commercial risk is much lower. Subsequently, the project enters the phase of maturity. The commercial risk will increase again when the risk of reaction from the competitors materializes. This phase often happens quickly because the life cycle of high-tech products is shorter.

1.4 Intensity of innovation activity

There are three indicators of the intensity of innovation activity in an SME: The first is the radical innovation leads to the birth of a radically new product. The second is the systematic innovation brings about a significant change in the company's products or processes. And the last is the gradual innovation does not significantly change a products or processes. An innovation project therefore seems to be conditioned by many constraints and obstacles and has many specificities such as being strategically ambiguous or requiring the exploration of new pockets of knowledge.

II- The modes of financing by own funds of innovative startups

The main sources of equity financing are self-financing through reinvestment of profits, friendly capital, the direct investors (angels) and venture capital. It is difficult to accurately describe the importance of friendly capital and direct investors in the financing of innovation projects, although in the case of angels some recent studies have enlightened us on the level and type of their activities.

2.1 The venture capital

2.1.1 The history of venture capital

The history of venture capital will be apprehended through its developments over centuries ago, the birth of its modern form after the Second World War, the consolidation of its industry in the years 1970-1980 and its current importance in a context of rapid technological

upheavals. The Venture capital is an activity reserved for professional investors, who enter the capital of the innovative company in its first years of its life cycle. According to (Guilhon & Montchaud, 2008), the term of "venture capital" focuses on the provision of capital to finance risky projects. If modern venture capital dates from the Second World War, the "financiers of adventure", to use the expression of Bertonèche & Vichery (1987), have existed for a very long time. In fact in ancient times, Thales de Millet, one of the first entrepreneurs of the food industry, managed to convince financiers to invest in its oil mills. Two thousand years later, it was the turn of navigators such as Vasco de Gama or Christopher Columbus to use investors to finance their travels; in these cases more than in any other, the notion of risk was present because, as the authors point out. Already at the time, the choice of projects in which investors had to engage was of the importance of capital: it was necessary to identify the qualities of the captain, to evaluate the chances of success of the project and the height of the possible gains, etc. The importance of venture capital that focuses on providing the capitals to finance risky projects, in particular innovation projects, but with great growth potential to achieve and for which they cannot provide the guarantees.

2.1.2 The history of venture capital in Morocco.

In Morocco, the history of venture capital is characterized by three phases: a start phase (1990 to 2000), a start-up phase (2000 to 2005) and a construction phase (2006 to 2009) (Samir, B. 2010). The venture capital is a recent industry in Morocco, appeared in 1990-2000 with the creation of the company MOUSSAHAMA through a credit line of the European Investment Bank (EIB) in association with five Moroccan banks:

- 1) The People's Central Bank (BCP);
- 2) The National Bank for Economic Development (BNDE);
- 3) Morocco's credit (CDM);
- 4) The Moroccan Bank of Foreign Trade (BMCE);
- 5) Bank Al Amal.

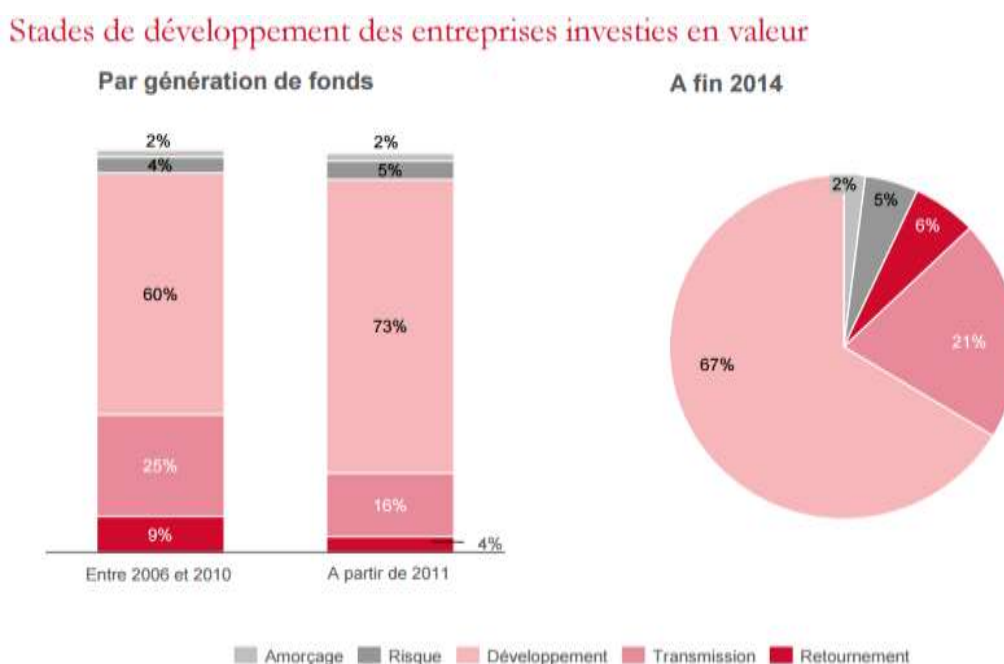
Other experiments came into being in the late 1990s. Morocco Faisal Financing Casablanca Finance Capital. We can consider that the decade 1990-2000 was the birth period of this industry, it is characterized by: the absence of any legal incentive framework; a limited number of general funds, the low level of committed funds and the minority shareholdings. The second phase has known the creation of a first generation of funds, with larger committed capitals between 2000 and 2005. This period also has known the emergence of specialized

funds by business sector and new investment strategies with majority ownership. For the period between 2006 and 2009, the construction phase have known the emergence of a second generation of funds with a significant increase in the number of funds (+20) and the amounts committed.

2.1.3 The current importance of venture capital:

In the strict sense of the term, a venture capital is the financing of the very early stages of a company's life and encompasses, in a broad sense, the financing of the development phase. During these phases, the managerial interventions are added to financial contributions. The venture capital is a combination of specific skills (technology, business, management, etc.) that can operate and control young companies seeking to exploit a new technological trajectories. (Guillon & Montchaud, 2008). In Morocco, according to the statistical report published Tuesday, March 24, 2015 with the Moroccan Association of Capital Investors "AMIC", With nearly 700 MMAD invested in 25 companies including 11 reinvested, the level of investment in 2014 is supported. In 15 years, more than 155 companies have been invested for a total amount of MAD 5 billion. Since 2011, 67% of investments are made in companies in development and the industrial sector represents 45% of the investments made, while the investment in seed capital and venture capital remains limited with a percentage of 7%.

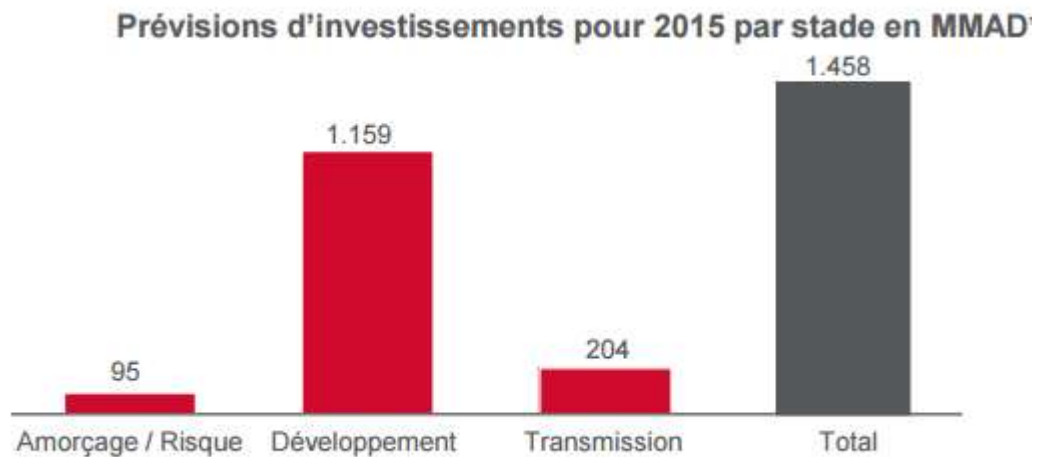
Figure 2: Stages of business development in value



Source : AMIC : Le Capital Investissement au Maroc : Activité, Croissance et Performance - Rapport 2014

The sector of a capital investment in particular venture capital, is optimistic for the year 2015 with investment forecasts of MAD 1.4 billion, of which more than MAD1 billion is dedicated to growth capital.

Figure 3: *Investment forecasts for 2015 by Stage in MMAD*



Source : AMIC : Le Capital Investissement au Maroc : Activité, Croissance et Performance - Rapport 2014

2.1.4 Angels (The Business Angels)

The angels, informal investors who are also considered providential or "good business fairies" by the European Commission (2002), are wealthy individuals who have resources from inheritance, business transfer or securities and who have a good knowledge of the business. These are people outside the family circle who "invest money and time in start-up or development companies". And that for various reasons: desire to live the adventure of the creation of business by proxy or simple diversification their wallet. They wish to engage very actively with the creator for advice and professional contacts (hands on). The geographical proximity of the two actors - the creator and the BA - is most often indispensable as well as the knowledge of the sector by the BA; a double experience of the management of company and the sector of activity is a very positive point for the two parts and in particular for the young company in its search of credibility with financial operators. The BA's own capital plays a real leverage effect in accessing seed money and venture capitalists. The intervention at the beginning of the life cycle of the company is justified by the low valuation of the company and the possibility for the BA to acquire a significant percentage of the capital for a reasonable price. (Barbe & Stephany, 2003), the innovation Financing.

2.1.5 Public offer of capital

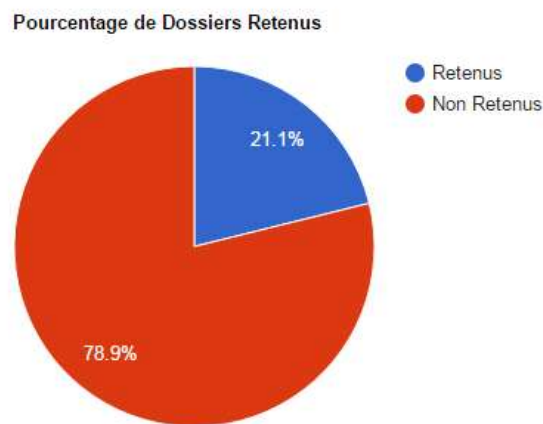
The contributions of public capitals follows different ways: incubators, seed funds via the Moroccan center of innovation. They take different forms: grants, repayable advances in the event of success, subscriptions to purchases of securities. They are intended to bridge the gap between start-up and market funds when the risk has reached a standard level. The availability of these funds and their complementarity with those of the private sector are essential to the financing of innovative companies to cover projects originating from the high level of risk. The Moroccan Center of Innovation is a private company, subsidiary of Moroccan Information Technopark Company (MITC), whose role is to support the "Morocco Innovation" strategy by serving as a one-stop shop for the management and promotion of the Fund's financing instruments. Support for Innovation set up by the Ministry of Industry, Trade, Investment and Digital Economy. The Moroccan Center of Innovation was created to provide support for the programs of the Innovation Support Fund. Apart from the examination and evaluation of projects submitted under the calls for projects relating to innovation financing instruments, the Moroccan Innovation Center has no decision-making power. The allocation of files is done by the Evaluation and Attribution Committee whose members are: the Ministry of Industry, Trade, Investment and Digital Economy, the ANPME, the OMPIC, and the CGEM. The Center has 3 instruments for financing innovation, namely:

- **INTILAK:** is intended for innovative startups with less than two years of activity in the start-up phase, carrying an innovation project or an R & D project, and finances 90% of the project expenses, within the limit of a million dirhams including tax.
- **TATWIR:** is intended for companies with more than two years of existence, dedicated to R & D projects carried by a company or a group of companies acting in the context of a cluster in the development phase or a consortium of companies and research organizations and finances 50% of the expenses of the project, within the limit of 4 million dirhams TTC.
- **PTR:** is intended for projects supporting innovation and technological development carried out by companies, consortia or groupings of companies, and covers the eligible benefit expenses up to 75% and up to a limit of 100,000 dirhams TTC.

Figure 3 below illustrates the percentage of files selected for the financing of innovation projects INTILAK, but we note that 21.1% of the projects are retained by cons more than

75% are rejected and it means that this phase corresponds to the industrial launch and commercial products. The commercial investments are particularly important: promotional and awareness campaigns for innovative products.... Many key success factors can be highlighted during this period: a correct estimate of the cost of launching the product, the ability to rethink the characteristics of the product to meet either regulatory constraints or the needs of potential customers. At this stage, the failure rate remains high. According to the studies cited above, 30 to 50% of products that have passed the milestone of the first phase never succeed in establishing themselves on the market.

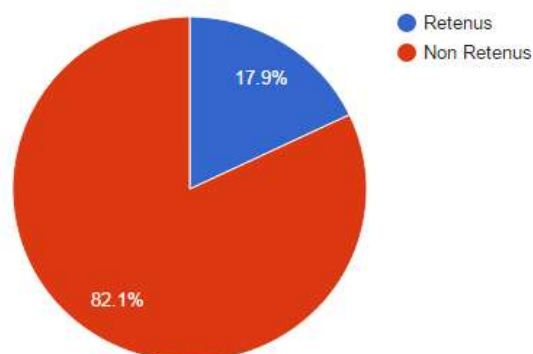
Figure 4: "INTILAK" retained files: Total files processed: 175



Source : Statistiques publiées par le centre marocain d'innovation en 2014.

For the TATWIR program, which is dedicated to companies that are in the development phase, according to figure 5 below, we can see that most of the projects are not selected with a percentage of 82.1% against 17.9% of the projects. records are retained.

Figure 5: "TATWIR" retained files: Total files processed: 67



Source : Statistiques publiées par le centre marocain d'innovation en 2014.

At this stage, the main risk vector is no longer primarily internal to the company, but to changes in the market. Low barriers to entry may lead to the emergence of competitors able to reduce the income generated by the product. The nature of the product influences the importance of this competitive threat.

Conclusion

To conclude, we would like to remind some key elements mentioned in this article, the problem studied is interested in "what are the stakes of financing innovation at start ups? "We wanted to show, in this article that innovation is a complex phenomenon whose uncertainties more or less large according to the type, the phase and the intensity of the innovation project in a startup. It is possible to improve the financing conditions of innovative start-ups thanks to a better knowledge of their needs, their challenges and their risks. The venture capital is an activity reserved for professional investors who enter the capital of the innovative company in its first years of its life cycle. The term of "venture capital", which had been in existence since the 1950s, focuses on providing capital to finance risky projects, including innovation projects, but with great potential for growth to achieve. and for which they can not provide guarantees. Then, if banks show their limit on the financing of innovative startups, then it is necessary to focus on another mode of financing "The venture capital". Venture capital financing differs from bank financing by its nature and consequently by the project evaluation processes. So the venture capitalist is not a banker (linked to the statistical risk), but he prefers to realize capital gains and value his participation. The financial institutions or donors are poorly informed about the complexity of the innovation phenomenon and tend to conceal this lack of knowledge in financing conditions that do not always reflect the degree of real risk of the projects. The financing offer is not developed equally for all innovation projects, given their characteristics: type, phase and intensity. To recap, we can say that in a current economic environment, a company that takes no risk is doomed to disappear. Entrepreneurs need the venture capital companies to finance their projects, and venture capital companies need contractors' projects to achieve an attractive return and fulfill their mission. The financial institutions, especially venture capital companies, are uninformed about the complexity of the innovation phenomenon and tend to hide this lack of knowledge in financing conditions that do not always reflect the degree of real risk of the projects.

Bibliographical references

Bertonèche, M. & Vichery, L. (2002), Le capital risque, Presses universitaires de France.

Barbe, D. & Stephany, E. (2003), Le financement de l'innovation, 20-30.

Cherif, M. (1999), Asymétrie d'information et financement des PME innovantes par le capital-risque. In : Revue d'économie financière. 54(4), 164-178.

Gaston, T. (2011), L'innovation : une aux risques du marché méthodes de gestion de l'innovation. 23.

Guinet, J . (1995), Les systèmes nationaux de financement de l'innovation. Direction de la science et de la technologie, OCDE, Paris. 135.

Guinet, J. (1995), Financing innovation, The OECD Observer. (194), 10-16.

Jean, L. (2002), Les particularités du marché du Capital de risque. Gestion, Vol. 26, numéro 4, hiver, 23-33.

Josée, P. (2004), La gestion du risque comment améliorer le financement des PME et faciliter leur développement. Québec : Presses de l'université du Québec, 257.

Josée, P. (2009), Innovation chez PME : nécessité, diversité et facteurs de succès, 8.

Lachmann, J. (1996), Financer l'innovation des PME, Paris, Economica, 112.