Professional MBA
Entrepreneurship & Innovation

What Sources of Capital will allow Entrepreneurs to reduce Personal Financial Risk?

A Master's Thesis submitted for the degree of
"Master of Business Administration"

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Affidavit

I, **ROBERT SCHWÖGELHOFER**, hereby declare

1. that I am the sole author of the present Master's Thesis, "What Sources of Capital will allow Entrepreneurs to reduce Personal Financial Risk?", 80 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 30.06.2018

Signature

Preface

This Master’s thesis is original and unpublished work submitted in fulfillment of the Professional MBA Entrepreneurship & Innovation program of 2016–2018, launched by the WU Executive Academy, the Business School of the Vienna University of Economics and Business (WU), and the Continuing Education Center of the Vienna University of Technology (TU).

I wrote this Master’s thesis to help entrepreneurs in order to reduce their personal risk while building new businesses. While entrepreneurs are, in general, considered to be risk-takers, the amount of personal risk that entrepreneurs are willing to accept remains an interesting question. Certain other important contextual questions are as follows: How will this risk affect their social responsibilities (e.g., taking care of a family) or personal financial plans (e.g., retirement) and how can they manage to reduce this risk?

This Master’s thesis might be valuable for entrepreneurs who are eager to reflect personal financial risk and liabilities, which will be deployed with the use of certain sources of capital. Within my work, I distinguish between financing start-ups in the United States of America and in Europe, particularly in my home country of Austria.

I owe a very important debt to the expert interview partners who agreed to take part in my survey, ranging from experienced start-up consultants to successful serial entrepreneurs as well as distinguished university professors, who spent their precious time in answering my questions during their very busy daily schedules.

In addition, I would like to express my gratitude to the WU Executive Academy and the Continuing Education Center for constantly exposing young talent to various ways of creating one’s own career path through entrepreneurship. As an entrepreneur who has previously worked in

corporate structures, it is my strong belief that entrepreneurship is a wonderful and independent alternative to corporate careers and a great chance for personal growth and development.

The Professional MBA Entrepreneurship & Innovation class of 2016–2018 took me to places full of entrepreneurial inspiration such as San Francisco, Silicon Valley, Boston, and New York. Furthermore, it has allowed me to connect to possible future business partners and to meet new friends.

Thank you very much for this wonderful MBA journey.

Robert Schwögelhofer

Abstract

The main objective of this Master's thesis is to produce a financing guideline for entrepreneurs on how to use traditional and alternative sources of capital, without increasing the personal financial risk of the founders. Many traditional sources of capital, such as character loans, will require the full personal liability of a founder. As a consequence, the private savings of entrepreneurs are at permanent risk while creating new ventures. This might lead to situations where founders are not able to take optimal decisions for the start-ups or it might even prevent individuals from becoming entrepreneurs in the first place.

As a matter of fact, the author has chosen literature from personal financial planning as well as from investment theory to focus on the long-term objectives of entrepreneurs, instead of the interests of capital lenders and investors. In addition, traditional and alternative sources of capital for start-ups have been qualified based on personal liability in the different financing stages of a new business. This should allow entrepreneurs to reduce personal risk and to focus on building successful business ventures.

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AltFG: Alternative Financing Act

AWS: Federal Promotional Services

EIF: European Investment Fund

ERP: European Recovery Program

FFG: Austrian Research Promotion Agency

FMA: Austrian Financial Market Authority

IPO: Initial Public Offering

NYSE: New York Stock Exchange

NASDAQ: National Association of Securities Dealers Automated Quotations

PFP: Personal Financial Planning

PPM: Private Placement Memorandum

JOBS: Jumpstart Our Business Startups Act

R&D Limited Partnership: Research and Development Limited Partnerships

ROI: Return on Investment

SBA: Small Business Administration

SBIR: Small Business Innovation Research Program

SEC: Securities and Exchange Commission

STTR: Small Business Technology Transfer Program

1 Introduction

This chapter will cover problem formulation, objective of this Master's thesis, and the course of investigation.

1.1 Problem Formulation

While founding a start-up company, the funding and financing of the venture is an essential part of the process. As finance is a common chapter found in business plans, these plans will usually include forecasts on profit and loss statements, balance sheets, and cash flow statements of up to five years. If debt financing is considered in these plans, costs are expected to show up in the profit and loss statement and very often business plans are specifically created for attracting investors or financing banks. If these stakeholders are interested to invest, they will usually offer conditions for debt or equity capital based on expected earnings and their assessment of risk involved.

While drafting a business plan every entrepreneur should be aware of the question "How much of my own private savings should I invest into that single venture?" If we could be absolutely sure that our venture would be successful and there would be no better alternative investment in terms of return, then it would be theoretically correct to invest all our money into that single venture. While it is a very important characteristic of an entrepreneur to be optimistic—without which he/she would not be willing to start a business—the problem starts with uncertainty. Creating something new comes at the price of uncertainty. This is why the entrepreneur can never be 100 per cent certain that a new venture is going to succeed. There is a reasonable risk of failure that needs to be considered.

For gaining a better understanding of the problem, we have to derive a better understanding of the risk that is involved in starting a business. The article "How Venture Capital Works" by Bob Zider, which was published in the *Harvard Business Review* in 1998, states the following about the probabilities of succeeding with a new business idea:

> "On average, good plans, people and businesses succeed only one in ten times. There are many components critical to a company's success. The best companies might have an 80% probability of succeeding at each of them" (Zider 1998: 136).

Individual Event	**Probability**
Company has sufficient capital	80%
Management is capable and focused	80%
Product development goes as planned	80%
Production and component outsourcing goes as planned	80%
Competitors behave as expected	80%
Customers want product	80%
Pricing is forecast correctly	80%
Patents are issued and enforceable	80%
Combined Probability of Success	**17%**

Table 1: Combined Probability of Success. Source: Zider (1998: 136).

The different components that are listed in Table 1 have individual probabilities of success. A combined probability of success of 17 per cent means that the founders face a risk of 83 per cent with regard to the possibility of business failure (Table 1). Zider is referring to the "best companies" that have an 80 per cent success rate at each of these individual events. As he points out, "if only one variable drops to 50 per cent[,] the combined chance of success falls to 10%" (Zider 1998: 136).

Thus entrepreneurs have to manage risks. In other words founders will take suitable measure for increasing the probability of success and, at the same time, for reducing the probability of failure. Some of these risk-reducing actions will take place on an operational level and will be very specific to a new business idea. Hopefully, these risk-reducing actions will make the business of entrepreneurs one of the "best companies", with a failing rate of "only" 83 per cent, as Zider pointed out. However, the study of

Zider was finalized in 1998 and the success rates of entrepreneurs might have changed since then, but still it seems relevant to categorize capital that is invested in start-up companies as “risk capital”.

Therefore, an even more strategic financial question the entrepreneur should be asking is how much money he/she should invest from his/her personal savings into a single risky venture? This is not only a matter of risk management but also has to be in line with personal financial plans with regard to wealth creation and retirement planning, according to a certain risk attitude.

1.2 Objective of this Master’s Thesis

What investors expect to see is that entrepreneurs show absolute commitment to their business ideas. This commitment seems to be required for convincing other stakeholders as investors, potential customers, employees, family, and friends to take part in or come a long with an entrepreneur’s business idea and particularly to attract capital. In other words, an entrepreneur needs to show commitment to his/her idea for building up the required trust and he/she would, in return, expect to get different forms of support from different stakeholders.

On the other side of the spectrum, one important objective of most entrepreneurs is wealth creation. The business plan for creating new ventures has to provide specific steps on how the start-up company plans to create wealth for society. The general idea is that growing a company in terms of value will be based on higher company earnings and, therefore, will lead to higher company evaluation. If the entrepreneur decides to sell the company, this higher evaluation should lead to the higher selling price of his/her shares, which should create personal wealth for the entrepreneur.

Thus, in case the entrepreneur fails to succeed with the start-up company, he/she will, in general, lose his/her money and time invested in the new venture and, therefore, his/her personal wealth is going to decrease.

Based on aforementioned statistics, the entrepreneur's probability of failing with a new start-up is significantly higher than his/her probability of succeeding. Nevertheless, for creating a positive expected value for the entrepreneur, he/she has to compensate the times of failing with significant returns of a venture that finally succeeds.

Even when the entrepreneur is adequately skilled to achieve success one out of ten times in a way that overcompensates the nine failures, the high probability of failing will increase the variance of this expected value. Owing to the high probability of failure, it seems rational to consider that success will require more than one business start-up process. Multiple efforts to build companies will increase the chances of the founding of one successful business. Such multiple efforts explain why entrepreneurs end up as "serial entrepreneurs". If we start to plan a path or even a career as a serial entrepreneur, right from the start, then, it seems reasonable not to commit too much capital to the high risk of a single business venture. With this in mind, we want to preserve capital for our next business idea if this one fails.

There is a natural conflict that lies in the approach of "preserving entrepreneur's personal capital for multiple ventures" to find what stakeholders want to see, which is "a total commitment of the entrepreneur" to a single venture that affects them most.

The object of this Master's thesis is to answer the following question: What sources of capital will allow entrepreneurs to systematically reduce personal financial risk?

In other words, "How do we avoid overcommiting private savings in a single start-up while high risk is involved?" As previously mentioned, there are different approaches to commitment. This Master's thesis will focus more strongly on the interests of the entrepreneur than on the interests of the stakeholders.

1.3 Course of Investigation

For answering the main question, we are actually trying to find out whether it is possible to reduce the personal financial risk of entrepreneurs, which comes with traditional or alternative sources of capital. The idea of limiting personal capital exposure under risk is very similar to the strategies of professional investors that aggressively invest in high risk opportunities in the financial market, such as venture capitalists. This is not an analogous market; it is actually the same market—but from the perspective of an investor. The study will cover literature review on personal financial planning, investment theory and financing start-ups. The empirical part of this study will reach out to start-up financing experts with qualitative interviews about their experiences in managing financial risk in the field of entrepreneurship. Finally, a conclusion will sum up the findings and open discussions for future research.

2 Personal Financial Planning, Investment Theory and Sources of Capital for Entrepreneurs

The first step of answering the main question leads to broad literature search on personal financial planning. As a second step investment theory of asset allocation is discussed, followed by typical and alternative sources of capital for start-ups and their effects in terms of personal liability to the founder. One limitation of this study is that it focuses on the sources of capital that are usually available to start-ups in the United States of America (U.S.A.) and Europe, particularly in Austria.

2.1 Personal Financial Planning

Personal financial planning seems important to individuals who try to avoid financial pitfalls and are aiming for wealth growth through the different stages of their lives. Different stages in life will provide different requirements with regard to finance and personal cash management. Social responsibilities, such as paying tuition fees for three children or paying retirement rents without insurance coverage, make a huge difference to the risk attitude of most individuals. This is why it makes sense for entrepreneurs to reflect on their stage in life before committing their private savings to a new business idea and evaluating the impact of financing a start-up with their long-term personal financial plan.

Before analyzing a specific business idea and coming up with estimates on numbers and figures according to a business plan, the entrepreneur should take a step back and think about personal financial planning (PFP) first and how a new business idea actually fits in.

> “The PFP is the process of developing, implementing, and monitoring a plan for acquiring assets, investing those assets that we do not immediately spend in a manner consistent with our tastes for risk; and spending assets acquired over our lifetime in a manner consistent with our goals” (Foulks and Graci 1989: 32).

The article “Guidelines for Personal Financial Planning” in the *Business The Magazine of Managerial Thought and Action* explains the increase of interest in that topic in the late twentieth century in the U.S.A. as a consequence to several factors. One factor was that Americans had been losing trust in retirement benefits which had been provided by institutions before. Owing to the need of retirement savings, new financial products emerged; some of them included tax benefits. In addition, a significant amount of household incomes had increased owing to the fact that both spouses had jobs and, finally, there was some money left for saving. As a result of saving, people became more aware of inflation (Foulks and Graci 1989: 32).

The same factors that have been relevant to Americans seem to be very valid for Europeans as well. According to *Forbes Magazine*, as the birthrate has fallen and populations grow older, the financing of retirement benefits has become increasingly difficult. Welfare states in Europe have tend to pay pension obligations from annual budgets (Mauldin 2017).

In fact, personal financial planning is more important than it used to be as a larger part of retirement benefits are financed by personal savings (Foulks and Graci 1989: 32). We can safely assume that this will apply to employed workers as well as entrepreneurs in developed industries.

Based on the article "Guidelines for Personal Financial Planning" in *Business The Magazine of Managerial Thought and Action*, personal financial planning is more a continuous process rather than a one-shot deal; it will be established by executing the following steps:

1) defining financial goals,
2) analysis of personal net worth on a regular basis,
3) setting up saving, investing, and tax plans,
4) defining personal retirement requirements, and
5) evaluation of insurances required (Foulks and Graci 1989: 32–33).

This continuous process should lead to the accumulation of assets and an increase in personal wealth. There are certain risks to personal wealth in our lives, which require risk management. On a very general level, we can deal with these risks in terms of

- avoiding risk,
- recognizing and controlling risk, or
- transferring risk (Foulks and Graci 1989: 33–35).

We would be well advised to know our financial goals before we actually start working for money. Otherwise, it will be hard to assess whether rewards of any type of work are going to be sufficient and if the accompanying risk will be acceptable to us. For an entrepreneur, this would involve designing business plans that are in line with his/her personal financial planning. That is a topic that is hardly addressed in entrepreneurial literature.

2.2 Diversification

A personal financial plan will usually require savings from income to be protected against inflation over a defined period of time. A serious long-term financial plan will cover all the stages of an individual's life. As cash or cash equivalents are usually not protected against inflation, we are required to invest savings into assets that are likely to increase in value over time. If this increase after tax is larger than the inflation rate, then, additional personal wealth is created. As this process is known as "investing", we have to consider the types of investments that are available in the market. Types of investments are clustered in "asset classes". Asset classes are grouped securities, where assets of the same group will show certain characteristics and market behavior (Investopedia 2018).

The following asset classes, in general, are available to an individual investor[1]:

- equities (shares in publicly or privately traded companies),
- bonds or fixed-income securities (typically government or corporate bonds),
- cash or cash equivalents (e.g., foreign exchange),
- commodities (e.g., oil, gas, and precious metals),
- real estate, and
- alternative investments (e.g., old timers, artwork, and cryptocurrencies).

The more standardized the assets that are traded in markets, the more liquid an asset class is going to be. Real estate or artwork, for

[1] We differentiate between an individual investor and an institutional investor, who will have certain corporate regulations on how to invest corporate money and/or certain specialized investments to settle (e.g., specialized with respect to venture capital investments).

example, tends to be very unique; this is why, these assets take longer to sell than stocks from a company like Microsoft. Thus, if all the savings of an individual are concentrated in one asset class, such as real estate, then, it will face a certain risk of illiquidity, when cash is needed for covering a sudden personal desire or in the case of an emergency. In addition, if a risk concentration is identified, then, the majority of capital might suffer from losses in a bear market or from potential market crises that might hit this asset class.

A counter strategy would be to diversify private funds into separate asset classes for building up a diversified asset portfolio.

> "Diversification gains are mainly driven by a well-balanced allocation over different asset classes… relying on simple rules of thumb in asset allocation significantly improves the performance of any single asset class portfolio" (Jacobs, Müller and Weber 2013: 82).

Overall, defining and executing a personal financial plan will require thinking like an investor, regardless of profession. This is particularly true for entrepreneurs because they will not only finance private needs but also business needs out of their pocket.

2.3 Allocation of Risk Capital

This section will mainly focus on the asset class "equities"—not due to the fact that the other asset classes are not important but due to the fact that founding a business is going to be an equity investment. In fact, it is very essential to have well-balanced asset allocation over several asset classes. For example, having enough cash or cash equivalents is very important, otherwise the investor would have to sell equities, regardless of the market value, when there is an immediate need for cash.

When deciding to invest in equities, an investor has to face the following different types of equity investments:

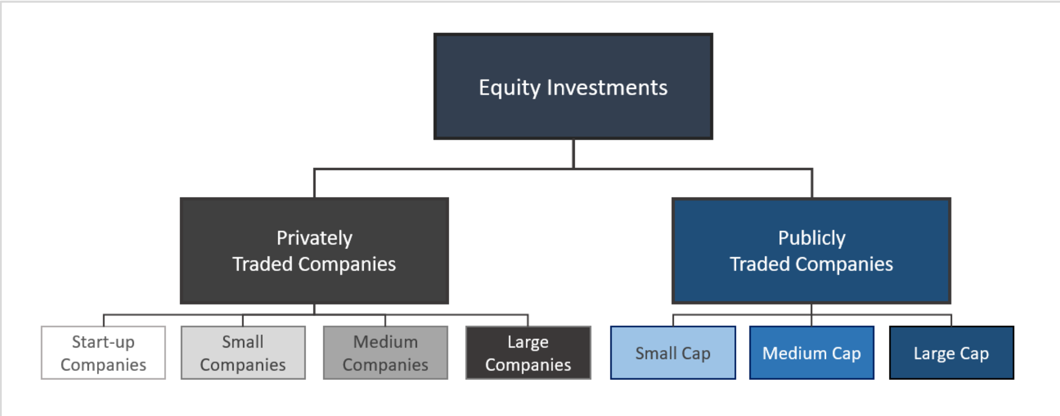

Figure 1: Subcategories of Equity Investments (Own illustration).

On the one hand, an investor can decide to invest in publicly traded companies. These are listed companies at stock exchanges with significant market capitalization. In most stock exchanges (e.g., NYSE and NASDAQ), companies are categorized as Small Cap, Medium Cap, and Large Cap companies, which are sub-categories for trading within the asset class. Standard and Poor's 500 (S&P 500), for instance, would represent an index of stocks based on market capitalization, which include the 500 largest companies in the U.S.A., based on market capitalization (Large Cap). Publicly traded markets are usually very liquid and the risk of bankruptcy of these companies will generally decrease with size as these companies tend to have very stable revenue streams and cash reserves. Medium Cap and especially Small Cap companies offer better growth rates to investors, but the trade-off involves higher volatility.

On the other hand, shares of privately traded companies are much harder to trade as these require private offerings. Private offerings usually include a period of due diligence before an investment is finally settled; this is why these markets tend not to be very liquid. In general, privately traded companies tend to be smaller in size and capitalization than publicly traded companies and will, therefore, include a higher risk of bankruptcy.

If a business angel or entrepreneur invests into a start-up, it could be categorized as an equity investment in a privately traded company, which is a special niche in this specific asset subcategory.

Considering these points, a founder has to be aware about the fact that he/she is investing his/her time and money into a very specific niche of equities that will typically show a very high risk profile in an illiquid market. This is not only important to the founder him-/herself, but this fact will also heavily impact the behavior of investors when it comes down to negotiations and financing.

How much capital, however, should an investor allocate to equity investments and particularly to start-ups? In general, there is a huge variety of portfolio strategies with different asset allocations. The more conservative these strategies are, the less portfolio capital is allocated to risky asset categories such as equities. The problem with conservative strategies is that they tend to invest the majority of the portfolio into fixed interest bonds, which have been giving low interest rates in the past years in the Western world. These low interest rates made returns from government and corporate bonds very unattractive to investors. To gain access to higher rates of return, investors had to accept asset categories that bore more risk. This is why a lot of portfolios have dedicated more capital to equities, where the majority of capital was invested into publicly traded companies. This led to a significant increase of stock markets in the recent years. Aside from the fact that most individual investors are advised to keep some cash reserves, investors will usually try to diversify even within this asset class of equities. An example of this would be to invest 50 per cent of a stock portfolio dedicated to Large Cap companies, 35 per cent to Medium Cap companies, and 15 per cent to Small Cap companies in the U.S.A. More global diversified stock portfolios could, for example, consider a variety of stocks from Europe, Japan, and emerging markets.

Based on this diversification approach, an interesting point of discussion is as follows: how much share of a portfolio will an investor allocate to start-ups?

A study about “Venture Capital and its Role in Strategic Asset Allocation” in *The Journal of Portfolio Management* concludes that an aggressive portfolio build up with 100 per cent equity could justify between 2 and 9 per cent allocated to venture capital for a minimum-variance portfolio. The analysis shows that there is actually a low correlation between equity invested in Large Cap companies from the S&P 500 and venture capital in the United States. The risk in venture capital is very investment-specific and usually independent of the performance of the stock market. More than 9 per cent allocated to venture capital would significantly increase variance (Chen, Baierl, and Kaplan 2002: 83–89).

This would mean that if an entrepreneur would like to act as an investor for consequently following his/her personal financial planning with a minimum variance portfolio approach, then, the founder should not commit more than 9 per cent of their private savings allocated to asset class equities for a new venture. From an investment point of view, 9 per cent allocation to venture or risk capital would still be considered aggressive investing.

As one result of this limitation of investing only up to 9 per cent of personal savings dedicated to equity investments in a new venture, most entrepreneurs would need to generate significant wealth before founding their first business. Entrepreneurship would tend to become an exclusive job alternative dedicated to wealthy people or high net individuals. Another approach could be to preselect and follow up on business ideas that will retrospectively fit into this limited budget and/or create a very lean and cheap start-up process. This would be a combination of entrepreneurial and personal financial concepts.

Alternatively, the founder could commit more than 9 per cent to a new start-up that would result in a higher variance of his personal savings. As a result, the entrepreneur could expect stages in life, where he/she might face problems due to personal illiquidity and stages in life of possessing great wealth. It seems significantly harder to follow up a personal financial plan with a higher variance approach that might not be compatible with other personal financial objectives in different stages of the entrepreneur's life. Therefore, this study is going to focus on the sources of capital that will allow founders to reduce investments from private savings into start-ups.

Based on these thoughts about investments, the next chapter will focus on the sources of capital that are available for entrepreneurs and the level of personal commitment that the sources require from the founder.

2.4 Sources of Capital

This chapter addresses debt and equity financing and is based on the book *Entrepreneurship: Starting, Developing and Managing a New Enterprise* (Hisrich, Peters, and Shepherd 2017: 290–311).

While debt financing will in general require the entrepreneur to provide securities, equity financing will need him/her to sell ownership of the company. As Hisrich, Peters, and Shepherd point out, debt finance will usually use certain assets (e.g., real estates, car, insurances) that are typically owned by the founder as collateral (Hisrich, Peters, and Shepherd 2017: 293). Risk asset-based financing leads lenders to attempt to minimize their own risk of not having their money returned by being able to sell all of the assets of the founder in worst case, if he/she is not able to pay back the loan as agreed. Decreasing the risk of the lender will increase the risk of the founder. As a result, founders should be interested in finding types of debt financing, where their assets are at minimum risk. In general, it is possible to secure loans against assets, which are owned by a newly founded business. Hisrich, Peters, and Shepherd, however, note that for cash preservation in the early stages of a start-up, assets should be rent, with an option to buy them at a later stage, if conditions are favorable (Hisrich, Peters, and Shepherd 2017: 294).

On the other hand, equity financing will not require any collateral, but funding ventures only with equities will result in the founder committing a significant part of his/her own private savings to a single business idea or selling a huge portion of ownership to an external investor. In consequence, a careful mix of debt and equity financing seems appropriate.

In the book *Entrepreneurship: Starting, Developing and Managing a New Enterprise*, a distinction is made between internal and external funds. External sources of financing shall be discussed in detail later within the chapter. Hisrich, Peters, and Shepherd, however, make it clear that there is huge scope for an entrepreneur to finance via internal funds. These internal funds require sales and profits, where financing can be generated through the reduction of working capital, well-negotiated payment terms with vendors, and fast cash collection from customers on the other side (Hisrich, Peters, and Shepherd 2017: 294). This type of financing through internal funds is definitely a smart low-risk approach to financing, where no assets or private savings of the entrepreneur are at risk. As this type of financing is based on customer sales, it will require developing a product or service that is ready for market entry, with a need for early-stage financing through external funds.

The following sources of financing are listed in *Entrepreneurship: Starting, Developing and Managing a New Enterprise*:

- personal funds,
- family and friends,
- supplier and trade credit,
- commercial banks,
- government programs,
- research and development limited partnerships,
- crowdfunding,

- private equity placements for individual private investors and private equity funds,
- venture capital, and
- public equity offerings.

Hisrich, Peters, and Shepherd provide guidance on all of these sources by evaluating the duration, cost, and control aspects (Hisrich, Peters, and Shepherd 2017: 295). While these are very important factors, the main concern of this paper is to focus on the personal financial risk of the entrepreneur who comes with each of these sources. Therefore, it is useful to discuss the following sources of financing within the chapter:

<u>Personal Funds</u>

Personal funds are the total sum of personal savings in cash as well as other personal assets (e.g., real estates, cars, insurances) that an entrepreneur could commit to a new business idea, which are suitable for attracting capital from outside the company and these funds are very cheap (Hisrich, Peters, and Shepherd 2017: 295). According to *Entrepreneurship: Starting, Developing and Managing a New Enterprise:*

> "Entrepreneurs should always remember that it is not the amount of the capital but rather the fact that all monies available are committed that makes outside investors feel comfortable with their commitment level and therefore more willing to invest, in most countries" (Hisrich, Peters, and Shepherd 2017: 295).

In terms of personal risk assessment, this approach indicates that the entrepreneur has to be willing to lose everything to make the external investors[2] feel comfortable about the commitment of the founders to the new venture. This high commitment level will result in the fact that the founder

[2] "External investors" here refer to banks, private investors, and venture capitalists (Hisrich, Peters, and Shepherd 2017: 294).

would lose up to 100 per cent of personal funds if he/she retreats from the company or if the business idea fails. As discussed in the previous sections based on the article “How Venture Capitalists Work”, the probability of success with a new venture is expected to be only around 17 per cent (Zider 1998: 136).

When we accept total personal financial commitment, we are accepting to leverage the business risk of failing with a new venture (83%) with the personal risk of losing up to everything that we own (up to 100 per cent).

While being committed to a new business idea as an entrepreneur is very important, the founder has to understand the fact that a 100 per cent commitment is the best possible guarantee for commitment to external investors; it is, however, the worst personal position to be in as a founder. There might be several cases where a retreat from a business idea that did not work out seems like the best available option for the founder. It is very questionable whether a 100 per cent commitment would leave us with that option. If the entrepreneur sticks to a business idea that does not work out even after he/she had tried everything to make it possible, how would the founder finance the next business idea, when he/she has lost a significant portion of private funds? This approach seems more like a one-time chance for the entrepreneur to start a venture. If that goes wrong, it leaves him/her with no option other than going back to regular employment.

Another way of framing it would be as follows: if entrepreneurs are encouraged to take risks, to face uncertainty, and to learn from failures, then, a founder should be ready for more than one opportunity.

Therefore, from a risk assessment perspective, a 100 per cent commitment of personal funds to a single business venture does seem reasonable for an entrepreneur if he/she does not have any personal funds in first place. In such a situation, it would be very questionable if this commitment would have any value for outside investors. Another reason for this level of commitment would be if other sources of external capital are too expensive for a business idea to provide a reasonable return of investment.

A high-level of personal financial commitment is essential when entrepreneurs are trying to attract capital from external investors, such as banks, business angels, and venture capitalists (Hisrich, Peters, and Shepherd 2017: 294).

In order to build up trust between the entrepreneur and the categories of critical investors, seeing financial commitment from the entrepreneur appears to be a typical phenomenon. The following questions appear to be of interest: How can an entrepreneur build trust with their investors without full personal financial commitment? Will the opportunity costs of an entrepreneur when he/she quits his/her job to start a new venture with 100 per cent working time running into that business, account as commitment to external investors? How do employees build trust with their employers without personal being financially committed? Which external sources of capital do not require a lot of personal commitment?

I have tried to set out certain reasons behind why this paper will suggest other external financing types with lower financial risks for the entrepreneur.

Family and Friends

It might be tempting to consider external capital from family and friends as low-cost capital as they may not negotiate like venture capitalists do. They should, however, be treated with the same terms and conditions like other external investors to avoid trouble at a later stage. Written contracts should settle these terms and conditions (Hisrich, Peters, and Shepherd 2017: 295–297).

From a risk assessment perspective, this external source of capital seems to be far more suitable than the personal funds of entrepreneurs.

Assuming a good personal relationship between the entrepreneur and his/her family and/or friends, we can safely assume adequate trust from both sides to consider an investment in a new venture, even when the entrepreneur is not 100 per cent financially involved from his/her side. Having said that, however, it is important that every investor remains aware of the risks involved while investing in a start-up business.

I began this paper by suggesting that an entrepreneur should not invest all of his/her total personal funds into a new venture based on the risks involved. As family and friend relationships add a significant value to most people's lives, it would be unethical to source 100 per cent of their capital. Even if these parties are willing to spend all their money for the entrepreneurs' venture, the founder should handle their capital in the same respectful way as he/she manages his/her own.

Supplier and Trade Credit

Supplier and trade credits can be used as a form of short-term financing in most cases through the negotiation of payment terms. Such financing is particularly effective if the entrepreneur succeeds in fast cash collection from his/her customers (Hisrich, Peters, and Shepherd 2017: 294). This makes a lot of sense from a risk point of view. Vendors will check the creditability of their customers before granting supplier credits, but they will usually not require the personal liability of the founder.

Commercial Banks

Hisrich, Peters, and Shepherd suggest different types of debt financing options that are available through commercial banks, which usually require assets as securities. One method involves the use of the assets of the company as collateral, for example, in the account receivable loan, which is also known as "factoring", where a commercial bank could fund up to 80 per cent of the accounts receivable of the company when the customers of the company have a valid credit ranking. Inventory and equipment loans provide funds from 50–80 per cent of the inventory on the stock or on the equipment of the company, if these assets can be easily sold. If the company owns real estate, then, it can be used up to 75 per cent of its value for funding.

Another method for particularly mature companies with strong liquidity involves cash flow financing via installment, straight commercial, or long-term loan. Installment and straight commercial loans tend to be short-term loans from 30–90 days for covering the working capital. Long-term loans of up to 10 years are usually only available for large companies.

Character loans require a personal guarantee, which could be given by the entrepreneur if he/she owns personal assets outside the company or from a third person as a guarantor. In general, the bank's lending decisions, especially for financing new business ventures, will be based on character, capacity, capital, collateral, and conditions. The business plan is expected to be carefully reviewed by a loan officer of the commercial bank (Hisrich, Peters, and Shepherd 2017: 297–299).

With regard to risk assessment, accounts receivable loans, inventory, equipment loans, and cash flow financing seem to provide low private risk for the entrepreneur. Similar to internal financing, it is seems more likely for the entrepreneur to receive these types of funding at later stage when the first customer sales have been generated. Character loans impose the full personal risk on the entrepreneur or friends and family, if they agree to cosign a loan. In other words, conventional bank loans do not really sound attractive to entrepreneurs at an early stage.

> "In extremely rare instances, the entrepreneur can obtain money on an unsecured basis for a short time when a high credit standing has been established" (Hisrich, Peters, and Shepherd 2017: 299).

In this case, the question of how to establish a high credit standing at your commercial bank. In general, such credit standing will require regular above-average incoming payments on a customer's bank account and high values of assets, which are traceable for the bank. If a bank customer has previously repaid a loan before at the bank, then, there should be a track record of repayment without any delays. To make sure that an entrepreneur fully understands his/her credit rating at commercial banks, the founder should contact loan officers a long time before a loan is actually required. Therefore, he/she should regularly send information to the bank to build up a professional relationship with loan officers on the one hand and to build up a personal track record on the other. This should maximize the chances of getting the best terms and conditions on loans at commercial banks.

Role of Small Business Administrations in Small-business Financing

As mentioned in the previous section, it is often very difficult for entrepreneurs to back up securities in order to receive a loan from commercial banks. Therefore, in some countries there are small business administrations (SBA) that guarantee a loan for the entrepreneur at a commercial bank. There are special SBA programs, for example, the Basic 7(a) or the 504 loan program for financing specific needs (like machinery) in the U.S.A. for financing up to around USD 5 million. Based on the program, the SBA will guarantee from 75 to 85 per cent of the loan. Nevertheless, all business owners with more than 20 per cent ownership have to provide a personal guarantee (Hisrich, Peters, and Shepherd 2017: 300).

In Austria, there are very similar services provided by the federal promotional services called "Austria Wirtschaftsservice" (AWS). In cooperation with the European Investment Fund (EIF), AWS provides an innovation and growth program for small and medium enterprises, where 80 per cent of the security collateral is to be guaranteed by the AWS up to a maximum of EUR 25 million. Once again, in this program, business owners have to sign a personal guarantee for this loan and they have to provide securities for 20 per cent of the loan, which is not covered by AWS (Austria Wirtschaftsservice 2018a: 1–3).

Another interesting program that is provided by the AWS is the Double Equity program, in which the AWS guarantees 80 per cent of a loan, which will double the existing equity within the entrepreneur’s company up to EUR 2.5 million. All types of equity financing, including crowd-investing as well as other external and internal funds, qualify as equity that can be doubled by the AWS. In this case, no personal guarantee from the founder is required (Austria Wirtschaftsservice 2018b: 1–3).

As observable, there are different programs from the SBAs in the United States of America as well as in Austria, which allow entrepreneurs to take up loans from commercial banks that they would not receive without the guarantee of the SBA. Nevertheless, SBAs usually require a personal guarantee from the founders that will effectively convert the loan into a character loan. This means that if the business idea fails, the founders will be at risk of losing 100 per cent of their personal funds. When these personal funds are inadequate for fulfilling the liabilities of the loan, the SBAs can guarantee loan repayments of up to 80 per cent. This will generally decrease the risk of the bank. The entrepreneurs, therefore, receive a loan that he/she would not be able to get without an SBA. As a consequence, an SBA guarantee will allow a founder to leverage his equity to its maximum potential, but it will not reduce the personal financial risk of the entrepreneur. Nevertheless, this leverage will maximize the returns on equity if the new business is successful.

The Double Equity program provided by the AWS does not seem to be suitable for the early stages of a start-up when the equity tends to be small. However, in the middle or the late stage of a start-up, when the entrepreneur has successfully built up equity, the Double Equity program could be a smart way to take up a loan without significantly increasing the founder’s risk of losing private funds.

Research and Development Limited Partnerships

For business ideas that require an intensive development stage, a research and development limited partnership (R&D limited partnership) could be established, which will include a sponsoring company, a limited partnership, and a contract between these entities. The limited partnership will provide funds, while the sponsoring company will develop the product or technology until it is ready for market entry. After the development stage has been completed, the entities will agree on a way to share profits, which could result in founding additional companies or joint ventures. In certain countries, an R&D limited partnership will provide tax benefits; this allows the entrepreneur to receive funding with reduced risk and little dilution of equity; in general, however, founding these entities takes some time and is very cost-intensive (Hisrich, Peters, and Shepherd 2017: 301–302).

As R&D limited partnerships almost always involve a large amount of money in the research and development section, it is usually agreed on in terms of equity between the partners and the founder of the business. Both parties require a significant amount of capital. However, if they agree on a loan in terms of debt that is granted from the limited partnership to the sponsoring company, then, personal guarantees of the founder are usually required.

Government Grants

As mentioned in the book *Entrepreneurship: Starting, Developing and Managing a New Enterprise*, there are two major government grant programs in the United States of America, which are The Small Business Innovation Research (SBIR) and The Small Business Technology Transfer (STTR) program. Both programs not only include tax benefits but also money that is granted to a small business, which does not to have be paid back.

The SBIR is granted by the twelve federal agencies, where each one describes a research topic that will qualify for the program; usually, this addresses technology-based businesses. Small business are allowed to apply to this program. If they are accepted, they can receive up to USD 100,000 for the first phase, which is dedicated to research. If the research phase is successful, then, up to USD 750,000 of federal funding for development could be granted in the second phase. Market entry and generating sales, which are supposed to happen in the third phase, have to be funded via the private sector.

The STTR has to be launched in addition to the SBIR by federal agencies, with a significant federal budgets above USD 1 billion. While the stage financing is very similar to the SBIR, 30 per cent of the research has to be performed via a partnering U.S. research institution.

In both program types, the entrepreneur has to show commitment to the government, but there is no fixed amount that he/she needs to bring from the founder’s private savings. In the SBIR program, more than 50 percent of the founder’s time has to be dedicated to the business. Both programs required the small businesses to be located within the U.S. and more than 51 percent of the company to be owned by citizens or permanent resident aliens of the U.S. (Hisrich, Peters, and Shepherd 2017: 303–305).

In Austria and Germany, in particular, there are very special loan types that are based on the funds of the European Recovery Program (ERP), the so-called “Marshall Plan”, which was historically designed to rebuild Europe after World War II. In Austria, these loans, which are offered with very good conditions, have to be approved by Austria Wirtschaftsservice (AWS). Volumes of these loans, ranging from EUR 10,000 up to EUR 30 million and fixed interest rates are as low as 0.5–0.75 per cent depending on the type of ERP loan, will usually specialize on growth, innovation, and diversity. In addition to that, a period of no repayment of the principal can be negotiated. A partner bank is required for issuing the loan if it finally gets granted by the AWS. This type of loan has to be secured by the bank and/or it could be combined with a security collateral, which is going to be guaranteed by the AWS as mentioned in the previous sections. Both the partner bank and AWS will usually require full personal liability of the founder for granting an ERP-loan (Austria Wirtschaftsservice 2018c).

Important national funding agencies in Austria are the Austrian Research Promotion Agency (FFG) and the Vienna Business Agency, which regularly call for funding proposals that usually address research and development, or specific innovation or technology topics. These grant programs provide a certain amount of funds in different financing stages to the founders, which need not be paid back. These grants provide a certain share of funding for the new venture up to 100 per cent depending on the program. If the share of the grants cover, for example, 80 per cent, then, 20 per cent of the funds have to be provided by the founder. Usually, this 20 per cent need not to be covered by the personal funds of the founder. Instead of funds, the founders could bring in personal time commitments, which will be accounted for by the government.

In addition, these grants agencies as well as the Austrian Economic Chamber provide several start-up consulting services to the founders for free.

<u>Bootstrap Financing</u>

The idea of bootstrap financing is to preserve cash whenever possible. There are several tactics of bootstrapping, such as asking vendors for discounts, making use of suppliers, trade credits as well as consignment stock, and by not hiring employees but outsourcing activities instead. The focus on the revenue side is on early entry into the market for generating cash flow as soon as possible before large investments are made. Bootstrap financing is very effective in the early stage, when external capital is not available or is too expensive (Hisrich, Peters, and Shepherd 2017: 307–308).

According to Freear, Sohl, and Wetzel, bootstrap financing allows the entrepreneur to avoid the traditional sources of capital through creative and effective resource management (Freear, Sohl, and Wetzel 1995: 102).

Howard Van Auken performed a study, which was published in *Journal of Small Business Management* in 2005, about the importance of 28 different bootstrap financing methods for technology-based firms and nontechnology based firms. The difference that Van Auken makes between these types is that technology-based firms will usually include greater risk because of intensive product development and longer lead time to the market in comparison to nontechnology-based firms. Thus, lenders often avoid technology-based companies due to the aforementioned risk; equity investors, however, are usually attracted due to the growth potential that these companies will usually provide. On the other hand, nontechnology-based firms more often attract lenders rather than equity investors. As a result, different sources of capital are available in the market for these types of companies. Nevertheless, both company types can apply the following 28 methods of bootstrap (Van Auken, Howard 2005:93-103). These methods have been assigned to bootstrap categories established by Windborg and Landström (2000):

Bootstrap Category	**Bootstrap Method**
Delaying Payments	Lease Rather than Purchase Equipment
	Deliberately Delay Payments to Suppliers
	Delay Tax Payments
Minimizing Accounts Receivable	Cease Business with Late Payers
	Offer Same Terms to All Customers
	Speed Up Invoicing
	Obtain Advance Payments from Customers

	Charge Interest on Overdue Accounts
	Choose Customers Who Pay Quickly
	Factor Accounts Receivable
Minimizing Investment	Negotiate Best Payment Terms with Suppliers
	Buy Used Equipment
	Use Routines to Minimize Capital Investment
	Hire Temporary Personnel
	Offer Cash Discounts
Private Owner-Financing	Use Personal Credit Cards
	Withhold Salary When Necessary
	Rely on Income from Outside Employment
	Obtain Loans from Friends/Relatives
	Employ Friends/Relatives at Below-Market Salaries
	Run Business from Home
Sharing Resources with Other Businesses	Coordinate Purchases with Other Firms
	Borrow Equipment
	Buy on Consignment from Suppliers
	Share Employees with Other Businesses
	Barter
	Share Equipment with Other Businesses
	Share Office Space

Table 2: Bootstrap Financing Categories as established by Winborg and Landström (2000)

Source: Adapted from Van Auken (2005: 96).

Based on the study by Van Aucken, a ranking scale for these alternative financing methods was established.

Bootstrap Method	Ranked by Technology-based Firms	Ranked by Nontechnology-based Firms
Lease rather than Purchase Equipment	7	4
Deliberately Delay Payments to Suppliers	9	11
Delay Tax Payments	27	26
Cease Business with Late Payers	6	10

Offer Same Terms to All Customers	**2**	**2**
Speed Up Invoicing	**5**	**3**
Obtain Advance Payments from Customers	10	9
Charge Interest on Overdue Accounts	13	24
Choose Customers Who Pay Quickly	14	13
Factor Accounts Receivable	28	28
Negotiate Best Payment Terms with Suppliers	**1**	**1**
Buy Used Equipment	3	8
Use Routines to Minimize Capital Investment	4	7
Hire Temporary Personnel	10	6
Offer Cash Discounts	17	18
Use Personal Credit Cards	8	4
Withhold Salary When Necessary	12	15
Rely on Income from Outside Employment	18	16
Obtain Loans from Friends/Relatives	25	25
Employ Friends/Relatives at Below-Market Salaries	20	21
Run Business from Home	23	21
Coordinate Purchases with Other Firms	16	18
Borrow Equipment	22	12
Buy on Consignment from Suppliers	19	21
Share Employees with Other Businesses	25	20
Barter	15	27
Share Equipment with Other Businesses	24	17
Share Office Space	21	14

Table 3: Rankings of Alternative Financing Methods

Source: Based on data from Van Auken (2005: 100).

As concluded from the work of Van Aucken, technology-based firms consider measures to reduce accounts receivable as more important, while nontechnology-based firms prefer methods that suggest delaying payments. Nevertheless, they both agree that "Negotiate Best Payment

Terms with Suppliers", "Offer Same Terms to All Customers", and "Speed Up Invoicing" are significantly important (Van Auken and Howard 2005: 99–100).

From the perspective of personal risk for the business founder, bootstrap financing is the perfect strategy which, if well executed, will allow operation due to these alternative financing methods, which run independently from traditional sources of capital. None of the 28 bootstrap method studies by Van Aucken will significantly increase the personal financial risk of the founder.

Private Investors (Angels)

If entrepreneurs acquire external funds through private investors, they need to manage these private offerings. In comparison to public offerings that address experienced as well as inexperienced investors, private offerings usually only address experienced investors. This will reduce the number of investors that qualify.

In the United States of America, laws for private offerings are provided in Regulation D with very specific rules. Files are registered at the Securities and Exchange Commission (SEC) and the violation of rules could result in the corporate and personal liability of the founder (Hisrich, Peters, and Shepherd 2017: 305–306). According to these rules, "accredited investors" include

> "(1) Institutional investors, like banks, insurance companies, investment companies, employee benefit plans containing over $ 5 million in assets, tax exempt organizations with endowment funds of over $25 million, and private business development companies; (2) investors who purchase over $150,000 of the issuer's securities; (3) investors whose net worth is $1 million or more at the time of sale; (4) investors with incomes in excess of $200,000 in each of the last two years; and (5) directors, executive officers, and general partners of the issuing company" (Hisrich, Peters, and Shepherd 2017: 307).

In other words, this rule addresses institutional investors and so-called high net-worth individuals. In the private equity market, these high net-worth individuals are called "business angels" and they are able to provide informal risk-capital usually ranging from USD 10,000 to USD 500,000. They expect a risk/reward ratio of 3–10 times of their investment based on the stage of the development of the business idea and the start-up. Usually, they consider an investment when a proof of concept of the business idea is successful and a prototype has been developed. Sometimes, business angels form groups for investing as business angel funds (Hisrich, Peters, and Shepherd 2017: 316–323).

As business angels usually expect to see a very high commitment of the founders before investing their money, we will assume that up to 100 per cent of the private savings of the founder is required to fulfill their commitment.

Crowdfunding

According to the book *A Framework for European Crowdfunding*, there are three actors that are typically present for crowdfunding; these are project owners, funders, and a crowdfunding platform for serving the owners and funders as a market place. In general, there are four different types of crowdfunding:

- donation-based crowdfunding,
- rewards-based crowdfunding,
- lending-based crowdfunding, and
- equity-based crowdfunding.

Equity-based crowdfunding allows investors to exchange money for shares in the company that is doing the crowdfunding. Lending-based crowdfunding often grants a fixed or variable interest rate on the investors' capital and it is debt-based. Rewards-based crowdfunding compensates investors with small presents or goodies. Donation-based crowdfunding does not reward the investor at all—at least not at that point in time. Every type of crowdfunding allows investors to perform microfinancing, i.e., assist with very small investment amounts, which does not, therefore, simply address high-net-worth individuals. While crowdfunding comes with certain challenges such as potential fraud, setting valuations, post-investment communication, reliability of data, risk mitigation, operational risks, and certain conflicts of interests, there are several benefits for entrepreneurs as well as small and medium enterprises. As an additional source of seed capital aside from family and friends, crowdfunding provides risk-diversification and leverage during early-stage financing, when other sources of capital are very likely to fail (De Buysere et al. 2012: 10–19).

In the United States of America, crowdfunding was made possible through the Jumpstart Our Business Startups (JOBS) Act, which was signed by Barack Obama in 2010. Owing to this bending of rules with regard to private offerings, it was possible for entrepreneurs to raise capital via different crowdfunding websites. As recommended in *Entrepreneurship: Starting, Developing and Managing a New Enterprise*, entrepreneurs should still expect legal fees up to USD 30,000 for a private placement memorandum (PPM) while raising funds in exchange for equity due to the unclear legal situation in the United States when it comes to crowdfunding (Hisrich, Peters, and Shepherd 2017: 323–324).

Since the implementation of the so-called Alternative Financing Act (AltFG) in Austria in 2015, it is possible to raise capital via crowdfunding up to a total of EUR 5 million per company. Each private investor is allowed to spend up to EUR 5,000 per investment. This regulation was made for protecting unsophisticated investors from losing more than EUR 5,000.

Owing this regulation, which leads to a large diversification of risk that is spread to multiple small investors, where no lender could lose more than EUR 5,000, no additional securities are required from the founders of a new venture. Nevertheless, a crowdfunding campaign has to be approved by the crowdfunding platform where it is launched. Based on the creditability of the founders and the business plan, a platform will decide whether the campaign is worth the risk and gets offered to a pool of small investors.

Certain platforms accept the launch of a campaign for start-ups at the seed and the early stage, where no customer sales have been generated; other platforms decline to host a campaign until a start-up's first sales have been generated. To launch a crowdfunding campaign, these platforms will charge a one-time fee of usually between 12 and 20 per cent of the funds raised and a yearly administration fee of about 2 per cent. In addition to that the crowd will expect to receive a fixed interest rate of 5–10 per cent and/or combined with a bonus on profits and the exit of the founders. In general, crowdfunding campaigns are hosted for funding limits of EUR 100,000 and above, and they usually have durations between 2.5 and 8 years.

Venture Capital

As mentioned in *Entrepreneurship: Starting, Developing and Managing a New Enterprise*, *a* venture capitalist firm will professionally manage a portfolio of equity investments, with a focus on capital growth through the optimization of return on investment (ROI) for the wealth creation of its customers. As a compensation, a venture capitalist will charge a fixed management fee as well as a variable fee on capital gains.

For creating the best possible the ROI, a venture capitalist will focus on the growth sectors of industry and will select companies with the greatest potential for success for his/her investment portfolio. Based on the high risk of early-stage investments in start-ups, the venture capitalist will usually accept the majority of deals in late-stage financing and expect an ROI of about 30 per cent. Nevertheless, investments in the early and second stage are generally possible, but the ROI is expected to be significantly higher at about 40–50 per cent. The investment period will usually last between 5 and 7 years, and it is expected to end with a sale of the company (e.g., with an initial public offering).

Venture capitalists are going to perform a rough preliminary screening of investment opportunities and they will very carefully evaluate preselected investments based on the following factors of evaluation:

- nature and history of the business,
- analysis of financial data,
- book value/net value,
- future earning capacity ,
- dividend-paying capacity,
- assessment of any previous sale of equity, and
- analysis of market price of similar companies.

Based on these factors, different valuation approaches can be applied, such as the method of assessing market value of similar companies in similar industries, the present value of the future cash flow method, and the replacement value approach or the book value method.

When this due diligence has met the venture capitalist's expectations then a deal structure has to reflect the rate, timing, and form of return as well as the amount of control required. Usually, a venture capitalist will claim at least a board seat. If the entrepreneur's and the venture capitalist's requirements are met, a final approval will settle the deal (Hisrich, Peters, and Shepherd 2017: 324–343).

Similar to business angels, venture capitalists expect to see the full commitment of the founders before investing their money. We will assume that up 100 per cent of private savings of the founder are required for showing this level of commitment.

<u>Public Equity Offerings.</u>

Hisrich, Peters, and Shepherd argue that on the one hand, the most valuable arguments for offering the stocks of a company to the public are that it will bring in new equity capital, which will lead to an increase in the company's valuation and will, therefore, maximize the ability of raising funds in the future. This is particularly true for debts, where additional capital will provide additional security to the lenders. On the other hand, an initial public offering (IPO) will require the company to increase its administrative activities for fulfilling the legal communication and reporting requirements according to the huge number of stockholders and this will mean a significant loss of control for the founders as these stockholders will usually gain voting rights in annual stockholder meetings. Going public will require a registration statement filed at the office of the local authorities of a country and it will have to follow a specific prospectus directive, which should guarantee the proper publication of the required information to its shareholders. In the United States of America, such public transactions have to be registered at the Securities and Exchange Commission (SEC), while the listing of stocks has to be separately settled at a stock exchange such as NYSE or NASDAQ. These stock exchange listings once again provide certain standards and requirements, such as minimum market capitalization, with a value of at least USD 20 million initially issued to the public. If the founders would like to stay in control with 60 per cent ownership in terms of shares, then, this would require the company to be evaluated at a total market value of USD 50 million. Therefore, the entrepreneur has to evaluate the company's size, future earnings, and the needs of liquidity before deciding to go public (Hisrich, Peters, and Shepherd 2017: 343–350).

In the Austrian market, IPO processing could be done via the Vienna Stock Exchange. According to the key questions related to the initial public offering on the website of the Vienna Stock Exchange, the listing prospectus has to be approved by the Austrian Financial Market Authority (FMA). One admission criteria at the Vienna Stock Exchange is a minimum share capital of EUR 1 million, which has to be issued to the public. The Oesterreichische Kontrollbank AG will serve as the Central Security Depository (Wiener Börse AG 2018).

In comparison to the Vienna Stock Exchange, there are other European stock exchanges with a higher amount of IPOs processed per year and a higher volume of financial transactions (e.g., Frankfurt Stock Exchange). In general, the entrepreneur is free to choose where to list his/her company's stocks and he/she should evaluate different stock exchanges in different countries.

According to the publication *Which market? A guide to selecting an equity listing market across Europe* from PricewaterhouseCoopers (2008), regulations differ from one European country to another; this makes it difficult to compare different regulations. However, when it comes to minimum requirement of market value, then, we can see the following numbers:

Country	Minimum Market Value
Belgium	EUR 5 million
Cyprus	EUR 15.4 million
Denmark	EUR 1 million
Finland	EUR 1 million
France	EUR 5 million
Germany	EUR 1.25 million
Italy	EUR 1 million up to EUR 1,000 million (for Blue Chips)
Luxembourg	EUR 1 million
The Netherlands	No requirements
Norway	EUR 37 million
Poland	EUR 5 million
Spain	EUR 6 million
Sweden	EUR 1 million
Switzerland	EUR 15.9 million (CHF 25 Mio.)
United Kingdom	about EUR 900,000 (GBP 700,000)

Table 4: Minimum Market Value for IPO in European countries.

Source: Adapted from PricewaterhouseCoopers (2008: 1–60).

As observable, there is a wide range of minimum market value requirements in terms of an IPO in Europe. This is also true for the other admission criteria (e.g., share value issued to the public), which depends on the regulations of the countries in which the stock exchange that has been selected by the entrepreneur for the IPO is located. Nevertheless, there are several soft factors that need to be considered in the specific countries, such as the political situation, preference, and location of shareholders, business requirements and environment, legal regulations, and tax strategies (PricewaterhouseCoopers 2008: 1–60).

2.5 Stages of Funding

Different types of funding, as discussed in the previous chapters, typically apply to different stages of the company's development. According to Hisrich, Peters, and Shepherd the basic financing types for business development funding are early-stage financing, expansion or development financing, and acquisition or development financing.

Early Stage Financing		
Stage	**Financing Purpose**	**Source of Capital**
Seed capital	Small amounts for the proof of concepts and feasibility studies	Personal savings, family and friends, Bootstrap financing (including supplier and trade credits), character loans, loans with SBA guarantee, government grants, crowdfunding, venture capitalists for high-tech start-ups
Start-up	Product development and initial marketing, no sales yet, getting operations started	Personal savings, family and friends, Bootstrap financing (including supplier and trade credits), character loans, loans with SBA guarantee, R&D limited partnership, government grants, crowdfunding, business angels, venture capitalists for high-tech start-ups
Expansion or Development Financing		
Stage	**Financing Purpose**	**Source of Capital**
Second Stage	Working capital for initial growth, no profits and no cash flow yet	Bootstrap financing (including supplier and trade credits), loans with SBA guarantee, R&D limited partnership, government grants, crowdfunding, business angels, accounts receivable

		loans, inventory and equipment loans, venture capitalists
Third Stage	Major expansion, rapid sales growth, breakeven or positive cash flow, company is still private	Bootstrap financing (including supplier and trade credits), crowdfunding, business angels, venture capitalists, accounts receivable loans, inventory and equipment loans, cash flow financing
Fourth Stage	Bridge financing to get ready for the IPO	IPO, cash flow financing
Acquisition and Leveraged Buyout Financing		
Stage	**Financing Purpose**	**Source of Capital**
Traditional Acquisitions	Ownership and control of another company through acquisition	Acquiring company
Leveraged buyouts	Management buys out the present owners	Management of the company
Going Private	Outstanding stocks are bought by a few owners, making the company private again	New business owners

Table 5: Stages of Business Development Funding.

Source: Adapted from Hisrich, Peters, and Shepherd (2017: 317).

The early stage will include a seed capital stage and a start-up stage. In the seed stage, a proof of concept or a feasibility study should be completed. As there is typically only a business idea and no assets of the company, it is very difficult to attract external capital. In the start-up phase, product development should be completed and the operations are getting started; there is no customer sales up to this point. Typically, business angels are heavily engaged in this stage of a business. Expansion and development financing will start with the second stage, where the first customer sales are generated. Financing is primarily needed for working capital and initial growth. This is usually the stage where venture capitalists can be considered as source of capital. In high-technology startups with large investments required in the early stage of the financing venture, capitalists might be attracted sooner. In the third stage, profitability of the company should be realized and financing is required for major growth. In the fourth stage, financing should address the launching and preparation of an IPO (Hisrich, Peters, and Shepherd 2017: 316–317).

As the risk of failing with a new business is significantly higher in the early stages rather than in the late stages, this paper is going to focus on reducing the risk of entrepreneurs in the early stage; expansion or development financing as well as the acquisition and leveraged buyout financing will not be addressed as they will specifically deal with company acquisitions, management buyouts, and the stock majority of owners, which will make the company private once again (Hisrich, Peters, and Shepherd 2017: 317).

2.6 Personal Liability

As we have dealt with sources of capital as well as with stages of funding in the previous sections, we are going to assess the risks of these sources of capital in these different stages according to the personal financial planning of the entrepreneur. As the personal financial plan will usually include the accumulation of assets during the different stages of the entrepreneur's life in order to reach his/her personal financial objectives, it seems rational to avoid sources of capital with unlimited personal liability. Unlimited personal liability will always mean a serious risk for our private funds and, therefore, for our strategic financial long-term objectives. In the following section, we are going to qualify each capital source according to personal liability. Personal liability, in these terms, will be defined as the maximum share of personal funds that the founder has to commit or provide as security for getting access to the source of capital. There are certain legal liabilities for founders, such as the liability to correctly declare and pay taxes or to provide correct balance sheets and statements, which cannot be excluded. These legal liabilities are not the object of this study. As requirements towards personal liability, which are connected to the sources of capital, will depend on several factors (e.g., the destination country), the qualification will be assigned based on liability categories. These categories are going to be defined as “low personal liability”, ranging from 0–50 per cent liability and “high personal liability”, ranging from 51–100 per cent. This qualification might not be perfect, but it should give us a rough indication of more risky and less risky sources of capital from the perspective of the founder of a new business:

Early Stage Financing		
Stage	**Sources of Capital**	**Personal Liability**
Seed capital	Personal savings	High
	Family and friends	Low
	Bootstrap financing	Low
	Character loans	High
	Loans with SBA guarantee	High
	Government grants	Low
	Crowdfunding	Low
	Venture capitalists for high-tech start-ups	High
Start-up	Personal savings	High
	Family and friends	Low
	Bootstrap financing	Low
	Character loans	High
	Loans with SBA guarantee	High
	R&D limited partnership	High
	Government grants	Low
	Crowdfunding	Low
	Business angels	High
	Venture capitalists for high-tech start-ups	High
Expansion or Development Financing		
Stage	**Source of Capital**	**Personal Liability**
Second Stage	Personal savings	High
	Family and friends	Low
	Bootstrap financing	Low
	Loans with SBA guarantee	High
	R&D limited partnership	High

	Government grants	Low
	Crowdfunding	Low
	Business angels	High
	Accounts receivable loans	Low[3]
	Inventory and equipment loans	Low[4]
	Venture capitalists	High
Third Stage	Bootstrap financing	Low
	Crowdfunding	Low
	Business angels	High
	Venture capitalists	High
	Accounts receivable loans	Low
	Inventory and equipment loans	Low
	Cash flow financing	Low [5]
Fourth Stage	Supplier and trade credits	Low
	Cash flow financing	Low
	IPO	Low

Table 6: Sources of Capital and Personal liability.

Source: Adapted from Hisrich, Peters, and Shepherd (2017: 317).

According to the assignment of Personal Liability in Table 6, this section should provide a path through the stages of financing as established by Hisrich, Peters, and Shepherd, with the lowest risk for the personal savings of the founder.

Starting with the seed capital stage, we are first going to differentiate the capital sources of personal savings and bootstrap financing. According to the 28 most important bootstrap financing methods as described by Van Auken in the previous chapter, the entrepreneur will not hesitate in using an income from outside the company to bootstrap if he/she is building the company alongside a regular job. Bootstrap financing, in this section, will be understood as using these 28 alternative financing methods, including the income of the founder from outside the company—but not by using his/her existing personal savings and personal funds (e.g., house, car, insurances)

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[3] Assuming that the accounts receivable are large enough in size to cover a loan.
[4] Assuming that the assets are large enough in size to cover a loan.
[5] Assuming that the assets of the company are large enough in size to cover a loan.

for building the business or as securities. In addition, bootstrap financing will include supplier and trade credits. As a result, using personal savings for building a business in the seed stage will put assets of personal funds at high risk; using the bootstrap financing method will instead dramatically reduce the risk of personal savings and personal liability. In combination with bootstrap financing, family and friends could be lenders who pose a low risk to the founder's private savings. Most government grants, SBAs, and a lot of crowdfunding platforms will only grant access to funds or grants when a prototype has been successfully developed. This is usually not the case at the seed stage. Nevertheless, there are some platforms that accept launching an equity-, debt-, or donation-based crowdfunding campaign at this risky stage. All the other sources of capital can only be accessed with up to full personal liability of the founder at this stage.

At the start-up stage, when a prototype or proof of concept has been finished, access to more government grants and crowdfunding platforms should be possible. Of course, family and friends as well as bootstrap financing are still very attractive options similar to the seed stage. Even when business angels are typical sources of capital at this stage, they will usually require full personal commitment in terms of personal liability. As a result, all the other sources of capital can only be accessed with up to the full personal liability of the founder at this stage. When the entrepreneur enters the second stage and first customer sales are realized, then, he/she can add sources of capital such as accounts receivable loans, and inventory and equipment loans without adding personal liability. In the third stage, methods of bootstrap financing might change, focusing more on supplier and trade credits than on the income of the founders from outside the company. As cash flow is expected to be positive at this stage, we can add cash flow financing without increasing the personal liability. The sources of capital personal savings, and family and friends have been excluded from third stage onwards as the company will require significantly more funds than these sources could usually provide.

At the fourth stage, the creditability of the company will usually be adequately high to get access to all the types of commercial loans, without the need of securities from the founder. Bootstrap financing might be reduced to supplier and trade credits owing to the fact that access to capital has significantly increased. As this stage will usually approach an IPO, the personal liability of the founder is considerably low in comparison to the early stages. In the later stages, access to the sources of capital will increase and liability will tend to shift from the founder to the company, which could provide securities on its own.

Finally, besides having wealthy families and friends, the ability to bootstrap and to find access to the right crowdfunding platforms at an early stage should allow entrepreneurs to significantly reduce their personal liability in high-risk ventures.

3 Qualitative Expert Interviews

The purpose of this chapter is to perform interviews with experts in the very specific area of entrepreneurial finance about their handling of personal risk in terms of financing a new business. Therefore, qualitative interviews have been conducted.

> "Interviews that sacrifice uniformity of questioning to achieve fuller development of information are properly called qualitative interviews, and a study based on such interviews, a qualitative study. Because each respondent is expected to provide great detail of information, the qualitative interview is expected to provide a great detail of information" (Weiss, 1995: 3).

As recommended in the book *The Art and Method of Qualitative Interview Studies*, this approach will involve deciding on the required sample size first as well as conducting interviews for data collection and reporting on our analysis (Weiss, 1995: 14).

3.1 Finding the Right Experts

In comparison to quantitative interviews, a specific sample size for statistical reasons is not required while conducting qualitative interviews. First of all, we need to specify who qualifies as an expert of entrepreneurship in terms these qualitative interviews.

> “We would do best to interview people who are especially knowledgeable or experienced. To enrich or extend our understanding, we might also want to include as respondents people who view our topic from different perspectives or who know about different aspects of it” (Weiss, 1995: 17).

As a starting point, we will assume that people who have completed their studies, especially people who are teaching entrepreneurship at universities, could be considered knowledgeable in this specific area. Further selection among these knowledgeable people is going to be performed by considering their experience in terms of investing their own private funds while starting a new company. Therefore, we are going to select persons that seem to have expert knowledge in the area of entrepreneurship as well as the experience of having launched at least one company, where they had to manage risk with regard to their personal savings. For example, professors teaching at universities that have founded at least one company themselves will perfectly qualify as experts in terms of our interviews. For getting different perspectives, we will additionally consider interviews with start-up consultants of incubator and accelerator firms. These consultants usually need to evaluate and preselect hundreds of business ideas during application processing. When a business idea gets finally approved, they will usually guide the founders until the market-entry stage of the newly found company or even further than that. Therefore, we can assume to find knowledge and experience among these consultants, even if they have not founded a company themselves.

To find the best experts to answer our questions, we will combine qualitative interviews with a social search technique called “pyramid search”. Pyramid search was pioneered and studied by Eric von Hippel of MIT.

> “The basic idea is that you identify people who might have some knowledge of or interest in a given topic area, and you ask them who else might know even more than they do — or who else might know of others with greater knowledge. Then you contact those people and repeat the process until you’ve gotten to the top of that particular topic area, or pyramid, and found individuals with the highest levels of expertise and passion” (Poetz and Prügl 2015: 26–28).

As a consequence, the very last question of every qualitative interview is going to be: “Who is the most experienced person that you know with deep knowledge and experience about financing start-ups with low private savings?” In addition, we are going to ask for contact data. In theory, this question should add new contacts that qualify as experts to our pool after every single interview that could provide further information for our studies. We are going to stop interviewing experts when we start getting similar information from different experts or after we have received answers from an expert who has been considered the best by most of the other experts.

About 40 global experts from the United States of America, Germany, Switzerland, Norway, Sweden, and Austria were asked to participate in the qualitative interviews of this Master’s thesis and they met the defined criteria as experts on entrepreneurship. These experts were difficult to find, did not have a lot of time and the questionnaire addressed private funds and how much to spend on a new business. Finally, 10 out of 40 experts agreed to participate.

3.2 Questions to Ask

In the next step we need to get a clear picture of what we exactly are going to ask these experts in terms of designing the right questionnaire. Therefore, we will come up with a list of what to learn within this study.

This list of interests consists of the following points:

- We want to learn about how much private savings entrepreneurs are willing to risk in a single start-up.
- How will the experts raise funds for a start-up depending on the amount of private savings available?
- What approaches and strategies will experts apply when it comes to building start-ups with the lowest risk to the entrepreneur's savings?
- As a consequence, what will this low-risk approach mean for equity and debt financing?
- Do experts favor leveraging a start-up with debt capital and what will their preferred capital structure look like?
- We are going to validate their level of experience (e.g., by asking them about how many start-ups they have actually built in their lifetimes) to determine whether there are different perspectives of financial commitment that come up for serial entrepreneurs that have successfully founded companies several times.
- As mentioned in the previous sections, due to a pyramid search, we are interested to receive further contact data from the most knowledgeable and experienced experts that they might know.

According to this list of questions, a questionnaire was designed and submitted to the participating experts. For the detailed questions of the questionnaire, please refer to Appendix 1.

3.3 Report on Interviews

This chapter presents the results of the empirical study. As some of the questions in the survey addressed personal savings and how to invest these in start-ups, the author agreed to treat the responses of the participants anonymously. This is also true for recommendations and contact data received on other experts. The detailed responses of the participants are listed in Appendix 2 (without referring to the names of the participants or the recommended experts). Some of the interviews have been conducted face to face others had to be done via email communication due to the availability of the expert.

To conclude, this chapter will summarize the key points according to the list of interest:

<u>What share of private savings are entrepreneurs willing to risk in a single start-up?</u>

Based on the expert responses, we can see a very wide range from 5–100 per cent of personal savings, which entrepreneurs are willing to risk for a single new business venture. This percentage is based on several factors that will, more or less, result in a personal risk level that the entrepreneur is feels comfortable with. One of these factors that was prevalently mentioned was social responsibility. With increased social responsibility, such as the personal responsibility of taking care of one's family, spouse, and kids, the entrepreneurs' risk appetite is going to decrease. It sounds reasonable that this will be linked to certain stages in a person's life. Younger entrepreneurs with less private savings and no family responsibilities seem to be more likely to be in the upper range of the corridor. While having family responsibilities at mid-life stages, several responses indicated that people would be willing to risk only 5–10 per cent of their private savings, which is significantly more conservative for not putting their families at risk. In the late stage of life, when the kids have left home and social responsibility is decreasing again, we can usually assume more net wealth than in the early stage of life; therefore certain results show a commitment of about 20 per cent of a person's private savings to new ventures in the later stages of life.

Another factor that influences the personal risk levels of entrepreneurs seems to be their belief in their new venture. A very strong belief would increase the financial commitments of certain entrepreneurs up to 100 per cent. Without more information on the personal responsibilities of entrepreneurs, some responses suggest a range between 25 and 50 per cent.

An interesting approach involves having at least one year’s personal living costs (including all family responsibilities) covered with personal savings aside, while investing into a new start-up.

<u>How would experts raise funds for a start-up depending on the amount of private savings available?</u>

In order to find out more information on this topic, two business cases (Question G and Question H) were designed with a different setups of private savings available to the entrepreneur. In Business Case 1 (Question G), the entrepreneur had no private savings at all; in Business Case 2 (Question H), he/she had EUR 200,000 available.

In Business Case 1, a lot of experts agreed that they would first approach their family and friends in this kind of setup, where no private savings are available to the founder. Some would keep the funds below EUR 100,000 until first customer sales are created, while others would try to get as much funds as they can. Prototyping and bootstrapping part-time, aside from a regular job until the first sales are generated, seems like a reasonable low-risk and low-cost strategy. Two experts would try to approach a business angel as an anchor investor and sell around 25 per cent of the company to him. This first round of financing has to cover the private expenses of the entrepreneur (as he/she does not own private savings) and has to cover the costs for the finalization of a prototype.

In Business Case 2 with EUR 200,000 available, some experts are willing to commit 100 per cent of their savings, if they believe in their business idea; this capital is needed for showing commitment to the lenders. Other experts will try to get from 25–50 per cent of their private savings to express their commitment and will only invest a greater proportion of their private savings after certain milestones of the business plan have been met.

As mentioned by start-up consultants during the interview, it often seems required that lenders or governments, in particular, expect to see at least 30 per cent of the venture financed by the founders. This would mean that if a founder prefers to spend no more than 25 per cent of his/her private savings that this amount would need to cover at least 30 per cent of the capital needed to start the venture. In other words, the size of the business idea has to match the level of personal savings.

Most experts added that the level of commitment in Business Case 2 has to be in line with their social responsibilities according to their stage of life.

<u>What approaches and strategies would experts apply in terms of building start-ups with the lowest risk of the savings of the entrepreneurs?</u>

A low-risk approach, according to experts, might refer to starting small, working on a new venture part-time beside a regular job, and using government grants, if available. This will include the use of unemployment benefits for one expert after quitting part-time work and entering a government-funded start-up program with federal consulting services after the unemployment period has ended as a cut-over scenario. Another expert recommends competing in start-up competitions that will pay awards and offer incubator or accelerator programs to the winners. In general, some experts prefer virtual business models with no overheads or permanent stuff and focus on controlling the means and do not necessarily own them. However, minimizing risk will involve developing a business idea slowly and the entrepreneur might not be able to convince others to invest in the new venture.

<u>As a consequence, what would the low-risk approach mean for equity and debt financing?</u>

Most experts agree that a low-risk approach for financing equity makes full use of government grants as well as asking family and friends for funds. It is, however, important to take money only from people who are aware of the risk that comes with equity investments into start-ups. One expert preferred equity crowdfunding, while the others searched for a business angel, who would also support the start-up with knowhow. Another approach includes using convertible debts for the first and the second round while dealing with business angels.

In terms of debt financing, a huge range of expert responses can be observed: starting from leveraging equity with debts as much as possible, including personal guarantees as collateral securities, to taking on debts only if there are no other possibilities of financing via equity. Experts who are in favor of debts claim greater flexibility in decision-making, the speed of raising debt capital, and the best capitalization of a successful project, which comes with leveraging equity with debt capital. Other experts particularly avoid termed and secured loans, and prefer using debt capital only in special situations, such as for bridge financing before a new equity financing round is launched.

While raising debt capital, experts prefer using loans with limited personal liability, which provide certain flexibility in terms of repayment. These conditions are more likely to receive support from private individuals (family, friends, and business angels) than from banks.

<u>Do experts favor leveraging a start-up with debt capital and what will their preferred capital structure look like?</u>

As observable from expert responses, the answer to the question really depends on the development stage of a new business venture. While certain experts prefer to gain as much debt capital as possible, it seems difficult to get access to this as a new venture without significant assets and/or cash flow. In the later stages, the experts claimed a range between 30 and 75 per cent of the equity (from the equity of the founders and investors).

We are going to validate their level of experience (e.g., by asking how many start-ups they have actually built in their lives) for determining if there are different perspectives of financial commitment that come up for serial entrepreneurs who have successfully founded companies several times.

Eight out of ten experts who had taken part in these interviews had founded a combined total 83 companies over their lifetimes. The most experienced individual had been involved in building 40 companies. Two out of ten experts had not founded a company themselves, but supported over 90 start-ups with funding and financing during the early stages.

As mentioned in the previous sections, owing to pyramid search, we are interested in receiving further contact data of the most knowledgeable and experienced experts that you might know.

Owing to the fact that the expert interviews were designed to be anonymous, no names of the recommendations have been mentioned in this Master’s thesis.

4 Conclusion, Discussion, and Future prospects

This study started by pointing out the high failure rates of start-up companies, which tend to succeed only in 10–20 per cent cases based on a study by Bob Zider, which was published in the *Harvard Business Review* in 1998. Even though success rates have changed since then, we should still consider investing in start-up companies as “risk capital”.

Therefore, an even more strategic financial question that the entrepreneur should be asking is how much money from one’s personal savings should one invest into a single risky venture? This is not only a matter of risk management but has to be in line with personal financial plans with regard to wealth creation and retirement planning, according to a person’s risk attitude.

Personal financial planning seems to be a good starting point to assess the risk attitude of individuals at certain stages of their lives. In general, individuals try to avoid financial pitfalls and aim for wealth growth. Social responsibilities, such as paying tuition fee for three children or paying retirement rents without insurance coverage, make a huge difference to the risk attitude of most individuals. This is why it makes sense for entrepreneurs to reflect on their stage of life before committing private savings to a new business idea and evaluating the impact of financing a start-up with their long-term personal financial plan.

A personal financial plan usually requires encountering inflation through investments. It seems like a common strategy in investment theory to reduce risk and variance through diversification of investments into different asset classes. A study titled “Venture Capital and its Role in Strategic Asset Allocation” in *The Journal of Portfolio Management* concludes that aggressive portfolio build up with 100 per cent equity could justify between 2 and 9 per cent allocated to venture capital for a minimum-variance portfolio.

This would restrict entrepreneurship to high net worth individuals who could afford starting new businesses or require the founders to initiate very lean start-ups and act very selectively in terms of selecting only sources of capital with low personal liability.

Access to capital will heavily depend on the stage of financing the new business. The focus of this study was to identify a path of the sources of capital with low personal liability through the lifecycle of a new business based on the stages of financing from Hisrich, Peters, and Shepherd. At the seed stage, starting a new business beside a person’s regular job by using methods of bootstrap financing seems to be appropriate. Crowdfunding platforms specialized on seed stage financing can provide further access to capital as do family and friends. At the start-up stage, when a prototype or proof of concept has been finished, access to government grants and further crowdfunding platforms can be possible without an increase of personal liability. The path shown will avoid traditional sources of capital, such as character loans, guarantees from SBAs, and financing via business angels owing to an increase of personal liability at this stage. In the second, third, and fourth financing stages, access to capital is further increased through accounts receivable loans, inventory and equipment loans, cash flow financing, and, eventually, through an IPO.

Based on the theory, interviews were conducted with knowledgeable and experienced experts, ranging from experienced startup consultants to successful serial entrepreneurs and distinguished university professors. These experts were selected based on their knowledge and expertise in financing start-ups. More experts were found with a social search technique called “pyramid search”, which was pioneered by Eric von Hippel. Finally, 10 out of 40 global experts agreed to participate in the survey.

With respect to the level of commitment of personal funds, we experienced a very wide range from 5–100 per cent in terms of the level of commitment of personal funds that experts are willing to invest in a new venture. This percentage is based on several factors, such as social responsibility, which will lead young entrepreneurs without families to be in the upper range of the corridor and entrepreneurs with families to be in the lower range. Some experts accept the variance of personal funds and invest up to 100 per cent when they believe strongly about their new business idea. An interesting approach mentioned by one expert involved having at least one year's personal living costs (including all family responsibilities) covered with personal savings while investing into a new start-up. This would imply an asset allocation of private funds, including the asset class of cash and cash equivalents. Several experts agreed with the theory that bootstrap financing, aside from a job, family and friends, and crowdfunding in combination with government grants would provide sources of capital with the lowest risk for the savings of entrepreneurs. When it comes to debt financing, certain experts prefer leveraging their business as far as possible with debts and they will accept personal liabilities that are required for debt capital; other experts, on the other hand, will avoid secured loans. Most experts agree that it is difficult to access debt capital in early stage financing.

Investors and entrepreneurs seem to assess risk differently while looking the same venture capital market at the same time. Most experts are willing to commit between 25 and 50 per cent, and some are even willing to commit up to 100 per cent of their personal savings, which is far greater than an aggressive investor would commit (2–9 per cent) into a single start-up based on investment theory and diversified asset allocation. It would be interesting to conduct further research on the differences in risk assessment and on the effects of capital concentration with respect to the personal financial planning of entrepreneurs.

One limitation of this study was to focus on the sources of capital that are usually available to start-ups in the United States of America and Europe—particularly Austria. As global markets allow access to capital in other regions of the world, it will be interesting to search for further traditional and alternative sources of capital in other regions (e.g., Asia). In addition, this study assumed that business angels and venture capitalist would always expect 100 per cent personal commitment of the entrepreneur in terms of private savings. This would allow the possibility of conducting further research on how to build trust as an entrepreneur with investors aside from investing 100 per cent of their private savings. If there are other ways to build trust with investors, it will increase access to capital in the early stages, with a low risk approach to personal funds.

Entrepreneurship will create wealth in society. It seems reasonable to the author to perform further research on this topic as decreasing personal liability for founders will increase activity in entrepreneurship, diversify risk of innovation, and allow individuals to enter entrepreneurship at several stages in life without the fear of not fulfilling their social responsibilities.

5 Bibliography

Austria Wirtschaftsservice (2018a): “aws Garantie KMU Innovation & Wachstum konsequent fördern”. *https://www.aws.at/fileadmin/user_upload/Downloads/Kurzinformation/aws_Garantie-KMU.pdf*. Accessed on 03 June 2018, 1–3.

Austria Wirtschaftsservice (2018b): “aws Double Equity Innovation & Wachstum konsequent fördern”. *https://www.aws.at/fileadmin/user_upload/Downloads/Kurzinformation/aws_Double_Equity.pdf*. Accessed on 03 June 2018, 1–3.

Austria Wirtschaftsservice (2018c): “Allgemeine Bestimmungen für die aws erp-Programme”. *https://www.aws.at/fileadmin/user_upload/Downloads/Richtlinie/Allgemeine_Bestimmungen_aws_erp-Programme.pdf*. Accessed on 21 June 2018, 1–6.

Chen, Peng, Baierl, Gary, T., Kaplan, and Paul, D. (2002): “Venture Capital and its Role in Strategic Asset Allocation” In: *The Journal of Portfolio Management*, Winter 2002, 83–89.

De Buysere, Kristof, Gajda, Oliver, Kleverlaan, Ronald, and Marom, Dan (2012): “A Framework for European Crowdfunding”. *https://www.fundraisingschool.it/wp-content/uploads/2013/02/European-Crowdfunding-Framework-Oct-2012.pdf*. Accessed on 9 June 2018, 10–19.

Freear, John, Sohl, Jeffrey, E., and Wetzel, William, E. (1995): "Angels: Personal Investors in the Venture Capital Market", In: *Entrepreneurship and Regional Management*, September, 85–94.

Investopedia, LLC. (2018): Asset Class, https://www.investopedia.com/terms/a/assetclasses.asp. Accessed on 23 June 2018.

Foulks, Steven, M., and Graci, Samuel, P. (1989): "Guidelines For Personal Financial Planning” In: *Business The Magazine of Managerial Thought and Action*, April–June 1989, 32–36.

Hisrich, Robert D., Peters, Michael P., and Shepherd, Dean A. (2017): *Entrepreneurship: Starting, Developing and Managing a New Enterprise*; International Student Edition, New York: McGraw-Hill Education, 290–350.

Jacobs, Heiko, Müller, Sebastian, and Weber, Martin (2013): “How should individual investors diversify? An empirical evaluation of alternative asset allocation policies” In: *Journal of Financial Markets,* August 2013, 82.

Mauldin, John (2017): “The Pension Storm Is Coming To Europe — It May Be The End Of Europe As We Know It” In: *Forbes Magazine,* October 2017, https://www.forbes.com/sites/johnmauldin/2017/10/03/the-pension-storm-is-coming-to-europe-it-may-be-the-end-of-europe-as-we-know-it/. Accessed on 10 June 2018.

Poetz, Marion, and Prügl, Reinhard (2015): "Find the Right Expert for Any Problem". In: *Harvard Business Review*, June 2015, https://hbr.org/2014/12/find-the-right-expert-for-any-problem. Accessed on 22 May 2018. 26–28

PricewaterhouseCoopers (2008): "Which market?* A guide to selecting an equity listing market across Europe", Version 3, October 2008, https://www.pwc.ru/en/capital-markets/assets/which-market-eng.pdf. Accessed on 10 June 2018, 1–60.

Van Auken, Howard (2005): "Differences in the Usage of Bootstrap Financing among Technology-Based versus Nontechnology-Based Firms" In: *Journal of Small Business Management*, January 2005, 93–103.

Weiss, Robert. S. (1995): *Learning from Strangers, The Art and Method of Qualitative Interview Studies*, First Free Press Paperback Edition, New York: The Free Press a Division of Simon & Schuster, Inc., 3–17.

Wiener Börse AG (2018): "Q&A – Key Questions Relating to the Initial Public Offering", https://www.wienerborse.at/en/issuers/going-public-ipo/advice-services/. Accessed on 10 June 2018.

Winborg, Joakim, and Landstrom, Hans (2000): "Financial Bootstrapping in Small Business: Examining Small Business Resource Acquisition Behavior" In: *Journal of Business Venturing*, 16, 235–254.

Zider Bob (1998): "How Venture Capitalists Work". In: *Harvard Business Review*, November–December 1998, 131–139.

6 Appendices

Appendix 1 – Questionnaire of Survey

1. Please make sure that you have signed the consent form.

Please find attached our consent form. Please sign it and attach it to your mail with the answers to the questions that are stated below.

2. Please complete the questionnaire.

The main question that will be addressed in this survey is as follows:

How can we limit personal financial risk for start-up entrepreneurs when starting high risk ventures?

Based on that main question we kindly request you to answer the questions below by entering your responses directly in this word document. Please try to provide your answers as much detail as possible and please provide reasons to support your answers:

A) **How much money (in percentage) from their private savings should a start-up entrepreneur risk in a start-up business venture?**

   Please state your answer here.

B) **How can we build start-ups with the lowest risk to a start-up entrepreneur's private savings?**

   Please state your answer here.

C) **What kind of equity financing do you consider the best for the low-risk approach and why?**

   Please state your answer here.

D) **Would you ever consider leveraging your equity with debts in a start-up? Please give reasons why!**

   Please state your answer here.

E) **What kind of debt financing would you consider the best for the low-risk approach and why?**

   Please state your answer here.

F) **What would your preferred capital structure be? Please provide information about your preferred debt/equity ratio.**

   Please state your answer here.

G) **Business Case 1: Assume that you are a young start-up entrepreneur without any private savings. How will you approach financing your business idea and what is the maximum amount of money you will raise?**

Please state your answer here.

H) **Business Case 2: Assume that you are a startup-entrepreneur with private savings of EUR 200,000. How will you approach financing your business idea and what is the maximum amount of money that you will raise? At the same time, what is the amount of money that you will be willing to invest from your personal savings? Please explain your reasons.**

Please state your answer here.

I) **How many start-ups have you founded in your life?**

Please state your answer here.

J) **Tell us about a personal contact who has a deep knowledge of financing start-ups with low private savings? Could you please provide his/her contact data?**

Please state your answer here.

3. Please save your answers in this MS Word document and send together with your signed consent form via email to robert.schwoegelhofer@straicon.at

Thank you very much for your participation in this survey!

Best regards,

Robert Schwögelhofer

Appendix 2 – results of questionnaire

Question A: How much money (in percentage) of their private savings should a start-up entrepreneur risk in a start-up business venture?	
Expert A	If an entrepreneur really believes in the venture, he/she should be all the money available in the venture to have as much equity ownership as possible.
Expert B	up to 25 percent of savings
Expert C	This is very dependent on many factors. e.g, - - stage of life - family responsibilities - risk level with which you (and partners) are comfortable. So when young, and few responsibilities, over 50% is fine Later in life, when family has left home, then perhaps 20% of total savings In mid-life no more than 10% Ideally you should NEVER put your family at a large risk
Expert D	Depends on family situation and fixed commitments that you are not will to put at risk. With no such commitments 100% might be ok.

Expert E	Most start-up entrepreneurs risk 100 to 50% of their tangible net worth (TNW). TNW = Net Worth – home equity- savings for contingencies (i.e., medical and children's education). Often, they will invest portions of their home equity as well. Because each entrepreneur has different financial circumstances, and because net worth or private savings are terms prone to different interpretations there are no definitive studies with respect to this issue.
Expert F	Enough to show commitment. For a student entrepreneur 100 percent, for a family man less.
Expert G	If the founder has family responsibilities 5%-10% seems appropriate. Without any family responsibilities ranges up to 25% or 50% seem ok.
Expert H	It's hard to generalize, because it depends on the risk profile of the founder, his personal environment and stage of life (e.g. material status, previous professional experience, age, …) Further, the business model plays an important role in assessing the real risk of money invested. (e.g. Is it mainly working capital that's needed, does the majority of the investment go towards assets that can be liquidated easily, …) In general, I would recommend a backup to cover the personal living expenses for the first year. Ideally that amount shouldn't be too tight and also allow to indulge oneself (e.g. vacation). This will help to really focus on making the business model

	work instead of worrying about the personal lifestyle.
Expert Í	It depends on his/her private risk profile. Key factors are age (=the higher the lesser risk), family status/children (=less risk) and/or chances to find an adequate job if startup fails. My recommendation would be to have some financial leeway left (e.g., one year of living without income) enabling you to make business decisions based on longer term perspective and on a more rational basis. The percentage of private savings you should invest is thus a consequence of the above mentioned factors.
Expert J	It depends on the following variables: How much money do I actually have? What are my private responsibilities, possibilities and my personal risk that I am willing to accept? How is the risk behavior of the invest branch in the specific market How much market risk is involved in that kind of business? That includes to know how long it will take until the first sales are realized and if this is a technology and knowhow driven business. How much commitment is required? Usually an external investor would expect to see at least 10%-30% of the venture financed by the founders. They will usually consider an investment when first sales have been realized. In addition that they would expect to see 100% of the founders working time put into that venture. When applying for official grants in Austria, then officials will usually not asking for a lot of personal savings involved as long as grants are low (i.e. € 10,000). When grants are significantly higher (i.e. € 250,000) officials expect to see at least 10- 30% equity.

	In any case I would try to bring in at least the equity for founding a limited corporation, which is € 35,000 in Austria. 50% of that sum has to be paid in cash. If that is necessary in that company topic and Market! GmbH Light Version? €17,500 and later paid in up to €35,000

Table 7: Expert Responses to Question A.

Question B: How can we build start-up with the lowest risk for the start-up entrepreneur's private savings?	
Question B: How can we build start-ups with the lowest risk for the start-up entrepreneur’s private savings?	
Expert A	It is hard to imagine building a start-up venture without some personal savings involved. Why would someone else invest in you and your venture if you do not have some money (blood equity) invested.
Expert B	start small – do pilot work from home, one man show
Expert C	Here are some tips: - Use grants at the early stage - Continue to work and build the company in “spare-time” - Or do some consulting in tandem so you can hedge your bets and at least cover living costs. - Use a virtual business model, no overheads, no permanent staff. - Compensate consultants in part with equity
Expert D	Minimizing risk can be done by the scale of the operations or by bring in funding from other owners (family, friends and fools). Minimizing risk might then mean going slow and/or giving the upside away to others.
Expert E	Three reactions to this question: Why is this important? What would be the value of lower risk for entrepreneurs? Without risk on the part of entrepreneurs there is no way to sort out clever ideas from bad ones.

	There are dozens of programs that lower risk for entrepreneurs in existence now. Training programs like Seed Spot, community grants, federal grants, private association grants, incubators and accelerators are all very common in communities across the U.S. Investors expect entrepreneurs to invest heavily in their ideas. For investors entrepreneurial investment shows commitment and thus gives comfort to early stage investors.
Expert F	Be effectual, control the means do not own them. Leverage other peoples resources.
Expert G	A low risk approach would be to work beside a regular job on your business idea, even before founding a company (Limited Corporation, etc.). After quitting your regular job it would be possible in Austria to use unemployment benefits for about six months before even founding a company to work further on the development of the business idea. When unemployment benefits are cut, there are founder programs financed by the government that would support the process of founding a new company.
Expert H	Firstly, it’s all about assessing potential risks and maximal exposure at various stages in time. This can best be done by writing a business plan including a finance model giving an indication about the worst case. For the worst case, assume no revenue and conservatively calculated OPEX and CAPEX for 6, 12 and 18 months. Once a sum X is identified as potential loss, the personal risk profile and situation of the entrepreneur defines how much he can take on either through equity or dept.

	The delta should then be filled by raising equity through business angels and FFF (friends, family, fools) or by applying for public funding schemes.
Expert Í	Raise equity (investors' money), debt or apply for public promotions (can be unconditional or debt-like).
Expert J	In Austria I would try to use official grants for funding. In addition to that there are several start-up competitions that will pay rewards to the winners. In addition to that price, entrepreneurs will be accepted in programs of incubators, accelerators what will lead to market entry programs. All of this programs will allow them to develop their ideas further. In addition to that I would always try a lean approach when building a start-up and try to reduce time to market. Other strategic possibilities may include co-operations within the market value chain for to go ahead. Also I can do this with own additional efforts (ours) in combination with a change in my life style. (Low cost and lower income if necessary)

Table 8: Expert Responses to Question B.

Question C: What kind of equity financing would you consider best for the low-risk approach and why?	
Expert A	The best source of equity investment is crowdfunding, angel investors, or family and friends. See the chapter in my book for comments on each.
Expert B	friends and family, maybe a sponsor you know
Expert C	convertible debt for the first and perhaps second round, when valuation cannot be easily determined
Expert D	I don't know what type of specification you want.
Expert E	Currently the favored equity structure is: Founder's equity, management options and equity, Class A Common, Class B common, etc.
Expert F	Any kind, but professional. Do only take it form people who know what it means to finance with equity.
Expert G	It seems best to use government grants whenever possible. The later it happens that an investor enters your company the better it will be for your own equity as a founder
Expert H	Business angels and non-repayable government funds because there are usually no obligations for the entrepreneur in case of failure.

Expert Í	Investors' money, as it provides you not only with capital but also with know-how and support.
Expert J	This depends what we are actually financing (i.e. machines, IT). In general we can see different risk levels through different stages in a start-up process. In early stage a lot of risk is involved. Therefore I would see financing equity via family, friends and fools, own money and leverage it with government grants as low risk approach.

Table 9: Expert Responses to Question C.

Question D: Would you ever consider leveraging your equity with debts in a start-up? Please give reasons why.	
Expert A	If the interest rates are as low as they are today, I would leverage the venture with as much debt as possible to the extent that I feel comfortable that I can pay at least the interest rate.
Expert B	yes, sign bank note , pledge personal guarantee
Expert C	See C) you should avoid termed loans or secured loans against company assets such as patents. A small amount of debt say 10% of equity value acceptable in these cases.
Expert D	Yes, if I am very confident that the business model will fly. It makes sense to not give the upside away. If you can get debt finance within the start-up that is obviously less risky for the entrepreneur than if he/she takes a personal loan (leverage outside the start-up). That would mean that the personal commitment can be much larger than 100% of private savings
Expert E	If a project is successful, then the best means of capitalizing it is with debt. This is because the debt component of capital is the lowest cost of any capital component. However, it is also the least forgiving component. Debt comes due at some point in time.
Expert F	In special situations, esp. when you have to bridge before a new round or for more working capital (debt – only your own personal debt)

Expert G	It is very hard to get debt capital in early stages that's why we would expect to see 100% equity, in later stages there are federal promotional services (i.e. AWS) that offer to double your equity with debt capital (double equity program). In long term we can see a lot of ventures with about 70% equity and 30% debt capital. That seems reasonable for a debt/equity ratio.
Expert H	Yes, because it gives you more flexibility in your decision making and is usually much faster than raising equity. However, it's important for the total exposure to stay within the personal willingness to lose. Usually a bank will secure debt against private securities of the entrepreneur in an early stage.
Expert Í	I would not recommend to leverage founders' private savings if debt is secured personally. Leveraging company's equity only makes sense, if a bank provides debt financing without personal recourse. In case a bank makes this debt investment in a startup (which is unlikely in general), I would still recommend to limit debt ratio to a reasonable extent. Building a startup is a growth story, returns are achieved by an aggressive risk profile and growth-oriented business approach. If a bank is one of the main investors, founders will be constrained by bank's conservative, short-term perspective on running a business.
Expert J	I would only consider debts, when I do not have enough financing for equity funding and have seen no other possibilities in the present situation.

Table 10: Expert Responses to Question D.

Question E: What kind of debt financing would you consider best for the low risk approach and why?	
Expert A	Debt financing from private individuals such as family, friends, or angel investors.
Expert B	personal bank loan from someone you know
Expert C	See D. Avoid factoring, term or secured loans if possible. Using equity in your home or investments to secure a loan is OK provided they meet your risk and family guidelines
Expert D	Cheap and flexible
Expert E	Debt secured by an asset without personal guarantee.
Expert F	In general, any. Depending on the liabilities.
Expert G	Even for early stages there are innovative debt financing types like “Funds of Excellence” of Erste Bank in Austria. This bank claims to invest in people and talent and less in business ideas. If you have the “right” talent, they will cover living costs up to €1,500 per month and will receive loan repayment from your future cashflows independent of the job or business you are going to get in. For the stage after your product development has been successful there are additional chances for receiving cheap debt capital. One way is to

	receive debt capital from a bank where 80% of security collateral are going to be guaranteed by federal promotional services (AWS). Another way as mentioned is the double equity program (AWS).
Expert H	The lowest risk applies once debt isn't secured against the entrepreneur's private securities. A great example is working capital financing with factoring.
Expert Í	Unsecured loans, loans combined with public promotions limiting personal liabilities.
Expert J	This really depends on the price and conditions of debt capital. When considering debts in Austria then I would suggest taking up a bank loan with security collateral that are going to be guaranteed by federal promotional services. In addition to that I would think about crowdfunding and cheap loans that are granted by government agencies for innovation purposes.

Table 11: Expert Responses to Question E.

Question F: How would your preferred capital structure look like? Please provide information about you preferred debt/equity ratio.	
Expert A	The debt/equity ratio you should have depends on your tolerance for use and the ability to receive debt financing
Expert B	combination of equity 50 percent and debt same amount
Expert C	See earlier answers.
Expert D	Tricky balance: Avoid giving the upside away. Avoid running out of cash and being wiped out. With a risky venture, debt might not even be an option.
Expert E	Mondigliani & Miller's posit an enterprise value. Ideally, I would say using as much debt as possible is best. However, this is not achievable in the real world. In the real world, start-ups cannot get debt financing until assets and cash flow are sufficient to justify the debt.
Expert F	It depends on the stage of development and on the kind of investments.
Expert G	See answer D)
Expert H	50% founders equity, 25% investors equity, 25% debt I'm a big fan of owning the majority of the company at the first stage to show

	dedication and commitment.
Expert Í	50% investors' equity, 25% founders' equity, 25% debt secured by public promotions
Expert J	In early stages I would try to have equity only without having any debts. When market entry has been successful then I would consider debts based on price and conditions of debt capital.

Table 12: Expert Responses to Question F.

Question G: Business Case 1: Assume that you are a young start-up entrepreneur without any private savings. How will you approach financing your business idea and what is the maximum amount of money you will raise?	
Expert A	I would approve family and friends first and then do a crowdfunding campaign. I would raise the amount of capital needed regardless of the amount.
Expert B	family for a loan up to 25 to 50 k, keep amount under 100k until you feel you can generate leads and paying customers
Expert C	I would bootstrap with part-timing, get to a prototype myself, and then use a personal network to get a first round as convertible preferred debt. How much you raise depends on the use of funds, but it is always better to raise more than you predict. $250,000 is a good number to start with.
Expert D	Family, friends and fools. Depends on the business idea.
Expert E	Friends and Family. As much as I could get.
Expert F	Assuming I start a high tech business, I would try to get plain equity without a limit.
Expert G	I would start with prototyping beside job or with a bank loan (i.e. Fund of Excellence). In addition to that family & friends are important at early stage when founding a company. Business Angels tend not to invest in start-

	up businesses without existing product or prototype, some will even wait for the first customers before considering an investment.
Expert H	I would try to raise a maximum of 25% in a first round, ideally with one business angel providing support and network. This money raised should enable at least the finalization of a prototype and in a best case also first sales. As the assumption is that the entrepreneur doesn't have any savings, the money raised also needs to account for the private expenses in the first 12 months.
Expert Í	Find a long-term oriented anchor investor and see him as a partner by offering him a very attractive valuation. If the investor can have +25% of the company, he will be less focused on founders investing their own money. I would not recommend to only focus on a high valuation when looking for an anchor investor. This anchor investor is more a partner than a pure investor, if you as a founder cannot provide any funding. Maximum amount of raised capital should be limited to building a prototype of a product or service. Next round with investors can then start with a higher valuation based on a prototype.
Expert J	Please see my answer to question B)

Table 13: Expert Responses to Question G.

Question H: **Business Case 2:** Assume that you are a startup-entrepreneur with private savings of EUR 200,000. How will you approach financing your business idea and what is the maximum amount of money that you will raise? At the same time, what is the amount of money that you will be willing to invest from your personal savings? Please explain your reasons.	
Expert A	The answer to this depends on how much money is needed to start the venture and the availability of debt. An entrepreneur needs to show commitment to the venture and believes it will be successful so I would invest all of the 200,000 euro I needed and see if I could obtain debt financing based on my equity commitment depending on the amount of capital needed.
Expert B	use personnel funds up to 25 percent ot 50,000 and ask family or friends for another 50,000 . keep funds up to 100 k
Expert C	Again depends on stage of life, risk level etc. But putting in half would be OK usually. It is easier to raise money if you are a co-investor.
Expert D	100% if I really believe in the business idea and can afford to loose my savings.
Expert E	All of the 200k (unless there are personal health or issues regarding my children). I would raise as much capital as needed to fund 2 times the largest cumulative gross capital needed in a three year projection of capital needs.

Expert F	Amount of money from savings: Enough to have a signaling effect, probably (when I am the only one) 50 K. Rest: Same as G)
Expert G	Depends on specific industry, but in general 25% if there are no resonibilities regarding my family. In addition to that I would try to raise € 50,000 as debt capital at maximum. It is very important to have a milestone scheduling with a detailed plan what I want to archive within i.e. two years before putting additional money into that venture.
Expert H	Again, depending on the business model and the maximum exposure through time. If the total loss in the worst case matches the entrepreneurs risk profile, I wouldn't raise any money. Regardless of the business model, I personally would limit my investment in this Case to 70.000€.
Expert Í	Invest €50-100k to build first prototype, look for public promotions, then raise capital by selling investors a minority stake (max. 25-1%) to still have unlimited control of the company.
Expert J	As mentioned in my answer to question A) that depends on many variables, but in generally I have to expect to finance 30% of my venture.

Table 14: Expert Responses to Question H.

Question I: How many start-ups have you actually founded in your life?	
Expert A	around 20
Expert B	4
Expert C	around 40.
Expert D	2
Expert E	5
Expert F	10+
Expert G	I have no company founded so far, but supported over 60 startup companies in Austria with funding and financing.
Expert H	1
Expert Í	1
Expert J	I did not found a company myself. Based on my profession, I guided intensive about 30 start-up companies that have qualified for our program to market entry over 1.5 years and others with punctual consulting in specific innovation execution steps what includes also consulting these start-ups about financing. Beside that

	there are hundreds of start-up applications were not selected for the Incubation program but get an effort in the pre-incubation in guiding, evolving their quality and readiness over a fewer time period in a lower intensity and different readiness stages.

Table 15: Expert Responses to Question I.

Question J: Tell us about a personal contact who has a deep knowledge of financing start-ups with low private savings? Could you please provide his/her contact data?	
Expert A	anonymous
Expert B	anonymous
Expert C	anonymous
Expert D	anonymous
Expert E	anonymous
Expert F	anonymous
Expert G	anonymous
Expert H	anonymous
Expert Í	anonymous
Expert J	anonymous

Table 16: Expert Responses to Question J.