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Understanding the Myth of High Growth Firms

The Theory of the Greater Fool

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Contents

Chapter 1
Introduction

This book is the result of reflecting on a quarter of a century of personally researching, consulting, teaching, and helping to start hundreds of new ventures. These have been in industries as diverse as airlines, accounting, biotechnology, information technology, personal products, wineries, and food establishments. We could have subtitled this book *in search of the black swan* or *hunting for unicorns, yes Virginia there is a Santa Claus,* or even *Grimm fairy tales and myths*. In reality, it is a reminder that what often appears in the mass media as great new venture success stories, ultimately turns out only to show how fleeting growth is and vulnerable to excess and poorly conceived growth strategies as time progresses.

For example, in the late 1970s one of the authors of this book helped to create and staff what was then the fastest growing airline in aviation history—People Express Airlines. It went from three planes and fewer than 100 employees to over 3,000 employees and over 60 planes in less than 3 years. This darling of the media and stock market analysts went public the first day of operations in order to raise the capital necessary to buy 30 used Boeing 737s from Lufthansa. Yet, within less than 4 years, the airline was bankrupt and being purchased by a larger rival, Continental, subsequently merged with United.

While external factors like air-traffic controllers' strike and increasing cost competition from larger carriers contributed to the fall of the firm, most blame could be placed internally within the firm. Rapid growth without attention to adequate staffing, required training, consistent equipment, and ego-driven acquisitions had negatively impacted already slim margins. This lack of sustained profitability and growing too fast simply had killed this want-to-be Southwest Airlines firm. Neither few senior managers within the People Express nor did the academic researchers/consultants who worked with the firm extensively from its founding realize the fact (Carsrud 1987; Helmreich et al. 1986; Carsrud and Ellison 1990). Clearly, this airline brings to mind the phrase ". . . nothing will kill you deader than success. . . " as the late Prof. Neil Churchill was frequently heard to say in MBA lectures on entrepreneurship.

Therefore, this book is the result of us realizing that it is time to challenge some long held assumptions about entrepreneurial firms held by academics, public policy makers, investors, and even entrepreneurs themselves. The first assumption is that growth is what really differentiates an entrepreneurial firm from a small business.

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The second is that growth is always good. Third, if growth is rapid, and/or *high* growth, it is even better.

We also believe that even before Birch (1987) academics, policy makers and even a few entrepreneurs started to confuse employment growth and market share growth, while forgetting the fundamental role of profitability and sustainability in the capability to grow in either market size or number of employees. A decade ago Neil Churchill, the noted entrepreneurship professor at Harvard and INSEAD, wrote in *Harvard Business Review* an article on just how sustainable growth rates are (Churchill and Mullins 2001) and whether firms can afford them.

We will now briefly describe what this book is about and what we hope to achieve by writing it. First and foremost, it is not designed to be a comprehensive review of all the academic literature. That is, it is not a formal tome on an area of interest of limited interest to those with doctorates in economics. Nor is it just a collection of war stories about failed firms with great promise or a focus on the exceptionally rare high growth firm that survives and becomes the darling of the media. There are plenty of those kinds of books available that are often either little read or whose time on the shelves in a bookstore is measured in weeks.

It is in fact a clarion call to academic researchers, governmental officials, investors, and entrepreneurs to put profitability and sustainability back in the equation of what makes sustainable growth in an entrepreneurial firm. That is, we hope in the following pages to convince the reader that simply looking at growth as wonderful and high growth as a savior for economies, that growth requires management and cannot be sustained without profitability and adequate leadership and organizational skills within the firm. These may require making hard decisions like retrenchment and refocusing a firm's direction.

We do not base this book on any particular definition of the entrepreneur. The reader is free to pick and choose from any number of such definitions as best fits their personal conceptualization, and there are many from which to choose. For instance, the existing academic literature has many from which to choose. Some characterized the entrepreneur as the *innovator*, the *creator* of the new (Schumpeter 1934), the *locator* of new ideas and *implementer* of ideas, the *exerciser* of leadership (Baumol 1968), the actor in the process-conscious market theory who exhibits deliberate behaviors (Kirzner 1973), and the *possessor* of idiosyncratic knowledge enabling opportunity recognition (Shane and Venkatarman 2000; Gaglio and Katz 2001; Shane 2003; Eckhart and Shane 2003).

The focus of this book is on the firms that the entrepreneur creates and the almost universal obsession with high growth firms that absorbed so many. We do believe that the entrepreneur is all of the above *and is a decision maker* who controls the strategic process.

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Chapter 2
How Did Growth Become So Interesting?

Everything begins with something in history and entrepreneurship and growth are no exceptions. Historically, it is widely thought that entrepreneurship, as a concept, was coined by Jean Bertrand Say (1803), although some find even deeper historical roots with the work of Cantillion in the seventeenth century. In fact, in "*The Early History of Entrepreneurial Theory"* (Hoselitz 1951; Landström 2005) the conceptual roots in terms of the use and meaning of "entrepreneur" are traced to a much earlier time in the history of civilization. Evidence points to the term being formed during the Middle-Ages. That is, long before Cantillon or Say. It was "*celui qui entreprend quelque*," that is, a person who gets things done. Generally, whether an activity is recognized as entrepreneurial or not tends to be justified by the nature of the action a person (in this case, the entrepreneur) undertakes (Landström 2005; Brännback and Carsrud 2009).

Clearly humans have been "starting" ventures for several millennia, and we are not suggesting that this began with the oldest profession. The reality is we have firms that have been started, owned, and managed by a single family over a thousand years (Carsrud and Brännback 2014). An enterprising family that can build a firm that lasts a thousand years must certainly have learned how to be both profitable and sustainable as many are in competitive industries like hospitality, beverages, and food. Perhaps with digging into linguistics we will discover that it actually began with the Greeks or Romans, but that is beyond the primary focus of this book.

Many people, but certainly not all, like to perceive entrepreneurship as rational behavior. They like to see it as a phenomena occurring as a result of rational thought and decision-making process following a linear causal logic. In Say's conceptualization, the entrepreneur was the individual who did something at a cost, sold it for more, and in the process made money. Growth at best was an assumed part of the definition, but certainly not rapid growth. At this point, it is perhaps appropriate to spend some time with members of the Austrian school of economic thinkers.

M. Brännback et al., *Understanding the Myth of High Growth Firms,*
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2.1 Schumpeter's View

One of the great economists of the twentieth century was the Austrian Joseph Schumpeter who in his 1934 book expanded on Say's views by specifying that the entrepreneur was someone who created something new and sold the new, making money in the process. Schumpeter gave several suggestions to what the "new" could be: a company, a process, or a gadget, anything that was new to somebody else. A little later on in his writings, Schumpeter (1942) became a bit more specific. First he introduced the concept of creative destruction as necessary for progress. But this was about creating new markets and growing firms that led to changes in entire industries by revolutionizing economic structures from *within* (Schumpeter 1942, p. 83).

To go back to our earlier example of airlines, you need only to think of how airplanes in the course of 40 years revolutionized the transportation industry. Passenger carrying airlines have nearly driven passenger train lines out of business, especially in the USA. This helps one to understand this creative destruction process although trains have certainly not been removed from the transportation equation in Europe. Some of this creative destruction was actually driven by deregulation of markets (Carsrud and Ellison 1990).

Schumpeter (1942) further explains (p. 132, italics added by authors): "We have seen that the function of entrepreneurs is to reform or revolutionize the pattern of production by *exploiting* an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on." Clearly Schumpeter understood the role that markets played in the process as well as the role of innovations.

A few lines later on the same page Schumpeter makes one more important specification with respect to the entrepreneurial function (italics added by authors): "This function does not *essentially consist in either inventing anything or otherwise creating the conditions which the enterprise exploits. It consists in getting things done*." Thus, Schumpeter appeals to those who want to study venture creation on one hand and those who are interested in innovation on the other. Yet, at least at this point, Schumpeter keeps innovation and entrepreneurship as separate concepts. However, he sees both as important for economic *progress.* Progress does carry the notion of growth, but progress alone does not inform us with respect to the rate (or speed) of that growth.

Interestingly, Schumpeter does not specifically point at new venture creation per se. But, he does discuss the process of creative destruction as something that occurs in established firms (which can be small or large) that emerges from within and is primarily organic (p. 83). If that is the case, the growth rate is not rapid nor is it very high (Churchill and Mullins 2001). However, Schumpeter does specifically state that the role of the entrepreneur appears in the form of (p. 133): ". . . individual leadership acting by virtue of personal force and personal responsibility for success." Clearly, growth for Schumpeter was not the most critical component of entrepreneurship, but one that did exist. How then did growth become such an obsession for so many, especially in academia? In the 1980s, the University of Texas at Austin under the direction

of Prof. George Kozmetsky, a millionaire academic, began its first entrepreneurship center. It was then named the "Institute for Constructive Capitalism" in a bow to the influence of Schumpeter.

2.2 Growth Begins Taking Center Stage

A few years after Schumpeter wrote, one of the ultimately most influential women academics, Edith Penrose (1959) further expanded the discussion of entrepreneurship by explicitly focusing on growth, asking the fundamental question: What makes some firms grow and not others? It is her work "*The Theory of the Growth of the Firm*" that has become one of the classic underpinnings of the growth entrepreneurship research literature, if not the field in general. Interestingly, in reading her work it becomes evident that she was not concerned with small firms alone. Interestingly, Penrose was largely ignored for decades before her book became the "Bible" for those studying growth of firms.

Her work subsequently has become particularly influential in building the resource-based theory (RBT) of the firm, outlined two decades later by Wernerfelt in 1984 and further developed by Barney (1991, 1997) and their various disciples. The RBT of the firm was presented as an alternative, or a complement to, the five forces framework for competitive strategy (Porter 1980). Porter's views were based almost entirely on his understanding of strategy within existing large firms.

Common in these two theoretical approaches to management are proposed strategies for firms to become better competitors and to enable the creation of sustainable competitive advantage, regardless of firm size. An assumption in both theories is that strategy is not dependent on firm size and what works in a large firm should be true in a small one, or even a start-up. In reality, the strategic management field has studied large corporations and even those who claim to be studying strategy in entrepreneurial firms are often looking at samples of firms that are public, venture capital funded, or recent initial public offerings (IPOs). The various management writings of Porter are certainly among the most widely known by managers, yet his approach is relative naïve about growing an entrepreneurial firm, especially one at a pre-IPO stage (Brännback and Carsrud 2008). Frankly, for any of us who have worked with start-up firms know full well that a new firm is not a shrunk down version of a large firm any more than a human embryo looks or acts like the result 18 years later.

One of the great "myths" about capitalism was the belief that large firms were the real drivers of an economy. For a long time, it was assumed by both academics and public policy makers that large firms were the main engines of national economies, especially in terms of job creation, innovation, and growth. However, this belief was substantially challenged with the publication of an extensive study by David Birch (1987). His classic study, based on data from 1969 to 1976, showed that small firms were the actual job creators in the US economy.

His initially controversial work followed a few years later by Bruce Kirchhoff and Bruce Phillips (1987) supported his findings. They found in their study (using data from 1969 to 1984), similar results to that of Birch. They also pointed out that Birch's study included two recessions (1969–1970; 1973–1975) and their study one additional recession (1980–1982). Kirchhoff and Philips discovered that during recessions the job creation effect by small firms was the highest: 82 %, 66 %, and 100 %, respectively. Clearly someone had found a *black swan.* Until this time no one seriously viewed small firms, much less start-ups as having any serious impact on economies.

Taken together, these two studies took on the old myth that large firms drove the economy. This is not the first time a myth met its match with a series of frame breaking work. The believers in a flat earth never quite forgave Columbus. What these studies did was to shift the attention to looking at growth in small firms by both academics and policy makers. These researchers finally found a *black swan* or at least a potentially good substitute for a *unicorn*, the surprising reality was value of the ubiquitous small firm in the American economy.

2.3 Small Firm Growth and Public Policy

In considering the findings of both Birch and later Kirchhoff and Philips, it is easy to see how these results caught the attentions of American politicians and legislators, and they still do. Strategies and policies to increase economic productivity and employment have since been designed in most countries. Every President since Ronald Reagan have made sure to endorse growth in major addresses (often in the State of the Union addresses to Congress) and many other leaders in the US House and Senate have made similar remarks (Haltiwanger et al. 2010, p. 1). The term entrepreneur has been so widely used in recent years in America that you begin to wonder who is *not* one.

But this interest in entrepreneurship by governments is not solely an American phenomenon. An entrepreneurship center actually exists today at the University of Havana in Cuba. An entrepreneurship course is today required by law for every university student in Chile. Also, Chile encourages immigrant entrepreneurs with grants to start firms. In another example, Singapore has spent billions of dollars to attract biotechnology entrepreneurs including building an enormous biotechnology incubator facility. The hunt was on for growth-oriented firms regardless of the cost or even if they could be sustained.

The European Union (EU) took up the entrepreneurial growth challenge some two decades after the USA when they signed the Lisbon treaty in December 2001. This treaty specifically states that the key to a sustainable prosperity in the EU lies in substantial support of entrepreneurship thus creating economic growth. This was the first 10-year strategy that set out to create conditions among European member states to place Europe in a leading position economically. Ten years later the runner-up 10-year strategy was presented, EU2020, which now focuses on innovation.

While Europe was a bit slow to catch on en masse it is fair to say that the dominating assumption since the 1980s has been that firms need to survive *and grow*. That is, neither "no growth" nor "slow growth" is seen as acceptable by politicians (Birley 1987; Brännback and Carsrud 2008). Growth became the mantra, however poorly defined. To many politicians growth meant jobs and jobs meant being re-elected. Clearly, the motivation for politicians often was keeping their jobs and political power. However, growth for entrepreneurs was usually measured somewhat differently, usually in terms of market share.

Entrepreneurs are not concerned typically with the number of employees, who while a potential asset, are also a cost center and thus may reduce profit margins. Clearly some firms like Costco, the wholesale giant in America, view employees as assets critical to sales in their retail stores. Often family firms see employees as both assets and family, but growth in employee numbers is still not a goal to these firms, notwithstanding the findings of Coopers et al. (1989). These kinds of firms are frankly quite rare. Most larger and established firms typically look at employees as liabilities or a cost center. But we digress here, so let us return to the story of entrepreneurs and how they view growth.

Entrepreneurs and investors often have assumed that if a new firm grew and captured market share the business would somehow, sooner or later, be "successful," however success might be defined. The more and faster you grew the better. Certainly venture capitalist (VC) wanted the entrepreneurs they worked with to focus on market share growth prior to the VC cashing out in an IPO or other exit strategy as an investor. Success for the VC clearly is the price per share they obtained upon exiting the firm. Long-term viability simply is not a major goal of the VC, nor has it been for hedge fund managers or many merger and acquisition (M&A) funds who often load a firm with debt before exiting. Share price as measure of success only applies to a very small fraction of firms, as most firms never go through an IPO or are acquired by another firm in an M&A. This may be one reason why for many entrepreneurs VCs are really *vulture* capitalists.

This new emphasis on growth was also a major shift for academics in their assumptions about firm performance. That is, scholars within traditional economic theory had assumed that small firms are primarily profit-oriented (Birley 1987) and not growth oriented. But clearly things were changing in academia as there where in the public policy realm.

2.4 Academic Interest in Growth of Entrepreneurial Firms

In looking at the topic of growth, it has been a major research topic for a long time within strategy where scholars assume that growth is the key objective for any large firm. How growth was defined and measured, however, was not always precise (Kiviluoto 2014, 2011; Brännback et al. 2009). As is typical in most work looking at nonpublically held large firms one is dependent on what a CEO or owner was willing to tell a researcher. That is, measures were often based on self-reported data. As with

all self-report data it is subject to a wide range of bias. When an entrepreneur talks to a tax collector, you would think their firm was on the brink of bankruptcy. Yet, at a cocktail party the same individual will tell you he is the next Steve Jobs with an Apple.

If one wanted more "accurate financial data" it required looking at large publically held firms listed on stock exchanges. Clearly even public firms can "fudge" the books and keep financial information hidden, as most Americans understand in the recent financial crisis involving banks, known as the "Great Recession" where derivatives often hid damaging if not toxic assets. That is, we all know that understanding how well a firm is doing is not a simple measurement issue regardless of firm size. We will discuss measurement issues later in this book, but now we turn to growth in entrepreneurship research.

Growth as a research topic by entrepreneurship scholars started to emerge around 1987–1988. In fact, it spurred the start of what is now one of the leading journals in the field, which looked at VCs and growth. The *Journal of Business Venturing* was founded in 1986 and shortly there afterward papers specifically focusing on firm growth started to appear in 1987 as Sue Birley noted in her article of the same year. Other journals followed suit in the pursuit of growth as a differencing factor. For example, the *American Journal of Small Business,* which was founded in 1976, became *Entrepreneurship Theory and Practice* in 1988. In the editorial titled Winds of Change in the first issue of volume 13, Ray Bagby wrote (1988, p. 5):

> While we have always had entrepreneurs, the study and teaching of entrepreneurship is a relatively new academic discipline. Constrained resources, global competition and tremendous technological advances create the need for more innovative management than has ever been required in the past. Although small firms have always outnumbered large ones in our economy, their contribution seems to have been undervalued in the past. The recent revelations that these firms are often best positioned to cope with the threats and take advantage of the opportunities associated with our increasingly dynamic environment have generated more interest in studying them.

This quote could very well have been part of an introduction to an article calling for the need to study growth entrepreneurship 25 years later in the twenty-first century. Clearly in 1988 Ray Bagby, the journal's editor, was reflecting on the impact of David Birch's work of a decade earlier on the increasing interest in entrepreneurial firms by a number of groups, including academics. The era of studying "boring" small firms was about to be eclipsed by studying "exciting" growth-oriented entrepreneurial firms. While what academics' study may seem a bit boring at times, this discussion shows a fundamental shift in focus for thousands of academics worldwide. There was an explosion in journals as well from a mere hand-full to now over 100 in the English language alone, all focused on entrepreneurial firms. The oldest journal in the field, the *Journal of Small Business* Management, carries the by-line now of *Advancing Entrepreneurship Research Worldwide.* In addition, academic conferences on entrepreneurship have grown in numbers as well, the annual meeting of the US Association for Small Business and Entrepreneurship is one such example. At least 80 such meetings occur around the world annually operated by a number of organizations, universities, and governmental agencies.

In what many consider the premier research meeting in the academic field of entrepreneurship—The Babson College Entrepreneurship Research Conference (BCERC)—growth as a dedicated track did not occur until 1988. Prior to that year, a track labeled entrepreneurial strategies existed. In 1988, a track with the title "Strategy and Growth in Entrepreneurial Businesses" contained three papers and four summaries. Only one summary specifically dealt with growth (Hills and Welsh 1988).

Another paper of historical interest is an early paper presented at BCERC in 1982 by Bill Dunkelberg and Arnie Cooper, titled "Entrepreneurial Typologies." Their study identified three typologies based on the orientation of the entrepreneurs: growth, independence, and craftsman. In a sample of 1805 founders, 74 % could be classified into one of these three typologies. Of these, 45 % were identified as growth oriented. Growth was measured as the compound annual growth in number of employees. Those identified as growth oriented indicated a desired growth rate over the next 5 years of more than 30 %. Moreover, the paper by Kirchhoff and Philips (1987), which initially was presented at BCERC, was in a track of papers labeled "economic development." In these studies, growth was measured as employment growth as a percentage of something, i.e., a relative measure. As will be argued later, relative and absolute measures are problematic with respect to venture growth.

While "*growth*" was the buzz topic of the time (and in still is), research results that questioned growth also started to occur. For example, early on a study by Birley (1987) showed that *employment growth was not the primary goal of entrepreneurs*. Interestingly, no aggregate growth occurred in the sample of her study and there was not an age effect with respect to firm growth. Those few firms that did manage to "grow" did so by increasing sales *without* hiring more employees. One can ask any entrepreneur if one of their goals is to hire people and most will usually respond that it is not high on their list unless they have no other choice. Here is where the entrepreneur's goal is very different from the goals politicians have for entrepreneurs (Brännback and Carsrud 2008). Clearly growth is in the eye of the beholder.

2.5 The Growth Challenge

With growth entrepreneurship being recognized as important for national wealth creation by politicians in the early 1980s it started to evolve as an interesting research topic for academics toward the end of the 1980s. In some ways, this was driven by research dollars to understand the "new" phenomena and by donor dollars for what now has become over 200 chaired professors in the field. Since then the interest continues to grow tremendously. Politicians and researchers have seen growth since then (almost without hesitation) as being good and something any entrepreneur should pursue. Growth has almost become synonymous with entrepreneurship. In fact, there are those in academia who will argue that growth is the same as entrepreneurship. That is, entrepreneurship without growth is not entrepreneurship, perhaps at best the uninteresting area of small business management.

However, growth is not the self-evident goal for most entrepreneurs (Cooper et al. 1989). It is also extremely challenging for almost anyone to achieve high levels of year upon year growth. Even the vaunted Steve Jobs at Apple realized that double-digit growth rates year over year takes its toll on the firm and its suppliers. That is, the primary goal for many entrepreneurs is not growth, but some other goal and growth just happens to be a consequence of achieving that other goal (Carsrud and Brännback 2011a). In fact, growth, and in particular high growth is a very rare phenomenon, but the way popular press and media deals with the topic one may think it is common, natural, and almost easy. Just because you found one black swan does not mean that now all swans are black.

Amazon, Facebook, Google, Apple, and even Microsoft are all outliers when it comes to entrepreneurial firms overall, yet these are the ones we see in the media constantly seen as "typical." Research studies and publicly available statistics show a different reality when it comes to growth. High or rapid growth is sexy for media attention while sustainable growth is boring but in the end usually wins most races. Even at some point these darlings of the media have to undergo a process of renewal as has happened at Apple and is happening at Microsoft. We have forgotten that Digital Equipment and Nortel were the examples of growth firms before they ceased to exist in stunning bankruptcy and sales of assets.

2.6 The Reality of Growth: The Other 97 %

Most companies start small and remain that way (Cooper et al. 1989). Many entrepreneurs really have no desire to create a huge corporation, go public, or even hire lots of people. That is "growth" may not be the driving goal for many who start firms. We once worked with a Chilean biotechnology firm that had developed a treatment for a disease that threatened the vast Chilean salmon farming industry. The Government of Chile wanted the female scientists who started the firm to grow rapidly, which was not what they wanted. The government wanted a growth firm; the scientists wanted an R&D firm.

Despite these conflicts in goals, many of the resulting entrepreneurial firms manage to survive even succession crises and live on as a major part of most economies (Carsrud and Brännback 2014). This is why family firms exist and in some sectors dominate. However, most founding entrepreneurs wish to have a sustainable business that will afford them and their families a comfortable life and a modicum of wealth accumulation even if there is not an exit such as an IPO or M&A (Carsrud and Brännback 2014). Some entrepreneurs may have a goal of bringing some technology to the market place as Steve Jobs did or curing a disease as we see in those behind many biotechnology firms. Growth for these entrepreneurs is a fall-out from achieving other goals for their firms. The reality is that of all start-up firms only 3 % ever manage to add on more than 100 employees (Aldrich 1999). The rest, 97 % remain small or medium size firms with well under 250 employees in the USA and even smaller in Europe.

Why is so much attention given to this 3 % and what about the other 97 %? One answer noted earlier is that high growth firms are "sexier to study than small firms." Another is high growth firms make better stories for the mass media, which is obvious if you pick up any business newspaper or magazine anywhere in the world. Whole magazines, like *INC.* and *Entrepreneur*, are devoted to these firms. Those that do not grow are usually seen as dull and mundane, and seemingly quite boring to the outside observer even though they exist all around us. Being a small business owner is just not as sexy as being an entrepreneur in my circles.

A third reason—being somewhat cynical—is that those professors studying entrepreneurship did not want to be labeled as *small business management professors*. This area has traditionally been considered the bottom of the academic totem pole in business schools only slightly above sales management but below human resources. Therefore, growth entrepreneurship was seen a conduit to enter a new field (that was even considered important to society) and to hopefully become the new, spectacular star entering the limelight on the academic stage.

Faculty, deans, and college development offices also realized this was where both research dollars and endowments were more likely to appear. They perceived that entrepreneurs would donate chaired professorships and centers, while small businesses were perceived as rarely giving significant endowments to universities. The rush was on, from a mere 3 journals in the field 30 years ago, now over 100 exist in English alone. From a mere hand full of endowed chairs and professorship in entrepreneurship there are now over 400 in the USA alone.

Academic entrepreneurship has become its own growth business as represented in the rapid growth in size of the Entrepreneurship Division of the Academy of Management and the now over 100 meetings for those researching entrepreneurship. Clearly, the academic field of entrepreneurship is a growth business, but the level of sustainability has yet to be determined. Where there is money college deans see plunder to picked and used elsewhere. Even academics have their own forms of *vulture capitalists*.

2.7 It is not Always Brand New

For three decades, the focus has been to develop, foster, and study a small part of all firms—the 3 % of all newly starting firms. The reality today is that we still do not know how to efficiently identify those companies that belong to this 3 % of growth firms. It is often very hard to tell a baby mouse on steroids from a baby gazelle although Cooper et al. (1989) did try to provide some evidence as to what the “steroid” was. Often when we claim to be studying entrepreneurial ventures in reality we are studying well established large corporations (that indeed were small at a time, but not studied then) such as Amazon, Amgen, Apple, Facebook, Google, Starbucks, Southwest Airlines, or Ryanair and then try to generalize backward. When Harvard Business School or Ivey in Canada writes a case study on your firm as a growth firm you clearly have become a part of a training program for some would-be entrepreneur somewhere.

As academics we seem to think that if we teach our students as would-be entrepreneurs to copy the models of these rare breeds we will have given our students the secret recipe for success. For example, both People Express and Ryanair are based on the Southwest Airlines model, but so far only one of the "clones" remains alive and clearly exists in a different context. If we really only foster copycats it is a fairly simple exercise to determine when the market is saturated and any other new firm is then left to live on the leftovers. This in some ways was what happened with People Express Airlines as noted in the introduction to this book. Some copycats will succeed and other will not. But how will we know which one will without waiting for years? Copying an existing model and expecting it to create high growth is more an example of Israel Kizner's view of incremental entrepreneurship than it is of Schumpeter's frame-breaking model. Neither approach is a guarantee to success or growth.

Moreover, we like to think that growth is linear—it is rarely the case. While, Amgen was created in the early 1980s it took them several years to launch their first product. In fact in Amgen's business plan the drug that ultimately saved the firm and its investors was listed as an after-thought. The firm had spent millions on a drug that failed and its only fall back was the ultimate savior of the firm. Even Apple was a company in serious distress several times. It often looked like it was on a roll-a-coaster ride depending on Microsoft to bankroll it at one point. Only after shifts in leadership, product lines, and markets did it reach its current zenith, which is now under attack by Google and Samsung.

In another example, Google has bought Motorola Mobile and is now a serious contender for the pole position of the global mobile phone market. The once proud technology leader in cellular phones, Nokia, seems to be more worried about survival as an independent company than being a model of high growth. Rovio, the company behind Angry Birds created 51 computer games before they finally hit the box-office success. Should all start-up companies now enter the computer, or mobile game market? Hardly!

Google, Rovio, and Apple probably are examples of firms within the rare 3 %. It should be remembered that 3 % is one with a revolving door, many enter and most leave just as rapidly. Think of Digital Equipment, Compaq, and Nortel when you realize just how fast the door really revolves. All of the firms mentioned previously were at one point in their existence excellent role models inspiring many starting entrepreneurs. Certainly as academics we know our students see a start-up smartphone app company gets bought for millions and think the process is quick and simple.

But, if these are part of the 3 % we are still left with the fundamental question: what about the other 97 % that will not become high growth firms? The success stories are frequently retold in popular press, business periodicals, and academic research journals, as are the dramatic falls from the heights, like Blackberry (formerly known as Research in Motion). However, rarely do these texts describe how long it took for the firm to reach this level of success. Most forget the bad times at Apple, or the challenges of Rovio prior to Angry Birds came on the scene.

2.8 A Mouse or a Gazelle

Small firms have often been described as mice and fast growing firms as gazelles. The trouble is that in the early stage of firm development it is hard to distinguish the two. They often look very much alike, especially at the early stages. Again, while these companies show very different patterns later in their existence, it is hard to really find differences at the very beginning, much to the frustration of both investor and politicians. There are studies that show that it will take an average of 7–9 years for a firm to become profitable (Shane 2008). Interestingly, the press often looks at a firm about to go public in an IPO as a new venture, when in reality most of these firms are anything but new, many are approaching their teen years.

In an interesting study, Arnie Cooper, Caroline Woo, and Bill Dunkleberg (1989) showed that you will need a minimum of 8–10 employees to facilitate growth. Clearly, some of this is tied to the networks that individuals bring with them as a form of social and human capital. The issue is that if you stay below that range of employees it is not easy to become larger. At the same time, there are highly profitable firms with one or two employees selling their product on the global market. An example of this kind of firm is one firm started by one of the author's students.

The firm (DAP Industries) sells ear plugs like the ones you get on some international flights in business class (don't confuse this firm with one firm named DAP that sells paints and glue). This ear plug firm is clearly an international firm, operating world-wide and is a multimillion dollar business, but because they outsource absolutely everything from manufacturing, packaging, and distribution, the firm is small, if not a microbusiness by some people's definitions. They create jobs, but they themselves do not hire.

This firm has been operating for years with a workforce of fewer than five people. Some might not think of this as a growth firm, certainly not politicians or even would-be investors who typically ignored the firm because the entrepreneur had a goal to maintain control and to maintain profitability. The founder, Doug, jokes he can sit around his pool in his bathing suit, enjoy his kids, and run the business all at the same time. It took him years to get to this point in terms of sales, but the fundamental model of the firm is intact from its inception. Is this firm a mouse or a gazelle? It is clearly an example of steady progress will win ultimately, a bit like the tortoise and the hare from the childhood fairy tales.

The previous example leads us to the issue of timing. Currently, we do not seem to sufficiently understand how long it will take for those desiring to be in the 3 % to actually reach that level. However, there may be perfectly valid explanations for a firm never to grow beyond 100 employees or even ten. There are many explanations for why a firm would make sure it never employs significant numbers, governmental regulations may start at some point, access to small business credit may cease, and the list goes on. Sometimes the choice not to grow or only to grow to a certain point is a conscious one that is made for very strategic reasons.

One such example is Frieda's, Inc. (Carsurd and Brännback 2011b) a distribution firm in specialty produce based in Los Angeles. This is the firm that coined the term "Kiwi Fruit" in order to sell the rather mundane Chinese gooseberry. The firm

consistently kept its employee count below the 100 mark because over that a number of federal, state, and local government regulations "kick in" which govern labor relations. Yet, the firm is widely considered the leader in its industry, pays above average salaries, and is highly profitable. To this firm, growth is staying ahead of the competition in terms of finding new specialty produce, which command higher margins. Margin growth not head count or even market share define this produce firm. This is a case of being "smarter" beats being "bigger".

Why do many small businesses seem to think five or ten employees is the perfect size of their company? How many entrepreneurs have you met that have stated up front that their goal was to hire many people? Frankly, in the hundreds of start-up and family firms the authors of this book have worked with, none have said their goal was to hire people. They may have had a goal to hire family, but head count was merely a by-product of achieving another goal of supporting family. They never get to the magic eight to ten employees noted by Cooper et al. (1989). It is not that they cannot, they do not want to get to that size.

This is where understanding entrepreneurial motivation and goal setting starts to become an important part of why firms grow and do not grow (Carsrud and Brännback 2011a). Let us put that a bit differently, how many policy makers have you met who believe that the fundamental goal for any starting entrepreneur is to hire many persons (as soon as possible)? We know the politician's goal, to get reelected. But employee growth is not usually the goal chosen by entrepreneurs as we have tried to demonstrate with the previous examples in this section. That is, hiring people is usually the result of trying to build market share, increase production, or some other goal.

Many years ago in Austin, Texas there was a Vietnamese egg roll cart vendor that sold his food near the business school entrance. Over the years, he grew to have multiple carts all around campus. When asked what spurred his growth he replied it had nothing to do with growth of the firm or student demand. It was his way of getting his family into the USA following the fall of South Vietnam. His goal was to bring his family all together and having each run a cart was the only way to make that happen. Growth in employment was not about productivity, but about family.

With the advent of ever increasing technology the productivity of the typical worker in the USA and EU is now far higher than even 5 years ago. Thus, growth in terms of employees has to be viewed from the standpoint of various contexts. For example, until the advent of the Boeing 737, the typical flight deck crew on Boeing aircraft was three, pilot, copilot, and engineer. With the 737, the flight deck crews dropped by one-third to two, technology cut into manpower needs. Today, go to any large retailer or "box store" there are self-check outs.

In wrapping up this section, please remember we have never met an entrepreneur who admitted their goal was to hire a lot of people unless, like our Vietnamese egg roll vendor, it was to reunite a family. An entrepreneur may want to get a lot of things done, but today automation can provide what only a few years ago required hiring a person. Remember also, we have met a lot of policy makers and other stakeholders who firmly believe increasing employment is the fundamental goal of an entrepreneur. They have forgotten that there is a huge structural change going on in the developed economies driven by technology.

2.9 Dimensions of Growth

The careful reader of this book by this point already has noticed we have touched on three different dimensions of growth:

1. employment growth,
2. the time it takes to reach high growth, and
3. growth in firm profitability.

Clearly, there are more like growth in margins, growth in market share, growth of an industrial sector, growth in competition, and growth even in potential markets. We will clearly focus on this book on the first three as they impact many of the other dimensions of growth like margins.

Moreover, many of our examples have so far been from the better known firms like Apple, Google, and Southwest Airlines, who are no longer start-up firms, but were once. Clearly, each of these firms has interesting histories and strategic stories to educate the reader. However, this book will focus on the growth of non–VC-funded, nonpublic-traded, small firms. The firms that actually make up the vast majority of firms world-wide, account for the majority of employment in most countries, and are the very backbone of capitalist economies. While they make up the majority of firms they have not very often been written about. Some of our examples: DAP, the egg-roll cart firm, and Frieda's are from this latter group. They come from a variety of industries as growth is not just a high technology related concept. Just think of the growth in various fast food franchisees. The egg roll cart actually started the craze for food trailers in Austin that have become an industry in itself as any of the thousands of attendees to SXSW Interactive will tell you.

Small firms constitute 99.7 % of all US employers. This number is fairly consistent across nations; in Finland the corresponding number is 99.8 %.[1] This means that the 97 % referred to previously in the title of this section are included in this group. Most of these firms are privately held and therefore, considered difficult to study, as their financial data and information about the firms are not as readily available to the public as that of publicly traded firms.

That does not mean that information is unavailable and it is certainly not an adequate reason for not studying or writing about them. We are not talking about small business research in general. We are talking specifically about research focused on the management of growth in the small firm. Given their large role as employers most people have some experience with them either from working for them, using them as service providers, or owning them. We feel everyone, including policy makers can therefore relate to the problems we are trying to address in this book. Even as consumers we should be concerned with maintaining healthy locally based small firms. Some firms, like American Express, have actually seen this as an important part of their client base and a growth area for their business in the USA.

[1] Small Business profile, 2011 (www.sba.gov/advo);http://www.yrittajat.fi/en-GB/

Small firm growth is a highly complex issue. It is not only the concern and interest of the entrepreneur, but also that of many stakeholders such as, employees, investors, policy makers, strategic partners, etc. The perspectives and conclusions about small firm growth will vary across stakeholders but also depending on whether we are considering the issue from the firm level or from a macro or national level.

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Chapter 3
Entrepreneurship, Growth, and High-Growth in Research and Policy

In this chapter, we review in greater depth the core concepts being expressed in this book: entrepreneurship, growth, growth entrepreneurship, and high growth, from both a research and a policy perspective. We do this to show that these concepts are conceptualized very differently depending on which perspective we adopt as researchers, policy makers, or even as investors. There are, of course other perspectives, like the popular media and that of the man on the street. These are also important, but are to some degree different. We focus here on the perspectives of researchers and policy makers because we know these two perspectives best. We also argue that much of the complexities and the confusion in the general public and media can be explained by looking at these.

In trying to offer one single definition on entrepreneurship or growth is next to impossible something our colleague Per Davidsson noted in his 2005 article and which we also have written about on several occasions starting in the 1980s. As we will show later, trying to find a universal definition is inconclusiveness at its best. Therefore, what we offer here are numerous ones and will allow the reader decide.

3.1 What is Entrepreneurship and Growth?

3.1.1 Entrepreneurship

One of the most common opening phrases in entrepreneurship research articles states that entrepreneurship is an extremely complex field, without a unifying definition of what it studies. Two decades ago William (Bill) Sandberg (1992, p. 73) stated: "*First, one needs a definition of entrepreneurship, which can no more be defined to everyone's satisfaction than can peace, justice, or pornography.*" The field spent the decade of the 1980s trying to find a definition that researchers could agree upon, and even today this issue has not been resolved. That is not to say none have tried as there have been numerous attempts.

One way to define complex phenomena is to make lists of what *it is not* or when something is a *special case*. But, that has resulted in numerous debates of whose list

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is really the correct one if there ever was one. If you have seven entrepreneurship professors in a room you will have a dozen definitions emerge. As we have noted, even Schumpeter changed his mind midway through one of his books.

We have, for example, those who argue that self-employment is not really a form of entrepreneurship. Some argue because such persons do not employ anybody. Thus, our earlier example of DAP Industries or the Vietnamese egg roll cart firm might say these are not entrepreneurial firms. As we argued in our book on family business (Carsrud and Brännback 2011b) there are researchers who will exclude family businesses and argue that the ones in charge did not create the firm—they were not founders, they just inherited. Thus, only founders can be entrepreneurs. Yet, one only needs to look at the Frieda case discussed earlier to see that both the founding mother and the inheriting daughter were both entrepreneurs.

This leads us to gender issues among others. Since most entrepreneurs are assumed to be male, women entrepreneurs are obviously a special case of entrepreneurship. Other special cases are immigrants or necessity entrepreneurs, i.e., those who have had to start a firm in order to feed their families. They did not really discover an opportunity. Technology entrepreneurs are also special because they face entirely different financial challenges than most "ordinary" entrepreneurs. And it takes forever before they turn a profit, if they ever do. Biotechnology entrepreneurs are again a special case of technology entrepreneurs because that is all about getting the science to work, not really entrepreneurship.

Then there are the creative people or artists who sell their craft or art. Are really entrepreneurs because there is no technology involved? Because really, is not it just paint, wood, and/or fabric? To some an artist is just another form of self-employment. But think about the impact of Rembrandt, Picasso, or Warhol on the art world. All were highly successful on a number of dimensions. If you live with an artist selling art is often as important as the creative process. Händel, Wagner, Lennon, and McCartney likewise were entrepreneurial in the world of music. This tendency to put self-employment, especially in the arts in some second-class role can often ignore important sources of wealth creation and the creation of societal value. In the case of Warhol and Picasso, they literally became production lines as one can see in some of Warhol's print runs and in Picasso's pottery, which he outsourced to others to produce. McCartney of the Beatles clearly has been a highly successful entrepreneur in music as was the late Michael Jackson.

Many assume self-employed are not growth ventures, a topic that still needs to be explored. Should big business engage in entrepreneurship, it is called corporate entrepreneurship and that too is a special case! We can continue like this a few more pages with even more examples of special cases, and it becomes pretty obvious that any kind of entrepreneurship appears to be a special case. The question remains what makes something special? We honestly do not know. At this point we have digressed too far from the focus of this chapter and we need at this point to return to growth as it currently exists in the research literature.

While there are certainly areas of research in entrepreneurship that have been ignored or under researched, this has not been the case with the area of growth. Growth entrepreneurship is so special that it needs the attention and support of governmental policy makers and special funding mechanisms. Why this area has received *special attention* may be its context within economic development.

Table 3.1 Where contexts for entrepreneurship. (Adapted from Welter 2011, p. 168)

Dimensions of context	Omnibus	Examples
Business	Industry, market	Competitors, stages of life-cycles of markets
Social	Networks, family	Structure of network, density, roles of family
Spatial	Geographical environment, countries, neighborhoods, industrial clusters	Physical business location, business support infrastructure, local communities
Institutional	Culture, society, political and economic system	Societal attitudes and norms, legal and regulatory systems, policy and support measures

One key insight, which is highly welcome here, is to acknowledge that entrepreneurship is contextual (Welter 2011). Welter refers to the work of two highly influential entrepreneurship researchers (Gartner 1995; Baumol 1990). Two decades ago Bill Baumol pointed out that the conditions for entrepreneurship change sometimes dramatically over time and place and Bill Gartner argues that entrepreneurship researchers have a tendency to underestimate the influence of external factors and overestimate the influence of internal or personal factors when making judgments about the behavior of other people. While clearly Gartner has a point, people do exist in various contexts so both are important and interact.

Clearly, contexts vary across time and place, countries, political systems and cultures, and institutions and organizations (Table 3.1, later). What presents itself as an opportunity for someone in one place may not be that somewhere else. She states (Welter 2011, p. 166): "*Context is important for understanding when, how, and why entrepreneurship happens and who becomes involved.*" She continues to argue that context is special as context includes (p. 167): "*. . . circumstances, conditions, situations, or environments that are external to the respective phenomenon and enable or constrain it.*" It is in particular the where-and-when dimension of context that is critical for entrepreneurship and growth entrepreneurship in particular.

For example, when policy makers in Europe refer to technology entrepreneurship what they are referencing often is the high-technology firms that can be found in Silicon Valley in California. They uncritically see this as realistic role models for technology entrepreneurship somewhere in Europe. This begs the response that we should immediately consider the context. Few reflect over the fact that 50 % of the world's financial market is present in Silicon Valley and Sand Hill Road in Palo Alto, California, on which one of the greatest densities of venture capitalist (VC) firms are situated, is right next door to Stanford University one of the premier technology universities in the world. Needless to say, for a technology entrepreneur who wants to meet a VC with any pockets of some significant depth, have a significantly higher probability to actually meet one (even by accident at the local Whole Foods store in Palo Alto) than they would when walking down a street in Helsinki or even London. Few locations can replicate the rich context of Palo Alto.

As pointed out by Welter, contexts have several dimensions, but they all are important, each in a different and often complex way. Thus, entrepreneurship really depends on the context in which it occurs. So rather than hunting for this magical definition for entrepreneurship everyone can agree to, we need to focus our attention instead on the rich diversity of entrepreneurship. This will be a far more fruitful step to truly understanding the nature, richness, and dynamics of entrepreneurship (Welter 2011). This is true at any level, be it a simple self-employed consultant, or innovative entrepreneurial activities in the food sector, or family firms in hospitality, or even growth-oriented technology-based firms. Much in the same way as entrepreneurship as an activity takes place in contexts, so does entrepreneurship research, and that researchers "... themselves bring *their own context* to the research site" (Welter 2011, p. 178).

So, the best answer to what entrepreneurship is or who is an entrepreneur, is probably: it all depends on the context. The list of special cases we noted earlier all qualify as forms of entrepreneurship and are not special cases. They are examples of different contexts in entrepreneurship in which "where" and "who" also contexts. And, there are several definitions that we can perfectly well accept as valid. For example, "*Entrepreneurship is the creation of new organizations*" (Gartner 1988, p. 11), or entrepreneurship is the "*creation of new enterprise*" (Low and MacMillan 1988), or "*The essential act of entrepreneurship is new entry*" (Lumpkin and Dess 1996, p. 136) are acceptable along with many others.

We do not agree with some of our research colleagues, like Prof. Kevin Hindle, who argues that without innovation there simply is no entrepreneurship as the element of novelty is central to entrepreneurship (Hindle 2004). If that is the case then van Gogh was an entrepreneur, just a rather poor one financially during his life-time, and Picasso clearly was a successful one during his life-time given the amount of innovation he brought to his paintings creating whole new styles other quickly copied. Novelty may certainly be one context, but we would strongly suggest some consideration of what is meant by *new*. What exactly is the element of novelty? Is it new to the world, new to the country, new to the region, new to the city, or new to the entrepreneur? All dimensions of novelty except for the first one hold some degree of imitation. Even new inventions are built on prior inventions as any patent attorney will tell you. New is a bit dependent upon the eye of the beholder.

Here is where it is important to restate Schumpeter's take on the entrepreneurial function that these are all "good" (1942, p. 132): "This function does not essentially consist in either inventing anything or otherwise creating the conditions which the enterprise exploits. It consists in getting things done." This notion is also found in a widely accepted definition which we have used in our entrepreneurship book (Carsrud and Brännback 2007), which is found in Stevenson and Jarillo (1990, p. 23):

> Entrepreneurship is a process by which individuals—either on their own or inside organizations—pursue opportunities without regard to the resources they currently control.

The previous definition by Prof. Howard Stevenson of Harvard Business School does not specifically delimit entrepreneurship as an activity of creating a new

venture from scratch. However, it does acknowledge that even large organizations can and perhaps should be entrepreneurial if they are to survive in the context of ever-changing economies. However, when corporations are entrepreneurial that activity is often labeled innovation, and the person is an innovator, not an entrepreneur (Brännback et al. 2012).

3.1.2 Growth

Consider the following quotation found in (Frigstad 2011):

> Dear business leader, growth is success. Fast-growing businesses are more fun to work for, attract more investors, have the best-rated CEOs, and get the most favorable media coverage.

Growth is good, growth is bigger and bigger is better, and growth is entrepreneurship, would be a correct conclusion. But, is it? Entrepreneurship research on growth usually begins with the premise that growth is good and desirable. Few, if any, view growth as potentially negative or that bigger may not be better. Dr. David Baltimore, the Nobel Prize winner in biology, technology entrepreneur, and President of the California Institute of Technology (CalTech) was once asked a question if he wanted CalTech to grow to be the size of Stanford, to which he replied *bigger is not necessarily better.* Growth is not simple with regard to research universities nor is it especially in the context of business. If that were the case General Motors should have been both highly innovative and successful which its recent bankruptcy clearly demonstrated was not the case.

Three problems can be identified. The first problem arises from the *type* of growth. The second comes from *firm value*, and the third comes from the fact that *growth occurs over time.* That is, growth is much more a process than anything else. Then we have the problems of measuring growth.

The two most commonly measured growth types are *sales or revenues* and *employment*. But, these two measures are two very different entities. There are also other potential measure, profit growth, market share growth, to name a few. Then there is the issue of whether we are measuring in absolute numbers or are we talking about relative measures, like percentage change. A small start-up firm with two employees, which adds on two more the following year grows tremendously in relative measures but not really in absolute terms any more than a firm with 50 employees which hires two persons over the same period of time. This is a bit like remembering that there are lies, damn lies, and then statistics if you like Mark Twain.

One of the most critical parts of having a business is to make that firm valuable. Firm value is the ultimate source of an entrepreneur's wealth. Firm value is an entirely different dimension of growth—an important one as well. In order to increase a firm's valuation, a pursuit for unprofitable high-growth may be a necessary strategic decision (Markman and Gartner 2002; Christensen and Raynor 2003). This strategy is often based on meeting the expectations of the stakeholders and those with a vested interest in the firm, usually its shareholders.

The notion behind this strategy is that the value of the firm is not created based on the real value of actual cash flow of the firm, but on the discounted expected value. In other words, what one thinks a firm will be worth in the future. This type of valuation is characteristic of publicly traded firms, but the same logic also exists among privately held firms. The problem with this future expected value is that there is no guarantee that future value will be the actual value. There is clearly a risk at play here and thus the value is clearly subjective and even the discount rate is subject to various assumptions that may or may not be accurate in the long run. For any of us who have had to try to teach discounted cash flow we know there are a lot of assumptions in play, most of which will prove false or delayed in their action.

An unprofitable high-growth strategy may, for example, be a strategy for a privately held startup to raise finances or as part of the firm's exit strategy. Such a strategy often creates a growth imperative for the firm, where continuously transcending shareholder's growth expectations is the only way of satisfying shareholders, usually VCs, who are looking for a high payout at initial public offering (IPO) or merger and acquisition (Christensen and Raynor 2003). In such an environment, ever-increasing growth becomes the norm, one that the entrepreneur does his best to adhere to even if it leaves the firm with heavy debt or shrinking margins. It is argued here, that unprofitable high-growth strategies are concerned with maximizing short-term goals (usually market share growth), rather than with the creation of sustainable, profitably growing firms. It may also be a strategy not designed for the firm, but for the investors who are looking for the public to purchase the firm based on media hype. This is a bit like looking at an example of the *theory of the great fool.* These short-term goals led to the first dot.com bubble if our readers were around for that event in 2000–2001.

Returning to our discussion on definitions, trying to define growth is challenging. We, however, are going to attempt to take on that challenge. As with defining entrepreneurship, what is growth really is contextual. That is it all depends on what kind of growth you are talking about in what context. Therefore, a description is probably appropriate, rather than a clear-cut definition.

As we have tried to explain earlier, growth is a multidimensional concept, which can be conceptualized in a number of ways. Within business, the term growth is most commonly associated with performance, which is further seen as being equal to success (as seen in the previous quote). Predicting performance has always been of great interest in business research and particularly within the field of entrepreneurship (Cooper 2005). What makes this effort particularly difficult is that the academic research literature treats performance and growth as the *same*. That is, research studies use the very same variables to measure both. This is a bit of a tautological argument. Yes, this is complicated. But let us examine what data exist. We hope this will convince you, the reader, that what we know about growth is inconclusive at its best.

At this point, it is important to take a serious look at the existing research literature, which the authors presented in a paper by Kiviluoto et al. (2009). When examining the total existing published literature we found that studies concerned with firm performance used a large variety of performance measures as the dependent variable.

That is the variable to be explained by various independent variables. These independent variables included profits (absolute and relative), sales growth (absolute and relative), employment growth, market share growth, assets growth, R&D spending growth, or growth in the number of patents, to name only a few.

In addition to these, there were combinations of quantitative measures, transformed measures, and even the use of qualitative measures. Yes, even academic research starts to sound a bit like an investment strategy using derivatives, which got so many into trouble in the stock and bond markets. If the measure is so difficult that it takes pages to explain then it may not be a very good applied measure easily understood by entrepreneurs, government officials, or investors. Academics might like them as they can provide a publication, but for as for meaningfulness they may be lacking totally.

For example, in a study by Murphy et al. (1996) a total of 71 different performance measures were used in 52 articles reviewed. Another study by March and Sutton (1997) found that in studies that claimed to predict firm performance only 28 % used firm performance as a dependent variable. In yet another example, a study by Brusch et al. (2008) a total of 389 articles were reviewed, 111 articles (28.5 %) used performance as a dependent variable. In 51.4 % of these articles performance referred to financial performance, in 27 % to financial and operational performance, and in the remaining 21.6 % to organizational effectiveness.

That lovely term organizational performance is almost totally self-reported qualitative measures which are then subject at times to manipulation. To show you just how difficult it is to measure, a recent study by Richard et al. (2009) identified a total number of 207 different performance measures used in a total number of 213 articles published in five management journals. There are almost as many measures as their studies. This makes doing any meta-analysis difficult and certainly makes trying to understand the effect of growth on firm performance nearly impossible.

But, if performance is difficult, so is growth and so is firm success. At this point, we are going to go through a number of published research studies to show just how confusing this really is. In a review of 35 studies on organizational growth, published in leading organizational studies, management and entrepreneurship journals, Weinzimmer et al. (1998) found that 83 % of the studies in these journals conceptualized growth as sales growth and nearly 75 % used it as the only measure of growth. Another review of 55 articles by Delmar (2006) on small and new venture growth found four different growth measures: sales growth (31 %), employment growth (29 %), multiple indicators (18 %), and performance (subjective evaluation, 13 %). If such sales growth is given as a percentage, one only needs to think of the problems with that approach as 20 % in one small firm may be very different from 20 % in another larger firm.

The story continues. Gilbert et al. (2006) studied 48 empirical studies from management and entrepreneurship journals. They found that the most used measures of growth were sales, employment, and market share. Our colleagues Dean Shepherd and Johan Wiklund (2009) reviewed a sample of 82 papers and found that 61 % used sales growth, followed by employment 13 %, profits 9 %, equity/assets 6 %, and others. The most recent by Achtenagen et al. (2010) found that in 42 % sales growth was

Table 3.2 Growth indicators in earlier studies. (Kiviluoto 2011)

Authors	Weinzimmer et al. (1998)	Delmar (2006)	Shepherd and Wiklund (2009)	Achtenagen et al. (2010)
Time frame	1997–1998	1989–1996	1992–2006	1997–2008
Number of studies	35	55	82	56
Growth indicator and frequency	Sales (83 %), employment (29 %)[a]	Sales (31 %), employment (29 %), multiple indicators (18 %), subjective evaluation of performance (13 %)	Sales (74 %), employment (16 %), profit (11 %), equity/assets (7 %)[a]	Sales (42 %), employment (26 %), growth intentions (18 %), profit (7 %)

[a]The total percentage adding up to more than 100 % depends on the use of multiple indicators in some studies

used as a growth measure, followed by employment 26 %, growth intentions 18 %, and profitability 7 %. A combination of these was used in 16 % of the studies, while the remainder used growth strategies, assets/value, or then the growth measure was not reported (Table 3.2 for summary). What is interesting is that there is overlap in the journal articles being reviewed and yet even the results are not that consistent.

So, what do all of the previous research reports on multiple studies across multiple journals really tell us is useful? As we earlier said, growth usually occurs over time. This is a view shared by both Schumpeter (1942) and Penrose (1959). So, what time frames are used? The most commonly used time frames range from anything between 1 and 5 years (Weinzimmer et al. 1998; Delmar 2006; Shepherd and Wiklund 2009). One does have to ask just how meaningful is growth in a 1-year time period or for that matter five. Admittedly, with 5 years one hopefully has more data points to examine and can look for more complex relationships other that some simple linear relationship. What clearly is lacking is any real longitudinal set of studies and that includes the Panel Studies on Entrepreneurial Dynamics (PSED I and II) which are limited to roughly 5 years each.

Usually, growth studies assume a linear relationship between the explanatory variables and the dependent variable. Subsequently linear relationship models, such as linear regression analysis, are frequently used with two measurement points. What we do not really know is whether this number of measurement points is sufficient in most of the studies reported. Instead of attempting to capture the natural annual fluctuation over time, an average annual growth rate is often used (McKelvie and Wiklund 2010). Weinzimmer et al (1998) found that in 86 % of the studies, growth was measured as a difference between first-year and last-year sizes. This naturally omits potentially crucial data (Gilbert et al. 2006). More importantly and clearly obviously, it can hide a lot of variance in performance during that time period.

The complexity is increasingly accentuated when comparing various growth measures (even seemingly similar ones) and past research results. The multidimensionality of growth, together with growth being a process that evolves over time, creates a complex research context. No one snapshot of a firm in transitions tells the

whole story. Beyond the difficulty for researcher, think of what it is like to be for the actual entrepreneur to ride such a roller coaster. There are also the conflicts of expectations between what investors may want and what the entrepreneur may think is best for the firm. It is a bit like being damned if you do and damned if do not.

3.2 Growth Entrepreneurship Research

In the previous section, we alluded to the growth in the actual study of growth entrepreneurship. We think it is important to look at this part of the phenomena. Here, things have been more typical of academia: the phenomena being studied takes a while to be accepted as legitimate topic for study. The advancement of research in growth entrepreneurship has been relatively slow. We are not the only ones to believe this as Claire Leitch and her colleagues have noted "*Even though there has been sustained interest in growth for almost 50 years, relatively little is known about this phenomenon and much confusion and misunderstanding surrounds it*" (Leitch et al. 2010b, p. 249).

Likewise, McKelvie and Wiklund (2010) conclude that "Firm growth constitutes one of the central topics of entrepreneurship research. Despite substantial interest and massive empirical research, theoretical development in the field has been notably slow" (McKelvie and Wiklund 2010, p. 261). Evidence toward a stagnated development process is found in the continuing discussion on basic constructs of the field, such as measurement and definitional issues (Achtenagen et al. 2010).

Measurement issues and techniques have long been seen as the most challenging and critical aspects of the field (Hofer and Bygrave 1992). Numerous books are written on this topic including some of the more neglected parts of measurement issues (Carsrud and Brännback 2014). McKelvie and Wiklund (2010) even suggest that one reason for growth being poorly understood may be due to a failure to distinguish between mode and rate of growth. We would certainly concur with that assessment and that of Leitch and her colleagues. More researchers are starting to address the growth issue, but it will be a while before we see these studies in the research literature.

A recent exception is the special issue on growth entrepreneurship in *Entrepreneurship: Theory & Practice* (Leitch et al. 2010a) represents a convenient conduit for describing the current state of growth entrepreneurship research. Three distinct characteristics emerge, which will be briefly described later. First is a lack of accumulated knowledge generation, second is a fragmentation of the field, and finally there is a call for holistic research approaches. The latter seems to rather standard in almost any review of an area in entrepreneurship be it the cognitive processes involved (Carsrud and Brännback 2009) or family business that result (Carsrud and Brännback 2014).

Another more likely reason for a lack of accumulated knowledge generation may be the unintended consequence of a too rapid expansion of the field of entrepreneurship research. This may be explained through a central flaw of social science research that has been voiced approximately once every decade (Capon et al. 1990; Weintzimmer et al. 1998; Shepherd and Wiklund 2009). A key requirement in science, engineering, and medicine is that of replication, i.e., any other researcher

or research team must be able to replicate the research process and reach the same results. Let us face the reality that the management sciences despite the use of fancy statistics is still not a science in the same way chemistry, biology, or the other "hard" sciences are. We look more like the dismal science—economics.

Put differently, replication is a fundamental requirement for filing a patent and replication is standard procedure in the physical sciences. In the social sciences, the situation is quite the opposite. Any researcher, or research team, attempting to replicate a study will literarily "blow a publication." Journals in social sciences, especially those in entrepreneurship, generally do not accept replications for publication. Mere replications are usually a desk reject in most journals.

The consequence of this is that entrepreneurship researchers are forced to either marginally change the design or "hunt" for the new by conducting "yet another study." Researchers hunt for new perspectives, by using hypotheses from previous studies without really considering if this is methodologically even appropriate. This is compounded by increasing demands by universities worldwide that faculty publish in peer-reviewed journals and everyone wants a paper in the top tier journals when at best 30 papers a year will appear in any one of those top journals. Replications therefore are not only not getting published in peer-reviewed journals, no one even attempts to knowingly try. No one wants a desk reject after months of work and replications would usually fall into that category.

Then there are the issues of different units of analysis. For example, one of the more irritating habits of researchers is to posit hypotheses based on results from studies on samples of large and established firms and use as predictions in studies of start-up and small firms. Several chapters in one of our forthcoming book (Carsrud and Brännback 2014) on methodology address this issue from a number of perspectives.

This borrowing from the large organization literature is done often without serious consideration of whether this is appropriate. When results are then different from previous studies it is really not very surprising, but rather something to be expected. In reality this does not add any real new knowledge, but reinforces the notion of research results being highly fragmented. Examples of fragmented and conflicting abound in the research results from studies on the relationship between firm growth and firm profitability. They range from anything of a strong positive to weak negative to no relationship at all (Shuman and Seeger 1986; Gartner 1997; Baum and Wally 2003; Markman and Gartner 2002; Davidsson et al. 2009).

While the overwhelming majority of the literature seems to agree that growth is a precursor for profitability, there is strong evidence that the growth–profitability relationship is certainly problematic. For example, rapid growth in particular may lead to considerable organizational challenges that can seriously constrain a firm's ability to generate profits, manage its human resources, organizational structure, operations, as well as the specific growth stage a firm is in (Churchill and Lewis 1983; Aaker and Day 1986; Kazanjian 1988; Gartner 1997). This was certainly true at People Express Airlines, the case we discussed in the introduction. There are simply physical and logistics issues that put limits to growth rates. You can only hire so many people so fast for a skill-based set of jobs. Not everyone can fly a commercial jet aircraft or maintain its engines.

Also, it is not entirely uncommon that a profitable firm becomes a victim of its own success (Churchill and Mullins 2001). Neil Churchill was known to say *nothing will kill you deader than success.* This seems to have been the case at both Digital Equipment and more recently at Blackberry who rested on its technology laurels. So, a careful analysis of this body of literature makes you wonder what exactly has been learned about firm growth after nearly three decades of research. Admittedly, someone cynically minded may suggest it seems like an awful waste of tremendous research effort. As long as social sciences does not accept the idea of replication where other researchers can attempt to reach the same results, with a different sample, we will never really know if a particular research result is merely an isolated phenomenon or a general one. Anyone who has tried to do cross-cultural studies or cross-national studies will attest to the problems with reviewers when one fails to replicate a well-established finding from North American samples.

This leads to another major issue with studies of growth entrepreneurship. In some ways, this is the reflection of the domination of American-based journals. The majority of studies have been conducted in North America. Even if sample sizes are large enough to allow for statistical generalizations, it is necessary to exercise some caution as to how such generalizations apply across different cultures and nations. There are clearly potential biases related to studies from Islamic countries, like Iran, and from the developing African economies, like Egypt, as so few ever seem to get through the reviewing process.

There are more concerns. While many in the business world and academia may speak the English language, it does not mean that all entrepreneurs speak it. Thus, the meaning of a word in English may not easily translate across languages. Winston Churchill once noted that a common tongue divided even Americans and the British. This has implications for data collection clearly. For example, surveys or interviews where *meaning* may be lost in translation and naturally this will impact research results (Brännback et al. 2014).

Then, there is the issue of publishing for the sake of publishing. To get tenure in more and more universities, you need to publish in peer-reviewed journals. Social sciences in general and entrepreneurship in particular becomes a field collecting yet another study, yet another publication, which does not verify existing knowledge and it certainly does not generate *new* knowledge. But, what it does is that it very efficiently amplifies the fragmentation of the field. And, a consequence of this is that the idea of creating a unified theory or a unified definition of entrepreneurship or strategy becomes a futile endeavor—a researcher cannot even falsify, as falsification requires replication. Thus, in a true Popperian sense, theory development becomes an oxymoron. That is why we have all these frameworks and models—innuendo. Is there a black swan in there? Given the way the system operates we will never really know!

We have a nasty habit in entrepreneurship of borrowing heavily from other disciplines without really understanding the basis of this initial theory (McMullen and Kenworthy 2014). Let us take an example, the development of the "stages model" frequently used not only in entrepreneurship but also in marketing, product development, and innovations management, to mention a few, to describe growth. There

is probably not a single introductory course in entrepreneurship that does not somewhere use a stage model as a teaching tool. While it may make an interesting lecture, stage models from a research standpoint just add to the confusion about growth.

Stage models build on the biological analogy suggesting that firms grow like living organisms. Although Penrose (1952) heavily criticized the use of such models when studying firms, the popularity of the model is quite remarkable (Levie and Lichtenstein 2010). Edith Penrose wrote (1952, p. 808):

> We have no reason whatsoever for thinking that the growth pattern of a biological organism is willed by the organism itself. On the other hand, we have every reason for thinking that the growth of a firm is willed by those who make the decisions of the firm and are themselves part of the firm, and the proof of this lies in the fact that no one can describe the development of any given firm or explain how it came to be the size it is except in terms of decisions taken by individual men.

This observation seems to have gone largely unnoticed by both researchers and teachers as firm growth generally assumed to transcend a number of stages, usually in some orderly linear fashion. The stages model is extremely powerful in visualizing and thus describing firm growth (Levie and Lichtenstein 2010). For example, one study found that all entrepreneurs in a sample were able to identify in which stage (out of five distinct stages) their firm was (Eggers et al. 1994).

While the stage model appears powerful, there seems to be very little agreement on how many stages a firm evolves through. Any number between three and six is offered as a correct one. As pointed out by Levie and Lichtenstein in 2010 such disagreement as to a model's core characteristic cannot be a good sign that the model is useful. In fact, Levie and Lichtenstein quite efficiently suggest that researchers should abandon the model when describing firm growth as it gives a false representation of firm development:

> In contrast to the biological foundations of stages models, we argued that organizations are not similar to organisms; they do not have a genetic code controlling their development. Far from it, organizations can anticipate and even co-create their environment, making internal shifts to fit current or projected changes. (Levie and Lichtenstein 2010, p. 336)

Even one of the leading researchers in entrepreneurship, Prof. Per Davidsson has noted that entrepreneurship and growth are also extremely heterogeneous phenomena (Davidsson 2005). Nonetheless, research summaries, specific findings, and methodologies are all used as if they are comparable when they are not. It is like apples, bananas, and tomatoes are lumped in with trees, rocks, water, and deer. All are a part of Mother Nature, but at that level of gross generalization confusion is bound to occur.

For an entrepreneurial firm, the number of employees, market share, and growth in product lines are often highly independent with little statistical correlation (Shepherd and Wiklund 2009; Achtenagen et al. 2010). This suggests that researchers understand that the field of entrepreneurial growth is more unified than it really is. Certainly, it is a lot less clear to those actually building entrepreneurial firms.

One simply has to realize that measures with low concurrent validity are not comparable and cannot be used interchangeably even if you try to provide some theoretical justification (McKelvie and Wiklund 2010). The results are often disastrous

if one draws false conclusions (Shepherd and Wiklund 2009). We have seen this time and time again in economic research, including research on how much public debt a country can support and the ultimate demise of that work upon closer examination.

When future research fails to confirm these exact "findings" the result is an increasing fragmentation (Cunningham and Lischeron 1991; Gartner 2001; Gartner et al. 2006; Reader and Watkins 2006). No one ever really asks if they are measuring the same thing or if the data are categorical or continuous or even self-reported. This has been true for general research on entrepreneurship as well as growth entrepreneurship in particular. Sometimes what causes this is the tendency to find a simple measure or one that is conveniently there already. People appear to pick the definition that leads them to the most easily available measure of growth in their particular sample. This is not necessarily the researcher being lazy, but once again being driven by the *publish or perish* nature of academia today.

As we mentioned early, most entrepreneurs and researchers will agree that starting and running a firm—everything from idea and concept generation to actually creating the venture and subsequently running the venture—is a process. However, when we look at entrepreneurship research, we really seem to study bits and pieces in isolation from the whole. There is no coherent picture of even the process within a given context. This is certainly true for studies on firm growth and this increases fragmentation and adds to the heterogeneity of the growth phenomenon. Rather than add to a deeper understanding of a single phenomenon we are in reality studying multiple phenomena. We remain puzzled why so few researchers have long-term streams of research. One exception is clearly our colleague Paul Reynolds who has built his considerable reputation on the Global Entrepreneurship Monitor and PSED studies.

A holistic approach may well require very different methodological considerations than are currently employed. We are the first to admit that this is not at all simple. A systems approach may well be called for as we did in our book on family business (Carsrud and Brännback 2014), but at the same time we may lose focus, which in turn is another characteristic of "sloppy" research. Nonetheless, a holistically influenced methodology in studying growing firms may work as a tool for breaking the current boundaries and viewing the phenomenon in novel ways, both theoretically and empirically (Popper 2002; Iacobucci and Rosa 2010; Levie and Lichtenstein 2010).

This is where the multidisciplinary nature of the researchers in the field may actually be beneficial. Most management researchers really do not have a very sophisticated understanding of financial reports or for that matter accounting. This shows in the rather simple confusion seen in some papers where revenues are confused with profits. One is top line of a cash flow statement while the other is the bottom line (however depending on what is subtracted in-between). One only needs to think of Earnings before deduction of interest, tax and amortization (EBITA) to understand the need for collaboration with others. We sometimes wonder if researchers in entrepreneurship actually had an accounting or finance class. This need to collaborate with people who understand accounting and finance can be problematic.

Finally, adding to the challenge within the study of growth entrepreneurship is the multiple perspectives involved. A very large number of stakeholders, with very different perceptions of what is important and what should be the ultimate goal of

an entrepreneur, are involved. Investors may want profits, politicians may want jobs and taxes, owners may want wealth and income, and employees may want not to see their jobs outsourced. Each of these viewpoints might best be studied using different theoretical lenses rather than trying to find one unified theory.

As Iacobucci and Rosa (2010) suggest entrepreneurship might benefit from examining its phenomenon with different approaches integrating a portfolio of theories, instead of trying to explain complex structures through a single theoretical lens. New ways of looking at old factors may be needed in order to further our understanding of firm growth. Here, we think that Levie and Lichtenstein (2010) have taken a step in that direction in their challenge of the stage models. What must not be lost sight of in all of this discussion on research models is that somehow this must be translated into some practical information that can benefit the entrepreneur trying to grow his or her new venture.

Returning once again to the historical roots of growth we need to remember that it was Edith Penrose (1959), who transferred the concept of growth to the center stage of entrepreneurship research. Her interest was in understanding *profitable growth*. The entrepreneur was seen as an enabler, and acquired, therefore, a more functional role:

> The term 'entrepreneur' throughout this book is used as a functional sense to refer to individuals or groups within the firm providing entrepreneurial services, whatever their position or occupational classification may be. Entrepreneurial services are those contributions to the operations of a firm which relate to the introduction and acceptance on behalf of the firm of new ideas, particularly with respect to products, location, and significant change in technology, to the acquisition of new managerial personnel, to fundamental changes in the administrative organization of the firm, to the raising of capital, and the making of plans for expansion, including the choice of method of expansion. (Penrose 1959, p. 31)

This view is, to a large extent, the same as that found in the economic literature (Cole 1959; Baumol 1968). It is Bill Baumol who once stated that where the entrepreneur is seen as the Schumpeterian innovator who:

> . . . must lead, perhaps even inspire; he cannot allow things to get into a rut and for him today's practice is never good enough for tomorrow. (Baumol 1968, p. 65)

At this point it appropriate for us to turn our attention to the relationship of growth and success. Growth clearly has different rates, some slower than others.

3.3 High-Growth or Rapid High-Growth as Success

Prof. Allen Gibb, one of the leading researchers of entrepreneurship in the UK, has noted that the high-growth company and growth entrepreneurship has been a central issue in European policy since the 1990s (Gibb 2000). In 2000, the European Union (EU) launched the first version of the Lisbon strategy. Since then, and later in the updated versions of the Lisbon strategy, economic growth and entrepreneurship as an enabler of growth lie at the very core (EU: Lisbon 2000). In June 2008, the EU adopted the Small Business Act for Europe. This act states that the aim of the European Commission is as follows:

> . . . boosting the emergence of high-growth enterprises by supporting the research and innovation capacity of SMEs, mainly through the increased coordination of national programmes and initiatives (EU: SBA 2008, p. 15). In order to meet this aim, the member states are invited to: "encourage the efforts of SMEs to internationalise and become high-growth enterprises including through participation in innovative clusters." (EU: SBA 2008, p. 16).

An example from Europe is what was reported on October 26, 2010, by the leading Finnish business media: Due to the non-existence of growth companies, the Scandinavian ministers had unanimously decided that strong support for growth entrepreneurship was required, especially due to global competition (Kauppalehti 2010). Growth entrepreneurship has attracted considerably more attention also among Finnish policy makers during the last few years (Murray et al. 2009). The Ministry of Employment and the Economy (hereafter FMEE) even has its own section for Growth Entrepreneurship on their official webpage (FMEE Growth Entrepreneurship).

In 2009, the FMEE published the Government's Communication on Finland's National Innovation Strategy to Parliament. This report states the following:

> Business development services and incubators will particularly target those companies, which strive to generate rapid growth. The service system for growth companies will be developed as a whole, so that the roles and offerings of public operators form a clear entity. By means of taxation, experienced capital investors and business experts will be motivated to commit themselves to the development of enterprises aiming at rapid growth and internationalization. Company taxation and insolvency legislation will be developed so as to encourage small innovative businesses to generate growth and take risks, and to create prospects for serial entrepreneurship . . . . (FMEE 2010, p. 33)

What the previous extract shows is that growth entrepreneurship is a central theme within the Finnish government policies, and actions are taken in order to foster the future development of high-growth businesses. In the report, the word *growth* was mentioned 26 times. The word *profit* was mentioned once (in a context of private investment firms profits), but there was no mention of the word *profitability*. It sure makes you wonder if government policy makers really understand how firms survive in the long run. If you have no profits you ultimately go bankrupt. The entrepreneurial landscape is littered with the bones of such firms.

Policies aimed at growth entrepreneurship are by no means only just a Finnish trend, as all over the world public policies are set up to nurture growth entrepreneurship. A report for the Finnish Ministry of Trade and Industry, *named* "*High-growth SME support Initiatives in Nine Countries: Analysis, categorization, and recommendations,*" by Autio et al. (2007) show the extent of public growth initiatives. The existence of growth entrepreneurship initiatives is truly global; in a study of nine countries from different corners of the world (Australia, Brazil, Finland, Hong Kong, Hungary, Italy, Netherlands, Spain, and UK) the authors illustrate, analyze, and categorize entrepreneurial growth policy initiatives.

In 2007, a total of 47 initiatives in the previous nine countries were identified (Autio et al. 2007). All initiatives involved public funding, and in only three cases was the share of private funding equal or of significant levels evident. This shows governments do believe in these sorts of growth initiatives. Interestingly, they do not seem to think that the private sector is very critical to make growth occur.

While we could go more in-depth into the conclusions of the Autio report we are using it to show that the *growth mantra* spoken by many in government is well established in public policies worldwide. Another illustration of the same phenomenon is the number of times growth was mentioned in the report. The world *growth* was used a total of 436 times, while the word *profit* was mentioned four times (all of them irrelevant to the context) and *profitability* was not mentioned even once.

Taken altogether, there is clearly a pattern emerging. Growth is being divorced from profit. It is like growth exists independently of profit and that profit is really secondary. Frankly, this is bordering on both absurd and naïve.

Entrepreneurs know that you do not make up losses with increasing market share. If that was the case, eToys would still be functional, selling Barbie dolls cheaper than Mattel can make them, and Pets.com would still be selling $ 10 bags of dog food for $ 5 and shipping would be free. Both firms were VC funded and the lead investors would say they were going to make the losses up on the volume. Clearly someone was smoking something. The role of profit in the equation of a successful business is something that both VCs and other investors forgot in the first dot.com bubble of the early 2000s.

It is amazing despite the lessons from the first dot.com bubble, we still see the various ways of conceptualizing high-growth, *high-growth is universally portrayed as evidence of business success* (Birch 1987; Reynolds 1997; Davidsson and Delmar 2006; Autio et al. 2007; Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009; Haltiwanger et al. 2010; Kiviluoto et al. 2010). Even the much flaunted Facebook has yet to justify its market price with its revenues much less its profit margins. But once again, we digress a bit from our focus. Let us return again to what we do know about growth-oriented firms.

There is general agreement among academia and in public policy on three points about the role high-growth firms have achieved (Davidsson and Delmar 2006, p. 157):

1. A small group of high-growth firms have a key role in total employment creation.
2. A dramatic increase of interest in these firms has increased during the last few years
3. Current knowledge about their economic contributions and management practices are limited and insufficient.

Increasingly, the role of small high-growth firms as job creators has been questioned (Biosca 2010; Haltiwanger et al. 2010; Neumark et al. 2010). All swans are not white and all small firms do not create jobs. In addition, large geographical differences in growth measured in employees have been identified: both between Europe and USA, as well as between the European countries (Biosca 2010). This suggests that context may have a significant influence.

This level of analysis requires detailed data that are not as subject to the self-report bias of the Dunn and Bradstreet data on which Birch's work was dependent. While the work of Neumark et al. (2010) supports Birch's (1987) findings the former found the effect of small high-growth firms considerably less significant than in prior studies. Haltiwanger et al. (2010) argue that results emphasizing the critical role of small

high-growth firms are often due to measurement error, or misinterpretation caused by analysis conducted on inadequate data. Mark Twain's admonition that there are lies, damn lies, and then statistics seems once again to plague entrepreneurship researchers.

Using a novel dataset by the US Census Bureau's Business Dynamic Statistics, including all firms and establishments in the US nonfarm business sector for 1976–2005, the authors present very interesting contradictory results. This database allows the monitoring of *both the firm's size and age*. Haltiwanger et al. (2010) finds no relationship between employment net growth and firm size from 1992 to 2005.

Start-ups (age zero) and young firms (1 to 10 years old), are job creators, but at the same time job destructors. *On average 40 % of the jobs created by start-ups do not exist 5 years later* (see also Shane 2009 for similar suggestions). That is the very firms that create the jobs are also the ones to shed them. There may be a net job gain, but it is much lower than Birch suggested. If this part of the myth of high growth firms is undergoing a reality check, what other parts of the growth myth need to be reexamined? As we have been saying all through this volume, high-growth is an extremely heterogeneous phenomenon as numerous of our colleagues have shown (Delmar et al. 2003; Pukkinen et al. 2005; Chan et al. 2006; Biosca 2010).

A lot of confusion surrounds the very definition of *growth and high-growth* (Gibb 2000). Birch (1987) for example, studied a specific dimension of growth, employment, and made it clear he was looking at growth in profit. From a public policy makers perspective, Birch's (1987) perspective seems compelling if not totally seductive. Employment growth is always of high interest to policy makers (Autio et al. 2007) and often also to public investors. A main reason of this is for politicians to get reelected on a job creating platform and not for losing jobs. VCs love to show projected high growth rates when they exit a firm at an IPO event. That is one reason Facebook was such a bomb on its IPO, within a day it was down significantly. The finger pointing was evident in the mass media.

However, while employment may be everything to the politician, for the entrepreneur there is no such obvious mandate. On the contrary, high employment growth may be the last thing an entrepreneur plans (Autio 2007; Achtenagen et al. 2010), or the VC wants to see. To many, employees are a cost center not a valued asset. Few firms are like Costco in the USA which see employees as a valued part of the firm. Remember our earlier discussion about DAP Industries where the total number of employees is in the single digits but the profit margins and market share are substantial. If anyone should know a growth firm when they see it would be seasoned VCs. We will discuss how VCs look at growth later in this volume where you may find some surprises.

Increasingly, high-growth cannot be universally seen as evidence of business success, as if it ever really was evidence. High-growth is rarely the prerequisite of high profitability. Recently, numerous studies (Markman and Gartner 2002; Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009; Kiviluoto 2014) have shown that in reality high growth firms usually end up being huge disappointments. Just think of our earlier example of People Express Airlines or the demise of Nokia and Blackberry in an industry they helped to create.

In addition, high-growth is multidimensional and research has found difficulty in conceptualizing and measuring this complexity (Venkataraman and Ramanujam 1986; Brush and VanderWerf 1992; Weinzimmer et al. 1998; Delmar 2006; Shepherd and Wiklund 2009; Achtenagen et al. 2010). The difficulties of conceptualizing performance are emphasized among privately held high-technology firms (Birley and Westhead 1990; Bloodgood et al. 1996; Bantel 1998; Robinson 1998; Gilbert et al. 2006; Kiviluoto et al. 2009). For example, growth in employment, sales, or profits, all measure different dimensions of growth, giving different indications of a firm's performance. This encourages the search for explanations behind the idea of high-growth being evidence of business success.

In the next section of this book, we will examine the issues of measurement in some depth. While this may seem mundane and at times technical, it is actually rather critical. So please bear with us as we delve into some topics that may seem a bit boring.

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Chapter 4
Measuring Growth

4.1 Measuring Growth at Individual-Level and Firm-Level

There is an old adage that what gets measured is what gets done. This may clearly be at work when we look at measuring growth. One of the great banes for most authors trying to do research in entrepreneurship is levels and unit of analysis. When studying the growth of firms there are different levels of sampling and analysis to be considered: individual, firm, industry, and spatial (Davidsson 2005). All these levels, being extremely heterogeneous, require their own types of factors to be considered when attempting to explore factor impact. One major reason to be concerned essential is to consider these as a matter of *theoretical representativeness* (Davidsson 2005, p. 69). That is, does the sample represent the type of phenomenon that is described by a given theory, be it the resource-based theory of the firm or any other.

The smallest, and at the same time the most heterogeneous, of the sampling units is the individual. Two of the authors of this book are widely recognized for their work in the cognitive aspects of the entrepreneur and thus we want to acknowledge our inherent bias in that respect. That said, entrepreneurship research is becoming increasingly more depersonalized, which is something that has also happened in economics research (Baumol 1968).

Edith Penrose already argued earlier that one of the major problems with entrepreneurship research is its extremely personal aspect, and she foresaw that it would become one of the major obstacles in attempt for generating a general theory about firm growth (Penrose 1959, p. 33). Ultimately, it is not the firms that make the decision whether or not to pursue new opportunities, and hence grow. It is the individual or a small group of individuals. Thus, cognitive social psychology remains to us a contributor to our understanding of the new firm.

The very same problem that Edith Penrose highlighted half a decade ago is still found today: "*Presently, entrepreneurs—as the enactors of business growth—are not given the central role they deserve, though they decide whether to grow the business or not*" (Achtenhagen et al. 2010, p. 309). One explanation of this may be that at some point the research on personality traits was perceived to have met an impasse (Gartner 1988; Aldrich 1999; Rauch and Frese 2007, p. 76). The research community seemed to agree that the traits approach was not a fruitful starting point

M. Brännback et al., *Understanding the Myth of High Growth Firms,*
SpringerBriefs in Business, DOI 10.1007/978-1-4614-9457-7_4,

(Gartner 1988). Personality factors were found to explain very little of who becomes an entrepreneur and who does not (Shane 2008).

This was decided despite the fact that research can show strong support for personal characteristics and entrepreneurial intentions (Krueger et al. 2000). The transition away from the traits' approach was due to the research community's fruitless attempt to identify unique traits that would distinguish those who would become entrepreneurs, from those who do not (Carsrud and Brännback 2011a). The transition was criticized by Rauch and Frese (2007). In a meta-analysis of 116 independent samples, and an overall sample size of 26,700 individuals, Rauch and Frese (2007) studied how traits affect business creation and success. The authors found results, although not always statistically significant, that personal traits did in fact explain the creation and success of the studied firms. This is not surprising to one of the authors of this book who showed these effects clearly some 25 years ago (Carsrud et al. 1989). But fields often adopt theories, and reject them, without really understanding the basis of these or the care in the measurement required, something McMullen and Kenworthy (2014) have noted recently.

If the entrepreneur is "out," what is then "in" with regard to level or unit of analysis? The most commonly used level of analysis in growth entrepreneurship research is the firm level. Davidsson and Wiklund (2001) noted a strong and growing dominance for firm-level research. This may have been due to the growing interest in entrepreneurship as a phenomenon and its boundaries stretching to other forms, such as corporate entrepreneurship. It could also reflect the growing number of researchers in the field coming from a strategic management background.

With them came the theories from strategic management, such as the resource-based view became more widely used also in entrepreneurship research (Pitelis 2009). This may have shifted the focus from the entrepreneurs per se, to the entrepreneur (with all his qualities) being only one resource among all the others.

Individual- and firm-level analyses are the dominant methods in entrepreneurship research. Both are heterogeneous, which needs to be more widely acknowledged by researchers (Davidsson 2005). While choosing the level of analysis the most important criteria is that the level of analysis corresponds with what is proposed by the theoretical framework, without forgetting practical relevance. The level of analysis should be chosen once three preceding decisions have been made:

1. The specification of purpose,
2. The specification of theoretical perspective, and
3. The specification of focus (Low and Macmillan 1988).

4.2 Comparing Growth Measures

In this section, we are going to get a bit more technical and look at some actual empirical data. For nonacademics, reading this book this may be a bit boring, but bear with us. It is critical to show there is support for our concerns with the conceptualizations of *growth*. At this point, we are going to return to one of the foundational disciplines

of entrepreneurship, the area of business strategy. From a strategic management point of view, performance is a multidimensional concept consisting of different domains: financial performance, financial and operational performance (business performance), and overall effectiveness as an organization.

Venkataraman and Ramanujam (1986) acknowledged that in strategic management research attention has been drawn to the conflicting nature of various performance measures, such as the conflicting relationship between growth and profits when considering the timeframe and its effect on the measures. The reason is fairly simple, growth requires spending money, thus reducing the bottom line, i.e., profits. They point out that many of the most commonly used financial performance measures are not comparable, as they reflect *completely distinct dimensions of performance*. While this statement may not be totally true, the point remains the various measures of firm performance are each quite different. It is bit like blind men trying to describe an elephant, some think it is a snake, some a tree, some a wall. The entrepreneurship research community has seemingly failed to acknowledge these well-known complexities. In addition, they have made a grievous mistake of assuming that various incomparable measures can be used as substitutes for other measures (Murphy et al. 1996; Delmar 2006; Shepherd and Wiklund 2009).

Comparing different growth and performance measures requires an understanding of the relationship between variables. Often these are clear as they may be based on some factor like sales and are some derivation of that measure. Other relationships may be far more complex and indirect. What is clear is that the representativeness of the perceived performance dimension needs to be assessed prior to conducting research and know clearly if it is an adequate measure (Venkataraman and Ramanujam 1986).

The comparability of performance measures can be assessed by looking at the level of concurrent validity between them. High concurrent validity does not implicitly mean that the two measures provide exactly the same information and hence would be fully interchangeable, but that:

> . . . they share a sufficient amount of variance that enables these different measures to provide a similar picture of the underlying construct. It allows us to have some faith that we are comparing apples with apples to accumulate knowledge (Shepherd and Wiklund 2009, p. 110).

Based on the correlation coefficient, the concurrent validity is determined as follows: high ($r >= 0.5$), moderate ($r = 0.3 - 0.5$), low ($r = 0.1 - 0.3$), and no ($r = < 0.1$) (Shepherd and Wiklund 2009). It is interesting to note that most reported research does not tell us the concurrent validity and when it does it is often not as high as one is often led to believe in the written reports.

Remember, Dean Shepherd and Johan Wiklund (2009) found that relatively few measures show high concurrent validity. In addition, they found large variations in performance over time, indicating low comparability between the same performance indicators measured during different time-spans. This is like comparing apples and oranges where one is still on the tree and the other is rotting in a compost pile. We do not know if perceived differences are due to the fruit or how long it has been since it was picked. Don't you just love our use of analogy.

4.2.1 Examples of Comparing Growth Measures

We will now turn to a greater look at this type of validity. Concurrent validity was explored in three studies focusing on the relationship between performance measures over the last 15 years, these are studies by Weinzimmer et al. (1998); Delmar (2006), and Achtenhagen et al. (2010). An analysis of these studies shows high variability between different conceptualizations of performance, emphasizing the problematic nature of comparing measures. That is, consistently over multiple studies we find comparing performance measures to be messy at best and impossible at worst. Thus, any attempt to talk about the impact of growth on firm performance is highly suspect.

Let us take the first of these studies, the one by Weinzimmer et al. (1998) who studied the performance of 193 publicly traded firms from 48 different industries. Data were extracted from the COMPUSTAT database. The authors point out surprisingly low correlation between the different performance constructs, indicating low comparability between various performance measures (Weinzimmer et al. 1998). In addition to weak correlations between growth indicators (sales, employment, assets) they also found high variability in ways of computing growth (absolute, relative, regression line). This is a bit like choosing the approach that supports your view and ignoring the ones that do not.

For the reader interested in the details, the table later shows the concurrent validities between performance measures in Weinzimmer et al. (1998). Looking at Table 4.1 later, three things are noteworthy:

1. High concurrent validity exists between absolute and relative measures,
2. High concurrent validity exists between similar was of computing performance: absolute-absolute, relative-relative, average-average, and
3. The concurrent validity is dependent on the type of measurement, that is average measures are not comparable with other measurement types.

These results indicate clearly that care must be taken when trying to compare various performance measures or using one type of measure and then trying to compare it to another not similarly constructed. While this may seem trivial to the casual reader, what it is like is confusing the English system of inches and yards with the Metric system of centimeters and meters. It can get confusing.

The second study we are going to examine is one by Delmar (2006) who examined the performance of 396 privately held Swedish firms. Data were extracted from Statistics Sweden and included firms with 5–49 employees from the following sectors: high-tech, manufacturing, services, and professional services. Performance data were from 1991 and 1994.

The correlation coefficients between performance measures show two things (see the Table 4.2 later):

1. Absolute and relative measures are poorly correlated regardless of measurement type, hence indicating low concurrent validity,
2. High concurrent validity exists between measures with similar measurement types: absolute–absolute, relative–relative.

Table 4.1 Concurrent validities between performance measures in Weinzimmer et al. (1998)

Concurrent validities between performance measures[a]	Abs. sales (4 year total)	Abs. employees (4 year total)	Abs. assets (4 year total)	Avg. sales[b]	Avg. employees	Avg. assets	Rel. sales (4 year)[c]	Rel. employees (4 year)	Rel. assets (4 year)
Abs. sales (4 year total)									
Abs. employees (4 year total)	High								
Abs. assets (4 year total)	High	High							
Avg. sales[b]	Low	Low	Low						
Avg. employees	Moderate	Moderate	Moderate	High					
Avg. assets	No	No	Low	High	Moderate				
Rel. sales (4 year)[c]	High	High	High	No	Low	No			
Rel. employees (4 year)	High	High	High	Low	Moderate	No	High		
Rel. assets (4 year)	High	High	High	Low	Low	Low	High	High	

Abs absolute, *Avg* average, *Rel* relative

[a]High ($r \geq 0.5$), Moderate ($r = 0.3 - 0.5$), Low ($r = 0.1 - 0.3$), No ($r \leq 0.1$)

[b]Quarterly average

[c]Difference between 1991 and 1987

Table 4.2 Concurrent validities between performance measures in Delmar (2006)

Concurrent validities between performance measures[a]	Abs. employment (3 year total)	Abs. multiple (3 year total)	Abs. sales (3 year total)	Rel. employment (3 year)	Rel. multiple (3 year)	Rel. sales (3 year)
Abs. employment (3 year total)[b]						
Abs. multiple[c] (3 year total)	High					
Abs. sales (3 year total)	High	High				
Rel. employment (3 year)	Low	Low	Low			
Rel. multiple (3 year)	Low	Low	Low	High		
Rel. sales (3 year)	Low	Low	Low	High	High	

Abs absolute, *Avg* average, *Rel* relative

In addition, Delmar (2006) found evidence of high variation in study outcomes depending on how performance is conceptualized. This clearly indicates low comparability between studies using different performance conceptualizations.

The third study we examine is one by Achtenhagen et al. (2010). They studied the performance of 827 privately held Swedish firms. Once again the data were extracted from Statistics Sweden and consisted of Small and medium enterprises (SMEs) from various industries. The performance data were from 1997 and 2000. The correlation coefficients between the performance measures show four things (see Table 4.3 later):

1. Very low concurrent validity between absolute and relative growth measures,
2. High concurrent validity between absolute growth measures, but only moderate between relative,
3. No concurrent validity between any profit measure and growth measures, and
4. High variability in the concurrent validities between profit measures.

In addition to the low comparability of different performance measures, the authors found a disturbing convention in choosing the performance measure; no motivation is given for the choice of growth measure in 58 % of the studies, and up to 64 % of the studies provide no definition of the used conceptualization of growth (Achtenhagen et al. 2010).

We hope we have shown in the review of three studies that measurement is critical to the understanding of growth research in entrepreneurship and that comparing growth studies must be done carefully. That is, the results shown previously point out an issue of crucial importance. The high variability in growth indicators and the low correlations between them suggest that by not using exactly the same growth measures, the results of one study cannot be compared or used as a basis for another study:

> the same model differed greatly in its ability to explain growth dependent on the chosen indicator . . . little effort has been done to truly understand the pros and cons of different measures (Delmar 2006, p. 79).

Table 4.3 Concurrent validities between performance measures in Achtenhagen et al. (2010)

Concurrent validities between performance measures[a]	Abs. employment growth (3 year total)	Abs. sales growth (3 year total)	Rel. employment growth (3 year)	Rel. sales growth (3 year)	Profit 2000 Profit 2000	ROE 2000 ROE 2000	ROA 2000 ROA 2000	Firm value[a]
Abs. employment growth (3 year total)[b]								
Abs. sales growth (3 year total)[b]	High							
Rel. employment growth (3 year)	Moderate	Low						
Rel. sales growth (3 year)	No	No	Moderate					
Profit 2000	No	No	No	No				
ROE 2000	No	No	No	No	Low			
ROA 2000	No	No	No	No	Moderate	High		
Firm value growth[c]	No	No	No	No	No	No	No	No

Abs absolute, *Avg* average, *Rel* relative, *ROE* return on equity, *ROA* return on assets
[a]High ($r \geq 0.5$), Moderate ($r = 0.3 - 0.5$), Low ($r = 0.1 - 0.3$), No ($r \leq 0.1$)
[b]Difference between 1997 and 2000
[c]Self-reported *(5p-scale) estimate of the 3-year change in firm value

Additionally, Shepherd and Wiklund (2009, p. 105), start their paper with:

> Although knowledge accumulation is dependent upon relationships among constructs being robust across different measurement and sampling decisions, scholars have not sufficiently established such robustness for the construct of firm growth.

If you have not figured it out yet, what we are trying to get across here is that it remains of importance for anyone doing research on firms to acknowledge the shortcomings of various performance measures, and to aim at avoiding the major pitfalls during the research process. We also think it is important that both policy makers and investors understand these issues as well. What you measure is what gets paid attention to by entrepreneurs in their firms.

It is critical that the performance measures chosen should be both theoretically representative and practically relevant. Achtenhagen et al. (2010) point out that academic research studies often measure growth in ways *irrelevant for the practitioners in the field*. A convention of comparing incomparable research results, which are often not even relevant for practitioners, has the danger of leading to a situation where academic research and theory building starts to diverge increasingly from the world it attempts to explain. This conflicts with the fundamental role of theory, and may contribute to an increasing fragmentation of the field. More importantly, we could be misleading both entrepreneurs and public policy makers engage in the wrong behaviors if they ever do pay attention to academic research.

To wrap up this part, the focus has been on research on growth as an outcome. The section started with an illustrative quote by Gilbert et al. (2006), illustrating a typical view on growth; one that parallels growth with success. Thus far, the focus has only been on one side of the coin, which obviously has another side too:

> Through further empirical research on new venture growth, the field will improve its understanding of this complex process toward helping entrepreneurs achieve the ultimate measure of performance, longevity and wealth creation—profitability (Gilbert et al. 2006, p. 945).

4.2.2 Various Ways to Measure Growth

In this section, we are going to dig deeper into the issues of relative versus absolute growth, first focusing on *relative sales growth*. It should be noted, first of all, that relative sales growth is significantly correlated with ten other performance measures. However, the strengths of the relationships are mostly small (Cohen 1977). Once the coefficients of determination are calculated, the shared variance is very small.

For example, sales growth is significantly correlated with operating margin ($r = 0.100$, $p < 0.01$, $r^2 = 1.00\,\%$), earning before interest and taxes (EBIT) ($r = 0.122$, $p < 0.01$, $r^2 = 1.49\,\%$), Return on investment (ROI) ($r = 0.212$, $p < 0.01$, $r^2 = 4.49\,\%$), ROA ($r = 0.200$, $p < 0.01$, $r^2 = 4.00\,\%$), equity ratio ($r = -0.06$, $p < 0.05$, $r^2 = 0.44\,\%$), working capital ($r = 0.096$, $p < 0.01$, $r^2 = 0.92\,\%$), absolute sales ($r = 0.159$, $p < 0.01$, $r^2 = 2.53\,\%$), gross result ($r = 0.167$, $p < 0.01$, $r^2 = 2.79\,\%$), operating result ($r = 0.152$, $p < 0.01$, $r^2 = 2.31\,\%$), and net result ($r = 0.156$, $p < 0.01$, $r^2 = 2.43\,\%$). These result suggest that there is no or only low concurrent validity

Table 4.4 Correlations between relative sales growth and other performance variables (3-year average) (Kiviluoto 2011)

	Overall	Bio	IT	Group 1	Group 2	Group 3
N	1039	67	972	323	344	372
Operating margin	0.100**	0.007	0.110**	0.156**	0.123*	0.038
EBIT	0.122**	0.003	0.131**	0.142*	0.145**	0.091
Quick ratio	− 0.039	− 0.006	− 0.043	− 0.068	− 0.010	− 0.030
Current ratio	− 0.033	0.018	− 0.038	− 0.062	− 0.005	− 0.013
ROI	0.212**	0.174	0.215**	0.206**	0.241**	0.193**
ROA	0.200**	0.165	0.204**	0.199**	0.234**	0.178**
Equity ratio	− 0.066*	− 0.095	− 0.064*	− 0.113*	0.000	− 0.068
Net gearing	0.046	− 0.141	0.061	0.031	0.028	0.096
Debt to sales ratio	0.056	0.057	0.057	0.046	0.061	0.054
Working capital	0.096**	0.043	0.099**	0.118*	0.025	0.138**
Sales	0.159**	0.135	0.162**	0.174**	0.147**	0.160**
Gross result	0.167**	0.144	0.171**	0.172**	0.162**	0.170**
Operating result	0.152**	0.038	0.160**	0.152**	0.210**	0.102*
Net result	0.156**	0.143	0.156**	0.166**	0.206**	0.110*

Significance levels *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

between relative sales growth and any other performance measure (Shepherd and Wiklund 2009). What is interesting here is the amount of variance accounted for by each is very low. Significance does not mean meaningfulness.

The low correlations between relative sales growth and other performance measures, lead to a further examination of the concurrent validity between sales growth and other measures. Table 4.4 later shows the correlations between relative sales growth and all other performance variables, when comparing within industries and within age groups. Table 4.5 shows the coefficient of determination between the same variables.

The two tables show no or *only low concurrent validity between relative sales growth and any other performance measure*, regardless of a comparison within industries or within different age-groups (Shepherd and Wiklund 2009). Subsequently, the coefficients of determination are low with only a single-digit shared variance between relative sales growth and any other performance indicator.

Now what if we look at absolute sales growth? Returning to an earlier discussion previously you will remember that absolute sales are significantly correlated with 12 other performance measures. However, all correlations between absolute sales and any relative performance measure are weak: relative sales growth ($r = 0.159$, $p < 0.01$, $r^2 = 2.53\,\%$), EBIT ($r = 0.080$, $p < 0.01$, $r^2 = 0.64\,\%$), quick ratio ($r = -0.143$, $p < 0.01$, $r^2 = 2.04\,\%$), current ratio ($r = -0.178$, $p < 0.01$, $r^2 = 3.17\,\%$), ROI ($r = 0.262$, $p < 0.01$, $r^2 = 6.86\,\%$), ROA ($r = 0.191$, $p < 0.01$, $r^2 = 3.65\,\%$), equity ratio ($r = -0.2.41$, $p < 0.01$, $r^2 = 5.81\,\%$), net gearing ($r = 0.075$, $p < 0.05$, $r^2 = 0.56\,\%$), working capital ($r = 0.129$, $p < 0.01$, $r^2 = 1.66\,\%$). These results suggest that there is no or only low concurrent validity between absolute sales and all relative performance measure (Delmar 2006, Shepherd and Wiklund 2009). Clearly absolute sales growth alone is not a great predictor of firm performance.

Table 4.5 Coefficients of determination between sales growth and other performance variables (3-year average) (Kiviluoto 2011)

	Overall	Bio	IT	Group 1	Group 2	Group 3
N	1039	67	972	323	344	372
Operating margin (%)	1.000	0.005	1.210	2.434	1.513	0.146
EBIT (%)	1.488	0.001	1.716	2.016	2.103	0.827
Quick ratio (%)	0.154	0.004	0.186	0.464	0.009	0.093
Current ratio (%)	0.110	0.032	0.143	0.384	0.003	0.016
ROI (%)	4.494	3.031	4.623	4.244	5.808	3.725
ROA (%)	4.000	2.722	4.162	3.960	5.476	3.168
Equity ratio (%)	0.436	0.901	0.410	1.277	0.000	0.468
Net gearing (%)	0.214	1.994	0.372	0.095	0.079	0.920
Debt to sales ratio (%)	0.309	0.323	0.328	0.213	0.377	0.297
Working capital (%)	0.922	0.185	0.980	1.392	0.065	1.904
Sales (%)	2.528	1.826	2.624	3.028	2.161	2.560
Gross result (%)	2.789	2.081	2.924	2.958	2.624	2.890
Operating result (%)	2.310	0.148	2.560	2.310	4.410	1.040
Net result (%)	2.434	2.051	2.434	2.756	4.244	1.210

However, absolute sales growth is moderately or strongly correlated with other absolute measures; gross result ($r = 0.955$, $p < 0.01$, $r^2 = 91.20\,\%$), operating result ($r = 0.494$, $p < 0.01$, $r^2 = 24.40\,\%$), and net result ($r = 0.458$, $p < 0.01$, $r^2 = 20.98\,\%$). These results concur with earlier findings (Weinzimmer et al. 1998; Delmar 2006; Achtenhagen et al. 2010). As noted earlier, an absolute measure does well when compared to other absolute measure and here the amount of variance that can be accounted for is much better.

4.2.3 EBIT and Other Measures of Performance

Now we turn our attention to what has frequently been forgotten in growth research, profit. Here we turn the focus toward profitability measures. One of the most obvious and widely used measures of profit is EBIT. EBIT is significantly correlated with 13 other performance measures, many of them moderately or even strongly correlated.

EBIT is significantly correlated with sales growth ($r = 0.122$, $p < 0.01$, $r^2 = 1.49\,\%$), operating margin ($r = 0.933$, $p < 0.01$, $r^2 = 87.05\,\%$), quick ratio ($r = 0.421$, $p < 0.01$, $r^2 = 17.72\,\%$), current ratio ($r = 0.426$, $p < 0.01$, $r^2 = 18.15\,\%$), ROI ($r = 0.823$, $p < 0.01$, $r^2 = 67.73\,\%$), ROA ($r = 0.875$, $p < 0.01$, $r^2 = 76.56\,\%$), equity ratio ($r = 0.429$, $p < 0.01$, $r^2 = 24.21\,\%$), debt to sales ratio ($r = -0.352$, $p < 0.01$, $r^2 = 12.39\,\%$), working capital ($r = 0.161$, $p < 0.01$, $r^2 = 2.59\,\%$), absolute sales ($r = 0.080$, $p < 0.01$, $r^2 = 0.64\,\%$), gross result ($r = 0.130$, $p < 0.01$, $r^2 = 1.69\,\%$), operating result ($r = 0.739$, $p < 0.01$, $r^2 = 54.61\,\%$), and net result ($r = 0.716$, $p < 0.01$, $r^2 = 51.27\,\%$). Interestingly, here sales growth is among the lowest in terms of percentage of variance accounted for by the measure.

An investigation of the correlation coefficients shows moderate and even high concurrent validities between EBIT and a number of other profitability measures

(Shepherd and Wiklund 2009). There is moderate concurrent validity between EBIT and quick ratio, current ratio, and equity ratio. In addition, there is high concurrent validity between EBIT and other relative profitability measures: ROI and ROA. There is also high concurrent validity between EBIT and absolute profitability measures, as well as operating result and net result. Very interestingly, no concurrent validity exists between EBIT and absolute sales, and a very low concurrent validity exists between EBIT and relative sales growth. The coefficients of determination show that the shared variance between EBIT and both relative sales growth (0.64 %) and absolute sales (1.49 %) is very low.

Turning to yet another measure of firm performance we can look at the measure of operating results and the relationship between this and other performance variables. The operating result is significantly correlated toward all other performance measures: sales growth ($r = 0.152$, $p < 0.01$, $r^2 = 2.31$ %), operating margin ($r = 0.659$, $p < 0.01$, $r^2 = 43.43$ %), EBIT ($r = 0.739$, $p < 0.01$, $r^2 = 54.61$ %), quick ratio ($r = -0.246$, $p < 0.01$, $r^2 = 6.05$ %), current ratio ($r = 0.232$, $p < 0.01$, $r^2 = 5.38$ %), ROI ($r = 0.823$, $p < 0.01$, $r^2 = 67.73$ %), ROA ($r = 0.803$, $p < 0.01$, $r^2 = 64.48$ %), equity ratio ($r = 0.298$, $p < 0.01$, $r^2 = 8.88$ %), net gearing ($r = 0.070$, $p < 0.05$, $r^2 = 0.49$ %), debt to sales ratio ($r = -0.273$, $p < 0.01$, $r^2 = 7.45$ %), working capital ($r = 0.178$, $p < 0.01$, $r^2 = 3.17$ %), absolute sales ($r = 0.494$, $p < 0.01$, $r^2 = 24.40$ %), gross result ($r = 0.529$, $p < 0.01$, $r^2 = 27.98$ %), and net result ($r = 0.912$, $p < 0.01$, $r^2 = 83.17$ %).

Similar to EBIT, a high concurrent validity exists between the operating result and other profitability measures; operating margin, EBIT, ROI, ROA, gross result, and net result. Furthermore, a moderate, almost strong, concurrent validity exists between operating result and absolute sales, but only low with relative sales growth (Shepherd and Wiklund 2009). Once again sales growth clearly remains a weak measure of growth despite its wide spread use.

Overall, it can be stated that profitability measures tend to have a high correlation with other profitability measures, measured both in relative and absolute terms. In contrast to relative sales growth, which has a weak correlation with all performance measures, absolute sales show moderate and high correlations with other absolute measures of performance. What this say practically is that studies that use the relatively easy-to-obtain self-report data of relative sales growth are going to be problematic and public policy makers who rely on such studies are going to be making potentially bad decisions. But let us face it, political types have never let good data get in the way of a bad decision either.

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Chapter 5
Growth and Profit

In this section, we look more closely at the relationship of growth and profit and why, despite the seeming ignoring of profit in the discussion of growth entrepreneurship it remains ultimately of critical importance. To start this discussion, it is appropriate to return to one of the intellectual founders of the field of entrepreneurship, Schumpeter.

5.1 Schumpeter's Frame-Breaking Perspective

As you should remember from our earlier discussion Schumpeter's professional background was as an economist, a member of the *dismal science*. You know economists, the ones who predicted eight out of the last three recessions. All kidding aside, Schumpeter was fundamentally interested in the growth of economies, not individual firms, and assumed entrepreneurs existed but were not the focus of their work. As a macroeconomist, he was not directly concerned with the performance and growth of individual firms, but their contribution to economic growth and development.

To his credit, Schumpeter did acknowledge the importance of the individual and suggested that entrepreneurship and innovation played a central role in economic growth (Schumpeter 1934, 1942). In his view, it was of greater importance to look at individual industries and their development in order to understand how an entire economy develops.

Despite the recent "Great Recession" there will be a return to what some will call a growing economy in the USA and Europe at some point. Just right now the growth rates are lucky to be on the positive side. In fact in China and elsewhere growth never really stopped, although it has slowed from previous highs. However, even in a growing economy, there may be both growing and shrinking industries at the same time. Bubbles like the real estate one that triggered the Great Recession can be found in China and even in Brazil. While real estate is an important part of any economy it really depends on innovation to really drive growth, at least according to Schumpeter.

That is, innovations are the factor that makes economies develop and grow and innovations are created by entrepreneurs (Schumpeter 1934). The type of innovation that Schumpeter was concerned with was the type that especially helps to develop

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an economy. It does this by shifting the curves of costs and revenues through what is called *creative destruction* (Schumpeter 1942). Such innovations should be highly disruptive. They should be a radical new introduction to the market that completely changes the ways by which firms can create value.

One can certainly put the automobile, cell phone, and airplane into this list of innovations, but the impact of these may be many years and many iterations of development before it becomes obvious. That said, by shifting the curves of costs and revenues, market disequilibrium is created, which in turn attracts other firms to try to catch up. Schumpeter (1934) argues that through this process, economies develop and grow. What many forget is that the time from when an innovation is introduced and the time it has an impact on an economy can be counted in decades. The internet was an academic and US Department of Defense experiment for years before it found its way into a commercial application.

Innovation, to Schumpeter, meant putting productive resources to uses that were untried before, and at the same time withdrawing those from the uses they had so far served. Innovation was simply about carrying out new combinations. Earlier, Schumpeter (1928) suggested that new firms, specifically, drove innovations, and even argued that innovations could not evolve from large firms. He clearly had no experience with Bell Laboratories as a part of the original AT&T which drove a number of innovations that only years later found commercial applications, like the optic laser.

Later, when conceptualizing creative destruction, Schumpeter saw innovation as a development process from *within* that was *organic*. Due to the resource scarcity of new firms, he also acknowledged the extreme risk and difficulty of introducing innovations. The role of innovations was central, for creating new profit opportunities, both at the industrial and the firm level. The necessity to innovate was crucial: *"no firm ever yields returns indefinitely, if only run according to unchanged plan"* (Schumpeter 1928, p. 381).

While we might well argue if Schumpeter was an expert in the innovation process or really understood technology as an economist, he did express a core concept to most people's view of entrepreneurship. Innovation is conceptually linked to profit opportunities, and therefore, to new venture creation. Clearly he saw a link, but the nature of how that worked was neither clear to Schumpeter nor many who have followed him since.

Unlike many current researchers in entrepreneurship, Schumpeter argued for the necessity of profits and profitability. He defined entrepreneurial profit as the surplus over costs (Schumpeter 1934, p. 128). Something anyone who has completed a course in accounting would recognize and understand and which most small business owners should comprehend. In practice this means all the costs deducted from the generated revenues. The costs include all direct and indirect costs, the wage of labor for the entrepreneur, rent for any land, and finally a premium for risk.

Interestingly, Schumpeter argued that the entrepreneur never bears risk*: "Risk-taking is in no case an element of the entrepreneurial function"* (Schumpeter 1934, p. 137). Risk is something he associated with those who carry the cost of innovation, although never with the entrepreneur. While we might argue with this assumption,

he clearly believed that without the existence of potential entrepreneurial profit, there would be no entrepreneurship. The process of carrying out new combinations, being entrepreneurial, is what creates profit. Subsequently, it is the possibility of entrepreneurial profits that drives entrepreneurship, innovation, and finally economic growth (Schumpeter 1934). That is Schumpeter put profit at the very center and core of his beliefs about the entrepreneurial process.

5.2 Penrose and the Growth of Firms

As we have mentioned earlier, the book by Edith Penrose (1959) entitled "*The theory of the growth of the firm*" can be seen as one of the cornerstones in growth entrepreneurship research. Today it is difficult to find a publication about growth entrepreneurship without a reference to this book. During the past three decades it has influenced entrepreneurship, and it has also influenced organizational economics, strategic management, international business, and even human resource management (Pitelis 2009). For this reason, it is important to understand how she conceptualized the ideas of entrepreneurship, innovation, profits, and growth. The focus here will be on her views of *profit*.

Interestingly, Penrose (1959) suggests that growth and profitability are the same. To accept this as true requires that you accept the fundamental assumptions guiding the entire book. That is you have to accept what she sees as driving any venture's growth. Penrose assumes that the growth of firms is always, and only, driven by an opportunity to make a profit. Penrose would most likely not understand the notion of social entrepreneurship where the motivation for the firm may have profit far down the list. To her, firms are in a continuous search of increasing profits. Other motivations simply are ignored in her model. She acknowledges that there are firms not driven by this objective, either through unwillingness or lack of competence, but those firms are not the focus of her book:

> "It seems reasonable, therefore, to assume that in general the financial and investment decision of firms are controlled by a desire to increase total long-term-profits" (Penrose 1959, p. 29).

One has to remember here that Penrose is seeing this as a firm-level goal, not necessarily a goal pursued by individual entrepreneurs. Penrose also underlines continuous increase in profits. She suggests that profits have two roles: for the sake of existence and for increasing profits. That is, profits begat more profits, or more simply, the rich get richer.

Moreover, growth to Penrose is a process that takes place over time, something also pointed out by Schumpeter (1942). What is unclear is how much time? How the firm manages the entire process depends on the available resources. It is the unique combination of resources (e.g., managerial, human, capital, assets) aimed at a profitable opportunity within a specific market that explains the growth process of a firm. Therefore, the same resource bundle may not work at another point in time, or in another market or another firm. Resources are unique and context specific.

Interestingly, Penrose sees innovation as the source of profit. Profitable growth opportunities exist in the environment, and in order to be able to take advantage of these, the firm needs a unique set of resources in order to identify and exploit these. Overall, the work by Penrose is very much focused on *profitable growth* and how to increase the profits gained. She acknowledges that it is only those types of firms that are of interest to her and form the basis of her work. Hence her work should not even be applied to other types of firms, i.e., firms that do not pursue an increase in profits. Clearly Penrose is looking at a small subset of all firms if you really follow her logic.

5.3 Kirzner's Incremental Innovation Perspective

When looking at entrepreneurship from an innovations standpoint the two scholars that most commonly appear in the same discussion are Schumpeter and Kirzner. This may be explained by their suggested contrasting views on the fundamental differences of the role of innovation in entrepreneurship (Kirzner 2009; Brännback and Carsrud 2008). While Schumpeter was concerned with entrepreneurship and innovation as a disequilibrating or creative destruction force that drove economic development and growth, Kirzner saw the role of entrepreneurship quite differently (Kirzner 1973). For him entrepreneurship was concerned with making the market process work. Hence he saw entrepreneurship as an equilibrating force. As Brännback and Carsrud (2008) have noted both approaches are fundamentally two sides of the same coin. That is, both types of firms have to exist together and clearly do when we look at entrepreneurial firms and innovative products. It is a bit like the old song phrase, *you can't have one without the other*.

Related to the topic of this chapter on profits and their relationship to growth, are how profits are critical to Kirzner's conceptualization. According to him, profits are hopefully the *positive* difference between prices at which something is bought and prices at which the outcome is sold. Discovering such an opportunity, in his theory, would not require any type of investment and hence no form of innovation. Therefore, the Kirznerian entrepreneur is one that is alert. That is she or he sees undiscovered opportunities in the environment that already exist. The Kirznerian entrepreneur does not attempt to shift the curves of costs and revenues such as the Schumpeterian entrepreneur, but instead notices that they have already shifted. In some societies, we might consider this type of entrepreneur a traveling trader, who buys from one group and sells to another, pocketing the difference.

As an important aside, Kirzner (1973) makes a clear distinction between ownership and entrepreneurship. He argues that an entrepreneurial profit requires an entrepreneurial decision. For example, if Tom decides to buy a bike at a price of $4 at 10a.m. on Tuesday, then he retains that bike with no specific intention of selling it. Then at 2 p.m. on Wednesday he discovers that the price has gone up and sells it at a higher price to Mike than he first bought it for on Tuesday. In contrast, Sally buys a similar bike at 1 p.m. on Monday because she sees that changes in the bike market

environment will make it possible for her to sell it at a profit in a day's time. While these two examples are seemingly similar; both persons have owned their respective product and finally made the same amount of profit. However, only Sally has made an entrepreneurial decision and made an entrepreneurial profit. While the difference may be clear as mud, and seemingly trivial, it is yet an important one to Kirzner.

Prof. Kirzner is expanding and developing the work originally introduced by Ludwig von Mises. Profit emerges when an entrepreneur is able to judge the future price of a product better than someone else. We can argue if this is an accurate assumption, but it is how Kirzner views the entrepreneurial event while others may see it as merely the role of a middleman like a broker. One could argue that our earlier example of DAP Industries is perhaps an example of a Kirznerian approach. Similar to both Schumpeter and Penrose, Kirzner's perspective sees profits as being at the very core of entrepreneurship. According to Kirzner, entrepreneurship is about *alertness for opportunities*. The reason why any entrepreneur would like to be alert in the first place is the potential for making profits:

> "Profit is inseparable from the very possibility of entrepreneurship in general" (Kirzner 1973, p. 76).

Kirzner is interested in the drivers that make the market process work. That driver is entrepreneurship. Unlike Schumpeter who believes in sudden and sharp economic shifts, Kirzner sees it is necessary for an economy to gradually move toward a position of equilibrium. This movement happens through alert entrepreneurs who see profit opportunities. Now you can see why Kirzner and Schumpeter are two sides of the economic coin. Profit plays a role in both. Clearly if one is a nonprofit entrepreneur the definition of profit might have to be adjusted to one of sustainability, but nevertheless, Kirzner, Schumpeter, and Penrose see some form of profit as critical to the entrepreneurial process.

Here is where we feel we need to point out once again what we have seen as a major problem with many who cite Kirzner. His view of entrepreneurship has often been translated into a complete misunderstanding and false interpretation of his work (Kirzner 2009). More specifically, the views by Kirzner and Schumpeter are often contrasted as being mutually exclusive, even if they fundamentally attempt to explain completely different phenomena.

The common view is that there are two types of entrepreneurs: either the radically innovative Schumpeterian innovator or then the more passive and alert Kirznerian entrepreneur who does not require an innovation to take place. According to Kirzner (2009), this confusion in the literature has led to streams of research, together with argumentation and contradictions. This has occurred regardless of the fact that Schumpeter (1934) and Kirzner (1973) do not even attempt to explain the same thing. As we have said previously and in our other writings, they are simply two sides of the same coin (Brännback and Carsrud 2008). Both exist and one can move back and forth in terms of economic impact.

It is important to remember that Schumpeter essentially attempted to explain the development of an economy, while Kirzner attempted to explain how the market-process works. These are different, yet they are clearly related. Kirzner explicitly focused on entrepreneurship as a phenomenon driving the process toward equilibrium and hence excluded other types of entrepreneurship. Kirzner wanted to show:

> "... how the systematic competitive entrepreneurial market process can be traced back to entrepreneurial decisions, even when these do not display Schumpeterian equilibrium-disturbing creativity" (Kirzner 2009, p. 147 f.).

Therefore, Kirzner has never attempted to explain what successful entrepreneurship is. In primarily referring to his own work, Kirzner (1973) states the following:

> My own work has nothing to say about the secrets of successful entrepreneurship. My work has explored not the nature of talents needed for entrepreneurial success, not any guidelines to be followed by would-be successful entrepreneurs, but, instead, the nature of the market process set in motion by the entrepreneurial decisions (both successful and unsuccessful ones!) (Kirzner 2009, p. 145).

Ok, so much for your economics lesson for the day. We hope you have gained something from this digression on Kirzner and Schumpeter. In summary, when you look at Kirzner, Schumpeter, and Penrose together, growth and profitability are not the same. They do not give equivalent representation of a firm's success. Profitability is the only real measure of a firm's success, not growth.

5.4 The Context for Growth and Profitability

We all know that entrepreneurs operate in an environment where various stakeholders have an influence on the firm (Cole 1959; Gartner 1985; Frooman 1999; Aldrich and Martinez 2001; Davidsson 2005; Carsrud and Brännback 2007; Brännback and Carsrud 2009; Levie and Lichtenstein 2010). Among these are the entrepreneur, their family, their investors, their employees, their markets and customers, their industrial sector, the larger economy, and even politicians. Clearly understanding the entrepreneur requires an understanding of the surrounding environment. In this larger environmental context, the growth and profitability nexus has become distorted by researchers and others. As we have mentioned earlier, growth and high growth have been the focus of entrepreneurship for the past four decades (Birch 1987; Weinzimmer et al. 1998; Capon et al. 1990; Delmar et al. 2003; Davidsson and Delmar 2006; Shepherd and Wiklund 2009; McKelvie and Wiklund 2010). High growth has become something that researchers focus on, policy makers try to foster, investors value, and entrepreneurs seem to pursue (Tilles 1963; Gadiesh and Gilbert 1998; Christensen and Raynor 2003; Nicholls-Nixon 2005; Autio et al. 2007; Davidsson et al. 2009; Murray et al. 2009; Brännback et al. 2009; Haltiwanger et al. 2010; Kiviluoto et al. 2010). Yes in some ways, growth has become a psychological obsession and as such maladaptive as all such obsessions are.

5.4.1 The Growth Distortion

Considering the breadth of the growth and profitability distortion, it is highly important to challenge it and bring profitability back into the entrepreneurship equation even though in actuality it never left. The current widely accepted norm seems to

be that high growth will eventually translate into high profitability (Davidsson et al. 2009; Steffens et al. 2009). This is a distortion of reality as is typical in most obsessive behaviors. Thus, high growth is found worth pursuing. Contradicting this norm, recent firm-level studies confirm that instead of unprofitable high growth, *profitability is the precursor for subsequent profitable growth* (Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009).

Considering the phenomenon from an individual level, entrepreneurs themselves seem to have a distorted view of growth and profitability. This is characterized by a need to reach high growth despite the risks (Tilles 1963; Gadiesh and Gilbert 1998; Brännback et al. 2009). Tilles (1963, p. 113) already identified this pursuit of growth despite the risks:

> There is, in the United States, a business philosophy which reflects the frontier heritage of the country. It is one which places a high value on growth, in physical terms. The manager whose corporate sales are not increasing, the number of whose subordinates is not growing, whose plants are not expanding, feels that he is not successful. But there is a dangerous trap in this kind of thinking. More of the same is not necessarily progress.

Brännback et al. (2009) recognize similar characteristics in a recent study among Finnish high-technology entrepreneurs. We, the authors of this book, find that start-ups have a growth imperative, characterized by a requirement to grow without consideration for profitability. These firms do indeed manage to grow in terms of sales, but their profitability levels remain low if not nonexistent. The older firms that do manage to survive seemingly learn from their mistakes, and, as a result, become increasingly more profitability oriented. However, successful changes in the business model may be very difficult, or even impossible to achieve once operations are up and running. Consequently, it is of great importance to adopt the right business model and focus on the right factors, in terms of profit and growth, from the very beginning (Drucker 1982; Davidsson et al. 2009; Brännback et al. 2009; Steffens et al. 2009). This is where the stress on growth without profits can lead to the firm's demise. Think of our earlier example of People Express Airlines.

Here is where an example from outside technology may be useful. One of our former MBA students has become the founder and owner of a set of multimillion dollar winery businesses in the Bay Area of California. When asked what his business model is, he stated*: simplyto keep debt to the minimum and to grow using existing profits to fund future growth*. He now owns three gold medal winning wineries and each is profitable. To him bigger is not better if it does not include both quality wines and sufficient profit margins to support growth. Growth here is done by internally generated funds. Neil Churchill often said while internally generated funds would limit a firm to lower growth rates, but they are also sustainable growth rates, financially as well as organizationally. One side advantage of this firm is that the products are wonderful to drink, unlike most high-technology products.

Returning to the topic of the distortion of growth, despite the profit focus of the early theories of Schumpeter, Penrose, and Kirzner, today a strong progrowth obsession is evident in entrepreneurship research (Davidsson et al. 2009; Shepherd and Wiklund 2009; Kiviluoto et al. 2009). During the last four decades, a notable

increase in growth entrepreneurship has been in evidence, as can be seen by observing the number of references to Penrose's (1959) "*The theory of the growth of the firm*." As we noted earlier, in 1990, the book was on average cited 0.09 times a day, while the number of daily citations in 2010 surpassed 2.5. This is evidence of a rapidly increasing interest toward firm growth. At the same time, research interest in profitability has remained very rare (Kiviluoto et al. 2009). Sometimes you think you are looking at lemmings all lined up running off a cliff, when you look at how researchers have discovered growth as a topic.

Amid this increasingly obsession-like focus on growth, some concern has been voiced. After two decades of increasing interest toward the high-growth phenomenon, it might be assumed that research and practice would have advanced and that accumulated knowledge would have been created (Kuhn 1970). However, the growth entrepreneurship field has instead been criticized for becoming stagnated, characterized by inconclusive research and a slow development of theory (Achtenagen et al. 2010; Leitch et al. 2010b; McKelvie and Wiklund 2010).

Thus, there have been increasing calls for novel approaches to entrepreneurship research (Carson and Coviello 1996; Cope 2005; Leitch et al. 2010; Kiviluoto 2014). This book is one attempt to answer this call, and suggests that we need to study of growth entrepreneurship and *profitable entrepreneurship*. Before proceeding, we need to consider how this situation has come about, why has growth and high growth have replaced profitability on the center stage? Based on the discussion previously it can be argued that the growth and profitability relationship is widely distorted. As this book's title suggests, there is one driver of the present progrowth obsession which has led to the distortion; *the myth of growth*.

5.4.2 The Growth Myth

The noted philosopher and student of religions, Joseph Campbell noted that stories, tales, and myths have existed as long as humans have been able to communicate (Campbell 1949). However, they are not something that has only existed in the past, they also exist in modern society and even in social science research. Numerous researchers have noted myths and assumptions affecting decision making (Drucker 1982; Gibb 2000; Shane 2008, 2009; Levie et al. 2011). As the title of this book suggests growth is one such myth. The factors we believe that have contributed to the existence of such a myth are:

1. The strong interest expressed in high-growth firms, and
2. The supposition that a firm's growth per se is equivalent to a firm's success.

As we have attempted to show in the earlier sections of this book and in this chapter, profits ought to be inseparable from the whole notion of entrepreneurship. Schumpeter, Kirzner, and Penrose laid the theoretical foundations of the entrepreneurship research domain. In their work, profits were placed center stage throughout the discussions of their work. We find it amazing so many of our colleagues have just ignored profit when they pull from these three foundations of the field.

Interestingly, the word profit is, however, rarely found in any definition of entrepreneurship, even if some may argue that the word profit is implicitly included in many. Some 30 years ago it had been suggested that a pursuit of profit and growth are the factors that distinguish entrepreneurs from small business managers (Carland et al. 1984).

The definition of entrepreneurship adopted in this book, which is not the one proposed by Howard Stevenson, is unique in the sense that according to the definition the final aim of entrepreneurship is profits (Cole 1959). *Not growth, but profits.* Profits are the single most important firm-level performance indicator and crucial for all firms, small or large (Penrose 1959; Venkataraman 1997; Churchill and Mullins 2001; Christensen and Raynor 2003). At this point we need to focus on profit as it needs to be defined and its role is discussed.

5.5 Defining Profits

We know that the word profit should be simple to understand and seemingly very easy to define. However, if you have ever been in Hollywood you will know that few films ever really turn a profit even though they may make billions of dollars. Accountants can work wonders to reduce a tax bill if there is sufficient motivation to do so.

The same can be said about defining profit from an academic standpoint, as it has been the target of many arguments, perhaps due to the fact that it is an interdisciplinary word and used in various contexts. Classic economic theory, with its notion of profit maximization, has already suffered from the word's slowly expanding boundaries. Instead of understanding profits in its simplest definition, profit maximization was found to refer to almost all thinkable financial and nonfinancial measures in the context of business, clearly stated some 60 years ago by Cole (1954, p. 37): "*The concept has become so general and hazy that it seems to encompass most of man's aims in life.*"

First, one should bear in mind that there is a fundamental difference between accounting profit and economic profit. While accounting profit refers to any remaining income once all expenses have been withdrawn, as our comments about Hollywood previously represent, economic profit refers to:

> "the difference between the profits earned by investing resources in a particular activity, and the profits that could have been earned by investing the same resources in the most lucrative alternative activity" (Besanko et al. 1996, p. 76).

Hence, economic profit takes into account the opportunity costs, and refers to the relative profitability of one decision over another. Economic profit is close to that of entrepreneurial profit as defined by Schumpeter (1934) and Kirzner (1973). Schumpeter (1934, p. 128) defines "*entrepreneurial profit as the surplus over costs.*" Kirzner (1973) defines it as follows: "*entrepreneurial profit is the difference between the two sets of prices:the price sold and the lower price bought*" (Kirzner 1973, p. 48). Even if these definitions are seemingly related to accounting profit, and not economic profit, they need to be put in context.

Both Schumpeter (1934) and Kirzner (1973) are concerned with the role of entrepreneurship and entrepreneurial decision making as the basis for all profit. Therefore, an *entrepreneurial profit requires an entrepreneurial decision* (Kirzner 1973; Venkataraman 1997). An entrepreneurial decision by definition requires the entrepreneur to think of opportunity costs and weigh the different alternatives in which to invest money. The concept of entrepreneurial decisions is what makes these definitions synonymous to economic profit. Even if the concept of profit maximization is argued to be tautological and hence criticized, it could be suggested that the purpose of a business is to maximize entrepreneurial profits.

However, in real life, it can rarely be known with certainty which alternative of two will be more profitable, before the alternative is actually chosen and action is taken. This is especially true, when looking at the individual level, as the outcome of the same inputs may vary extensively. As pointed out by Venkataraman (1997), two individuals with exactly the same amount of knowledge may put this knowledge to very different uses. While one may see a profitable opportunity in something, the other may not; the cognitive map of each person is different (Brännback and Carsrud 2009). Arguably, economic profits ought to be used when referring to profits, but due to the mere impossibility to do so, in this volume the word profit refers to *accounting profits, i.e., profits available from financial statements*.

As with most things, there are numerous ways of measuring profitability (Richard et al. 2009). Even if the most absolute measure is the financial year's results, profitability is more commonly measured in terms of different ratios. The ratios are counted either as a percentage ratio of sales, or alternatively on indicators such as investments, equity, or capital (Leppiniemi and Leppiniemi 2011). Nevertheless, one measure is often seen to be the best measure for assessing the viability of the business model, i.e., earnings before interest and taxes (EBIT[1]) to sales ratio (Brännback et al. 2009). As we discussed earlier, EBIT is also mostly seen as the best profitability measure by venture capitalists, accountants, public investors, policy makers, and entrepreneurs (Kiviluoto et al. 2010). If EBIT is a concept you are unclear on, any introductory accounting book can be referred to refresh your memory.

We think that it is important to understand this in the real practice of running a firm, there are numerous variables to take into account when reporting and interpreting the financial result of a firm (Leppiniemi and Leppiniemi 2011). For example, there is always a trade-off as to whether the entrepreneur pays himself or herself a salary, whether he or she takes out dividends, or whether the achieved income is invested back into the firm. There is an old joke about accountants that they will ask you what you want your financial books to look like—profitable or unprofitable. When you are trying to sell a firm, profitable is the answer, if you are about to see the local tax man, unprofitable is the preferred answer.

All kinds of factors like the owner's draw will have an effect on the reported profitability. Usually the entrepreneur requiresreimbursement for the entrepreneurial

[1] EBIT = (100*Earnings before interest and taxes/revenues). See Appendix II. In addition to EBIT, earnings before interest and taxes, depreciation and amortization measure (EBIT-DA) is also often preferred.

effort he or she has invested in the firm. Thus, the trade-off between salary and dividends usually becomes relevant, both having an effect on the reported financial result. If the entrepreneur takes out a salary, this will have an effect on the operating result (and hence also EBIT). However, if the entrepreneur takes out dividends there is no effect on operating result, but only on the result of the financial year.

According to a publication by the Association of Finnish Accounting Firms, the choice of the best method in terms of minimizing payable taxes requires a case-by-case approach (Hopeasaari 2011). In Finland, the preferable choice depends on several factors: the income required, income from other sources, choice of insurance, the firm's result, and ownership of shares. International differences in tax laws and accounting practices will affect the choice of preference. The point is that when using reported EBIT one may not necessarily be measuring comparable outcomes.

5.6 The Role of Profits

Regardless of how they are defined and measured, profits are of fundamental importance in any firm. As discussed earlier, profits are the essential driver of all firm operations (Schumpeter 1934; Penrose 1959; Kirzner 1973; Drucker 2001). This can be realized even when looking at entrepreneurship from a legal perspective. We will now turn to an example from the legal side of the role of profits. In this case, we are using Finnish law, but comparable legal structures exist in most of the European Union, Canada, Australia, and the USA.

The Finnish Limited Liability Companies Act (21.7.2006/624), the law that governs both privately and publicly traded firms, states the purpose of a firm as follows: *"The purpose of a company is to generate profits for the shareholders, unless otherwise provided in the Articles of Association"* (Chap. 1, Sect. 5). Only this section would however justify a strategy that focus solely on increasing firm valuation, instead of ensuring sustainable operations. Therefore, in addition to previous, the same law states that *"The management of a company shall act with due care and promote the interest of the company"* (Chap. 1, Sect. 8). Fundamentally, the management and board of a firm have a fiduciary responsibility to protect the best interest of the firm and not one's individual self-interest.

When the management fails to meet the requirements set by law, he or she is liable for covering the damages caused to the firm's shareholders:

> "A Member of the Board of Directors, a Member of the Supervisory Board and the Managing Director shall be liable in damages for the loss that he or she, in violation of the duty of care referred to in chapter 1, section 8, has in office deliberately or negligently caused to the company" (Chap. 22, Sect. 1-1).[2]

[2] It is acknowledged that from a legal perspective the interpretation of the law is not as clear as presented here. No legal claims are suggested, but rather the law is presented here in order to validate the argument of profits being a fundamental part of any firm, and to show that it is of great importance to deliver profits in ways found most beneficial from the views of both the firm and its shareholders.

This is where we turn to another great figure of twentieth century management thinking, Prof. Peter Drucker, after whom a management school in southern California is named. He noted that not only are profits crucial to the business itself, but even more so for society. *"Profit is a condition of survival. It is the cost of the future, the cost of staying in business"* (Drucker 2001, p. 38). Not having the ability to attain profit levels that allow payment for these costs has a direct effect both on the firm and on the society. Drucker (2001) suggests that each firm should operate in ways that meet all eight objectives of a firm: marketing, innovation, human resources, financial resources, physical resources, productivity, social responsibility, and finally profits.

One could argue that many large multinational corporations have forgotten all eight of these responsibilities to just focus on profits, but we digress from our focus. The surplus that remains after the costs of the first seven objectives have been covered is the real profit. In addition, Kim and Mauborgne (2000) emphasize the importance of profits and argue that the most important task for any business is to build a profitable business model: *"At the end of the day, every company—dot-coms included—has to turn a profit"*. Clearly, during the first dot.com bust, this was forgotten and everything seemed to be about market share. Even in the era of Facebook, Twitter, and other mobile social networking firms, revenue models still seem to be an afterthought. You cannot sell a $10 bag of dog food for $5 and make up the lost on volume, something many early dot.com firms forgot.

In a similar vein, Venkataraman (1997) also points out the firm's responsibility both toward the entrepreneur as well as toward the society. He presents two performance elements, which should be used for measuring performance within entrepreneurship. The first is the absolute level of economic performance that provides a return for the enterprising effort. The second is the social contribution of the individual's effort (Venkataraman 1997, p. 132).

What is meant by these two needs to be examined further. The first element covers the reward the entrepreneur receives for his or her entrepreneurial effort. In order to break even, the profit level must exceed a level that covers for the opportunity cost, lack of liquidity of investment (financial and human resources), risk, and uncertainty. Only a level exceeding this can be called true entrepreneurial profit and a reward for the entrepreneurial effort.

Venkataraman makes a clear distinction between profit and loss. When the profit level does not cover all of the previously stated factors, the entrepreneur is in fact making a loss. This holds true regardless of how the entrepreneur is performingin relation to the competitors. Profit, as defined by Venkataraman (1997), is presented for the purpose of showing that acceptable profit levels need to take into account a large number of variables. Therefore, if the profit levels are seemingly low, they may not be evidence of a lack of entrepreneurial profits as proposedin the literature reviewed previously. One has to only look at many of the million dollar block buster movies coming out of Hollywood studios to understand at the end of the day, after everyone has taken their cut of the revenue stream, little money may remain. Some reports are that even Boeing had to sell over 3,000 of its 737 aircraft before the firm actually saw a profit.

Venkataraman's second element of performance takes into account the entrepreneur in a social context. This takes into account the social wealth produced by the entrepreneur, such as creating new markets and industries, new technology, employment, taxes, and productivity enhancements (Venkataraman 1997). Venkataraman (1997) suggests that when measuring performance in entrepreneurship both of these elements should be taken into consideration, as they are what distinguish entrepreneurship from other research domains.

Once again, here is where a closer exploration of the works by Schumpeter, Penrose, and Kirzner causes us to wonder how we got to the present situation where growth is considered the best measure of performance, superior to all others, and its attainment almost seems acceptable at any cost. Growth clearly has become an obsession. At best, profitability has simply become a factor of secondary importance. In those work that has contributed considerably to the theoretical foundations of the field, the focus lies in creating profitability. Moreover, regardless of whether the process contains a disequilibrating or an equilibrating force, profit should stand center stage in any discussion of firm performance and entrepreneurship.

Profitability is, and should be, the major concern regardless whether it is examined from an economics point of view (Schumpeter 1928, 1934, 1954; Kirzner 1973), or an entrepreneurship point of view (Penrose 1959). Despite Schumpeter, Penrose, and Kirzner all examining the key concepts from different perspectives they all agree that profits are essential, even crucial, for all business. Profits, and the expectation of future profits, are both what makes entrepreneurship and innovation appear in the first place, but also that which enables their future existence. Growth not driven by profits must be driven by debt or equity investment which at some point either becomes unsustainable debt load or the valuation of the firm drops thus eliminating the value of the equity investment.

As we have noted earlier within the domain of entrepreneurship research, Schumpeter, Kirzner, and Penrose form the basic literature reviews of countless studies on performance and especially on firm growth. Frankly, it is hard for us to understand why the focus has not always been on profits, or profits in conjunction with growth. It almost appears as if assumptions of policy makers, VCs, and academics have driven the research agenda: the expectations of the advantages of growth are unquestionably accepted as truths.

These almost myth-like assumptions about the means of achieving the preferred end, high growth leading to high profits, have become widely accepted and eventually developed into something of a conventional wisdom within the academic field and even among governmental policy makers. That is, these assumptions have guided decision making among both practitioners and policy makers and even academic researchers. It is a bit like everyone has assumed the world is flat and we are now recognizing what Columbus and even the fifteenth century Chinese knew, the earth was basically round.

5.7 Profit Myths and Other Fantasies

The myth of the flat earth is just one example of the phenomenon of assumptions and myths guiding real world decision making, and is by no means novel. Remember that few in Europe in the Middle Ages would venture beyond the Pillars of Hercules at the opening of the Mediterranean Sea to the Atlantic Ocean as they feared falling off the surface of the Earth. It took Eric the Red and Christopher Columbus to challenge that assumption, although there is some evidence the Chinese figured out the truth before the Europeans. So what does this have to do with the myth of growth? Plenty as we will show later.

As discussed in the introduction, the existence of myths and their influence on actions taken by practitioners and policy makers have been identified before (Drucker 1982; Gibb 2000; Shane 2008; Levie et al. 2011). Only recently has there been an attempt to challenge some of these myths including a special issue of *Entrepreneurship and Regional Development* which attempts to challenge some of these that persist in the field (Rehn et al. 2014). Perhaps it is the heterogeneity of the entire entrepreneurship domain (Davidsson 2005) that encourages these myths. That is, the difficulty of studying everything together, that has contributed to the development of replacing factual knowledge with *old wives tales* and assumptions (Gibb 2000; Rehn et al. 2014). This has led to a wider adoption of strategies that may have worked in some contexts within some firms, at some point in time and during a certain period of time. One of these is the strategy that a high-growth strategy leads to high profitability. However, increasingly the data are showing that in fact this is a highly unlikely occurrence. That is, growth is a bit like believing in a flat earth. If you do, you will likely fall off into the oblivion of bankruptcy.

5.7.1 Growth and Profitability Studies

Again we turn toward the existing literature concerning the relationship between growth and profitability. The relationship has been studied previously, but the number of studies is rather limited. Despite a progrowth bias in entrepreneurship research, results on the growth and profitability relationship are inconclusive. Research results vary from showing that growth is a prerequisite for profitability (Capon et al. 1990), to that growth and profitability move in parallel without a trade-off (Cowling 2004). Some research finds no relationship between the two (Roper 1999; Markman and Gartner 2002). This inconsistency for two decades may explain the dearth of studies and why only in recent years have researchers returned to the subject, including the authors of this book.

Recent studies suggest that profits are the prerequisite of further profitable growth (Davidsson et al. 2009; Brännback et al. 2009; Steffens et al. 2009; Kiviluoto 2014). These results give a strong indication of something that is in direct contrast with the growth imperatives and growth illusions: *"the popular assumption that this is the norm is the very notion we challenge in this research"* (Davidsson et al. 2009, p. 7).

The norm that Per Davidson and the authors of this book are referring to is that high growth is the prerequisite of high profitability. We clearly believe based on a number of empirical studies that this is *not the case*.

For example, Davidsson et al. (2009) use a data set of more than 5,000 Swedish and Australian subject matter experts to test any firm's movement in a 2 × 2 growth and profitability matrix (GPM) which we illustrate in the figure later. The firms studied represent the more traditional industries: manufacturing, property and business services, retail, wholesale, and governmental agencies. The Swedish sample does not include microfirms and the Australian sample includes all firms with less than 200 employees. The Swedish data cover the years 1997–2000 and the Australian covers the years 1995–1998. Firms are divided into quartiles on each axis depending on their growth (relative sales growth) and profitability (ROA) in relation to the industry. Four different performance states are created: Poor (low growth and low profitability), growth (high growth and low profitability), profit (high profitability and low growth), and star (high profitability and high growth).

These results present strong evidence against the normative myth about high growth leading to high profitability (Davidsson et al. 2009). Overall, firms in a profit state are up to three times more likely than growth firms to become stars. In addition, the growth firms are nearly three times as likely as profit firms to fall into a poor position. Results are similar regardless of sample origin (Sweden or Australia), industry category, firm age, and firm size.

Another study, by Steffens et al. (2009) has a similar aim as Davidsson et al. (2009). In the same way, Steffens et al. (2009) focus specifically on performance outcomes, and explore probabilistic rather than deterministic relationship between performance configurations. This study uses a sample of nearly 3,000 Australian firms employing less than 200 employees; manufacturing, property and business services, retail, wholesale, and governmental agencies. The data cover the years 1995–1998. Firms are categorized into a 3 × 3 GPM using relative sales growth and ROA. Instead of using quartiles, Steffens et al. (2009) divide the performance into tritiles. Thereafter, the frequencies of firms in the nine performance categories are examined depending on their age; young (≤ 8 years) and old (≥ 9 years).

The results by Steffens et al. (2009) also advocate a more profit-oriented approach with regard to research and with regard to strategies employed by entrepreneurial firms. Overall, young firms tend to set out more growth-oriented, a result also confirmed by Brännback et al. (2009). Steffens et al. (2009) find that young firms starting with a more growth-oriented approach tend to perform relatively poorly in comparison with profit-oriented firms. This supports the notion of misguided growth among start-up firms. In addition, profit orientation among older firms was more likely to lead to future success, in comparison with growth orientation. Steffens and his coauthors conclude with:

> "For researchers of strategic entrepreneurship, the paper highlights that growth-profitability of young firms remains a fertile area for research if one moves away from the simplistic analysis of factors assumed to universally lead to growth, and the assumption that growth unambiguously reflects good company performance" (Steffens et al. 2009, p. 143).

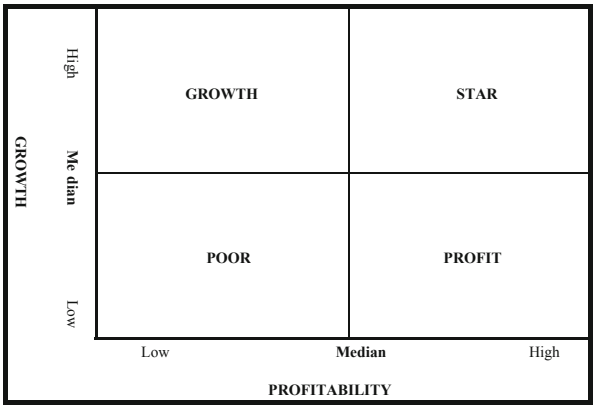

Fig. 5.1 Growth and profitability matrix

Hopefully, at this point you are starting to see why we strongly believe that there is a myth surrounding high-growth firms that is in fact limiting our progress not only in research but also in practice.

5.7.2 Growth and Profitability in High-Technology Firms

Some could argue that the work by Davidson and Steffens missed looking at the truly high-growth firms that legend holds occurs only in the realm of high-technology firms. Thus, inspired by the work by Davidsson et al. (2009) and Steffens et al. (2009), we (Brännback et al. 2009) set out to examine the growth-profitability construct within the Finnish life-science sector. In our study, we focused on a sample of 90 young, privately held firms within the life-science industry. Financial data were covered for the period of 2004–2006. Growth was conceptualized as relative sales growth, but instead of using ROA as a profitability measure (Davidsson et al. 2009; Steffens et al. 2009), we (Brännback et al. 2009) used EBIT-to-sales ratio. EBIT was preferred over ROA because life-science firms rarely require substantial assets.

In addition, EBIT is mostly preferred by practitioners themselves (Kiviluoto et al. 2010), and is found to be the best measure to capture the efficiency of the business model. Similar to the Davidsson's study, firms in our sample were categorized in a 2 × 2 GPM (see Fig. 5.1 later) depending on whether they performed better or worse in relation to the sample median. Firms movements inside the GPM were then explored using a Markov-chain analysis; a statistical approach that estimates the transition probabilities over time (Aaltonen and Östermark 1998).

Despite a different estimation technique, a different data set and a different time frame results were quite similar to that of both Davidsson et al. (2009) and Steffens et al. (2009) (Table 5.1). In essence, we performed a very controlled replication of contemporary work dealing with potentially confounding factors like industry and context.

Table 5.1 Transition probabilities for Finnish life-science firms (SE in parenthesis) (Kiviluoto 2011)

Indicator t	Indicator $t+1$				
	Star	Profit	Growth	Poor	Total
Star	0.519 (0.068)	0.204 (0.055)	0.074 (0.036)	0.204 (0.055)	1.000
Profit	0.298 (0.071)	0.489 (0.076)	0.021 (0.021)	0.191 (0.057)	1.000
Growth	0.179 (0.061)	0.103 (0.049)	0.385 (0.078)	0.333 (0.075)	1.000
Poor	0.200 (0.060)	0.111 (0.047)	0.348 (0.070)	0.370 (0.071)	1.000

Table 5.1 shows the time homogeneous transition probabilities of Finnish life-science firms between the years 2004 and 2006. The left-hand column presents the state at time t, and the columns to the right shows the probability of making the transition to each state at $t+1$. Profit firms (0.298) are nearly twice as likely, as growth firms (0.179), to become stars. Likewise, growth firms (0.333) are nearly twice as likely as profit firms (0.191) to have a worse performance and become poor firms at $t+1$.

The results also indicate that despite their state, firms are more likely to stay where they are, highlighting the importance of choosing the right kind of strategy from the beginning. Clearly a growth orientation was not the right strategy for most technology firms in this sample. Being profitable clearly seems to be a far more productive, and in the long run, better approach to being a star firm.

In a later exploratory study we (Brännback et al. 2009) focused on the high-growth myth of Finnish high-technology start-ups, including both biotechnology and IT firms. Our results in this study showed that younger firms operated with a growth-oriented strategy, while older firms were significantly more concerned about profitability. In addition, the study confirmed that high-technology firms do manage to grow, but fail to turn the increased revenues into profits. Most worryingly, we (Brännback et al. 2009) confirmed the existence of a growth illusion and showed the effect it had on growth and profits.

Our study showed that firms that found *growth as a good measure of performance*, and saw *growth as proof of a good business model*, did in fact achieve significantly higher growth measured as a total 5-year net revenue (not profits, but revenues). Conversely, firms that believed that *growth will eventually lead to profitability*, and that *a firm must grow in order to become profitable* showed lower profitability. Sometimes wishing for something does not always produce the desired results.

A negatively linear relationship was identified between the two arguments and achieved profitability. Profitability was measured as a 5-year total operating result. A negatively linear relationship implies that the more the entrepreneurs agreed with the two statements (*growth will eventually lead to profitability*, and that *a firm must grow in order to become profitable)*, the less profitable their firms were. In contrast, those who agreed the least with the two statements were the ones achieving highest absolute profitability (Brännback et al. 2009).

In closing this section, we hope we have shown that the relationship between growth and profitability is not one that is linear. That is if you grow more you will be more profitable. What is also important to take away from this section is that the strategy you start with, as a firm, is the one you stay with. Growth begets growth, but not profitability or being a firm high in both growth and profits. If you want to have a star firm, you do better to be a profitable new technology venture.

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Chapter 6
Conflicting Agendas: Stakeholders, Growth, and Profit

6.1 Growth and Profitability in Media

A part of our reason for writing this book is our frustration with seeing stories in the public media that seems to perpetuate the growth myth. For example, each year *Fortune* magazine in the USA releases its "500 fasting growing firms" list which is widely reported on by other media outlets like television news shows. As we have indicated in the introduction to this book, the public press around the world seems to revere growth stories, especially the firm that starts in a living room and grows to have employees and brings a product to market. These are the *sexy* stories about growing firms or stories about the entrepreneurs who have managed to achieve high growth, which makes the average reader think that this must be easy (Shane 2008).

In another example, every year since 1982 *Inc.* magazine has published a list of the fastest growing privately held companies in the USA (originally 100, but nowadays 5,000). The performance measure used is always the revenue growth (Inc. magazine). In Canada, the Profit-100 is a similar list of the fastest growing Canadian companies. Despite the name of the magazine, the performance measure used to list the companies is the 5-year relative revenue growth. The reason for this is the assumed relationship between growth and profitability:

> Although this issue's contents provide ample evidence that fast growth is worth charting, I am often asked why the ranking focuses on growth rather than profitability (especially given this magazine's name). Growth is the measure because it's the most reliable single indicator of business success. Profit potential varies dramatically from industry to industry, and as any business owner or investor knows, it can swing wildly from year to year due to factors largely beyond management's control. And don't get me started on the arithmetical mosaic of accounting practices. That said, long-term profitability should be the goal of any business. Every PROFIT 100 leader would agree. However, they also see fast growth as a means to a profitable end.

The same kind of media attention occurs elsewhere, for example in Sweden, Deloitte publishes there an annually list, the Fast-50, of the fifty fastest growing companies. The only performance measure used on this list is relative revenue growth (Affärsvärlden 2010). A similar list for the 250 largest Finnish companies, Tivi 250, is published by *Tietoviikko*. In this list however, the user can decide which performance

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measure to use, e.g., relative or absolute sales growth, relative or absolute profitability, equity ratio, and exports (Tivi 250). Given our earlier discussion on comparison of absolute versus relative measures one can see just how flawed these lists can be.

On a frequent basis, stories related to growth entrepreneurship are published in the press. The following are some of the headings of these kinds of stories extracted from *Kauppalehti*, the leading Finnish business media, from the previous years (authors' own translations):

> The strong growth of companies will start to fold down (September 22, 2009),
> Growth-willing companies sought for a growth development program (November 06, 2009),
> Are women-entrepreneurs afraid of growth? (December 03, 2009),
> Growth companies employ (December 08, 2009),
> Firms are cutting down on costs, may prove difficult to re-start growth (February 18, 2010),
> The low growth willingness of Finnish companies baffles researcher (February 20, 2010),
> The Industry Investment invest 10 million in a growth fund (February 22, 2010),
> Growth requires courage (March 22, 2010),
> Students are getting excited about growth entrepreneurship (May 05, 2010),
> Is pier-Seppälä the best growth entrepreneur in the world? (01.06.2010),
> The minister wonder: Businesses are started but they do not grow (October 26, 2010), and
> Siilasmaa rings the alarm bell-growth companies are the Finnish lifeline (March 12, 2011).

A close reading of these titles will reveal something interesting. The common denominator for all of these articles is that they always praise world growth, and mostly completely disregard the notion of profitability; presumably because it is taken as a self-evident outcome of high-growth or because the two are seen as equivalent. Some of these also reflect the assumption that entrepreneurs all want their firms to grow fast.

6.2 Stakeholder Views of Growth and Profitability

It should be clear to the reader that entrepreneurs do not live in a vacuum (Cole 1959; Gartner 1985; Aldrich and Martinez 2001; Davidsson 2005; Carsrud and Brännback 2007; Levie and Lichtenstein 2010). Rather they are part of a larger whole; a network or an eco-system (Carsrud and Brännback 2007) or a social setting (Cole 1959). The underlying concept with these different terms is fundamentally the same: the existence of various stakeholders that directly or indirectly have an effect on an entrepreneur's decisions, strategic choice, and ultimately the firm's operation (Donaldson and Preston 1995). As suggested by the resource-dependence theory a firm is influenced by the demands by those that provide the firm with important and necessary resources. The more important they are the more a firm should attempt to respond to that demand.

As we have shown in the previous section, it is extremely difficult for a firm to change its strategic position. This was also acknowledged by Peter Drucker (1982). As we also showed previously firms are most likely to remain in the same growth and profitability state, as where they were at an earlier observation period. This emphasizes the importance of making the right strategic choices from the very beginning.

Yet from our own personal experience with technology firms and their venture capitalist (VC) investors, there remains a belief that somehow profits will arrive in the future and they do not need to worry about them now.

In an earlier section, we reviewed a wide variety of research, which pointed out evidence of misguided growth strategies (Steffens et al. 2009), and a distorted view of growth and profitability among start-ups (Brännback et al. 2009). High-technology firms are research-intensive, and therefore, the role of capital, and other resources, plays a critical role during the start-up process (Renko et al. 2009). The providers of these resources, policy makers and investors, put demands on the firm, sometimes very inappropriate demands. The more critical the resource, the more the firm needs to try to satisfy the demands of the provider of that resource. In other words, you have to pay the piper or remember the golden rule, *gold rules*. He is another reason why VCs are often referred to by entrepreneurs as *vulture capitalists*. However, it should be pointed out that vultures do not eat anything that is alive, so if your firm is being eaten by one, you must already be dead and do not know it.

As we discussed earlier, high growth has achieved the solid attention of various stakeholder groups (Fischer and Reuber 2003; Shane 2008), public policy (Gibb 2000; Autio 2007; EU: Lisbon 2000; EU: 2010; EU: SBA 2008), a vast number of public media (Inc. Magazine 2010; Tivi 250; Profit 100 2010), not to mention the entrepreneurs themselves (Tilles 1963; Gartner 1997). It is an all-pervading theme, which has been found to affect the behavior of the stakeholders surrounding the firm (Drucker 1982; Birch 1987; Gibb 2000; Shane 2008). In some ways, growth has become an opiate for the entrepreneur and those around them, a rather addictive drug indeed.

The stakeholders are all explicitly interested in the growth of the firm, but fundamentally in different ways; they all have different social realities and meanings (Leitch et al. 2010a). That is, given the number and varied nature of the stakeholders interested in growth it is to be expected that differing meanings are attached to the socially constructed phenomenon, making discourse between them problematic, with considerable potential for confusion and misunderstanding. If theory is to advance and be applicable in practice, this necessitates dialogue between all key stakeholders, who, moreover, need to be clear and explicit about what they understand entrepreneurial and business growth to mean and to unambiguously articulate the definitions that they employ in their discussions, reports, and research (Leitch et al. 2010a, p. 258).

As we noted much earlier in this book, a number of studies have urged for a more holistic approach to entrepreneurship research. There has been a debate among researchers that as entrepreneurship is a holistic process, a holistic research process should therefore be the proper way of studying it (Hindle 2004). When looking at stakeholders, one cannot look at all of them simultaneously, but rather be aware of the large number of the actors, and multiple aspects, affecting the entire entrepreneurial process (Bygrave and Hofer 1991); something called requisite holism (Rebernik and Mulej 2000).

Rebernik and Mulej (2000) suggest that requisite holism takes into account only the essential viewpoints of a larger whole. What exactly, these essential viewpoints

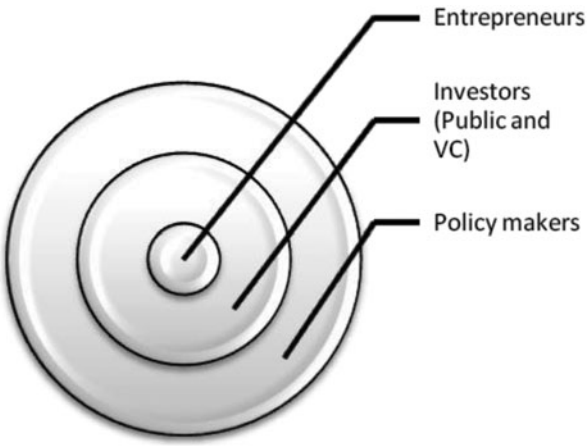

Fig. 6.1 High-technology entrepreneurs in their environment

are, may vary (Rebernik and Mulej 2000). The stakeholders we discuss in this section are those that are believed to have the largest impact on the firm. In addition to entrepreneurs themselves, these include policy makers, public investors, and VCs (adapted from Gibb 2000). Clearly each of these groups has different goals and agenda for the firm. Every entrepreneur needs to be very cognizant of those potentially conflicting desires.

Naturally, there are a number of other stakeholders who put demands on firms, such as suppliers, customers, communalities, employees, trade associations, and political groups (Donaldson and Preston 1995). However, the ones chosen here are those that are generally believed to put the greatest demand on the firm and hence they were selected (Fig. 6.1 later shows a simple representation of the research context).

6.3 Growth Outcome and Wealth Creation

To many researchers, growth is assumed to be good as noted in this quote: *"Growth is a vital indicator of any thriving firm"* (Gilbert et al. 2006, p. 945). Perhaps one distinct reason for the existence of the progrowth bias is the view of growth as an outcome. This view considers growth simply as a dependent variable, an outcome, and then uses a number of independent variables to explain this dependent variable. A broad range of independent variables have been used to explain differences in growth. Gilbert et al. (2006) found that the five most commonly used predictors of growth are:

1. The personality characteristics of the entrepreneur,
2. The resources available to the firm,
3. The strategy of the firm,
4. The geographic location of the firm, and
5. Its industrial context.

In Kiviluoto et al. (2009) we drew similar conclusions and found the most commonly used independent variables in growth studies are: internal resources, strategy related, entrepreneurs/management related, industry related, planning, external resources, and entrepreneurial orientation. The typical research method used in such studies is often very simple. They use whatever financial growth indicators that are available, and then use a set of independent variables to measure their explanatory power on growth (Shepherd and Wiklund 2009; Kiviluoto et al. 2009; Kiviluoto 2014).

It is important at this point to remind you, the reader, that growth as an outcome has been viewed from a number of different theoretical perspectives: the resource-based view (Penrose 1959), network theory (Donckels and Lambrecht 1995), knowledge and learning theory (Johanson and Vahlne 1977; Macpherson and Holt 2007), social capital theory (Florin et al. 2003), motivational theories (Wiklund et al. 2003), and the stages theory (Levie and Lichtenstein 2010), to name only a few.

It is also important to remind the reader that growth and entrepreneurship are often seen as very closely related, even synonymous. What this suggests is that when studying the factors that are most likely to explain growth, one ought to be studying the factors that most likely explain entrepreneurship in the first place. This would make the list considerably longer, and bring, in among other things, a number of more psychology-related theories (see for example Krueger et al. 2000; Carsrud and Brännback 2009). But here, we are clearly showing our own bias based on our own prior work.

Thus, there are numerous theoretical foundations that can be used to study growth as an outcome. Despite the existence of these various theoretical perspectives, studies often manage to explain only a very small portion of the variance in growth (McKelvie and Wiklund 2010). This seeming failure to find variables that account for a majority of the variance can be due to the use of mixed units of analysis or varying ways of measuring growth. Once again, this is where our discussion earlier on measurement needs to be remembered.

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Chapter 7
Do Experts Know What Growth is? Two Studies on Perception

One of us remembers sitting in a meeting at Stanford University in 2007 with a group of managing partners of a half dozen of Silicon Valley's leading venture capitalist (VC) firms. The topic of the discussion was how VCs went about picking winners for their portfolios. One member of the audience asked, quite naively, if working with previous firms had helped them to improve their hit rate for finding *stars*. The reply was that the success rates had not changed at all. The VC went on to explain, he felt this was due to the differences in technology in the firms. No one challenged that the problem could have been the demand by the VC for high-growth strategies in their portfolio firms. If so-called experts cannot get better at picking winners then this all starts to look like gambling and the deck is stacked against everyone.

So far in this book we have referred to numerous quantitative studies and pointed at many problems relating to comparing studies using different variables for measuring growth, using different time intervals, methodological differences, etc. As pointed out earlier there is always the issue of biases present in any study. For example, in studies where growth has been considered an indication of firm success, researchers often study only successful firms. Moreover, access to certain data sets (samples of convenience) has tended to guide researchers' choice of research designs and questions. A majority of studies are based on publicly traded companies (Kiviluoto et al. 2009b), as those data are available.

This does not mean that performance data on small, privately held firms are not available, but it may require considerable effort to find it. Most studies involve large firms employing over 100 persons, which are quite established companies. Yet we know that less than 3 % of firms manage to ever grow beyond 100 persons (Aldrich 1999). Moreover, small firms—employing less than ten people represent 97.5 % of all firms be it the USA, Finland, or Sweden. Consequently, it is justified to ask two questions. The first is what do we really know about small firms' growth and performance? Most of this book has been devoted to trying to answer that question and the careful reader has realized that we have large body of scattered pieces of knowledge. But, we persist in our pursuit of trying to understand high-growth firms.

Therefore, we ask a second question: who is in the best position to really be able to identify and understand what is a growth firm and does this on a regular basis? While we tend to be careful with how we measure and attempt to follow the principles

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of objective research, social sciences always has to tackle the issue of the presence of subjective perceptions and a whole range of biases. Social scientists, including entrepreneurship researchers can be accused for having a tendency to get what they are looking for (Brännback et al. 2009), thus, the truth is in the eyes of the beholder (or one's research bias).

Going back to the brief story told at the start of this chapter, in this section we are going to look at one such group and try to understand their perceptions of growth. Who better to study than those whose very careers are based on picking winners: VCs. VCs are experts whose very job is to find the star performing firms, those that are both high growth and profitable. It is interesting to see how these individuals look at growth and define it.

Given the inconclusive research results on the relationship between growth and profitability discussed in prior chapters, this chapter takes a different approach. Most studies are of quantitative nature focusing on the "how many." This chapter seeks to unravel *how* individual experts reason (or mistakenly reason) and think about growth and profitability. How do they perceive, justify their arguments about the relationship between growth and performance? How stable are these arguments and if they change, why and how do these arguments change?

In this section, our level of analysis is at the individual level. That is, the perception of individual experts and how they understand and conceptualize firm growth and performance. The logic here is that an individual, such as the VC, has to first form a personal understanding of the relationship between firm growth and performance before this can be translated into an understanding of a client firm's strategy. Once that has taken place, he (or she) will use that perception (Douglas 2009) as basis for decision making with consequences on the firm level, making or not making an investment. We argue that one reason research results are so inconclusive may come from individual perceptions or misperceptions about growth, profitability, and their relationship. We demonstrated in Brännback et al. (2009) that there are considerable differences in the cognitive patterns between different decision makers with respect to how they perceive the relationship between growth and profitability.

We are, thus, elaborating on previous studies we have discussed earlier in this volume (Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009; Kiviluoto 2011). We refer to two studies that we have conducted. The first was a quasiexperimental study among students, technology entrepreneurs, and managers (Carsrud et al. 2009). In the second study, we do an analysis of qualitative data from interviews among 23 VCs, public investors, policymakers, and industry experts (Kiviluoto 2011). In this study, we were interested in understanding what these experts regarded as important to pursue first: growth or profitability with the obvious goal of high growth and high profitability (Steffens et al. 2009; Davidsson et al. 2009; Brännback et al. 2009).

7.1 Study 1: A Quasiexperiment

In the best of the traditions of the experimental social sciences, we conducted a quasi-experiment and the study confirmed the view that the mind maps of entrepreneurs and nonentrepreneurs are quite different. In this study, we used three groups: students, technology entrepreneurs, and managers in a large firm. Participants were assigned a task asking them to explicate the relationship between three growth strategies and how these were dependent on products and critical success factors. The strategies were: no growth, 20 % annual market share growth over a period of 5 years regardless of profitability, and 20 % annual profit growth over a period of 5 years.

Results revealed clear differences in the cognitive maps of each group. The managers and the technology entrepreneurs were better in envisioning the growth strategies as if they had already been accomplished. Students had problems in distinguishing between a "no growth" and "annual profit growth" strategy and they could not at all distinguish between market share growth and annual profit growth strategies. Students showed clear problems with conceptualizing the factors generating revenues and what generated profits. This latter finding makes one wonder what is getting taught in finance and accounting courses.

In a debriefing after the experiment held with the managers who participated, this issue was subject to a lengthy discussion. It became obvious that although the managers had been able to distinguish between the strategies, this rationale does not reflect the reality of the managers' reasoning. We were told that when launching a product, annual profit growth is not the target, although they admitting it ought to be so. The actual target is market share growth (regardless of profit target). This finding clearly reflects a specific form of growth strategy.

The results showed that it may be worthwhile the effort to analyze the cognitive patterns of different decision makers. Different decision makers have different underlying goals, which ultimately guide their heuristics, judgments, opinions, and decisions, and that the outcome may be affected by actions of others or circumstances beyond one's control (Bagozzi and Warshaw 1990; Lawson 1997; Bay and Daniel 2003; Carsrud and Brännback 2011a, 2011b). For a more detailed description of this study the reader is advised to read Carsrud et al. (2009). Clearly in this study, managers have some issues in understanding growth and students seem confused, as we might expect.

7.2 Study 2: Expert Opinion

Taking another approach to understanding, we moved to looking at various groups of "experts." This study used semistructured interviews among experts with high-technology industry. One careful note here, high-technology industry is seen as homogeneous although results from our quasi-experiment clearly showed that it is heterogeneous, i.e., experience in one technology does not necessarily translate into

experience across another high-technology industry. This is consistent with the story told by VCs in Silicon Valley at the start of this chapter.

In this second study, respondents were chosen based on their known experience in the high-technology industry. In addition, snowball sampling was used whenever a respondent recommended another person with considerable experience in the field. All respondents were contacted by phone, followed by an e-mail stating the purpose of the study. All respondents, except one, contacted by phone were willing to participate in the study, and the one refusing recommended another person in the same organization with better knowledge of high-technology industries.

In the fall 2010, 23 interviews were conducted with VCs, public investors, and industry experts. The language of the interview was Finnish in 22 interviews and Swedish in one. The transcriber and coder spoke these languages fluently, so it did not create a bias. All interviews were recorded, and later transcribed and coded with QSR NVivo 8 software. The interviews were semistructured and the questions were divided into four sections: respondent background, industry characteristics, growth and profitability, and planning and finance. In total, 39 questions were asked and the interviews lasted 54 min on average. Nineteen of the interviews were conducted at the office of the respondent, while three were conducted at the university, and one in a cafeteria. The interview length was decided in advance to be an hour and hence, some questions were dropped out in certain interviews. Here only selected parts of the study are reviewed; more details of this study can be found in Kiviluoto (2011).

So, what did we find using this process? You will find in the following sections the answers of the respondents, which we here attempt to interpret. Let it be said that the education and experience of the respondents are fairly impressive. All of the respondents have a University degree, many have even two. Engineering and business are the most common fields of education, while a few have a doctoral degree in medicine or biochemistry, which is common for biotechnology businesses. Out of the fours entrepreneurs, three have a doctoral degree, supporting the fact that researchers often create biotechnology firms. Quite surprisingly, less than half of the VCs have a degree in finance, but instead their current positions have been achieved with relevant work experience.

The respondents were asked whether they see a relationship between growth and profitability and if yes, what kind. Eight of the respondents thought that growth is a prerequisite for profitability, while also eight considered profitability to be a perquisite for growth. This really highlights the confusion of the believed relationship between these two performance variables. That is, not only are academic researchers in entrepreneurship confused, so are those out in the real world of new ventures. The questions can be found in the following Table 7.1.

Yes we will admit that these are a lot of questions, but if you want to understand people's thinking sometimes you have to ask probing questions. We certainly appreciate how seriously the respondents took this task and their willingness to spend the time answering these questions. A few even commented that it caused them to really think about what they meant with using the term growth and profitability.

Those respondents that saw growth as a prerequisite for profitability, referred to the possibility of economies of scale, which would further lead to increased profitability.

Table 7.1 Questions asked

Subsequent are some of the questions asked in the study discussed previously in this chapter on perceptions of growth, profit, and firm performance
Personal background
Could you shortly describe your own background (education, job experience, and experience from the biotech industry or the industry that is most common to you)?
Industry characteristics
What do you think that best characterizes the Finnish biotech industry at the moment? What kinds of problems do the firms have and how does the recession affect them?
What does the biotech industry look like in comparison to other Finnish industries?
Do biotech firms vary significantly in comparison to firms in other industries? If yes, how and why?
What is the best performance measure for a biotech SME and why?
Growth and profitability: Next, we will move on to the actual theme, which is growth and profitability. First of all, I will ask you to define certain concepts, and please answer spontaneously what thoughts these questions arise
Define growth and how do you measure growth?
Define profitability and how do you measure it?
What is profitable growth?
Are the same growth and profitability measures usable in different firms or industries?
Do you see a relationship between growth and profitability, and if yes, what kind?
Which would you prioritize and why?
Is it justifiable to sacrifice resources in order to build profitability instead of growth?
Is it justifiable to invest in growth if the firm has low profitability?
In the long-term, is it possible to improve profitability with growth?
Does growth deteriorate profitability?
Is growth a good measure of success?
How long does it take on average for a biotech firm to become profitable?
How many profitable biotech firms are there in Finland, and which are they?
How come so few companies manage to grow, what could be the reason for this?
Do companies want to grow, and which factors may affect this? 21. Growth and profitability matrix questions (questions not specified, ask all possible movements)
Planning and finance
How important is business planning?
What do firms plan for in the first place, is it growth or profitability, and does this vary depending on the stage of the lifecycle?
Is it difficult for biotech firms to raise finance?
How do you find information about potential deal flows?
In what way do you evaluate biotech firms?
How does the evaluation vary between biotech firms and firms in other industries?
What are the finance decisions based on finally, what are the most significant factors?
What are your expected returns on investments?
How does public finance affect a firm? Do they really benefit the firm?
How do you relate to public finance?
How do you relate to venture capital investments?
What will the Finnish biotech industry look like in 5 or 10 years' time?
Interest to participate in a survey later on?
Is there anything you would like to add to your answers or to the matters we have discussed?

EBIT earnings before interest and tax.

From the investors' point of view, growth could be seen as the only tool to improve the value of the firm, and therefore, growth could be seen as a necessity. The VCs only thinking about exit opportunities, which would define success for them, saw that

growth would make the firm more attractive for new VCs. If the firms were highly profitable this would mean that external finance would not necessarily be required. Here are some examples of this confusion:

> Yes, it is like that, like that, very often profitability comes through growth, growth in volume (VC).
> Yes of course. If we define profitability as return on investment, so without growth we cannot achieve, that I can tell (Public Investor).

Those that saw profitability as a prerequisite, argued for the necessity to have enough capital to be able to invest in future growth, referring to self-financed growth in opposite to externally financed growth. Higher profitability could also be seen as an opportunity to grow through acquisition. Profitability was also seen as the best proof of a working business model, and once it is achieved, growth would be much easier to attain. Here are some examples of the statements made:

> If you haven't got profitability, nor do you have the resources to achieve growth for that matter (Founder).
> Growth is achieved through profitability (VC).

Those that did not provide a clear relationship between the two, pointed out the importance of achieving both, instead of choosing one over another:

> Growth cannot be an intrinsic value, and if, if profitability is what we just defined, it is challenging. For a small growing firm, it is the biggest challenge, to grow profitably, because it is easier to only do one of them instead of trying to achieve both. . . if you only want to increase sales by sacrificing profitability, the firm will not succeed. And the other way round, if you only try to achieve profitability, the firm will not grow anywhere (Public Investor).

When we asked what the respondent would prioritize, growth or profitability, we found something rather interesting. When the question was asked like this, out of 23 answers, six would prioritize growth, while 13 would prioritize profitability. One preferred both, and the remaining three were unsure and referred to the context of the firm.

Similar reasoning for the decision was given in this question; there are the ones that see the necessity to grow in the early stages, both from the investors' as well as from the entrepreneurs' point of view. Below are some of the kinds of statements we found:

> . . . in an early stage like this, it has to be growth (Entrepreneur).
> Well, we of course have growth as our first goal, because we have such early stage investments, so these companies must be able to show they have the ability to grow. The profitability demand comes later on (VC).

An interesting finding was that growth and size were also related to credibility, shades of Cooper et al. (1989). A small firm would not be credible enough in the eyes of other stakeholders. This was seen in statements like the following:

> In an early stage you ought to get your things running, to grow into a level so that you are credible (Entrepreneur).

We then probed a bit deeper. For the respondents that would prioritize profitability pointed out the risks of growth and often talked about the timeframes. Here is an example of the kind of statements that were made:

> Profitability, of course. Because at the end, growth is not the intrinsic value, profitability is. We have seen hell of a lot of growth companies, that have suffocated in their own greed and impossibility, but when you make sure to grow profitably, then you are going into the right direction (Public Investor).

Also in this question it became evident, that even if profitability could be seen as the final goal, the tool to achieving it was still growth:

> Well of course I need to say profitability, but it's not like, growth is still the prerequisite for it, so they are not exclusionary things (Public Investor).

For us as also being researchers in entrepreneurial motivation it was interesting to realize that growth and profitability can both be seen as targets (ends), or then as tools (means), for achieving a target. The logic is: as income increases as a result of growth (means), which will improve cash flow and later, therefore, enhance profitability (end). On the one hand, by first prioritizing profitability, and hence use it as a tool for increasing the financial resources, would help in achieving long-term growth. On the other hand, it should be remembered that growth is hardly a goal per se, but instead *what is believed to be achieved by it, is what pushes firms to pursue it*.

Later in the interviews we asked whether it was possible to enhance profitability in the long run by growth. Here, we were interested in finding out whether growth was seen as a tool for improving performance. Not all, but 18 respondents agreed that this was possible, many very convinced about this. Some respondents thought that it was risky, and this was where firms may easily fail, but with higher risks the firm could also attain higher returns.

> It is possible in the long-term, but it has to be strategically well made, because the Finnish companies' biggest vices are that they totally underestimate the challenges of growth, in particular international growth (Public Investor).

Even here the scale economies were found to be a common base for the argument. This was the case, both for the software as well as for the biotech industry. Take, for example, the following statements:

> Yes, well, if we think so the software industry is exactly about this in the end. When you have no marginal costs, in theory in production, the bigger you are, the more profitable you are also (Firm Executive).

Most interestingly, even in this question the value increase from the investors' point of view came up, highlighting the growth and value increase relationship from the VCs standpoint.

> Most commonly it is like this. Of course there are sometimes cases where the value is based on something else, e.g. if you develop some technology that has more value to the company it is sold to. Then there is no profitability until the company is sold (VC).

If we thought that entrepreneurship researchers were the only ones concerned with measurement, others have the same concern. In an early stage of the interview, the

respondents were asked what they thought as the most suitable performance measure for a start-up firm in high technology.

Here is the shocker, none of the respondents could give a clear answer. None of our experts referred to pure sales growth, which is most commonly used by academics, but instead they suggested various qualitative and quantitative methods. It was very clear that each respondent defined performance through the lens of their organizations; where the public investor saw employment growth and welfare as performance, the VC thought that increased employment should never be seen as a performance measure, but instead looked at growth potential and value increase. One's past experiences and agenda drove what they focused on. No wonder the poor entrepreneur is confused and feels stressed in dealing with these conflicting demands.

Human motivation clearly had impact on perceptions. Performance was often related to targets and goals, and good performance was to be able to show how these targets were met, preferably with minimal costs. It was also common to relate performance to the product life-cycle, where qualitative measures such as survival, meeting set plans, cash flow management, ability to raise finance, resources, and capabilities would be suitable in the early stages, while traditional accounting based measures would come into question once the company is properly established.

Public investors tended to prefer qualitative measures and other softer measures, while VCs had a tendency to look at value increase through achieved growth and future growth potential. When directly asking how growth is measured, a total of 17 mentioned sales growth as the first alternative. Apart from that other growth measures were increased number of customers, value, profitability, patents, and employees. Some of the respondents felt very strongly about regarding employment growth as a performance measure, due to the idea that it only increases fixed costs and may create more slack resources; something that would most certainly be the doom of a start-up firm.

When the same question was asked about profitability measures, traditional measures such as EBIT, return on investment, and results were mentioned. While sales growth is most commonly considered a performance measure and performance being equal to success (Kiviluoto et al. 2009b), one of the questions asked were whether growth was a good measure of success. None of the respondents gave the answer as a firm yes, but instead various elements were taken into the discussion. Most commonly solely growth was not a measure of success, but instead other measures should be used in parallel, such as profitability. Here is an example:

> Profitable growth yes, but non-profitable growth, no. There we are taken into the problematic that if you sell your products with loss, and after growth you still sell it with loss, it makes no sense at all (Public Investor).

Many of our respondents mentioned that growth should not be seen as intrinsic. They often indirectly referred to this in many circumstances as the case.

> growth is one measure of success, but a successful firm grows profitably, but growth is not an intrinsic value (Public Investor).

Looking through a broader lens and considering the surrounding reasons to growth was far more important than growth per se. At the same time growth could be seen as a measure, whether this was a target that was planned for in an earlier stage.

> You cannot only measure one thing in an analysis, here you also need to look at profitability and the prerequisite for profitable growth. These should happen in parallel, you cannot only look at one thing; you need to understand what the growth or non-profitability depends on. You need to have it under control all the time (Public Investor).

Reading carefully the issue of size and credibility became evident in these answers also. That was seen as a major growth driver that big companies are idealized, while that term is hardly ever used to describe a small firm.

Since planning is considered important, by practitioners and academics for any business, and business plans for start-up entrepreneurs in particular, a few planning-related questions were also asked. First of all the respondents were asked how important it is for firms to plan for what they do. The focus here was on actual planning behavior, not the process of actually producing a business plan. Then it was asked what the respondents think that firms plan for in the first place, whether it is growth or profitability, and how the stage of the life-cycle may affect this. The question about planning importance gave usually strong reactions. Of 23 respondents, a total of 13 regarded planning as absolutely crucial, a matter of life or death.

> It is essential, you cannot emphasize it too much (VC).
> Well first of all. Unplanned, that is no longer proper business if you do not do it based on planning (Entrepreneur).

The planning process was also seen as a method to create a unified direction within the firm, which is absolutely crucial considering the future success of the firm. Eight of the respondents saw planning as *very* important, while the remaining two found it only to be important. Those two that felt the least strongly about business planning related to the danger of being stuck with a certain plan, i.e., in a fast-changing environment a plan may quickly become obsolete and by following that plan the firm may be going into the wrong direction. They also emphasized the work-load the planning process may create for the top management in a small firm. This referred more to the actual process of writing a business plan when applying for finance.

That is, for the entrepreneur the business plan was a step to the goal of getting money, and not necessarily as an operational tool. This is best explained using another story from our experiences. In a lecture once in Australia, one of us asked a group of entrepreneurs and investors if they ever used their written business plan for strategic decision making after getting funding. One of the CEOs said, no he only was interested in getting the money and put the plan in a desk drawer and forget it. Sadly, he also forgot his banker was sitting behind him. The banker clearly was not amused.

When it was asked what firms plan for in the first place, a total of 15 out of 23 respondents answered *growth*. They were very convinced the entrepreneurs are making-up utopian growth plans, without considering neither the profitability implications nor what was required of the business to meet those plans. The remaining eight respondents were not able to say what businesses plan for in the first place,

and talked about case-by-case approaches and the stage of the life-cycle. God those terrible stage models seem to have a life after a class lecture.

Most of these answers were relating to the firms' growth intentions. When the respondents were asked whether companies in general want to grow, the majority thoughts so, but once again the *context* was very important. Some saw growth as part of the human nature others saw it purely as a necessity for increasing the value of their investment. From the entrepreneur's point of view, growth was also seen as a tool for increasing wealth.

> Yes! Companies want to grow, most companies want to grow. If we think of the entrepreneurs, so growth, they see that growth will increase the value of their company and hence will increase their wealth. So yes, they want to grow (VC).

The previous statement shows you that VCs assume that their agenda is the same as the entrepreneurs, which clearly may not be the case. Growth was seen as a matter of course, and that the only ones not wanting it were those who did not know how to make it happen. Factors that were seen as growth restrainers were fear of failure or the inexistence of appropriate business know-how. This was regarded mainly as a restraining factor in biotechnology, where firms are often created by researchers with in-depth knowledge in their area of science, but not in running a business. Also, here the growth-profitability relationship came up, as growth was seen as the only tool for achieving long-run profitability.

> Companies do want to grow, and that growth is the prerequisite for profitability. And profitability is an element that is closely associated with all business, I have to go by the book, and cite the Companies Act, that requires companies to be profitable (Public Investor).

The importance of growth for a VC became evident in this question also, where one of the respondents argued that without growth intentions, there would be no reason to talk to a VC.

> Well, companies do want to grow and if they don't, speaking to us is not the right thing to do. But of course, there are, there are differences between life-style entrepreneurship and growth-entrepreneurship . . . once you have found a position that is comfortable, you want to continue having it profitable, perhaps even grow a little, but they are not priorities (Public Investor).

The previous is yet another example of where people think everyone is on the same growth page. This clearly may not be the case. When discussing growth of microfirms, one should not forget to think that mostly the firm is equal to the owner. If the entrepreneur owns the firm, growth intentions are based on that person's goals and aspirations.

> I would say that most do want to grow, growth is natural for a human being. Of course there are exceptions, one could be that if the owner is the inventor who has come up with the idea and then commercialized it, but is not willing to give up his/her ownership of it, but instead want to keep it all in their own hands (Public Investor).

However, in capital-intensive industries, where there are other stakeholders with a vested interest in the firm's performance, additional drivers place a pressure of the firm's future direction. A conflict of interest is often created once new investors come

into the picture, even if many of the investors emphasized the importance of taking into the consideration the interest of the entrepreneur.

> No, no they don't. It doesn't like belong to, well let's start from that biotech companies, as I mentioned are often founded by researchers, and researchers are in love with their projects and they do not want to give them away and that someone starts to make business with it. That is the first reason. Secondly, it is because there is not enough business knowledge within the firm so they do not know how to grow. Then for some reason, firms do not like venture capitalists, and that they come with a minority share and run over the entrepreneurs (Policy Maker).

The aim of these interviews was to investigate the perceptions of various stakeholders of the relationship between growth and profitability. Based on the interviews we would like to shed light on five major findings:

1. The unclear relationship between growth and profitability,
2. Believe in growth intentions,
3. The use of certain performance measures,
4. The stakeholder view when assessing performance, and
5. The owner's role in setting the direction of the firm.

First of all, the relationship between growth and profitability is, on an individual level among experts, as unclear as it is in academic research. Most commonly it is seen that growth will eventually lead to profitability, in the long-term without any exception, which confirms our assumption of what could be called *the common belief in society*. This view is not particularly common to a certain group of people, but instead believers and disbelievers exist within every stakeholder group. That was something we found most interesting.

Then there is the old belief that growth is associated with higher risks, which would explain the reasons for pursuit of growth; with increased risks, increased returns should also come. Growth is also seen as evidence of market pull, i.e., there is a real demand for the product in the market. Those that would opt for profitability in the first place, see it as evidence of a working business model and as a possibility for self-financed growth in the future.

Second, the believed growth intentions of the firm seem to be far from research that has been made on the subject. Research shows that growth is not at all as likely to happen as generally believed (Autio 2007; Shane 2008). Based on the extensive dataset by the Global Entrepreneurship Monitor (Autio 2007) it was found that only 1.7 % of nascent and new entrepreneurs are expecting to create more than 100 jobs in 5 years' time, yet they expect to create nearly 50 % of the expected jobs. When looking at start-ups, only 7 % of the entrepreneurs expect to create 20 or more jobs and as many as 70 % do not expect to create any jobs at all.

Despite the evidence to the contrary, our respondents were fairly convinced that entrepreneurs do plan for growth in the first place and that they are also very willing to grow. This emphasizes an information asymmetry in the field and shows that there are plenty of illusions of what stakeholders think of each other, a subject Scott Shane recently wrote a book about (Shane 2008). However, it is worth noting that these stakeholders may be answering the questions through the lens of their organizations.

The VC may only see the entrepreneurs that want to grow, because these are the ones most likely to contact a VC, an entrepreneur funded by a VC may be talking about his or her own company or fellow companies that are in the same situation.

Third, we would like to address the use of performance measures. While the academic literature most commonly defines firm performance based solely on sales growth (Ensley et al. 2002; Davidsson et al. 2009; Kiviluoto et al. 2009b; Shepherd and Wiklund 2009), this is never the case when asking VCs, public investors, policy makers, entrepreneurs, and industry experts. Instead, performance was seen to be highly dependent on the stage of the life-cycle. In the early stages, qualitative measures such as meeting set plans, firm resources, survival, ability to raise finance, and cash flow management were to be preferred. At a later stage, once the firm is properly established traditional measures ought to be used. Growth was indeed seen as a good performance measure, but not as the only one. If performance was determined solely by growth, this should be seen as evidence of meeting earlier set plans or as a well-justified action. Instead, various performance measures should be used simultaneously.

One respondent suggested the use of three simultaneous measures, which is in line with Devinney et al. (2010) who showed, that the pattern of correlations between different performance measures is such that a minimum of three dimensions is necessary just to characterize the fundamental aspects of firm performance. However, given the difficulty in actually getting accurate data from firms the idea of getting three measures that are useful almost seems like a Herculean task at best.

Fourth, is the matter of performance and various stakeholders and their conflicting agenda and expectations. As we noted in Kiviluoto et al. (2009b) we emphasize the importance of thinking of the context when determining performance. In our interviews, this matter also became very evident. Performance means different things for different stakeholder; where the public investor sees employment growth and welfare as the best performance measure, the entrepreneur is looking at meeting set plans with minimal resources. At the same time the VCs want to see growth, as this will work as a tool to increase the value of their investment and in making the investment more attractive in case of a future exit, while the life-style entrepreneur or a family firm may only look at increased profitability and hence personal wealth. It also became clear that the respondents looked at these matters through the lenses of their positions or organizations, and hence, also affected their answers in other questions. It is fairly clear the respondents in this study were unable to really see the position of other stakeholders.

Finally, we would like to emphasize the role of the owner-entrepreneur who is the stakeholder who is actually turning the wheels and deciding the direction of the firm. This is especially problematic in microfirms, where a certain stakeholder with the largest vested interest, may have by far the most saying in the firm's strategy. This brings us again into the matter of different perspectives and performance. While the entrepreneur would perhaps want steady growth and secured profitability, VCs may pursue growth at any cost, as this will increase the value of their investment. How likely these firms are of eventually becoming financial successes is something we have repeated overly in this chapter and others in this volume. However, if you say

to your investor you have a growth plan and then stick it in a drawer and forget it, make sure he is not sitting behind you in some public forum.

At the same time, most respondents said that it is the entrepreneur that comes up with these hockey-stick-growth plans, without considering the implications of their plans and actions. This raises the question that how can this be, why and for whom are entrepreneurs setting these plans? The sad truth is that these plans are being made for the investors, both VCs and public investors. While one VC said that *without growth intentions there is no need to talk to them*.

It is known that public finance is best often received by presenting unreasonable growth plans. So, there seems to exist this vicious circle; for the entrepreneur in order to continue with the business he or she need to raise finance, and in order to raise this finance he or she is forced to show growth intentions and growth plans. Once this finance is received, the firm is pushed to growth in order to increase the value of the firm, in hope of a valuable exit in the near future. At the same, this growth will push the firm all the time closer and closer to the edge, until it eventually cannot handle it and falls down, and probably never gets up again.

The winners in this game are the investors that have managed to make an exit in time, not the entrepreneur with the failed business. Certainly, a loser is the policy maker expecting lower unemployment levels. In the end, getting VCs and policy makers to listen to what research says about growth firms may be a bit like teaching a pig to dance. Do not try, you will only frustrate yourself and irritate the pig.

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Chapter 8
Discussion and Recommendations

8.1 Recap of Rationale

As we near the end of our journey through the mythical world of growth it is time to recap what we have covered. We started out this book by reflecting on our own experiences over a quarter of a century of personally researching, consulting, teaching, and helping to start hundreds of new ventures. As we showed in some of our examples, the firms we worked with have been in industries as diverse as airlines, accounting, biotechnology, information technology, personal products, wineries, and food establishments. Hopefully, after you have read this book you have come to understand why we could have subtitled this book *in search of the black swan* or *hunting for unicorns, yes Virginia there is a Santa Claus,* or even *Grimm's fairy tales and myths*.

One reason we, as modern humans, like myths are simply because they are stories. For millennia, humans have been telling tales around campfires as a way of passing on knowledge and beliefs. Some of us can remember roasting marshmallows over a fire while someone told tales of monsters in the woods. In the modern business world, they serve a somewhat different purpose. Because we like hearing good stories, we tell them and retell them, and write them down in articles and books. When people write books and articles recounting these stories they start taking on mythical proportions. Then other people buy them, leading to a self-perpetuating cycle of more authors writing down similar stories even if they are not true. Think of the tale of George Washington chopping down the cherry tree and then could not lie about doing it. This is a great story, but with no historical basis.

The result of all this telling and retelling is that misleading stories then become myths about entrepreneurship that pervade all kinds of media, from television to radio to newspapers and the World Wide Web. As one of our colleagues has so nicely put it:

> Millions of Web pages, tens of thousands of books, and hundreds of thousands of articles about entrepreneurship tell the stories of the meteoric growth of start-up companies. (Shane 2008, p. 1)

The previous excerpt is from a recent Scott Shane's (2008), book in which he focuses specifically on myths in entrepreneurship. Even the title has myths as part of its title:

M. Brännback et al., *Understanding the Myth of High Growth Firms,*
SpringerBriefs in Business, DOI 10.1007/978-1-4614-9457-7_8,

The illusions of entrepreneurship: the costly myths that entrepreneurs, investors and policy makers live by. While we do not always agree with Shane's views about entrepreneurship, on this topic we do seem to find common ground.

Myths are something most would argue, do not to belong in academic research in the social sciences, especially any work that purports to focus on an economically important topic such as entrepreneurship. Myths are usually only found in fairytales and other contexts not relevant to real life. However, myths within business and entrepreneurship are real (Drucker 1982; Birch 1987; Gibb 2000; Shane 2008; Levie et al. 2011). *Myths are real and they are found to affect how people think and behave*, regardless of whether one is talking about the entrepreneur, the policy makers, other stakeholders, or the general public (Shane 2008).

Myths are created and spread due to increasing ignorance and a tendency of replacing a lack of knowledge with purely mythical concepts; a process that can transform an exception into a norm (Campbell 1949; Gibb 2000). One could argue that the myth of high growth firms has become the "Bible" for many interested in entrepreneurship. Twenty years before Shane (2008) and Mitch Maidique (1986) had already presented arguments on how an exception can become the norm. In a discussion about the tenfold increase in venture capital and Initial public offering (IPO) financing, to a large extent into high-technology start-ups, he stated the following:

> As usually is the case, a handful of firms prospered beyond any reasonable expectation and became the focus of media attention and their founders' fold heroes as sales and earnings grew exponentially, while hundreds of others failed against a climate of irrational enthusiasm. (Maidique 1987, p. 170)

The quote from Maidique, a former venture capitalist (VC), academic, and university president, illustrates something called a contagion effect (Taleb 2004). It shows how an unlikely event, often even completely unpredictable and unexpected, transforms into something likely and foreseeable through endowing it with a disproportionate focus. Taleb (2004) argues that contagion effects are not only evident in all the different streams of science, but also in everyday life. Clearly this has been the case when it comes to the area of growth entrepreneurship and the lack of focus on profitability in entrepreneurship research. Perhaps now you understand our earlier comment about lemmings going over a cliff following the leader blindly.

Some events that occur in the environment are complete outliers. A bit like the miracles associated with sainthood in the Roman Catholic Church. They are, at the time, completely unpredictable beforehand, but despite this fact they create an extreme impact afterward. In retrospect, the human mind concocts an explanation about any event, making the outlier somehow predictable or even commonplace. Some say this is how humans created religion and gods in order to "explain" what they could not explain.

Taleb (2007) calls such events *black swans*. He argues, among others, that the majority of major discoveries and innovations that have taken place were completely unexpected beforehand:

> contrary to social-science wisdom, almost no discovery, no technologies of note, came from design and planning—they were just Black Swans. (Taleb 2007, prologue)

The notion of a black swan can be seen in two ways. On the one hand, a black swan can be seen as the occurrence of the unexpected. On the other hand, it can be seen as the nonoccurrence of the expected (Taleb 2007). Expectations spread through the previously mentioned contagion effect.

In this book, we have tried to demonstrate that the purported findings of *high-growth leading to high-success has experienced a contagion effect, and fundamentally is nothing but a black-swan*[1]. Through disproportionate focus on a wide scale within the entrepreneurship domain, growth and especially high growth has achieved a myth-like status. Growth is encouraged, firms are in pursuit of it, and it is clearly and unquestionably accepted as evidence of business success. Growth has become the norm, business-as-usual. Profit, on the other hand, has become the expected outcome of growth. Subsequently, the growth and profitability nexus has become distorted; a pernicious development for the firm, and one which this thesis has attempted to challenge and change. Trying to get people to realize this may not be the case as like teaching a pig to dance.

While this book is not a manual on dancing it does have the aim of not only challenging the pervasive and misleading focus on growth, but to also bring profitability back into entrepreneurship; to entrepreneurship research, to entrepreneurship practice, and to the entrepreneurship stakeholder's perspective. The decision to focus on various contexts and methodologies was to enlighten the reader in order to gain a more holistic approach and to show that regardless of approach, *rapid and sustainable high growth is a myth*. Such an approach facilitates a deeper view of the entire social system that places demands on the firm (Cole 1959; Gartner 1985; Aldrich and Martinez 2001; Davidsson 2005; Carsrud and Brännback 2007; Levie and Lichtenstein 2010; Kiviluoto 2014).

The approaches we have adopted in this book were also justified and necessary due to the breadth of the growth and profitability distortion. Growth and high growth has achieved major attention not only in entrepreneurship research (Penrose 1959; Birch 1987; Weinzimmer et al. 1998; Capon et al. 1990; Delmar et al. 2003; Davidsson and Delmar 2006; Davidsson et al. 2009; Shepherd and Wiklund 2009; McKelvie and Wiklund 2010), but also in other stakeholder groups (Gibb 2000; Christensen and Raynor 2003; Autio 2007; EU: Lisbon 2000; EU 2010; EU: SBA 2008; FMEE Growth Entrepreneurship; Murray et al. 2009). In addition, entrepreneurs themselves seem to be primarily concerned with it (Tilles 1963; Kiviluoto et al. 2010). Thus, the distortion of the growth and profitability nexus is wide spread. We also believe that this uncritical adoption of growth at all costs is potentially very dangerous to individuals, firms, investors, and economies. Therefore, in order to challenge this distortion it was found necessary to adopt a more holistic research approach

[1] It is acknowledged that in some occurrences high growth may translate into high success, and is hence per definition not a black swan. However, two things are suggested: (I) these occurrences are rare, and for the purpose of creating an accumulated flow of knowledge (Kuhn 1970), they are unexplainable and nonreplicable and (II) through a contagion effect, this event has distorted the growth and profitability nexus and created a dominating progrowth instead of a proprofitability view. This view is apparent in entrepreneurship research, among policy makers, and among other stakeholder groups.

to demonstrate to the reader and to our colleagues in the field of entrepreneurship research that they need to challenge the myths in our pursuit of knowledge.

Research within the entrepreneurship domain has largely been dominated by the positivist view. Thus, quantitative methodologies have been more common (Carson and Coviello 1996; Cope 2005; Davidsson 2005). This reflects the training of many in the field having come from the behavioral and social science disciplines. We have tried to acknowledge our biases as researchers whereever appropriate.

We did this because the epistemological foundations, the researchers view on knowledge, are often found to affect the development of a research approach. However, there is nothing that hinders the integration of views, or conducting research of one paradigm despite being influenced by the logic of another (Grenier and Josserand 2001). In practice, research within the social science is more adaptive and the lines between epistemologies often become blurred (Miles and Huberman 1994).

As we have shown in the preceding chapters, growth entrepreneurship research is continuously criticized for having a fragmented theory base and it has been argued that theoretical development has been slow. Despite increasing interest, little is really known about the growth phenomenon (Weinzimmer et al. 1990; Delmar et al. 2003; Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009; Achtenagen et al. 2010; Leitch set al. 2010a, b; McKelvie and Wiklund 2010). If this book has left you a bit frustrated, the state of the research in the field has frankly left us frustrated (at least we have not irritated the pig yet).

In addition, research results on the growth and profitability relationship are inconclusive (Capon et al. 1990; Markman and Gartner 2002; Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009). Calls for research using novel approaches and combinations of approaches have been made (Carson and Coviello 1996; Cope 2005; Leitch et al. 2010a).

By using different methodologies in this book we have tried to lead the reader in exploring and uncovering facts about growth and profitability that have seemingly evaded many others in our field. Therefore, it relied strongly on a positivistic view on knowledge (Girod-Séville and Perret 2001; Allard-Poesi and Maréchal 2001). Through a positivistic view, a clear-cut replacement of growth with profits has been argued. More specifically, this book has challenged the current growth and profitability nexus, by justifying the replacement of growth with profits, or at the very least give profits equal footing in any research agenda. The idea of challenging, thus providing a justified alternative for current praxis as, a form of knowledge creation process, was derived from Popper's (1959) idea of falsification. Fundamentally, we hope we have challenged your assumptions about the way the world operates when it comes to growth and profitability.

We readily admit that contextually, this book relies heavily on privately held Finnish high-technology (biotechnology and IT) start-ups. While this may be seen as a limitation of the generalizations made in this volume, it allowed us to have a better holistic view of the environmental context of firms that would be almost impossible in the USA or even the UK given their size and the difficulty in getting appropriate data.

The decision to focus on privately held start-ups was because of an identified research gap. In addition, high-technology firms are found to enjoy disproportionate interest among public policy and the general public (Brännback and Carsrud 2008). Therefore, specifically the high-technology context was found suitable for the purpose of this book.

Sometimes an idea or an issue is a challenge made with the specific purpose of creating change. However, the change demanded by this volume is much needed; a clear-cut change from growth to profit within the entrepreneurship contexts discussed in the various chapters previously.

8.2 Implications for Entrepreneurship Research

We have attempted in this book to show that recent research presents a paradox in the current state of growth in entrepreneurship studies. On the one hand, there is an increasingly strong interest in the field which can be evidenced over the past two decades. On the other hand, the field has been criticized for being fragmented with research results that are inconclusive and arguments that show surprisingly little is known about the growth phenomenon (Achtenagen et al. 2010; Leitch et al. 2010a, b; McKelvie and Wiklund 2010). Therefore, a change is necessary, and this book and our work plus the work of others over the last decade offer some suggestions.

"*Entrepreneurship scholarship is what entrepreneurship scholars pay attention to*" (Gartner et al. 2006, p. 327). It can be argued that entrepreneurship scholars pay attention to something that is not entrepreneurship. *Entrepreneurship is the purposeful activity* (*including an integrative sequence of decisions*) *of an individual or group of associated individuals, undertaken to initiate, maintain and grow a profit-oriented firm* (adapted from Cole 1959). This definition captures three fundamental aspects of entrepreneurship:

1. Entrepreneurship is about start-ups,
2. entrepreneurship is about sustainability, and
3. entrepreneurship is about profitable growth. Entrepreneurship scholarship is currently not paying attention to these.

First of all, no article by others that we have reviewed in this book was concerned with the growth and profitability relationship between privately held high-technology start-ups. Only four studies out of 118 we have reviewed in this book were concerned in some degree with the growth and profitability of privately held firms. Of these, only two were specifically focused on the relationship. However, one of these focused on a very specific phenomenon, extraordinary growth (Markman and Gartner 2002) while the others did not include microfirms in the study sample (Davidsson et al. 2009). It is even rare in the major media stories about growth firms to hear any mention of profitability.

As we have shown, the large majority of firms in most economies worldwide consists of privately held microfirms; firms with less than 10 employees. Therefore, one would assume that entrepreneurship research would also focus specifically on

these. It is unlikely, that any of the four articles concerned with growth and profitability among privately held firms, was actually concerned with microfirms and actual start-ups. This identified research gap shows a strong need for studies focusing on the profitability of microfirms not only among high-technology firms, but across sectors.

The reason for the lack of research on privately held start-ups cannot fully be answered by this book alone. However, some evidence can be found showing research is being driven by data availability, instead of data suitability. A tendency for such research practice has been identified previously and it has been found to affect negatively the quality of research (VanderWerf and Mahon 1997; Shepherd and Wiklund 2009). Difficulty assessing performance among privately held high-technology firms has been pointed out before (Birley and Westhead 1990; Bloodgood 1996; Bantel 1998; Robinson 1998; Gilbert et al. 2006; Kiviluoto et al. 2009).

The difficulty is not only caused by lack of data availability, but also due to the nature of the firms and the business logic with which they may be operating. Finding the best measure of performance can be an impossibility considering the variation in firms. Finding one specific measure is necessarily not even justified (Penrose 1959; Richard et al. 2009). However, in this book, we have attempted to suggest that some measures of performance are notably better than others. Therefore, it is argued that the scholarly community is focusing too much attention on the wrong kinds of performance. This misdirection also impacts those who are supporting new ventures and the new ventures themselves.

Much of our own work along with a number of other studies have found relative sales' growth to be the prominent measure of firm performance (Weinzimmer et al. 1998; Delmar 2006; Gartner et al. 2006; Shepherd and Wiklund 2009; Achtenagen et al. 2010). This is something that is true not only in entrepreneurship research, but also in general business and public media. However, as we have shown, relative sales growth was not comparable to any of the other 14 performance measures studied. This was true regardless of industry, and regardless of firm age. If the dominant performance measure does not translate to any other measure of performance, one can justifiably ask: *how much do we really know about the performance of start-ups?*

If any particular study explains a certain limited percentage of the performance variance in relative sales growth, what explains the differences in the other 14 measures? More importantly, what explains the differences in profitability, or the lack of it? Currently, a large majority of research does manage to explain changes only in relative sales growth. Whether or not it would explain changes in another performance measure cannot be answered, as other measures are rarely included. Weinzimmer et al. (1998) is a widely cited study in entrepreneurship research with regard to studies assessing performance differences. His particular study does show high concurrent validity between relative sales growth and three other measures: absolute sales, absolute employment growth, and absolute asset growth. However, their research is focused solely on publicly traded firms. Therefore, it may well be yet another example of research from a completely distinct context being blindly adopted into the entrepreneurship domain. This is something McMullen and Kenworthy (2014) have warned against.

The low comparability of different performance indicators, and the high annual variability shown in some of our work, emphasizes a matter of crucial importance to researchers, policy makers, and entrepreneurs. This matter must not be understated.

First of all, the high annual variability suggests that results of a study would not concur if the study was replicated using a different measurement of time. We have shown a large variability when 1-year measurement intervals were applied. Secondly, the matter of low comparability between measures may be a major contributor to the lack of accumulated knowledge creation in the domain of growth entrepreneurship research. Performance in general is extremely heterogeneous. The scary part is that research has identified more performance conceptualizations than there are studies currently (Murphy et al. 1996; Richard et al. 2009).

In this book, we have also shown varying degrees of comparability between measures, during the time period, and within the industries studied. Going into specifics of which indicators showed some degree of comparison, is not relevant at this point. What is relevant is the acknowledgment of the existence of such high variation and the low comparability between measures. Considering this, together with the number of possible performance conceptualizations, we hope we have shed some light on the source of the problem. Together these two points mean that *fundamentally very few studies on any type of performance are comparable with each other*. This book has focused only on discussing two types of performance, profit and growth, but the problems extend much further than that.

We do assert that growth (by whatever measure) and profits are by no means the same, and by no means give an equivalent reflection of a firm's performance. The most commonly used measure of performance, relative sales' growth, does not translate into any measure of profitability. The only real measure of a successful firm's operations is profits. Profit is what used to be the driver and an outcome of entrepreneurship (Schumpeter 1934; Penrose 1959; Kirzner 1973). This is what profits should still be today. Without profits no commercial venture can exist for long and even nonprofits have to have an income that at least matches their costs or they too will cease to exist.

McKelvie and Wiklund (2010) presented three independent streams of growth entrepreneurship research: growth as an outcome, the outcome of growth, and growth as a process. We believe instead of focusing on growth, entrepreneurship research should focus foremost on profits: profits as an outcome, the outcome of profits, and profit generation as a process. Due to the complex nature of performance per se, it is important that profits should not be regarded in isolation either. However, at this point we are most likely singing to the choir as they say. That is, we hope you come to agree with us.

Therefore, a number of measures should be used in all studies conducted. Research has suggested a minimum of three measures to capture the different performance dimensions (Richard et al. 2009; Devinney et al. 2009). Due to the high variability over time, performance should be measured over a longer time period, allowing the testing of the validity of the model over time; single occurrences have no significance in science (Popper 1959).

Our colleagues Leitch and Harrison (2010b) suggested that entrepreneurship research will advance once scholars start asking the right questions. It is suggested here that all research should aim to answer Whetten's (1989) three questions of theory development: what, how, and why. All decisions concerning performance measures should not be made until these questions have been answered.

It should be acknowledged that the performance of a firm, regardless of whether it is measured by growth or profitability, is a reflection of the individual-level decisions made in that firm. Penrose (1952) acknowledged this, as did Achtenagen et al. (2010) more than half a century later. The currently dominant firm-level research can only answer a limited number of questions about performance. The individual entrepreneur is the one who has taken the decisions, which are the finally reflected in the firm's performance. The individual entrepreneur can be affected by the environment in which the firm operates and therefore an understanding of the individual, and hence the firm, requires an understanding of the entire environment. To take the entrepreneur out of the equation is simply wrong.

Richard et al. (2009, p. 23) presents five methodological issues to be considered in all research concerning performance. Considering these issues would presumably lead to better quality research being conducted:

1. Measuring performance requires weighing the relevance of performance for the focal stakeholders.
2. Measurement of performance must take into account the heterogeneity of environments, strategies, and management practices.
3. Measurement of performance requires an understanding of the time series properties relating organizational activity to performance.
4. Performance measures should not be made specific to the research question but be sufficiently robust to cover the domain of organizational performance.
5. Measurement of performance requires an understanding of the relationship between measures.

Of critical importance is that we must never forget that entrepreneurship is a practice-based discipline. It may therefore require the researcher to view the phenomenon from different epistemological perspectives (Grenier and Josserand 2001; Leitch and Harrison 2010b), instead of being bound to the rationalities of a certain epistemological view. We have frequently argued with our students that you cannot really understand this phenomena if you yourself have not tried to start a firm. This book is an example of such an attempt. It has relied heavily on a positivistic view, trying to challenge the current norm and justify a clear-cut replacement of growth with profits (Popper 1959). It did so through a use of methodologies relying on a different epistemological foundation, including personal observation of firms in which the authors have been actors. We feel that when you know something personally you start asking far more interesting research questions.

In comparison to the current focus of entrepreneurship research, the arguments presented in this book may seem somewhat provocative. That is exactly why we have made them. In order to change the unsound development of growth entrepreneurship research, research that completely lacks growth and profitability of start-ups, changes need to take place. Research cannot and must not be driven by data availability or ease-of-access to data. This entails the danger of research being conducted on skewed samples, and the use of inappropriate performance measures, which fail to give a valid representation of the population it attempts to explain, the typical start-up. Entrepreneurship scholarship should therefore attempt to pay more attention to what

is actually being studied, how it is being studied, and why (Whetten 1989). In contrast to current research practice, a focus on the profitability, and profitability building activities of privately held start-ups, should be the primary focus of entrepreneurship research.

8.3 Implications for Entrepreneurs

This book also attempted to challenge the growth and profitability nexus in entrepreneurship practice. The supporting evidence for the importance of replacing growth with profits in entrepreneurship practice can be found using Markov-chain analysis. Using a sample of 1,039 high-technology start-up firms the results in this study concur with earlier studies (Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009). It is found that unprofitable growth is evidence of an unsound development of a firm.

This statement holds true regardless of a firm's age. Among the three age groups of firms studied, the likelihood of achieving profitable high-growth is notably higher when starting from a position of high relative profitability. On average, a high-profitability, low-growth firm is twice as likely (=0.384 vs. 0.1896) to make the transition into a position of high-profitability and high-growth, in comparison to a high-growth low-profitability firm. On the contrary, a high-growth low-profitability firm is on average twice as likely (=0.381 vs. 0.193) to make the transition to a position of low-growth and low-profitability, in comparison to a high-profitability low-growth firm.

Regardless of age, firms are most likely to stay in the same position from which they started. These results speak strongly for a profitability-oriented start-up strategy and justify the replacement of growth with profits in entrepreneurship practice. Regardless of age, firms starting from a high-profitability state will remain in that position with more than 70 % likelihood. In contrast, a firm starting from a state of low-profitability will, with more than 70 % likelihood, remain in that position also in the future.

However, such a Markov-chain analysis only conveys one part of the story. In the analysis, firms are compared only to other firms in the sample, hence giving an indication of the firms' relative performance against each other. Therefore, we have attempted to give further justification for the replacement of growth with profits in entrepreneurship practice. As an entrepreneur, the goal of making money is clearly part of the process and for most that are not sold in an IPO or merger, the only way to make money is to be profitable. That should frankly be a "no brainer."

We have shown in our studies that when using only median performance indicators the following can be identified. Both biotechnology and IT firms do manage to grow, on average, by 15.5 % annually. However, when focusing on profitability, the figures are less compelling. Biotechnology firms reach, on average, an operating result of 20.3 thousand € and IT firms an operating result of 12.5 thousand €. The average annual net result is 20 thousand € for biotechnology firms and 9 thousand

euros for IT firms. Clearly these are not firms that are making enormous amounts of money. Certainly, we acknowledge that accounting practices, new investments, and taxation planning affect the reported profitability (Hopeasaari 2011; Leppiniemi and Leppiniemi 2011). If you have ever run a firm, even a small consulting one, you know these impacts all too well.

It follows from our studies that one could assume that older firms would benefit from such practices, and would hence show higher profitability. It could be argued that accountants attempt to reduce the taxable income, hence affecting the results of the financial year. However, such practices should not affect the operating result. Therefore, one could assume a higher operating result for older firms. However, no significant differences exist between the three age groups studied. Thus age does not mean you get better at performance. The profitability levels identified in the samples we have studied can hardly cover the cost of staying in business (Drucker 2001). This is neither evidence of profit-oriented growth (Cole 1959; Penrose 1959) nor sound firm development (Davidsson et al. 2009; Steffens et al. 2009).

As we also have shown, one special concern needs to be emphasized. That is the low operating result and the low earnings before interest and taxes (EBIT). It is essential for a firm to focus on the right factors from the beginning, as it may be extremely difficult to improve profitability later (Brännback et al. 2009; Davidsson et al. 2009; Steffens et al. 2009). Drucker (1982) suggests that even a 20 % improvement in profit margins may be impossible in a competitive market (see also, Churchill and Mullins 2001). Profits and profitability are the principal illustrations of the validity of a business model (Drucker 2001).

Hence, a firm achieving sufficiently high profitability when all costs and risks are taken into consideration has a valid business model. In contrast, one that fails to do so does not have a working business model. The low profitability levels identified in study IIB indicate an ineffective business model within the high-technology industries. The question therefore is how has this growth been achieved and what are the minimum levels of profit needed for even staying in business. Drucker (1982, 2001) specifically discusses these issues thoroughly. *Clearly work needs to be done on business models with special attention to revenue models*. One would think that VCs as well as those teaching entrepreneurship would focus on the business model.

Here is where we turn to another great management guru, the late Peter Drucker. Rather than being concerned with the maximum level of profits, management should be concerned with understanding what the necessary *minimum levels of profits are* (Drucker 1982). Most firms fail to do this, which is hazardousfor the firm but also impoverishes the economy. Minimum levels of profits should cover the costs of future risk. Here is where we think we need to remember the very fundamentals of business, one of which is cost. Costs are a very central concern in Peter Drucker's work:

> Finally, businessmen owe it to themselves and owe it to society to hammer home that there is no such thing as profit. There are only costs: costs of doing business and costs of staying in business; costs of labour and raw materials, and costs of capital; costs of today's jobs and costs of tomorrow's jobs and tomorrow's pensions. (Drucker 1982, p. 54)

What Drucker (1982) means, is that a focus on costs is a more process-oriented view. Instead of focusing on the final outcome, profit, the more important focus is on how that outcome is achieved. Drucker (1982) suggests therefore the importance of understanding a firm's operations as a collection of costs. Time and time again we have consulted with small firms who, when asked what their cost of goods are, cannot tell you. But they would tell you in the next breath that they were profitable as a business.

Peter Drucker (2001) has argued that for something as essential as profitability, there are no real tools for determining the amount of profitability necessary to allow future operations of a business. In determining this, there are three concepts proposed by Drucker that need to be understood:

1. the purpose of a business,
2. the functions of a business, and
3. the objectives of a business.

One thing we tend to overlook is that the purpose of all business (whether intended or not) is to create a customer (Drucker 2001). Without customers, a business fails to meet its fundamental purpose. In order to be able to meet this purpose, all businesses have only two functions: innovation and marketing. Even if the two can be seen as fairly separate functions, the fact is that without marketing there would be no innovations, and without innovations there would be no marketing. Innovations allow businesses to grow; *not to grow bigger, but to grow better.* Sounds a bit like David Baltimore discussing CalTech as we noted earlier.

Profits represent both the outcome of business activities but also the vehicle that covers the costs of necessary businesses resources. The eight that all firms should have are: marketing, innovation, human resources, financial resources, physical resources, productivity, social responsibility, and profits (Drucker 2001). Profit planning is essential, but it cannot take place until the first seven objectives have been considered. All seven contain risk, some more than others, but neverthelessrisks that need to be considered and accounted for. Profits are what should account for the cost and risk of all other objectives: "*Profits are the costs of future, the cost of staying in business*" (Drucker 2001, p. 38).

Only one type of growth is preferable, and that is through increased productivity. Drucker (2001) suggest *that innovation allows a firm to grow better instead of growing bigger*, and therefore it can be said that businesses should strive for innovation-driven growth. Therefore, instead of a growing for the sake of growth, all firms should be on a continuous quest of *growing better and wiser*.

It is equally important to be sure that management has the ability to distinguish between *desirable and undesirable growth*. Think of this as realizing that not all growth is good, or desirable. Growth is strength if it results in overall productivity of the wealth-producing resources of capital, key physical resources, and human resources. Growth that does not make resources more productive is undesirable and as much a burden on the corporate body as fat is on the human body. Some is necessary, but too much can be a killer. Growth that is being purchased at the expense of the productivity of the factors of production, as much of the growth of the go-go years, is a malignant tumor and calls for radical surgery (Drucker 1982, p. 59). Do not you just love the analogy to cancer as Drucker knew how to get your attention.

It is important to remember that growth can be achieved in various ways. As Drucker (1982) argues all firms need ways to distinguish between the different types of growth, something he calls healthy growth, fat, and cancer (see Drucker 1982, p. 90). While all three can be labeled as growth, all are neither desirable nor advantageous for the firm. One of the entrepreneurs interviewed in the study on experts cited in the previous chapter shared these views: "*you need to see how you are growing . . . you can buy yourself growth, but that is unhealthy.*" Drucker (1982) points out that the different types of growth also need to be distinguished by policy makers; *what kind of growth is desirable and profitable for the economy and what types are not.* Fostering the wrong kind of growth may have a deteriorating effect on the economy. Frankly, we have yet to see policy makers really understand these differences. For that matter, many investors, including VCs have similar problems in understanding that all growth is not good. Maybe someday some pigs will learn to dance.

The results presented in this book, together with Peter Drucker's views on the importance of pursuing the right kind of growth, captures the implications for entrepreneurs that we have been attempting to convey when we talk about the myth of growth. Firms should be in a continuous search for innovation-driven growth, when innovation is understood as Drucker (2001) meant; efficiency and profitability increasing. This requires an entrepreneurial mindset solely and constantly focused toward increasing profitability (Penrose 1959). Such an approach makes the firm validate its business model as soon as possible. In addition, it helps to minimize the need and consequences of external finance (Churchill and Mullins 2001).

An innovation-driven profit orientation does not only create a sound perspective of business-as-usual, but it may also contribute to the creation in the long run of a competitive advantage. An example of this was captured by entrepreneurs we know, who, in order to minimize the need for external finance, has been focusing on efficiency, self-sufficiency, and profits from day one. This is an example of the type of profit-orientation that can have a radical, game-changing effect on how business is being conducted within even a high-technology industry like biotechnology:

> This is a sort of profitability orientation already during the R&D phase. The day we get this drug out to the market, I will one day tell the press that this was done with 20 million, instead of a thousand million, a billion. (Entrepreneur)

8.4 Implications for Policy Makers

As we have shown in this book, the high-growth myth prevails throughout Finnish, European, and global entrepreneurship policy (Gibb 2000; Autio 2007; Murray et al. 2009; EU: Lisbon 2000; EU 2010; FMEE 2010; Haltiwanger et al. 2010). Policies are set to encourage growth entrepreneurship, often through encouraging firms to employ more people. These policies are driven by the perceived economic contribution of small, high-growth firms (Biosca 2010; Haltiwanger et al. 2010; Neumark et al. 2010). Policy makers are principally interested in a specific type of growth, employment growth. This type of growth has not been discussed in depth in this book,

but it is clear that employment growth is not usually the goal of most entrepreneurs and could be one of those dysfunctional types of growth that Peter Drucker has warned of in his writings. Hiring people requires money and money is often the one thing in short supply in any new venture. Clearly some firms like Costco in the USA view employees as assets, but even they know the value of controlled growth and certainly know the importance of profitability as they walk all over the global giant Walmart in this respect.

Much research has suggested that access to finance can be the major constraint for the development of high-technology firms (Shepherd and Wiklund 2005; Schneider and Veugelers 2008; Murray et al. 2009; Renko et al. 2009). In Finland, there are a number of public institutions providing start-up capital, TEKES being the largest (TEKES 2011). In the study we discussed in the immediate preceding chapter, we found mixed opinions about the existence of such a system. While some entrepreneurs found such institutions crucial, as they provide capital for research projects otherwise too expensive for firms, others found such a system to create inefficiency, distort competition, and to keep otherwise failing firms afloat. In addition, the gap between public and private finance was seen as too large. This gap, caused by different forms of valuation and different demands placed on firms, was found to cause severe problems once a firm acquired the first round of private capital.

Policies encouraging firms to employ more staff distort them from normal firm behavior. They encourage the entrepreneur to focus on the wrong kind of growth (Drucker 1982, 2001). Any type of policy that hinders rather than enables a firm's development should be reevaluated and redesigned. Only a certain type of growth is profitable and advantageous for an economy, and hence should be encouraged (Venkataraman and Ramanujam 1986; Drucker 2001). Frankly, trying to create firms that hire lots of employees is one that may not be the most sustainable as highly repetitive jobs are ones that are most susceptible to automation or outsourcing. Just think of the history of the textile industry over the last 200 years to see how much technology has impacted it.

Therefore, entrepreneurs should first and foremost be encouraged to develop firm's working on sound and sustainable business models. A sound business model means one that generates profit, and thereby provides the firm the basis for self-sufficient profitable growth. That is the entrepreneur needs to understand how they make money both immediately and in the long run. They must understand their revenue model in depth. Encouraging start-up firms to employ people, only for the sake of decreasing unemployment can be disastrous for the firm, and in the long term also for the economy. Such employment growth that helps the firm become more productive or to grasp profitable opportunities, should be encouraged instead.

Regardless of whether the focus is on public finance or more general growth entrepreneurship policies, public policies should focus on one thing. They should focus on providing an eco-system where entrepreneurs can and want to generate profits. This requires an eco-system that encourages increasing profits, not penalizes them through overly rigid, or out of date, taxation policies. Profit generating firms are evidence of firms working on sound business models, and will therefore be much more valuable to society both in the short-term and long-term. This does mean that

smaller firms should not have a higher effective tax rate than large multinational firms. We are not at all against taxation, but put quite simply, *if a firm cannot make money it cannot pay taxes.*

8.5 Limitations and Suggestions for Further Research

In this book and our various research papers, we have argued strongly against current prevailing practice on a broad array of issues within the entrepreneurship domain. Following the positivistic knowledge view, a replacement of growth by profits is advocated and the replacement we think we have justified. This justification is done through exploring the phenomenon from three selected angles. Such an approach achieves a more holistic perspective, as called for by earlier studies (Carson and Coviello 1996; Cope 2005; Iacobucci and Rosa 2010; Levie and Lichtenstein 2010; Leitch et al. 2010b). However, it does give more space for potential criticism. Clearly more practice-based journals such as *Harvard Business Review* could have been included in our reviews. We acknowledged that the journal selection is by no means complete, or universal. However, it is unlikely that the journals and studies selected do not give a fairly accurate overview of the state of entrepreneurship research worldwide and even in some ways the practice of entrepreneurship, at least in developed economies like those in Western Europe and North America.

The almost complete lack of studies examining the growth and profitability phenomenon together, already gives a strong argument toward a distorted research focus. In general, the journals selected represented those among the most widely read and cited around the globe. It is however suggested, that further research should extend on the review. This could be done without predefining journals, but instead purposively selecting studies that have a more specific focus; privately held firms, start-ups, and studies examining both growth and profitability. Such a review would be valuable in order to further explore the growth and profitability phenomenon.

Due to the low comparability between measures, and hence also between studies, future reviews could attempt to focus on only certain types of performance. Such a more narrow review, focusing only on studies using consistent measures, could contribute to the defragmentation of the field. The defragmentation could finally contribute to studies being built on more solid and comparable grounds, thus contributing to the generation of accumulated knowledge (Kuhn 1970).

When quantitative studies are made, criticism can often be directed on the sample selection, the representativeness of the sample and issues such as survivor bias. The samples used in many of our studies are unique, as it includes all privately held biotechnology and IT firms registered in Finland. We also need to look at failed firms as well. Some of our data sets excluded both firms that had failed and those that had incomplete data. The number of failed firms was not specifically identified. Therefore, our studies do not answer what strategies firms should follow to better avoid failure. We readily admit more research needs to be done on failed firms and how they differ from those that survive. We are fairly certain some strategies are better than others.

For example, a high-growth low profitability strategy is generally seen as risky as the firm may experience cash flow problems. Considering this, it can be said that the failing firms, are presumably not the ones achieving high-profitability, but instead those that do not. If the failed firms could be included in the Markov-chain analysis, result would most likely communicateeven more strongly the importance of high profitability.

It should be noted that some of our studies cannot imply strict causation. This is not what a Markov-chain analysis does. Instead, the use of chain analysis provides a model of what is the most likely transition from one time-period to another. In other words, it answers how likely it is that a firm in one state will make the transition to another state in the future. This gives support for what kinds of strategies work as a prerequisite for further profitable growth. The results concur with earlier studies, and they concur regardless of firm age.

Certainly, one could argue that the results of many of our studies are a unique and totally a Finnish phenomenon, affected by the methodology and measures used. Preliminary analyses have been made for international data; Sweden, Denmark, Germany, and UK.[2] These results also concur, and similarly emphasize the importance of profitability. All these results should be further validated by using various measures, both relative and absolute, in order to arrive at a deeper understanding of the growth and profitability nexus. In other words, what we have found and discussed in this book seems to be consistent with studies done in other countries, be it Sweden or Australia. This is clearly not just a Finnish issue.

We readily admit that some of our studies are exploratory and limited to the levels of growth and profitability among Finnish high-technology firms. Nonparametric measures are used due to non-normal sample distributions. Some researchers prefer the use of parametric measures. However, this would have required a transformation of the performance measures to make them normally distributed. This option was rejected in order to sustain the transparency and practical relevance of the results. We never met a business owner who did a log transformation of their financial statements.

In addition, it was necessary to maintain consistency with the measures from the Markov-chain analysis. The low levels of EBIT and operating result would require future research into the causes of this situation: what are the business models these firms are using and why are they using them? This includes an exploration of the business models build on different forms of growth, organic and/or through acquisition. Is profitability orientation as important in business models built for different forms of growth? The nonexistent differences between biotechnology and IT firms, as well as firms of different ages, were unexpected. The generally accepted assumption is that biotechnology firms are distinct from other firms, especially from IT-firms.

Therefore, future research should look more closely into these firms, and explore in more detail their performance. With the availability of full accounting data in Finland, and in some other countries, the cost structures of the firms should be studied in more detail. This would give further evidence of the real performance of

[2] These data were extracted from the Orbis database by Tommi Pulkkinen and Pekka Stenholm from Turku School of Economics.

high-technology firms in general, and show where the increased income is directed. For example, one cost structure is tax rates and this is where one has to not just take a reported tax rate but actually understand the effective tax rate given the complexity of tax law in places like the USA and Canada.

The nonexistent differences in performance between firms of different ages, also needs further research. Whether the stagnated performance depends on unwillingness or inability caused by internal or external factors, these are issues that future research should attempt to answer. The notably high relative growth rates indicate a willingness to grow. Therefore, it should be studied in more detail how this growth is achieved and how it could be achieved more profitably.

In addition, the existence and effect of various stakeholder groups in business model development and firm governance should be examined in more detail. In the context of business models, a deeper understanding of the profit-enhancing innovations, including all different forms of innovation, is needed. This book does not attempt to answer, in detail, what the profitable strategies are. This is something that leaves considerable scope for future research to examine. While we have our thoughts as to what profitable strategies should entail, much work to demonstrate those remains undone.

In some of our studies on experts, we have an approach of requisite holism to explore the growth and profitability nexus from the stakeholder's perspective. We aimed at gaining a deeper understanding of *how* the growth and profitability nexus is understood, and what the driving causes of these views were. Criticism of the purposive sampling could be given. However, we purposively selected key informants in order to obtain an idea of the most dominating perspectives on growth and profitability. The respondents chosen were known to have extensive experience and knowledge in their field. We acknowledge that we cannot generalize from these findings, but the sampling method chosen was hoped to give a more accurate overall picture in comparison to a random sample.

What we have tried to do is to argue the existence of a high-growth myth, and that high-growth leading to high success is simply a black swan. Research stating the importance of high-growth start-ups was suggested to be a major contributor to the existence of such a myth. Future research should explore in more detail the foundations of the high-growth myth. Some potential research questions for future research could be as follows: Why has the growth experienced such a contagious effect in so many contexts? What altered research from a profit orientation to a growth orientation? What are the theoretical arguments behind starts-ups and high-growth? Why is public policy so focused on high-growth? What has contributed to the assumption that high-growth equals success? Why are entrepreneurs achieving high-growth portrayed as heroes? Why is everything not based on profitability?

These are some of questions future research should endeavor to answer. The answers to these questions would further enrich our understanding of the growth and profitability nexus. They would continue to challenge the current wide distortion of growth and profitability, and hence contribute to restoring profitability to the core of entrepreneurship and thus to entrepreneurship research, entrepreneurship practice, and among entrepreneurship stakeholders.

In closing, we hope we have provided you with some insights into both growth and profitability as they specifically related to entrepreneurial firms. We hope we have stimulated you to think differently about a number of things including what it takes to create a successful entrepreneurial venture. We hope you have enjoyed the stories we provided, our reviews of the literature, and a bit of our humorous views of researchers, VCs, public policy makers, and even entrepreneurs. Finally, we thank you for sticking with this book to this last page and hope you have enjoyed the read.

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