FOURTH EDITION

Entrepreneurial Financial Management

An Applied Approach

Jeffrey R. Cornwall,
David O. Vang,
& Jean M. Hartman

Entrepreneurial Financial Management

Entrepreneurial Financial Management's fourth edition presents an applied, realistic view of entrepreneurial finance for today's entrepreneurs. The updated text uses new cases, examples, and exhibits to craft an integrated set of concepts and applications. Drawing from entrepreneurship, finance, and accounting, it will prepare aspiring entrepreneurs for the world they'll face as they start new businesses.

Cornwall, Vang, and Hartman follow the life cycle of a new business venture, presenting topics in the order in which entrepreneurs will face them as they begin the process of business start-up and move into business growth. Interviews with field professionals provide insight into key practices and experiences in financial management.

Students and instructors of entrepreneurship and business courses will gain practical skills from the updated financial templates and tables. These allow for the application of concepts to actual businesses and are a valuable supplement to the process of developing a full business plan. A companion website includes an instructor's manual, PowerPoint slides, and other tools to provide additional support for students and instructors.

Jeffrey R. Cornwall is the inaugural recipient of the Jack C. Massey Chair in Entrepreneurship at Belmont University, USA. He has published eight books on business ethics and entrepreneurship and is cofounder of Entrepreneurial Mind, LLC, which produces web-based video content for entrepreneurs and small business owners. His blog, www.drjeffcornwall.com, is one of the most popular small business blogs today.

David O. Vang is Professor of Finance in the Opus College of Business at the University of St. Thomas, USA, and is a winner of the Iowa State Outstanding Educator Award. He has served as the CFO of a high-technology start-up company and has performed over seventy consulting assignments for organizations in areas such as derivatives, acquisitions, leveraged buyouts, product and service costing, and corporate finance.

Jean M. Hartman is a Certified Public Accountant, currently providing financial guidance to a nonprofit serving the chronically homeless. Her areas of interest include entrepreneurship, business ethics, and working with nonprofits to develop a critical understanding of financial statements and cash flow when applying ethical practices.

This page intentionally left blank

Entrepreneurial Financial Management

An Applied Approach

FOURTH EDITION

Jeffrey R. Cornwall, David O. Vang,
and Jean M. Hartman

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First edition published 2013
by M. E. Sharpe

Fourth edition published 2016
by Routledge
711 Third Avenue, New York, NY 10017

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2016 Taylor & Francis

The right of Jeffrey R. Cornwall, David O. Vang, and Jean M. Hartman to be identified as authors of this work has been asserted by them in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging in Publication Data
Names: Cornwall, Jeffrey R., author. | Vang, David O. | Hartman, Jean M.
Title: Entrepreneurial financial management : an applied approach /
Jeffrey R. Cornwall, David O. Vang, Jean M. Hartman.
Description: 4e [edition]. | New York, NY : Routledge, 2016.
Identifiers: LCCN 2016000876| ISBN 9781138860049 (hbk) |
ISBN 9780765646859 (pbk) | ISBN 9781315715087 (ebk)
Subjects: LCSH: Business enterprises—Finance. | Entrepreneurship.
Classification: LCC HG4026 .C637 2016 | DDC 658.15—dc23
LC record available at http://lccn.loc.gov/2016000876

ISBN: 978-1-138-86004-9 (hbk)
ISBN: 978-0-7656-4685-9 (pbk)
ISBN: 978-1-315-71508-7 (ebk)

Typeset in Times New Roman
by Florence Production Ltd, Stoodleigh, Devon, UK

Additional materials are available on the companion website at www.drjeffcornwall.com/resources

Contents

Preface ix

1. Introduction 3

The Importance of Knowing the Numbers 3
Measuring Success 4
What Is Entrepreneurial Financial Management? 5
What Makes Entrepreneurial Finance Similar to Traditional Finance? 7
What Makes Entrepreneurial Finance Different from Traditional Finance? 8
How the Lack of Historical Data and Liquidity Complicates the Practice of Finance in Early-Stage Firms 11
Using Stakeholder Analysis to Guide Ethical Decision Making 12
Summary 14

PART I
BUILDING A FINANCIAL FORECAST 15

2. Setting Financial Goals 17

Wealth Versus Income 17
Integrating Nonfinancial Goals into the Business 20
The Importance of Self-Assessment 21
The Self-Assessment Process 24
The Business Model and Business Plan 26
Summary 26
Appendix 2.1. Individual Entrepreneurial Self-Assessment 28
Appendix 2.2. Partnership and Shareholder Assessment 30

3. Understanding Financial Statements 32

The Accounting Equation 32
An Example 33
Basic Financial Statements 42
The Limitations of Business Financial Statements 50
Summary 50

4. Revenue Forecasting 53

Common Forecasting Mistakes 53
The Link Between the Marketing Plan and Revenue Forecasts 55
Creating Scenarios 58
The Link Between the Revenue Forecast and the Cash Flow Forecast 59
The Impact of Business Type on Revenues 60
Quantitative Forecasting Techniques 67
The Importance of Revenue Forecasting 69
Summary 70

5. Expense Forecasting 74

Defining Costs 74
Cost Behavior 75
Breakeven Analysis 79
Expense Forecasting: Impact of Business Type on Expenses 80
Reducing Expenses Through Bootstrapping 85
Summary 85

6. Integrated Financial Model 88

The Entrepreneur's Aspirations Reconsidered 88
Contribution Format Income Statement 89
Earnings Before Interest and Taxes 90
Inventory of Assumptions 90
Social Ventures 91
Determining the Amount of Funds Needed 92
Using the Forecasting Template to Determine the Amount of Funds Needed 92
Time Out of Cash 93
Assessment of Risk Sensitivity 94
Integrating Financial Forecasts into Business Plan or Funding Document 95
Summary 98
Appendix 6.1. Instructions for Using the Integrated Financial Statements Template 98

PART II MANAGING THE FINANCIAL RESOURCES OF A VENTURE 123

7. Monitoring Financial Performance 125

Tracking Assumptions 125
Establishing Milestones 127
Using Numbers to Manage 128
Financial Statement Analysis 129
Ratio Analysis 131
Working with Accountants 139
Summary 141

8. **Day-to-Day Cash Flow Management and Forecasting** 143
Why is Cash Flow Different from Net Income? 143
Why is an Accural-Based Income Statement Important? 144
How is Cash Flow Measured? 144
Interpreting a Statement of Cash Flows: Direct Method 147
Statement of Cash Flows: Indirect Method 149
Investors' and Creditors' Use of the Cash Flow Statement 152
Effective Cash Management 153
The Emotional Side of Cash Flow Management 156
Summary 157

PART III
SOURCES OF FINANCING 159

9. **Financing over the Life of a Venture** 161
Common Misconceptions about Entrepreneurial Financing 161
The Diverse Nature of Business Financing 162
Financing Small Businesses with Modest Growth Potential 165
Financing High-Growth, High-Potential Ventures 166
Summary 168

10. **Start-Up Financing from the Entrepreneur, Friends, and Family** 169
Self-Financing 169
Advantages and Disadvantages of Self-Financing 171
Friends and Family Financing 174
Structure of Funds Invested 178
Summary 179

11. **Bootstrapping** 181
Why Bootstrap? 181
Bootstrapping Administrative Overhead 184
Bootstrapping Employee Expenses 186
Bootstrapping Operating Expenses 188
Bootstrap Marketing 190
The Ethics of Bootstrapping 196
Summary 196

12. **External Sources of Funds: Equity** 199
Angel Investors 200
Strategic Partners 206
Private Placement 207
Crowdfunding 208
SBIC 210
The Downside of Equity Financing 210

Working with Outside Investors 211
Summary 214

13. External Sources of Funds: Debt 216

Short-Term Debt 216
Long-Term Debt 224
Government Funding Through SBA 225
Working with Bankers 227
Other Sources of Debt Financing for Entrepreneurs 232
The Downside of Debt 233
Developing a Financing Plan 233
Summary 235

14. Financing the High-Growth Business 237

Integrating Profitability into the Business Plan 239
Stages of the Firm 240
Stages of Business Funding 242
The Dark Side of Venture Capital Financing 243
Initial Contact with a Venture Capitalist 244
Initial Public Offering 246
The Process of the IPO 248
Summary 252

PART IV
PLANNING FOR THE ENTREPRENEUR'S TRANSITION 255

15. Business Valuation 257

General Concepts That Guide the Determination of Value 257
Basic Information Required for a Valuation 262
Discounted Cash Flow 264
Market Comparison Techniques 277
Summary 281

16. Exit Planning 284

Self-Assessment Revisited 284
The Ethical Side of the Entrepreneur's Transition 287
A Model of Exit Planning 287
Exit Options 290
The Process of Selling a Business 295
Postexit Issues 297
Summary 298

About the Authors 301
Index 303

Preface

Courses in entrepreneurial finance have expanded rapidly across the country since the first edition of this book was published. However, even with the growing number of courses, the most common approach to presenting entrepreneurial finance still tends to place too much attention on venture capital and initial public offerings. Less than 1 percent of new ventures should even consider these financing vehicles. Entrepreneurial finance is not just about raising money and creating financial statements. Entrepreneurial finance should be an integral part of the basic management of any new and growing entrepreneurial venture.

Entrepreneurial Financial Management is written from an integrated, comprehensive perspective. The authors, who come from varied backgrounds and academic disciplines, came together to write a book that reflects the real world of entrepreneurial finance that is consistent with the foundations of the disciplines of entrepreneurship, finance, and accounting. The fundamental goal of this book is to present an applied, realistic view of entrepreneurial finance for today's entrepreneurs. This book provides an integrated set of concepts and applications, drawing from entrepreneurship, finance, and accounting, that will prepare aspiring entrepreneurs for the world they will most likely face as they start their new businesses. Although venture capital and public offerings are covered in this book, they have been put in their proper perspective. Very few entrepreneurs will ever receive financing from these sources, and almost no young entrepreneurs fresh out of college are even given consideration for venture capital financing. *Entrepreneurial Financial Management* is based on practical experience, but also is informed by theory.

The book is designed for applied and experientially based teaching strategies for entrepreneurial financial management. Each chapter has been written with the goal of facilitating the application of its contents to real-life businesses. It is a book that can serve as a reference for entrepreneurs and aspiring entrepreneurs for years to come.

Key Features

- The structure of this book is designed to basically follow the life cycle of a new business venture. Topics are presented in the order that entrepreneurs will likely

face as they begin the process of business start-up and move into growing the business.

- A comprehensive discussion of funding sources is presented in Chapters 9–14. This section begins with an examination of financing from the entrepreneur, friends, and family. It then moves to the external sources of funding that usually come late in the life of a business. Interviews with many of the funding sources are presented in boxes labeled "In their own words" throughout these chapters.
- Numerous examples are presented throughout the text.
- A comprehensive integrated financial statements template is included with this book. This Excel tool allows for the application of many of the concepts to actual businesses. The spreadsheet can be a supplement to the process of developing both a business model and a formal business plan. Step-by-step instructions with examples are presented in Chapter 6. The financial spreadsheet templates, which include product, service, and nonprofit alternatives for social entrepreneurship business models, are all available for unlimited free downloads at Dr. Cornwall's blog site: www.drjeffcornwall.com.
- A self-assessment is included to assist student entrepreneurs in integrating their own personal aspirations into their financial and business plans. There is also a partnership assessment that helps ensure that entrepreneurs working together on a new venture understand each other's goals, aspirations, values, and work ethics.
- *Opportunities for Application* are included at the end of most chapters.

ACKNOWLEDGMENTS

The authors would like to thank the reviewers who provided constructive feedback that helped shape the manuscript as it developed through all three revisions of this book. Thanks as well to Katie Thayer for her work in conducting many of the interviews used in this book.

Entrepreneurial Financial Management

This page intentionally left blank

1 Introduction

The Importance of Knowing the Numbers

Imagine moving to a foreign country where the people speak a different language from your own. While you may be able to get by for a while without learning the language of this country, you will be severely hampered. Asking for and receiving simple information will be a tedious and frustrating task. For example, assume you want to find a coffeehouse with a wireless hotspot. How do you get to the coffeehouse? If you make it there, how do you order an espresso? How do you get a connection to the Internet? More complex tasks are an even bigger challenge. Imagine trying to rent an apartment. What does the landlady expect from you as a tenant? The contract she is requiring you to sign is completely unintelligible to you. Even an interpreter will help only so much. He can translate, but the process is slow and certain issues in the contract lose their precise meaning during the translation. And it would be impossible to rely on an interpreter all of the time.

Accounting is called the "language of business." Much of what is communicated about a business is done in this financial language. And, yet, to many entrepreneurs this is a language as foreign to them as the language of a foreign country is to a traveler. Accountants who work with entrepreneurs often report that most entrepreneurs know very little about accounting or finance. And many of those accountants have not been trained to work effectively with entrepreneurs and their private businesses. Most accountants' training focuses on working for large publicly traded companies. The application of accounting and financial principles to entrepreneurial ventures creates unique challenges. The success of new ventures often depends on entrepreneurs having the skills and knowledge necessary to manage this aspect of their businesses.

Financial statements reveal the general financial condition of a business. How profitable is the business? Can it pay its bills on time? Can it pay its loans? What is the value of the business? All these and many more questions can be answered by the financial statements of a company. This is critical information for outsiders, such as bankers and creditors, and for insiders, such as owners and managers.

Financial reports also can give crucial insight into the operating effectiveness of a business. They are often critical to making the right decisions. Which products make money? Should the company add a new type of service? When should management add more employees? Can the company afford to expand right now? These are questions that are answered through the language of accounting and finance. It is a myth that entrepreneurs can answer such questions simply based on intuition or gut feel.

The language of numbers in business is also the one used to communicate with those entities and people who provide funding for businesses. Bankers, venture capitalists, and investment angels all speak this language and expect the entrepreneurs with whom they work to be fluent in the language as well. None of these sources of funding will be satisfied with reports generated by a computer. All will want to have conversations with the entrepreneur about where the business has been and where it is going, using the language of business: financial data.

Some entrepreneurs believe that they can get by with a good accountant who can speak this language for them—an interpreter, if you will. However, because this language of business is so fundamentally important to understanding any business venture, it is critical that entrepreneurs learn to speak it fluently themselves. Entrepreneurs will not have credibility with investors if they do not know the language of business. More important, they will not be able to manage their business effectively as it grows unless they understand its financial condition.

MEASURING SUCCESS

The language of business can help answer the fundamental question: How successful is the business? The language of business can assess the profitability of the business, the strength of its cash flow, its market share, and its overall financial health. All these are important measures that help ensure the survival and sustainability of an entrepreneurial venture. They are all a part of how entrepreneurs measure the success of a business (Cornwall and Naughton 2003).

However, financial measurements are not the only ways entrepreneurs assess the success of their ventures. Other measures are required in order to understand what success truly means to each entrepreneur. This is not as simple as it may first appear.

Certainly success means the ability to earn a living from a business. For most entrepreneurs, success also is measured by the ability to earn a profit from the business. Profits are important to sustain the business, to create additional income for the owners, to pay off debt, and to create value in the business (see Chapter 15 for a more thorough discussion of business valuation). Other entrepreneurs measure success through the jobs they are able to create. For many entrepreneurs, success also is measured by the ability to create balance between work and family, work and leisure, or work and community activities such as volunteering. For example, Paul Orfalea, founder of Kinko's, says, "Success in life is having kids who want to come back to visit you when they've grown up." Every entrepreneur has a unique assessment of success.

The meaning of success often is derived from the entrepreneur's personal values and personal goals. For example, Bob Thompson, founder of a highway paving

business in the upper Midwest, never felt real success in his business in spite of incredible growth in sales and profits over many years. It was not until he sold his paving business and gave huge bonuses (many over $1 million) to many of his employees that he finally felt he had achieved real success. For him, success came from the ability to share the wealth from his business with those who had helped him achieve that wealth. Jake Jorgovan launched a highly successful video production agency, as well as a thriving freelance web design business. However, after a few years of managing these rapidly growing ventures, he decided to become a freelance developer. He exited his ventures and began to work remotely and travel the world. Over the period of about a year, Jorgovan visited 13 countries and had countless experiences.

To be sure, some entrepreneurs measure success solely by the profits they can put directly into their own pockets. Many of the dot-com businesses of the 1990s were criticized for this approach. Their only goal was to create enough hype to take their business public and realize a quick financial windfall. Many never created profits, and some never even created revenues, yet they were able to create wealth for themselves through a quick turn of their businesses. Likewise, the disasters of Enron, Global Crossing, and the subprime mortgage meltdown of 2007–2008 represent what can occur when people in an organization are not well versed in the language of accounting and finance and have maximization of short-term returns as their only goal.

Those in the millennial generation have two primary measures of success. The first is lifestyle. Millennials view entrepreneurship as a career path that gives them more control over their lives and as a way to create balance between their careers and their families. This is particularly true among female millennials. They also seek personal fulfillment from their entrepreneurial careers, which they do not believe they will find in a more traditional business career. It also should be noted that many in the millennial generation see entrepreneurship as a tool to help enact social change. Success for them is not measured in terms of financial outcomes but rather outcomes that reflect improvement in social conditions.

Chapter 2 will present a process of self-assessment that is used to help entrepreneurs understand what success really means to each of them. With this understanding, they are better able to know how to measure success for each unique business.

WHAT IS ENTREPRENEURIAL FINANCIAL MANAGEMENT?

Entrepreneurial finance is typically defined simply in terms of raising funds for a business. How can an entrepreneur raise funds to support a business venture as it grows? How does the entrepreneur attract venture capital? What is the process of taking a business public? All these can be critical questions that an entrepreneur may need to address for his or her business. However, when the topic is broadened to entrepreneurial financial management, many other critical issues emerge.

Entrepreneurial financial management is defined in terms of six general activities and functions in the business. First, entrepreneurial financial management includes setting clear financial goals for the business that are consistent with the aspirations of the entrepreneur who owns the venture. What are the income and wealth goals that the entrepreneur is pursuing through the business? How will the business need to

perform in order to allow the entrepreneur to realize these financial goals? As will be discussed, the focus should not be on simply growing revenues as high and as quickly as possible. Instead, the focus should be on the profit goals that help the entrepreneur reach their aspirations from the business venture. The process of setting financial goals and engineering these goals into the planning of the business will be examined in Chapter 2.

Second, using financial statements and reports to manage a growing business and to make informed decisions is a key element of entrepreneurial financial management. This is the process of becoming fluent in the language of business and being able to specifically apply this language to the unique circumstances found in each business venture. Chapter 3 will introduce the basic concepts of financial reporting, and Chapter 7 examines the process of monitoring financial performance.

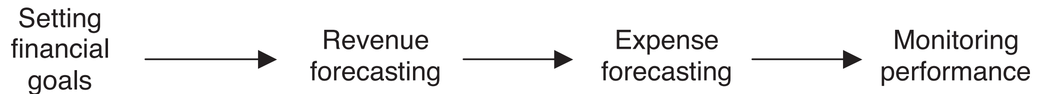
Third, entrepreneurial financial management includes forecasting. The entrepreneur and their team use forecasts as a guide to assess the progress of the business and to determine how well it is meeting expected results. Forecasts also are used to communicate the potential of a business venture to outside funding sources such as banks and venture capitalists. Forecasting future financial results has been described as more art than science. However, there are tools and techniques that can drastically improve the accuracy of forecasts. Revenue forecasts (Chapter 4) should be developed hand-in-hand with the financial goals of the owners (what revenues will be required to reach the profit goals established for the business). Also, revenue goals should be consistent with data obtained through the marketing plan. Expense forecasts are discussed in Chapter 5. Chapter 6 presents a spreadsheet model for forecasting financial statements that integrates the principles of effective revenue and expense forecasting.

Fourth, entrepreneurial financial management includes effective managing of what can be *the* most precious resource: cash. Cash flow often is described as the lifeblood of a business. Cash flow management includes both long-term planning for cash needs as well as day-to-day cash flow management. Chapter 8 examines various techniques and critical issues associated with cash flow management.

Fifth, entrepreneurial financial management does include raising funds for entrepreneurial ventures. However, before racing off to obtain external funds, the entrepreneur must examine the impact of debt and equity on her ability to reach their goals throughout the life of the business. There are some creative first steps toward financing. Chapters 9 and 10 explore these issues of financing over the life of a business and start-up financing using the entrepreneur's own resources and the resources of family and friends. Additionally, if managed properly, growing businesses can often generate funds internally through the creative application of critical business functions such as marketing, staffing, operations, and so forth. Chapter 11 examines how a collection of techniques known as bootstrapping can lower expenses and reduce the need to raise outside funding. Many businesses do need external support to grow. Chapters 12–14 provide a complete overview of the various sources of external funding, including both debt and equity sources of funds.

Finally, entrepreneurial financial management includes the process of how the entrepreneur exits the business that she founded. All entrepreneurs eventually leave

Figure 1.1 **Model for Entrepreneurial Financial Management**



their businesses, either through planned exits, such as selling the business, going public, or transitioning to the next generation in a family business. Some exits, such as the death of the owner or bankruptcy, are not subject to careful planning. Chapter 16 summarizes exit planning and the exit process, which, as will be seen, should actually start at the very beginning of a business venture. Chapter 15 examines business valuation.

Figure 1.1 presents the model of entrepreneurial financial management used throughout this book. As shown, the process begins with a clear understanding of the financial goals of the entrepreneur, which is used to forecast and monitor performance. This model, based on the discovery-driven planning model developed by McGrath and MacMillan (1995), includes the assumption that profit goals should be clearly established and then engineered into the plans for a new venture.

What Makes Entrepreneurial Finance Similar to Traditional Finance?

There are both similarities and differences between entrepreneurial finance and traditional corporate finance. Traditional corporate finance consists of three interrelated segments: financial markets, investments, and financial management, which are sometimes called business finance. Although this book concentrates on business finance for entrepreneurial firms, managers in such firms also need to understand the other two areas in order to succeed. While the general principles of finance apply, early-stage firms and investors have different challenges compared to well-established corporations.

Entrepreneurs need to have some understanding of financial markets, their institutions, and their structures, because either directly or indirectly the company will have to access funds from them. Conceptually, financial markets can be divided into two general segments: capital markets and money markets. Capital markets are those that offer financing with a term of one year or more. Equity financing and long-term business loans fall into this category. Such financing is very attractive for businesses that need to buy long-term (capital) assets. Capital financing also is attractive for firms that may need "patient" financing that will last as a firm develops through a stage or stages where cash flows might not be adequate to pay back the principal immediately. Conversely, money markets have instruments whose term is less than one year. The purpose of the loan in this case is to help a firm survive through a period of short-term negative cash flow, such as meeting this week's payroll. The assumption is that

cash collections will soon cause cash flows to be positive again and the loan will be paid back.

The perspective of investors also needs to be considered by entrepreneurs. In order to gain access to funding, entrepreneurs need to know the principles, expectations, and conditions that investors will have. In general:

1. Investors prefer less risk to more risk.
2. Diversified investors are primarily concerned with what is called nondiversifiable, systemic, or market risk.
3. Single-asset or nondiversified investors are concerned with the total risk of the investment, but such investors are relatively rare in the investment world.
4. Investors prefer more return to less.
5. Investors prefer the return to occur sooner rather than later.
6. Investors prefer more liquidity (the ability to turn an investment into cash) to less liquidity.
7. Investors face many different opportunities to invest their money, so raising funds is competitive; the entrepreneur's request for funds must reasonably appear to offer less risk, more return, a faster return, or more liquidity than other requests.
8. No investors are immune to these principles, expectations, and conditions.

WHAT MAKES ENTREPRENEURIAL FINANCE DIFFERENT FROM TRADITIONAL FINANCE?

What potentially makes an early-stage company different compared to established, publicly traded corporations is the lack of company history that would allow investors to assess risk, the inability to compare the company with other firms because the industry may be so new, the difficulty of making a profit in the immediate future, and the lack of liquidity. An entrepreneur has to convince investors that despite all these difficulties, investing in the company is in their best interest. As one can imagine, this is quite a tough sell.

LACK OF HISTORICAL DATA TO MEASURE RISK

Traditional finance textbooks always contain an in-depth section on risk and return. A number of Nobel Prizes in Economics have been awarded to researchers in this area. The measures used to monitor risk, such as the standard deviations of stock returns and the stock's beta (a common measure of its riskiness), are extremely helpful in observing and understanding investor behavior with one caveat: historical data such as past stock prices are needed to calculate these risk measures. A recently started firm does not have tradable stock or, if it does, it does not have a long enough history of stock prices to allow statistical calculations. In addition, if a firm is creating a new product or service that has never existed before, then it cannot "borrow" data from the history of firms that have gone the same path. The framework of risk still exists, and investors view risk from this framework, but the means to accurately assess and measure it are not directly available.

TRADITIONAL FINANCIAL CONCEPTS OF RISK AND RETURN

Total risk is sometimes called stand-alone risk. This is conceptually the amount of risk that an investor faces when he holds ownership in only one asset. His fortune rises and falls based on what happens to that one company. If a supplier balks, customers defect, workers strike, or a meteor falls from the sky and hits the building, the investor could lose his entire net worth. An accepted proxy for total risk is the standard deviation of returns to the investment. For a stock, the return, R, would be $(P_1 - P_0)/P_0$. P_1 is the price at the end of a time period; P_0 is the price at the start of a time period, so the return is the percent increase or decrease in price during this period.

Squaring the difference between the return from one period and the period that follows, then dividing the sum of squared differences by the number of periods, results in a statistic called a *variance.*

$$\text{Variance} = \text{sum } (R_i - R_{avg}) \text{ squared}/N$$

where R_i = return in a particular period,
R_{avg} = average or mean return calculated over all available periods, and
N = number of periods of data available.

Taking the square root of the variance results in a statistic called the standard deviation.

$$\text{Standard deviation} = \text{square root of the variance}$$

The standard deviation is a measure of potential volatility from the average return on this stock. The greater this standard deviation value, the more dispersion of returns the stock experiences. In what statisticians would call a normal distribution or bell curve, returns that vary by one deviation or less from the average return on a stock have a 66 percent probability of occurring. Returns that fall two deviations or less from average have a 95 percent probability of occurring, and returns that fall three standard deviations or less from the average have a 99 percent probability of occurring. The implication is that investors who want to be 99 percent sure of what is going to happen to the investment in the coming year would calculate a range that starts at three standard deviations below the historical average return and ends three standard deviations above. If the standard deviation itself is a relatively large number, then this range of possible outcomes would be huge. Likewise, if the standard deviation is a very small number, then the range of possible outcomes known with 99 percent certainty would be somewhat narrow. Therefore, stocks with large standard deviations are riskier than stocks with small standard deviations because the range of possible outcomes is so great that it becomes very difficult to forecast what is likely to happen to the stock in any given time period.

However, the vast majority of investors are not single-asset investors. Most investors have diversified portfolios. Either they own a number of different stocks or they own investments like mutual funds, which are already diversified. From the investor's

perspective, diversification causes a substantial amount of the total risk to disappear. If the investor owns stock in a hundred different companies, the concerns about unique incidents such as a labor strike or a meteor smashing one particular company are less significant. As a matter of fact, many of these company-specific situations may actually cancel each other out. For every company with bad labor relations, there may be another one with good relations. For every firm that gets hit by a meteor, the odds are equally likely that some other firm will discover gold under the lawn at corporate headquarters. The portion of total risk that disappears when portfolios are created is called *diversifiable risk.* Since the vast majority of investors are diversified investors, the financial markets value stocks based on the nondiversifiable risk. In other words, the relationship between risk and return is such that the markets price securities to compensate investors only for the nondiversifiable risk that exists in assets, not for the total risk. If an investor is not willing or smart enough to painlessly protect himself by diversification, then financial markets will not show him any mercy. Instead, they price securities on the assumption that everyone else is diversified as well. If an investor is not diversified, then that is his choice and he has to accept the consequences.

Total risk = diversifiable risk + nondiversifiable risk

A widely accepted measure used to proxy the nondiversifiable risk is called *beta*. Betas are usually estimated by regression analysis. Returns on the stock market are calculated for several periods in a row, and returns on a specific stock are calculated for those same time periods. Regression allows the analyst to identify the average change in a company's return given an average size change in the stock market's return. One can think of beta as the line that results from plotting stock market returns on a graph against the returns of the specific stock. This slope would represent how much the return on the specific stock changed given a change in the stock market on average.

$$R_i = A + \text{beta}\ (R_{mi})$$

where R_i = return on company in period i,
A = constant from regression, and
R_{mi} = return on the stock market in period i. Usually a market proxy such as the New York Stock Exchange Index or Standard and Poor's 500 Index is used to calculate this return.

Beta = change in return on stock/change in return on stock market

For instance, if the beta for a company is two, then when the stock market's return increases, the return on the company is expected to increase by twice that amount. On the downside, if the stock market falls, then the stock would fall twice as fast. The beta of two indicates that the stock is twice as volatile as the stock market. High-risk companies have betas greater than one, low-risk companies have betas of less than one, and average-risk companies have a beta of one. The comparison of an asset's

return is made to the most diversified investment that one can have—a portfolio that mirrors the entire stock market. Hence, beta is a measure of nondiversifiable risk, because it is a relative measure compared to the most diversified portfolio available. Conceptually, when averaged over a long enough time period, it should reflect just the nondiversifiable (market-related) risk and none of the diversifiable (company-specific) risk.

An asset's *required rate of return* is a minimum return necessary to compensate an investor for risk. The relationship between nondiversifiable risk and an asset's required rate of return is denoted by a concept called the *security market line.*

$$\text{Required rate of return} = R_f + \text{beta}\,(R_m - R_f)$$

where R_f = *risk-free rate* such as found with U.S. government treasury notes, and R_m = average return on market portfolio proxy.

Verbally, this says that an investor should demand to earn at least the risk-free rate (which can be proxied by the rate on U.S. government treasury notes). If the entrepreneur wants the investor to accept more risk, then the return should also include a *risk premium* or additional compensation above the risk-free rate. The size of this risk premium is thought to be equal to the beta times the *market risk premium* or the difference between the return on the stock market and the risk-free rate.

$$\text{Market risk premium} = R_m - R_f$$

For instance, if a stock has a beta of two (meaning it is twice as volatile as the stock market), then the investor should demand a risk premium that is twice the size of the market risk premium. Likewise, if a stock's beta is 0.5 (meaning it is only half as volatile as the stock market), then the investor should demand a risk premium that is half the size of the market risk premium.

The beauty of the concepts of traditional finance is that they provide a framework for investors to understand that there are two kinds of risk, and the market will most likely consider only the nondiversifiable risk in estimating an asset's required rate of return. The drawback is that while these concepts provide insight, they are not always easily measured and quantified.

HOW THE LACK OF HISTORICAL DATA AND LIQUIDITY COMPLICATES THE PRACTICE OF FINANCE IN EARLY-STAGE FIRMS

The financial concepts of risk and return as presented above are extremely valuable in understanding the perspective of investors who supply the funds necessary to start and grow early-stage firms. For established firms with publicly traded stock, these concepts not only provide insight, but also can be applied to historical data to measure such things as an asset's return, variance, standard deviation, beta, and required rate of return.

For early-stage firms that do not have a past history of stock prices and other data, these measurements cannot take place and must be inferred and estimated instead.

Further complicating the calculations is the fact that even if prices, returns, and so on could somehow be substituted or borrowed from other similar firms, the relevance would still be highly questionable. First, there is the difficulty of finding truly comparable firms that happen to be publicly traded. Second, the mere fact that an early-stage firm is not tradable means that there will be a huge difference in the value and accuracy of the calculations because of the liquidity difference. Conceivably, there can be a difference of as much as 50 percent between a firm that has tradable stock and one that does not.

Therefore, an entrepreneur who tries to use traditional, mathematically based finance techniques for a company that lacks historically measurable data as well as liquidity is like a carpenter who tries to build a house by measuring timber with a micrometer, marking a line with chalk, and then cutting with an ax. The general principles of building a house are the same whether the carpenter uses a laser-guided saw or an ax, but if access to the high-tech saw is a physical impossibility, then general principles and benchmarks must be used instead. For entrepreneurial finance this situation is the same. If historical data are not available, the option of using mathematically sophisticated techniques is not possible; instead, general principles and benchmarks must be used.

An entrepreneur competes for funding from investors who have a wide universe of investment options. While these principles are derived from traditional finance theory, the challenge for the entrepreneur is the application of these principles without the advantage of having direct access to the data and tools that a traditional finance person would have.

USING STAKEHOLDER ANALYSIS TO GUIDE ETHICAL DECISION MAKING

A common challenge faced by all entrepreneurs is identifying and putting into practice the basic ethical standards that will guide their businesses. Ethical issues and challenges arise in all aspects of entrepreneurial financial management. A common framework that helps entrepreneurs navigate ethical issues is based on a stakeholder analysis. Stakeholders are interested parties beyond the owners of a business who have a stake in the decisions made in that business and in the outcomes of those decisions.

The first step in a stakeholder analysis is to identify the relevant stakeholders. There is no standard list because the stakeholders vary from business to business. The list also can vary based on the values of each entrepreneur. Common stakeholders for entrepreneurs include family, partners, investors, employees, customers, suppliers, creditors, and the local community. The list also can include interest groups, trade associations, and unions. Entrepreneurs need to clearly identify their own stakeholders based on personal values and the demands and relationships created by the business.

The second step is to determine the basic ethical principles and values that guide the entrepreneur’s interaction with each of these stakeholders. These values may be shaped by generally held beliefs of right and wrong, religious convictions, or a specific moral code. It is important to develop specific applications of these principles and values as they apply to each stakeholder. For example, an entrepreneur who feels a strong,

Table 1.1

Example of Stakeholder Analysis

Stakeholder	Ethical principle or value	Application for financial resource management
Family	Create balance between work demands and family time.	Establish a more moderate financial growth goal to allow for time with family.
Investors (e.g., angel investors, venture capitalists)	Deal with all investors openly and honestly.	Develop a financial reporting system that provides full and accurate historical information as well as realistic forecasts.
Employees	Share financial success with those that helped create it.	Modify financial goals and expense forecasts to allow for programs such as health insurance, profit sharing, stock option plans, phantom stock, ESOP, etc., while still meeting goals of entrepreneur.
Customers	Fair pricing.	Establish revenue forecasts that are realistic given this pricing principle.
Suppliers	Prompt payment of money owed.	Establish cash forecasts that are based on an assumption of prompt payment of all invoices submitted by suppliers/vendors.
Banker	Honest disclosure of information.	Assure timely and accurate financial reporting that goes beyond the minimum required by terms of their loans. Also, to assure reasonable financial forecasting that is based on well tested business models.
Community	Company should be source of reliable employment for the community.	Manage cash flow to allow for stable employment even during times of temporary slowdowns.

long-term commitment to his employees will consider their welfare whenever he makes a major decision, such as expanding the business; he may establish a no-layoff policy to ensure that his employees have their employment with his company protected.

The third step is to apply these principles specifically to the financial resource management of the business. In our example, the entrepreneur may insist on careful review of financial forecasts to ensure that any new employees hired during the expansion can be supported financially by his business even under a worst-case scenario. Table 1.1 displays an example of how these three steps might look for a hypothetical business. Note the level of specificity that is achieved by the third column. This specificity fosters the likelihood that the principles will be put into action by the entrepreneur and by his employees. Many entrepreneurs find it helpful to communicate these principles in writing to all employees and even the stakeholders themselves.

Over the long term, the challenge to the entrepreneur is to create a culture based on ethical principles. The culture of a business is created with the very first actions and decisions of its founder. As the business grows, the founder must rely on this culture to guide the actions of employees. No entrepreneur can be in all places at all times.

Entrepreneurs who expect an ethical culture and ethical actions by their workforce must embody these same ethics in every action they take.

SUMMARY

This chapter has presented the basic foundation and model of entrepreneurial financial resource management that will guide the rest of this book. Part I, which begins with Chapter 2, will discuss the process of building a financial forecast. Part II examines various aspects of managing the financial resources of an entrepreneurial venture. Part III presents issues related to financing. Finally, Part IV considers the issues of planning the transition of the entrepreneur out of the business. Also included in this book are a self-assessment instrument to help entrepreneurs begin this critical part of financial planning for the venture and a financial template that will help entrepreneurs create financial forecasts.

DISCUSSION QUESTIONS

1. Why is accounting considered the language of business? Why is it important for the entrepreneur to learn this language?
2. How will you measure your success in your business or entrepreneurial career?
3. What are the six activities that make up entrepreneurial financial management, and why are they important?
4. How is entrepreneurial finance both similar to, and different from, traditional finance?

OPPORTUNITY FOR APPLICATION

1. Interview an entrepreneur to learn how he or she measures success. Is career success defined only in financial terms, or are other yardsticks used to measure success?

REFERENCES

Cornwall, J., and M. Naughton. 2008. *Bringing Your Business to Life.* Ventura, CA: Regal Books.

——. 2003. “Who Is the Good Entrepreneur? An Exploration Within the Catholic Social Tradition.” *Journal of Business Ethics* 44 (1): 61–75.

McGrath, R., and I. MacMillan. 1995. “Discovery-Driven Planning.” *Harvard Business Review* (July–August): 4–12.

PART I

BUILDING A FINANCIAL FORECAST

This page intentionally left blank

2 Setting Financial Goals

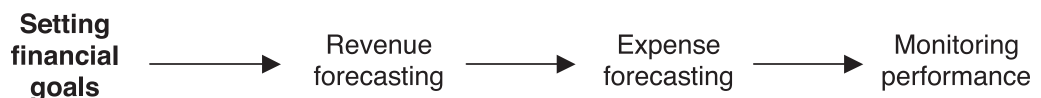
In the excitement of starting and growing a business, many entrepreneurs fail to systematically evaluate their own personal goals in relationship to their business ventures. What income do they need? What are their long-term income goals? When do they want to retire? What lifestyle will they want in retirement? How much money will they need to set aside for their children's education? These questions suggest just some of the personal financial goals that need to be integrated into the business plan. Many nonfinancial goals involving family, hobbies, friends, religious commitments, and community groups are important as well. This chapter offers a framework that helps the entrepreneur to integrate a personal assessment with the business planning of the entrepreneurial venture, as displayed in Figure 2.1.

Wealth Versus Income

It is critical for the entrepreneur to understand that there are two types of financial goals to be considered: income and wealth. By understanding how a business creates income and wealth, the entrepreneur is better able to engineer personal financial goals into the business plan. Simply put, income is the cash that is available from the business to pay the entrepreneur's salary, whereas wealth is the value of the business if sold. Certainly, entrepreneurs may also build wealth through savings from the salary they draw, but for most entrepreneurs their single most valuable asset by far is their business.

Income is fairly simple to understand, as it is the means to meet the day-to-day, month-to-month, and year-to-year monetary needs of the entrepreneur and her family. The entrepreneur should plan not only for short-term income needs but also for long-term needs. It is a myth that bankers are impressed by business plans that show the

Figure 2.1 **Model for Entrepreneurial Financial Management**



entrepreneur taking no income from the business for a long period of time. In fact, to many bankers and other investors, this is a red flag. They have seen too many entrepreneurs who give up on a business that does create enough cash to adequately pay the entrepreneur. Certainly, bankers and investors do not want to find excessive salary being paid to the entrepreneur early on, as they may be funding part or all of this salary through their loans and investments. On the other hand, a business plan that includes a modest, reasonable salary for the entrepreneur is not only acceptable but also desirable for most financial backers.

Stanley and Danko's best-selling book *The Millionaire Next Door* (1996) gives insight into the differences between wealth and income. They point out that many people confuse real wealth with the trappings of wealth. True wealth is the difference between what someone owns less the debts that are owed. Living in a big house or driving an expensive car may give the impression that someone is wealthy. However, many people rely heavily on debt to fund such purchases. If the big house and expensive car are purchased mostly with debt, there is little actual wealth. Stanley and Danko (1996) cite an old Texas saying, "Big hat, no cattle," to express the illusion of wealth without the reality.

In their book, Stanley and Danko (1996) report the results of their research on millionaires, how they live, and how they created their own wealth. Two-thirds of the millionaires they studied are self-employed, and three out of four of these consider themselves entrepreneurs (the other one-fourth are self-employed professionals, such as physicians or lawyers). Most of the entrepreneurs own a "dull" business rather than a high-tech, high-growth venture; they are contractors, auctioneers, farmers, mobile home park owners, pest controllers, coin and stamp dealers, and office building cleaners. Most live on a fairly modest median taxable income of $131,000; their average wealth is $1.6 million. They live in typical upper-middle-class neighborhoods with an average home value of $320,000, although they average about 6.5 times the wealth of their neighbors. Most reported that they buy inexpensive suits and drive American cars that are at least a couple of years old.

Since most of the wealth of entrepreneurs comes from the value of their business, it is important to understand how businesses are valued. Formal business valuation uses a variety of financial models. Such formal valuation is critical when buying or selling a business. However, many entrepreneurs find it helpful to use a "quick and dirty" method of valuation to monitor progress in building value in their businesses as they grow. Most forms of valuation, whether formal or "quick and dirty," share a common assumption. The real value of a business is its potential to generate profits or, more specifically, cash in the future. A very simple form of "quick and dirty" valuation works as follows:

1. Start with the most recent year-end profits of the business using the measure known as Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA). EBITDA is used because it tends to reflect the cash profits that are generated by the operations of the business. Interest and taxes are considered unique to the current owners of the business and how the business is legally structured. Depreciation and amortization are ignored because they are noncash items.

2. Add back to EBITDA any unusually high bonuses or other extra compensation beyond a normal salary paid to the owners.
3. Evaluate the growth potential of the business based on recent growth in profits over the past three years.
4. Evaluate any important industry or market trends that might either improve or decrease profits in the next three years.
5. Assign a *profit multiple*, which is a number that is used to multiply the current profits of a business in order to estimate the value of future profits. The profit multiple typically ranges from three to eight times profits, based on the estimate of the expected growth in future profits. A profit multiple of three to four generally indicates that profits are expected to remain steady or may decline, four to five indicates that profits will remain steady or increase modestly, and six and higher suggests that profits are expected to increase significantly.
6. Multiply the profits by the profit multiple to determine the value of the business.
7. Finally, subtract bank debt such as lines of credit or mortgages to determine the estimate of value of the business *to the entrepreneur.*

For example, assume a business had EBITDA profits of $250,000 last year, and the entrepreneur gave herself a bonus of $50,000 over her normal salary that same year. Although the business had strong profit growth over the past several years, there are strong indications that this growth may be difficult to sustain due to changing market conditions. The business has $100,000 in long-term bank debt. The entrepreneur decides that given the positive impact of historical growth in profits in the business, tempered by the less-than-positive outlook in the industry, she will use a mid-range multiple of five times profits. Her calculation would look like this:

EBITDA	$250,000
Plus one-time bonus	50,000
Adjusted EBITDA	$300,000
Times the profit multiple	× 5
Value of business	$1,500,000
Minus business debt	100,000
Quick and dirty estimate of value of business to owner	$1,400,000

Remember that this is not considered a formal valuation. Rather, it is simply a means for the entrepreneur to create an estimate. However, it is not unusual for those seeking to purchase a business to use this method of valuation. Formal valuations can often lead to very different estimates due to factors not addressed in this quick and dirty approach. For example, an entrepreneur estimates the value of his prototyping business at $3 million. However, when he begins negotiations to sell his business, he is delighted that the initial offer is more than twice that figure. Apparently he has created a strong market niche and very loyal customers for which the buyer is willing to pay a premium. In contrast, another entrepreneur who owns a counseling center is greatly disappointed by the offer she receives. She has estimated the value of her