

DESIGNING THE DESIGN OF NEW BUSINESSES FOR RAISING VENTURE CAPITAL

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ABSTRACT

Innovation is recognized as a key factor for increasing productivity of existing companies and is a major driver for the development of new businesses offering high added-value products and services. The authors of this paper believe that new ventures based on innovative ideas have more chance of succeeding in obtaining financing when carefully designed to meet investors' needs. The objective of this paper is to propose a platform for the design of new businesses oriented for venture capital fund raising. Axiomatic Design (AD) was found to be very useful in approaching the financial issues of innovation. The design of this platform was based on three sources: the principles of AD, empirical knowledge from the venture capital practise, and the literature concerning to the matter, where the independence of factors does not appear as a question and the financing has not considered as a functional requirement since the outset. The platform is being tested in real world cases, and the results attained so far could be described as promising. However, one should notice that the use of this platform is not a sufficient condition for a successful venture capital fund raising project.

Keywords: venture capital, business models design, axiomatic design, innovation.

1 INTRODUCTION

Developed economies need to constantly increase their productivity if they want to grow in an increasingly competitive and global economy.

Innovation is recognized as a key factor for increasing the productivity of existing companies and is a major driver for the development of new businesses offering high added value products and services.

One of the steps of the "Innovation Continuum" [Suh, 2009] is the financing of new ventures. Early stage financing provided to "research, assess and develop an initial concept" (seed financing) and to set up a company and launch its products in the market (start-up financing), is a high-risk endeavour with limited collateral. Thus, this practice is hardly compatible with bank financing.

In these early-stages, external funding is generally provided by wealthy individuals (friends and relatives, business angels, etc.), by venture capitalists or, eventually, by larger companies.

Around 75% of European entrepreneurs think that it is difficult to start their own business due to a lack of available financial support [EVCA, 2007]. Despite the fact that venture capital is an increasingly important source of financing for new innovative companies, market estimations indicate that only one new venture out of twenty business plans presented to financial investors is financed.

The authors of this paper believe that new ventures based on innovative ideas have more chance of succeeding in obtaining financing when carefully designed to meet investors' needs. The objective of this paper is to propose a platform for the design of new businesses that are oriented for venture capital fund raising.

The design of this platform was based on three sources: first, the principles of the Axiomatic Design (AD) [Suh, 1990]; second, empirical knowledge from the venture capital practise, and the literature concerning to the matter, where the independence of factors does not appear as a question and the financing has not considered as a functional requirement since the outset.

2 THE PERSPECTIVE OF THE VENTURE CAPITAL INVESTOR

Venture capitalists are a special type of investors that finance high risk early-stage ventures in exchange for a potential high investment return. The relevant characteristics of venture capitalists are:

- Finance the development of businesses in exchange for shares of the new company, having consequently the same rights and obligations as the entrepreneurs, specifically with regard to sharing risks and distribution of profits;
- Have a strong concern in the development and value creation of the businesses;
- Are temporary investors that need to exit from investments (to sell their shares) after a certain period (usually 3 to 7 years);
- Look for the best exit conditions, since the selling price of their shares strongly impacts the Return on Investment (ROI).

Figure 1 summarizes financial the investors' perspective.

Venture capitalists search for business with a high growth profile, managed by entrepreneurs capable of delivering that growth, and with a consistent exiting strategy.

Even if each investor has its own preferences and criteria, venture capitalists will hardly invest in a business that does not meet the following characteristics:

- Has a business model easy to understand;
- Brings clear benefits for its customers;
- Has distinctive features and strategic competitive advantages;
- Has strong market entry barriers for competition;
- Is oriented to a large market and/or one with high growth potential;
- Is promoted by a strong team of experienced, skilled, motivated and credible entrepreneurs, with appropriate financial involvement in the company;
- Has a balanced risk/return investment;
- Allows for a credible exit strategy.

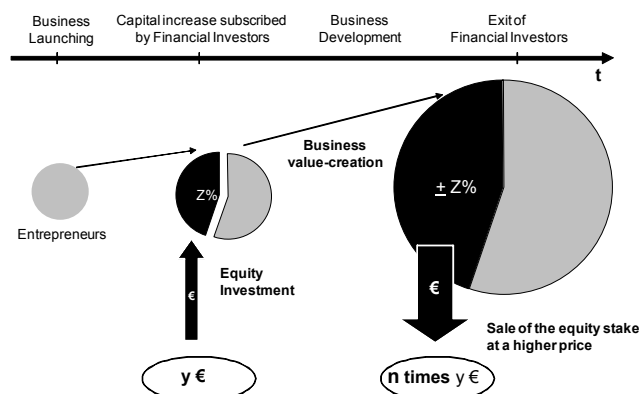


Figure 1. The financial investor's perspective.

3 USUAL APPROACHES: PROS AND CONS

Much literature concerning the design, the implementation and the financing of new businesses has been published.

This literature can be classified according to three main approaches:

- Business models;
- Business plan preparation;
- Analysis of business opportunities.

Even if there is not a clear consensus about the business model concept, these approaches are essentially oriented to entrepreneurs, guiding them in dealing with strategic business issues and in describing how the new venture will make money out of its underlying innovative idea. The business model addresses issues like the market trends and needs, the development of the innovative idea in order to meet those needs (competitive position) and the implementation of the business (resources to be allocated) [Verstraete, 2007]. However, this approach seldom considers the investors' requirements as a central issue in the design of the business model.

The business plan approach is focused on guiding entrepreneurs presenting their ideas and business proposals to potential investors. The business plan is an important communication document that describes the business model, its products and services, the target markets, the marketing strategy, the team skills and experience, economic forecasts and investment and financing needs [Abrams, 2003]. However, if the new business was not previously designed to meet the investors' requirements, the preparation of the business plan will not fulfil that need.

Finally, the literature focused on the analysis of business opportunities is normally oriented to investors, guiding them on the analysis of entrepreneur's business proposals. This approach focuses its attention on the analysis of the business opportunity, on the key aspects of the structure of the investment deal and on the qualifications of the entrepreneurs [Sahlman, 1996 and Amis, 2001 (p.77)]. Even if this approach does not provide much guidance to entrepreneurs in their business implementation, it provides a very useful insight about the perspectives of financial investors.

The authors consider that a well conceived business model and a properly prepared and presented business plan is very important for raising venture capital but that might not be enough. When entrepreneurs do not have access to alternative sources of financing, venture capital investors become "client number one".

Therefore, the new business has to be design in order to satisfy the needs of this "key client". Additionally, the simplification of the design process allows entrepreneurs to save valuable resources and time.

4 DESIGN OF A PLATFORM FOR NEW BUSINESS BASED ON AD

4.1 SYSTEM LEVEL GOAL

There are known cases where AD has been used as a tool for the design of technology strategies, business plans and organizations [Engelhardt, 2000 and Martin, 2001]. As is usual in these cases, the FRs are renamed "Goals" and the DPs become "Strategies" as a means to transform AD into a tool for designing businesses for raising venture capital.

The design of a new business with more chance of raising venture capital financing (Goal0) can be achieved by

designing a business that fits the perspectives of financial investors (Strategy₀), which are decomposed into three goals and respective strategies (see figure 2).

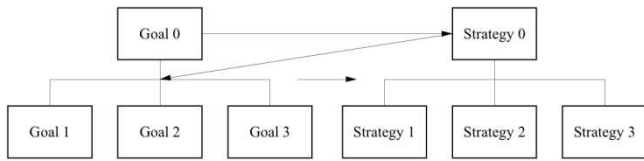


Figure 2. The structure of the design at the system level.

The three design goals at the first level (figure 2) are:

- Goal₁ - Maximize return for investors;
- Goal₂ - Maximize the capabilities of business implementation and management;
- Goal₃ - Anticipate and minimize business and context key risks.

The corresponding strategies are the following:

- Strategy₁ - Strategic management focused on value creation for investors;
- Strategy₂ - Partnerships' development and team consolidation;
- Strategy₃ - Information validation and confirmation of business model main assumptions.

These goals and strategies generate the first level design matrix, which is decoupled.

		Str.1	Str. 2	Str. 3
		Strategic management focused on value creation for investors	Partnerships' development and team build-up	Information validation and confirmation of business model main assumptions
Goal 1	Maximize return for investors	X	O	O
Goal 2	Maximize the capabilities of implementation and management of the business	X	X	O
Goal 3	Anticipate and minimize business and context key risks	X	X	X

Figure 3. Design matrix for level 1.

The strategies must be implemented in a precise sequence in order to satisfy the independence axiom. This means that, when designing a new business, the first goal to achieve (Goal₁) must be the maximization of the return of the venture capitalists' investment. If the potential investors do not perceive a good potential for high returns, they will not finance the new venture. Therefore, the entrepreneurs need to demonstrate the growth potential of the new business and must implement a strategy focused on creating value for the investors (Strategy₁).

The investors will also need to feel comfortable that the entrepreneurs have the ability to successfully implement and manage the new venture. This goal (Goal₂) can be achieved by implementing a strategy oriented to the development of

partnerships, and to the consolidation of the entrepreneur and management teams (Strategy₂).

Since experience shows that new businesses tend to suffer significant deviations from the initial plans, the investors will want to evaluate the risks associated with the new venture. Before deciding to invest, venture capitalists will want to confirm if the entrepreneurs have a good understanding of the business and of its context, and if they have designed a business that is flexible enough to allow for adjustments to deviations from the initial plan. Therefore, the entrepreneurs need to demonstrate that they have anticipated and minimized the impact of potential risks in the business (Goal₃) by validating information and by confirming the business model's main assumptions (Strategy₃).

4.2 GOAL 1: MAXIMIZE RETURN FOR INVESTORS

Goal₁ (maximisation of return for investors) can be decomposed into the following second level goals:

- Goal_{1,1} – Provide business value creation;
- Goal_{1,2} – Optimize the deal structure.

The related strategies can be described as follows:

- Strategy_{1,1} - Business model focused on shareholders' value creation;
- Strategy_{1,2} - Alignment of interests between entrepreneurs and investors.

The design matrix for this level is diagonal, which means that goals and strategies can be treated independently (see Goal 1 Level 2 Matrix in figure 4).

Even if the potential value creation of the new business is of fundamental importance for investors, it is not sufficient to ensure a good return of their investment. The structure of the deal, i.e., the terms of the agreement between investors and entrepreneurs regarding to the investment and future divestment, is also crucial. The best deal structures are those where the interests of both parties are aligned. This is a strong guarantee that entrepreneurs, as managers of the new venture, will naturally act in the defence of the investors' best interests.

The decomposition of Goal_{1,1} into a lower level can be presented as follows:

- Goal_{1,1,1} - Maximize strategic value for potential future acquirers;
- Goal_{1,1,2} - High growth potential;
- Goal_{1,1,3} - Optimization of capital expenditure;
- Goal_{1,1,4} - Strict operational costs management.

To reach these goals, the following strategies must be implemented:

- Strategy_{1,1,1} - Strategy for creating and protecting value and attractiveness of the business;
- Strategy_{1,1,2} - Strategy to gain scale in the market / niche;
- Strategy_{1,1,3} - Minimize total investment / sales ratio;
- Strategy_{1,1,4} - Minimize operational costs / sales ratio.

The corresponding third level matrix for Goal_{1,1} is triangular (see Goal 1.1 Level 3 Matrix in Figure 4). Therefore, the implementation of corresponding strategies must respect this exact sequence.

The design of a business model focused on shareholders' value creation (Goal_{1,1,1}) must take into consideration that the return of the venture capitalists' investment largely depends

on the success of their exit from the business, i.e. from the price they get paid when they sell their stake in the business.

Although the listing of the new businesses in the Stock Exchange (IPO) is often referred as the investors' natural exit route, the fraction of exits through IPO's in Europe and in most parts of the world is low. That is why most of venture capitalists see their normal exit through a trade sale to a strategic buyer, i.e., the sale to a larger industrial player.

The strategic aspects that a potential buyer tends to evaluate in the business are [Scott, 2007 (p. 92) and Timmons, 2004 (p. 28)]:

- The market/niche/segment positioning, i.e., the quality of its clients portfolio and/or its market share;
- The growth potential;
- The proprietary assets (patents, licenses, proprietary technologies, exclusive contracts, brands or trademarks);
- The profitability.

Entrepreneurs must put a lot of effort into implementing a strategy focused on creating and protecting value and on increasing the attractiveness of the business to the potential industrial buyers (Strategy_{1.1.1}). This is a key moment where investors will want to see their interests aligned with entrepreneurs.

Another important attribute for business attractiveness is size. A new business with high growth potential is more attractive for investors (Goal_{1.1.2}). Size can also be seen in relative terms. A new venture with potential to capture an important share of a niche market may also be very attractive for financial investors due to its strategic value for future buyers [Fisher, 2008].

Venture capitalists tend to be very strict concerning capital expenditure (Goal_{1.1.3}). However, it is not the absolute investment amount that is really the question. Ambitious projects may require higher financial resources in order to obtain larger revenues and profits, and what investors are looking for is to increase their return on investment. Therefore, they wish to achieve the maximum results with the minimum possible amount of investment, which should be deployed as late as possible along the investment period.

Entrepreneurs must design their business in order to minimize the ratio total investment/sales, i.e. the minimum capital required for the targeted business dimension (Strategy_{1.1.3}).

Finally, profitability is very important in the valuation of a business. Entrepreneurs must try to design businesses that are able to be top tier in terms of profitability (Strategy_{1.1.4}).

The alignment of interests between entrepreneurs and investors (Strategy_{1.2}) should be the core principle that leads to the achievement of Goal_{1.2}, i.e. an optimized deal structure.

Frequently, entrepreneurs and venture capitalists have different perspectives about their respective roles in the new venture. Issues like business initial valuation, entrepreneurs' compensation (salaries, bonuses, etc.) and the liquidity of venture capitalists' investment must be discussed in advance.

When designing a new business, entrepreneurs should have in mind the investors' fundamental interests, and should try to align their own interests with them.

The third level of decomposition of Goal₁ comprises the following goals:

- Goal_{1.2.1} - Entry price aligned with the investors expected return;
- Goal_{1.2.2} - Entrepreneurs compensation linked to business objectives and results;
- Goal_{1.2.3}-Investment liquidity.

To reach these goals, the following strategies must be implemented:

- Strategy_{1.2.1} - Moderate initial valuation aligned with risk/investment return ratio;
- Strategy_{1.2.2} - Implementation of remuneration and incentives schemes for the entrepreneurs;
- Strategy_{1.2.3} - Structure liquidity clauses in deal agreements.

The corresponding design matrix is diagonal (see Goal 1.2 Level 3 Matrix in Figure 4).

When negotiating the entry price (Goal_{1.2.1}) i.e., the valuation of the business that determines how much percentage of the company investors will get for the required investment amount, entrepreneur will try to minimize their own cash contribution by evaluating their innovative ideas and their previous work on the project.

Entrepreneurs must be prepared to accept a moderate valuation of their new business, aligned with a reasonable investment return rate for investors (Strategy_{1.2.1}).

The same effort on aligning interests has to be done when discussing entrepreneurs' compensation. Entrepreneurs' motivation is very important to the success of the new business, and investors are well aware of that. However, investors will clearly prefer to have an important part of the compensation linked to well-defined achievements and results (Strategy_{1.2.2}).

Finally, the negotiation regarding investors' exit (Goal_{1.2.3}) is often a difficult part of the deal agreement. As mentioned above, strategic buyers are the natural buyers of venture capitalists' investments. However, as strategic buyers are normally keen to get control of the businesses and venture capitalists often have minority stakes, investors tend to impose strong liquidity clauses to entrepreneurs. This means that investors want entrepreneurs to be aligned with their exit strategy (Strategy_{1.2.3}). Ultimately, entrepreneurs must agree to sell simultaneously with the strategic buyer a part or the totality of their own shares if the strategic buyer demands a controlling stake or even 100% of business.

4.3 GOAL 2: MAXIMIZE CAPABILITIES OF BUSINESS IMPLEMENTATION AND MANAGEMENT

Once the business is designed, it will be possible for entrepreneurs to focus their attention on improving the capabilities of implementation and on management of the business (Goal₂)

Many new ventures fail not because the initial idea was not good enough, but because the entrepreneurs were not able to implement it and/or to manage it properly. That is why the investors pay so much attention to the implementation capabilities of the new venture.

Goal₂ consists of maximizing the capabilities of the implementation and management of the business through the

implementation of strategic partnerships and through the team consolidation (Strategy₂).

The second level decomposition of Goal₂ is divided in two goals:

- Goal_{2.1} - Establish partnerships;
- Goal_{2.2} - Build-up an experienced and skilled team.

The matching strategies are:

- Strategy_{2.1} - Define and implement a partnership strategy;
- Strategy_{2.2} - Team build-up strategy.

Notice that this design matrix is uncoupled and the definition and implementation of partnerships (Strategy_{2.1}) can be done independent of the build-up of the entrepreneur's team and of the management team (Strategy_{2.2}).

New ventures are fragile and their path to success is full of obstacles and difficulties. Even the most experienced entrepreneurs do not always succeed. Therefore, entrepreneurs should look for all of the external support that they can get. That is why the establishment of partnerships (Goal_{2.1}) is so important and is well perceived by investors.

The third level objectives of Goal₂ are the following:

- Goal_{2.1.1} - Get permanent external advice/mentoring sources;
- Goal_{2.1.2} - Establish strategic partnerships with key stakeholders.

The corresponding strategies are:

- Strategy_{2.1.1} - Search for experienced and renowned mentors;
- Strategy_{2.1.2} - Early involvement of key stakeholders.

The corresponding design matrix is diagonal (see Goal 2.1 Level 3 Matrix in Figure 4).

Entrepreneurs should seek permanent external advice and mentoring from experienced and well-reputed personalities, such as senior managers, skilled businessmen or university professors [Drucker, 1985] who sponsor promising entrepreneurs, innovative ideas and new ventures by providing strategic advice, networking, etc. (Goal_{2.1.1}).

Most of the times, mentors are neither active in the same business sector, nor involved in the day-to-day business of the new venture, and have no material interest in the new business. Venture capitalists perceive the involvement of highly qualified mentors as a positive influence, since this is a good indication of the entrepreneur's honesty and credibility. For entrepreneurs, venture capitalists do not replace mentors. Even if venture capitalists can bring credibility and valuable support to the new business, venture capitalists have a material interest in the business and frequently have conflicting interests.

Another issue that deserves careful thought by the entrepreneurs is the involvement of key stakeholders in the development of the new venture (Goal_{2.1.2}). Depending on the characteristics of the business and the way that the business model was conceived, it might be very useful to get the involvement of a potential major client, a critical distributor or a key supplier. These partnerships should reduce the degree of uncertainty in key areas of the new business, particularly in its fragile early years [Amis, 2001 (p. 89)]. Usually, these partnerships are well perceived by investors, except if the new

business becomes too dependent on another company, reducing the chance of a successful exit through a trade sale.

Investors prefer to finance businesses promoted by a team of talented and experienced entrepreneurs rather than by ventures too dependent on a single person. In addition, since no business will be able to grow substantially without the development of a management team, the entrepreneur's team of must be able to attract new talent when necessary.

Goal_{2.2} (Build-up an experimented and skilled team) is decomposed in two third level goals:

- Goal_{2.2.1} - Strong and talented entrepreneur's team;
- Goal_{2.2.2} - Create conditions for the development of a management team.

With the corresponding strategies:

- Strategy_{2.2.1} - Consolidate entrepreneurs' team;
- Strategy_{2.2.2} - Build-up management team strategy.

The related design matrix is triangular, implying that the strategies must be implemented in an exact order (see Goal 2.2 Level 3 Matrix in Figure 4).

The investors usually prefer to invest in businesses that are not too dependent on a single person, but that are promoted by a (small) team of deeply engaged entrepreneurs, preferably with previous experience of working together and with complementary skills (sales, operations, finance) [Timmons, 2004 (p. 189)].

Goal_{2.2.1} consists of the consolidation of the entrepreneur's team. Initial investor(s) may realise, once Goal₁ is achieved, that they should invite a limited number of new partners to help him (them) to implement and develop the business. Investors see the existence of a strong entrepreneur team [Vesper, 1990 (p. 27)] as a way to:

- Reduce the risk of the dependence of the business from a single person;
- Increase the capacity for business implementation and development;
- Demonstrate that the new idea is credible enough to attract competent people to the business;
- Demonstrate entrepreneurs' willingness and ability to work as a team.

The implementation of Strategy_{2.2.1} (Consolidate management team) needs to be achieved without affecting the cohesion of the group and having in mind the key attributes of a credible team [Gladstone, 2004 (p. 65) and Camp, 2002 (p. 23)]:

- Integrity;
- Intellectual honesty;
- Entrepreneurship attitude;
- Experience and skills;
- Complementarity.

However, no business will be able to grow significantly in the future without the development of a management team, and entrepreneurs must be able to attract new talents when required (Goal_{2.2.2}). Therefore, entrepreneurs need to plan in advance the development of their businesses in terms of sales, use of material resources and raising the necessary funds, and also to plan in advance and to create conditions for the future development of the team (Strategy_{2.2.2}).

Venture capitalists will need to feel comfortable about the willingness and the ability of entrepreneurs to delegate part of

their tasks and to attract new talents to help them managing the future development of the business [Bhide, 1999 (p. 27)].

4.4 GOAL 3: ANTICIPATE AND MINIMIZE KEY RISKS

Once the new business is designed according to Goal₁ and its implementation and management capabilities are maximized (Goal₂), entrepreneurs must validate key information and confirm the business model's main assumptions, in order to achieve Goal₃ (Anticipate and minimize business and contextual key risks).

Therefore, the decomposition of Goal₃ is the following:

- Goal_{3,1} - Anticipate and minimize business risks;
- Goal_{3,2} - Anticipate and minimize contextual risks.

The corresponding second level strategies are:

- Strategy_{3,1} - Validate information, confirm assumptions and provide flexibility to the business model;
- Strategy_{3,2} - Validate information, identify and evaluate potential contextual risks.

Businesses may suffer important deviations from their initial plans due to internal and/or to external factors. Before deciding to invest, venture capitalists will want to confirm if entrepreneurs have a good understanding of the business and of its context, and if they have designed the business to be flexible enough to adjust to deviations from the initial plan [Sahlman, 1996]. Therefore, entrepreneurs need to demonstrate that they have anticipated and minimized the impact of potential risks in the business (Goal₃) by validating information and by confirming the main assumptions in the business model (Strategy₃).

The goal of anticipating and minimizing key business risks, and the corresponding strategies, can be decomposed as follows:

- Goal_{3,1,1} - Market product/service acceptance.
- Strategy_{3,1,1} - Confirmation of the satisfaction of an important need and customer value creation.

Entrepreneurs should seek an early confirmation of the acceptability by the market of its product/service. Signed contracts with customers, pre-orders, letters of intent or other documented proof confirming customers' interest on buying the product/service at a given price and conditions, can be decisive to raise funding from venture capitalists.

- Goal_{3,1,2} - Entrepreneurs' commitment.
- Strategy_{3,1,2} - Ensure commitment of key people.

Team commitment is key for the success of any business. Investors usually require key entrepreneurs to be materially committed with the new ventures. Therefore, entrepreneurs must be ready to invest additional cash in the business, along with financial investors.

- Goal_{3,1,3} - Evaluate and minimise technological risks.
- Strategy_{3,1,3} - Ensure that the technological solutions are sound and will not put the business in danger.

Untested or very recent technological solutions represent an additional risk. If a new technology is not essential for the new venture, the entrepreneurs will realise that the investors feel more comfortable when tested technologies are used.

- Goal_{3,1,4} - Potential implementation and operating risks minimized.
- Strategy_{3,1,4} - Validate operating plan and human resources recruitment and training.

Entrepreneurs must be able to demonstrate that they had carefully reviewed the business' operating plan, as well as the staff recruitment and training plan.

- Goal_{3,1,5} - Identify and minimise the critical legal risks.
- Strategy_{3,1,5} - Review the critical legal aspects.

The main potential legal risks inherent to the business should be identified and minimized in advance.

- Goal_{3,1,6} - Potential lack of resources identified and anticipated.
- Strategy_{3,1,6} - Reevaluate the required resources' and look for them timely.

The need of material, human and financial resources must be quantified in advance, in order to ensure that they will be available when necessary. Particular attention must be paid to anticipating the need of financial resources, in order to reduce the risk of "equity gap".

- Goal_{3,1,7} - Minimize specific business critical risks (associated to business sector).
- Strategy_{3,1,7} - Demonstrate measures taken, facts and initiatives linked to the minimization of business specific risks.

Each business has its own critical risks that must be identified and appropriately addressed.

The corresponding design matrix is uncoupled, meaning that the goals can be achieved independently (see Goal 3.1 Level 3 Matrix in Figure 4).

The entrepreneurs should also implement a strategy of permanent identification and evaluation of potential contextual risks (Goal_{3,2}). The goals and the corresponding strategies can be decomposed as follows:

- Goal_{3,2,1} - Identify and anticipate the competition's potential reactions.
- Strategy_{3,2,1} - Identify strengths and weaknesses of competitors.

Even if the new venture manages to successfully enter the market, a reaction from its competitors should be expected and anticipated in advance. This implies that the strengths and weaknesses of the competitors must be evaluated and continuously monitored.

- Goal_{3,2,2} - Potential impacts of macroeconomic situation evaluated and optimised.

GOALS		STRATEGIES																				
		ST.0	ST.1	ST.2	ST.3	ST.4	ST.5	ST.6	ST.7	ST.8	ST.9	ST.10	ST.11	ST.12	ST.13	ST.14	ST.15	ST.16	ST.17	ST.18	ST.19	ST.20
		ST.0	ST.1	ST.2	ST.3	ST.4	ST.5	ST.6	ST.7	ST.8	ST.9	ST.10	ST.11	ST.12	ST.13	ST.14	ST.15	ST.16	ST.17	ST.18	ST.19	ST.20
G.0	Maximize return for investors	X																				
G.1	Maximize the capabilities of implementation and management of the business	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
G.2	Anticipate and minimize business and context key risks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
G.3	Business value creation																					
1.1	Optimized deal structure																					
2.1	Establish partnerships																					
2.2	Build-up an experienced and skilled team																					
3.1	Anticipate and minimize business risks																					
3.2	Anticipate and minimize context risks																					
1.1.1	Maximize strategic value for potential future acquirers																					
1.1.2	High growth potential																					
1.1.3	Optimization of capital expenditure (CAPEX)																					
1.1.4	Strict operational cost management																					
1.2.1	Entry price aligned with investors expected return																					
1.2.2	Entrepreneurs compensation linked to business objectives and results																					
1.2.3	Investment liquidity																					
2.1.1	Get permanent external advisory/mentoring sources																					
2.1.2	Establish strategic partnerships with key stakeholders																					
2.2.1	Strong and talented entrepreneur's team																					
2.2.2	Create conditions for the development of a management team																					
3.1.1	Market product/service acceptance																					
3.1.2	Entrepreneurs commitment																					
3.1.3	Technological risk evaluated and minimized																					
3.1.4	Potential implementation and operating risks minimized																					
3.1.5	Critical legal risks identified and minimized																					
3.1.6	Potential lack of resources identified and anticipated																					
3.1.7	Specific business critical risks (associated to business sector) minimized																					
3.2.1	Competition potential reaction identified and anticipated																					
3.2.2	Potential impacts of macroeconomic situation evaluated and optimized																					
3.2.3	Potential impacts of regulation changes anticipated and optimized																					

Figure 4. Design matrix of new businesses for raising venture capital.

- Strategy_{3,2,2} - Confirm business alignment with main economy trends.

A new business aligned with the main macroeconomic trends has more chance of success.

- Goal_{3,2,3} - Potential impacts of regulation changes anticipated and optimized.
- Strategy_{3,2,3} - Identify and evaluate impacts of potential regulation changes

Usually, businesses operate in a more or less regulated environment. Potential regulation changes that might have a relevant impact in the performance of the business must be identified.

5 CONCLUSION

The main goal of this work is the deployment of a proposal of an appropriate platform for guiding entrepreneurs in finding venture capital to finance innovative projects from the outset.

Additionally, the platform helps to organize data and decision-making, in order to avoid bottlenecks, sources of iteration and conflicting options, therefore shortening the time for the development of the project.

Axiomatic Design was found to be very useful in the approach to the financial issues of innovation.

In the opinion of the authors, the most relevant output of this proposal is giving the entrepreneur the chance to seamlessly integrate the independence axiom in the decision process and in the presentation of the project to potential financial investors.

It was found that a decomposition until the third level is enough to depict the general aspects of this kind of design. The levels below the third should be reserved to specific issues that depend on particular features of the design.

The platform is being tested in real world cases, and the results attained so far could be described as promising. However, one should note that the use of this platform is not a sufficient condition for a successful venture capital fund raising project.

Not surprisingly, the main disadvantage of the platform was the difficulty of getting the involved actors to acknowledge the importance of the independence principle and of the advantages of zigzag decomposition. This confirms the relevance of introducing AD in the early stages of the higher education of potential entrepreneurs and other decision-makers.

In the future, the authors are planning to apply the information axiom in the selection of ideas in the innovation process, in order to increase the efficiency of this process.

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