CHAPTER 1

INTRODUCTION TO ENTREPRENEURIAL FINANCE

LUISA ALEMANY
ESADE Business School

JOB J. ANDREOLI
Nyenrode Business University

This chapter has been designed to act as your guide as you begin your journey in entrepreneurial finance. It will serve as a road map, allowing you to choose between reading the book from start to finish or, if you are looking for very specific advice, to jump directly to the relevant chapter or topic. We will look at the differences and similarities between entrepreneurial finance and more traditional fields of finance, such as corporate finance. Finally, we will discuss the different stages that a new venture may go through as it grows, and some of the financial challenges that both the founders and investors in the business might meet along the way.

VIEW FROM THE MEDIA

FINANCIAL TIMES FT

Investors hail future of German flying taxi start-up

Lilium funding tops $100m as electric aircraft company aims for 2019 lift-off

SEPTEMBER 5, 2017 BY PEGGY HOLLINGER, INDUSTRY EDITOR

The race is on to bring an end to traffic jams after a German start-up founded two years ago by four university students secured $90m in funding from tech entrepreneurs to develop a flying taxi. Munich-based Lilium secured the funding from Chinese social media giant Tencent, Skype founder Niklas Zennström's Atomico, Twitter co-founder

Ev Williams' Obvious Ventures, and LGT, the private bank owned by Lichtenstein's royal family. The fundraising follows an earlier funding round which raised $10m, bringing the total so far to more than $100m. Daniel Wiegand, the chief executive who with three others founded Lilium while at the Technical University of Munich, said the investment made Lilium 'one of the best funded electric aircraft projects in the world'. It would enable the company to accelerate the commercial development of a five-seat electric aircraft. Lilium in April completed a successful test flight of a full-scale two seat version of the aircraft – which takes off and lands vertically but transitions to forward propelling flight once in the air. … Lilium is hoping to make its first manned flight by 2019 and to have an on-demand service by 2025. Mr Gerber said the aircraft would be capable of travelling 300 kilometres or more in a single charge, with a cost per kilometre that would be competitive against ground travel.

www.ft.com/content/e1f443c8-91a2-11e7-bdfa-eda243196c2c

LEARNING OBJECTIVES

After reading this chapter you will be able to:

- Understand what we mean when we talk about entrepreneurial finance.
- Become familiar with the definitions of 'entrepreneurship' and 'finance' and the fit of entrepreneurial finance with both fields.
- Appreciate the similarities and differences between entrepreneurial finance and corporate finance.
- Differentiate between the stages of new venture development and the sources of financing available.

Where Are We Going Next?

This chapter begins with a short story about an entrepreneur to illustrate the concept of entrepreneurial finance. It will then answer the question 'what is entrepreneurial finance?' by exploring exactly what we mean by entrepreneurship and finance. We will then clarify the differences, and similarities, between corporate finance and entrepreneurial finance. The chapter continues with an analysis of the different stages of a new venture from a financial perspective, and by looking at the sources of financing available for each stage. We hope that you enjoy the ride!

1.1 An Entrepreneurial Finance Story

We are often asked the question: 'so what exactly *is* entrepreneurial finance?' And it is sometimes difficult for us to explain. One answer might simply be 'well, it is finance for entrepreneurs'. And that's correct. However, the next question that we are asked is 'and how is finance for entrepreneurs different from finance for anybody else?' This is where the explanation becomes more detailed and, sometimes, more confusing.

Let us start by telling you a story. It happened on a typical day of teaching. Luisa was teaching an intensive course in finance to a group of Master of Science students from RENE. RENE is a very interesting programme on Renewable Energy that is offered by four European universities:[1] *KTH-Royal Institute of Technology* in Stockholm, *Instituto Superior Tecnico* in Lisbon, *Ecole Polytechnique*, Paris and *Università Politécnica de Catalunya*, Barcelona. As part of their Master's degree, some of the students have an intensive week on entrepreneurship at ESADE Business School, in Barcelona.

It was a very intensive day, at the end of a very intensive week, for the RENE students. It meant eight hours of basic accounting and finance for some very smart students, who were highly motivated to find a brilliant idea that could help to reduce pollution, to provide cleaner energy or to make our world more sustainable. The topics that we covered in class that Friday were the balance sheet and the profit and loss account. This is part of basic accounting. Many of them (actually, nearly all of them) understood for the very first time the difference between an 'investment' and an 'expense' – a very important concept when you are thinking about starting your own business. Also, we looked at how assets and liabilities balance out and, that if you owe more money than you have, then you are in big trouble and it might be 'game over'. I could see, as the class progressed, how all these definitions were engaging them. The fact that accounting and finance use numbers was something that engineers love. Better than marketing and strategy, right?

Later, we reviewed the concept of cash flow and how selling does not always translate into cash. This happens quite frequently, for example, if your customer is another company that is planning to pay you in 60 days. Well, that's if you are lucky. So, you might have sold, let's say, €10,000 of services, but the money has not yet been paid into your bank account. You are expecting to be paid in 60 days, so you will have a balance of €10,000 in your 'Accounts receivable'.

Finally, in the second part of the afternoon, the students worked in groups on a case study to build the financial plan for a new company, a wind farm. It was challenging for them; it was their first contact with accounting and finance. But smart teams perform well when confronted with challenges. It was a very long day. But they survived!

As I was packing my laptop and class material, one of the students, Niklas, approached me. He was very excited because he was already working on a plan for a new company, and he felt that today's class had been very useful. Of course,

1 This programme counts with the support of KIC-InnoEnergy and is accredited by the European Institute of Innovation and Technology. To learn more visit: www.innoenergy.com and https://eit.europe.eu

I was very happy to hear that. Professors are always happy when a student tells them that the class was worthwhile. But in this case, I was very interested as the student asked me if he could show me the presentation he had prepared about his business idea.

It was Friday, 6:30 PM, but I was really keen to hear about it, especially when Niklas mentioned the name of the venture[2]. He went through the slides, which were very well laid out, I have to admit (I'm used to seeing a lot of presentations in class), so I congratulated him. He mentioned that one of his co-founders, Eva, had experience in design. Anyway, the opportunity that he and his team had identified was to produce vegetables, such as tomatoes, broccoli, onions or even lettuce in the Nordic countries. They were planning to use new technology that they were developing in their home university as part of their Master's degree that would allow the production of 'Mediterranean' vegetables, which need a lot of sun and warm weather, in labs close to the final customer. With this idea, they were solving two key problems. First, they could ensure stable prices for Nordic consumers, as they would not be dependent on the weather conditions in southern Europe or the effect of supply and demand in the market[3]. Second, they were significantly reducing transportation costs, as their plan was to produce locally, close to the customer, in areas surrounding the cities, using electric vehicles or even bicycles to distribute the vegetables to the customer's home or office. In addition, they could ensure attractive and competitive prices, as they were cutting out many of the intermediaries. Finally, they thought that their competitive advantage, and the reason why customers would buy from their startup, was that Nordic people were tired of not having continuous access to fresh vegetables, limiting their options for a healthy and varied diet.

The last-but-one slide was full of numbers. I have to admit that I do love numbers and financial plans, but this wasn't the most appealing slide in the deck. Niklas asked me to review it. I quickly went through the numbers of his financial plan.

The following is an excerpt from the conversation we had:

Luisa: Well, Niklas, you've done a good job of putting all the numbers together. I see that you have prepared a profit and loss account here, right?

Niklas: Yes, that is what I was trying to do. Adding in the money coming from the revenue, which will be subscriptions, and then subtracting all the expenses that we think we are going to have, such as employees, rent or marketing.

Luisa: I see, so these are your assumptions.

Niklas: Yes. And we have also estimated that we will need €460,000 for the land where we are growing the vegetables, around 5,000 square metres, in six different locations, to start with.

2 For reasons of confidentiality, we do not use the actual name and have changed some of the details of his plan.

3 In January 2017, there was a steep increase in the price of basic vegetables across Europe, and worldwide, due to the bad weather, including floods, that reduced production in southern Europe, affecting the price of basic products.

CAMBRIDGE

Cambridge University Press
978-1-108-42135-5 — Entrepreneurial Finance
Edited by Luisa Alemany , Job Andreoli
Excerpt
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Luisa: Very good, and you have already checked that this is the appropriate size for the production that you are forecasting?

Niklas: Yes, we have talked to an agricultural expert who has confirmed that this is the right size. So, we basically need €460,000 to start this company. And we think that we can get this money from a grant, or maybe from crowdfunding.

Luisa: Niklas, let me ask you a question: do you need all the money upfront? Or can this investment be staged?

Niklas: Umm, well, I don't know. I just know that this is the money we need.

Luisa: Ok. Now, going back to your numbers, I see that in year 1 you are already selling your entire production, exactly the same amount as in year 2.

Niklas: Well, yes, we are being very conservative here, as we are charging 15% less than supermarkets and we are assuming only 1,500 subscriptions paying a fixed fee of €60 per month.

Luisa: Hahaha, entrepreneurs always say their figures are conservative . . .

Niklas: But they actually are!

Luisa: Maybe you are right, but let me go back to my point. If you are starting in year 1, then you will need to find the land. You mentioned six locations. Then you need to build your 'labs'. That will probably not happen overnight. Once the labs are ready, you will most likely have to do some testing of the quality of the crop, which, by the way, takes some weeks to grow. I'm not an expert, but a tomato will not be ready in a week for sure . . .

Niklas: Oh, yes, well, true.

Luisa: But that is not all. Once the crop has been tested and the quality is high enough, you can start advertising your company and your service. Again, even if you think 1,500 people is not many, you will have to reach them somehow, and then convince them to buy from you.

Niklas: Yes, but we are counting on our friends from University and also our families to be our customers.

Luisa: Of course, they will be your first customers, but the point I'm trying to make here is that most likely, your first year will be a full year of expenses and that the revenues will not come in in January. Maybe in June. Maybe in October. You need to take all the steps into account – one after the other. Some of them might work in parallel. Therefore, you are going to need more money than just the one needed for the big investment, as you will not have income on the very first day.

Niklas: I see.

At this point, I could see that Niklas was looking sad. He was kind of disappointed with himself because he hadn't realized all of this. But of course, how can you know before somebody explains it to you. So Luisa tried to encourage him.

Luisa: Yes, sorry, I don't mean to give you bad news here. As we saw in class today, the profit and loss account is one thing, especially once the business is up and running at full speed, and the cash flow is another. But don't worry, it is normal; you've never heard of this before. Believe me, putting down some numbers, as you have already done, is the first step, and a very important one, and you are certainly on the right path.

Niklas: Thanks, we were just trying to build a financial plan, without really knowing exactly what that was. We looked on the internet. But I feel that now, having gone through this afternoon's exercise of building a financial plan, I will be able to go back and re-work the numbers for my startup.

Luisa: Of course you can! And you can count on me to review them. Now, my quick calculation, from looking at your numbers, and taking into account everything that we just talked about, is that you are going to need between €1 and €1.2 million. So, what do you say to that?

Niklas: That much? Uff, I hope you are not right! We have heard about accelerators, business angels and venture capital, and if we need that amount of funding it sounds like we will need to go down that road rather than follow our initial idea of getting a grant or raising some money from crowdfunding. I don't think the banks will give us a loan. This is very complicated!

Luisa: Niklas, don't worry, it is not complicated, it is just a question of learning about the different options. What you do in your Master's in Renewable Energy is complicated. You are looking for new ways of creating energy! This thing about business angels and venture capital sounds complex because you have heard about it but you don't know how it works. Look, congratulations on your project, I truly believe you have something very interesting here! It is Friday evening. You are in Barcelona. Now, enjoy the weekend and try to re-do your numbers next week. After that, contact me again, and let's see how can we move things forward.

Niklas: Thanks a lot! And yes, it is Friday. I was so tied up with what we saw today that I almost forgot! Have a great weekend as well. I'll send you an email next week from the North!

Niklas' story illustrates some of the first questions faced by entrepreneurs once they have come up with an amazing idea and they start to put their plans into action. At some point in time, you will need to estimate the resources needed to make your dream a reality. Resources such as talent, assets or contacts will be part of the equation, and money, whilst not necessarily your first priority, will be needed to make it work.

1.2 What Is Entrepreneurial Finance?

Entrepreneurial finance is a recently emerged field of finance that sits at the crossroads of entrepreneurship and finance.[4] Before getting to the definition of

4 First research in the entrepreneurial finance field started in the late 1990s. One of the first papers on the topic of entrepreneurial finance is Gorman and Sahlman (1989).

'entrepreneurial finance', it is interesting to think about the meaning of its components.

As regards '**entrepreneurship**', there are several definitions that have evolved over time. Some of them are included in Table 1.1.

Table 1.1 Definitions of 'Entrepreneurship'

Year	Author	Definition
1755	R. Cantillon	The entrepreneur is an 'adventurer', who invests in the purchase of goods and materials, combines them to obtain new products with the incentive of selling these in the future at uncertain prices. The entrepreneur takes risks and identifies and realizes fruitful business opportunities.
1934	J. Schumpeter	The entrepreneur is an individual who exploits market opportunity through technical and/or organizational innovation and through new combinations taking place in: • Introduction of new products. • Introduction of new production methods. • New markets. • New forms of organization. • Reorganization of an exiting organization.
1973	I. Kirzner	The entrepreneur is a person who discovers previously unnoticed profit opportunities. The entrepreneur's discovery initiates a process in which these newly discovered profit opportunities are then acted on in the marketplace until market competition eliminates the profit opportunity.
1990	H. Stevenson and J. C. Jarillo	Entrepreneurship is a process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control
2000	S. Shane and S. Venkataraman	Entrepreneurship is an activity that involves the discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, process, and raw materials through organizing efforts that previously had not existed. Entrepreneurship includes the study of the sources of those opportunities and the forms they take, the processes of opportunity discovery and evaluation, the acquisition of resources for the exploitation of these opportunities and the individuals that discover, evaluate, gather resources and exploit them.

As we can see from the different definitions,[5] entrepreneurship relates to the discovery of an opportunity and the steps that need to be taken to make it a reality. It is not just applied to the creation of new businesses, but they are, in most cases, its main focus.

In order to start an entrepreneurial endeavour, entrepreneurs need resources. Resource acquisition is, in fact, one of the main lines of research in entrepreneurship. And one of the key resources that the entrepreneur will need is money, as we saw in the previous section. This is where finance comes into play.

There is a multitude of definitions of '**finance**' but its origin seems to be as a French word that was later adopted by English speakers in the eighteenth century. Its original meaning relates to 'the management of money'. From there, finance has spread into many different fields, and with many different definitions, depending on the user group.

In general, finance relates to obtaining money, to investing money and to understanding the cost and the best use of money. It is sometimes referred to in the context of governments and countries, sometimes of markets and companies and often to ourselves, as in 'personal finance'. In this book, we are interested in the type of finance that relates to businesses, and that is known as 'corporate finance'.

In corporate finance, there are two major topics that relate to corporations. The first one is investing. This looks at how owners or managers in companies decide where to invest their budgets. They may choose to invest in a new machine, a new factory, entering new markets, launching new products or re-launching existing ones, or in many other projects that may affect the existing business. The second topic is financing. Where do you get the money needed to invest in or to run your business? How do you finance your investment plan? How much will that cost you? In fact, we are back to the basics of accounting; the company's balance sheet. The first topic (investing) refers to the assets of the company and the second one (financing) to its liabilities and equity.[6]

So in this context, let's go back to the initial question, 'what exactly *is* entrepreneurial finance?' If we combine the two fields we get:

'The art and science of investing and financing entrepreneurial ventures'[7]

Typically, entrepreneurial finance involves mainly private funding, as opposed to public funding, when we are talking about corporate finance. It is true that a very successful entrepreneurial venture might end up reaching the stock market, as a way of harvesting and giving liquidity to its investors, and at this point we are talking public funding.

This definition is not limited to startups, as a new entrepreneurial venture may also take place within a corporation or family business, as in the case of corporate venturing or intrapreneurship. It can also take place when an entrepreneur

5 The references to the original papers can be found at the end of this chapter.
6 To go deeper into the topic of corporate finance, see Brealey (2016).
7 Own definition.

acquires an existing business. We will cover that in Part IV of this book, Chapters 13 to 15. Although we are talking finance here, we have not yet mentioned the word 'profit'. Not because we don't like profits. We do. A lot. But because entrepreneurial finance also involves social businesses, where the main goal is the social return. However, financial sustainability is a must. Chapter 16 will introduce you to the specific characteristics of financing social businesses.

1.3 Differences and Similarities between Corporate Finance and Entrepreneurial Finance

Corporate finance focuses on existing businesses and the challenges they face to grow in order to deliver a healthy return to their investors. We could say that corporate finance's underlying goal or mantra is to increase shareholder value. So this assumes that there is already value in the business, and the key question is how to increase this value.

In contrast, entrepreneurial finance relates to an entrepreneur's first challenge to acquire the funding to be able to test whether there is an actual opportunity that can be made into a business – a real one, that has the potential to become financially sustainable. The challenge starts way before the generation of value. It actually begins during the opportunity phase, as aspiring entrepreneurs start to develop their ideas, or become more serious about them when creating a first prototype, or when they try to get a first feel that a market for this product or market exists, with customers that are willing to pay. In Section 1.4 we will discuss the different stages of venture financing.

One of the key differences between entrepreneurial finance and corporate finance is that in the latter you have historical information that will help you to forecast the future. However, this is not a guarantee of accurate forecasting, believe me. But at least the financial information is there. In the case of a startup, there is no previous history, or not a lot, and the future is unknown. In most cases, the founders will be working on a very innovative solution that will solve an existing need. In other cases, they will be generating the need, as they plan to enter a totally new market.

Another major difference between the two fields is that in corporate finance we assume that projects or investments will have a positive net present value (NPV) – if not, they will not be implemented by senior management.[8] In entrepreneurial finance, losses are part of the game, since in the early years most of the money is ploughed into investments and expenses that, hopefully, at some point in the future, will translate into positive cash flows. You might be wondering who would be likely to be interested in investing in or starting a company that will almost certainly lose money. Well, it's a very reasonable question. As we will see, while in corporate finance most of the returns will come from the

8 Sometimes top management might approve negative net present value investments because they consider them to be 'strategic'.