Chapter 1

Introduction: Entrepreneurial Finance — From the 18th Century to Modern Times

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Entrepreneurial firms are the backbone of economies and drivers of both economic development and employment. Young and innovative entrepreneurial firms are germane to the creation, development, and growth of new technologies, industries, markets and create the most jobs (Bellavitis et al., 2017; Megginson, 2004). Without start-ups, it will be much more difficult to generate net job growth in the economy. It is estimated that, for example in the US, new ventures create three million jobs a year (Kane, 2010).

Although the cost of starting a business has declined over the years, raising finance is one of the crucial milestones of any new venture. New technologies, open-source software (e.g., GitHub), co-working spaces (e.g., WeWork), APIs (e.g., WordPress), virtual services (e.g., virtual personal assistant), low cost telecommunication (e.g., Skype), cloud computing and storage (e.g., Amazon Web Services), have reduced the fixed and overall costs to start a new technology venture. Some new ventures can even be created during the course of a weekend (e.g., Start-up Weekend). These factors, coupled with a cultural shift pushed by an entrepreneurial wave and pulled by open-minded customers, have led to an unprecedented Cambrian moment — an explosion of life — for tech start-ups (*The Economist*).¹ However, according to research from CB Insights,² running out of cash is the second most predominant reason for start-up failure, attracting 29% of responses. Therefore, securing enough capital to start and grow a business is still crucial.

Luckily, entrepreneurs have rarely experienced such an abundance of capital and funding sources. In fact, although entrepreneurial finance has always been available to new ventures, in one form or another, today's entrepreneurs have a much broader set of instruments at their disposal.

For centuries, the world has experienced a thriving connection between finance and innovation. Venture-style investing can be seen in

¹ *The Economist* (2014), last accessed 10 December 2018: https://www.economist.com/sites/default/files/20140118_tech_startups.pdf.

² Last accessed 10 December 2018: <https://www.cbinsights.com/research/startup-failure-reasons-top/>.

the way that the Columbus adventures were structured in the 15th century, or the early whaling industry in the 18th century — with its emphasis on capital pooling, partnerships, principal–agent relationships, and long-tail investments (Nicholas and Akins, 2012; Nicholas, 2016). The US industrial revolution in New England textiles was promoted by the Boston Associates, a group of investors who were willing to finance risky technological development (Dalzell, 1987). The rise of Midwestern cities like Cleveland as entrepreneurial hotspots in the 19th century depended on financiers such as Andrew Mellon (Lamoreaux *et al.*, 2006).

However, it is not until 1946 that a formal venture capital (VC) industry emerged with the establishment of the American Research & Development (ARD) Corporation. ARD was formed by Georges Doriot (Dean of Harvard Business School) with the support of Ralph Flanders (Senator for Vermont), and Karl Compton (President of MIT). ARD had a number of important characteristics. First, unlike modern VC firms, which are mostly organized as limited liability partnerships (LLPs) with multiple closed-end funds under management and a finite lifetime of approximately 10 years (extendable) each, ARD was formed as a single closed-end fund (Hsu and Kenney, 2005). This structure was aligned with the objective to select investments and govern them effectively over the long run (Nicholas, 2016). Second, due to regulatory constraints, no institutional investor could own more than 9.9% of the fund (Ante, 2008). Finally, ARD had an internal structure to facilitate deal flow and investment due diligence. ARD prized a robust technical advisory board that encompassed a mix of financial, technological and legal expertise. ARD maintained high standards for selecting investments, focusing on commercially viable ventures with patent protection and high profit potential (Etzkowitz, 2002; Nicholas, 2016). Although sound investment criteria led to some early successes such as an investment in Flexible Tubing, the bulk of returns came from one venture, Digital Equipment Corporation (DEC), a company that developed circuit board modules and efficient computers. DEC valuation jumped from approximately \$100,000 when it received its first investment from ARD in 1957 to \$355 million in 1971, granting an outstanding return to the original investors (Liles, 1977, p. 83). The early successes of ARD

drew attention to the VC industry and, coupled with regulatory changes implemented in the US at the end of the 1978–1979,³ literally kick started the modern VC industry.

Over the last few years, a whole set of relatively “new” sources of financing has emerged (e.g., Bruton *et al.*, 2015). Entrepreneurs can now raise financing from numerous sources such as incubators and accelerators, crowdfunding platforms, proof-of-concept centers, university-based seed funds, and IP-backed financial instruments and, more recently, initial coin offerings (ICOs). Strikingly, although VC is a significant portion of entrepreneurial finance, other sources are becoming more prevalent. In 2017, US VC investments totaled \$76 billion.⁴ However, only \$14 billion were invested in seed and early stage ventures, with the rest going to expansion and late stage ventures. In comparison, entrepreneurial projects raised \$17 billion from crowdfunding platforms.⁵ Although the first ICO was launched in 2013 only (Bellavitis *et al.*, 2018), recent statistics indicate that ICOs contributed \$1.7 billion to US-based ventures in 2017 (globally ICOs raised \$7 billion in 2017, and \$13.7 billion in the first 5 months of 2018).⁶

Considering the importance of new ventures for economic growth and wealth creation, and the changing landscape of the entrepreneurial finance ecosystem, there is a need for research to understand how “old” and “new” sources of finance impact start-ups (Bellavitis *et al.*, 2017). Extant research has only skimmed the surface in terms of exploring these new sources of entrepreneurial finance. It is with this broad objective that

³The 1978 Revenue Act reduced the capital gains rate from 49.5% to 28%. The flow of monies into venture capital funds jumped from \$68 million to nearly \$1 billion. Then in 1979, Congress passed the ERISA “Prudent Man” Rule that allowed pension funds to invest in venture capital. Again, venture capital benefited. By 1983, new commitments exceeded \$5 billion (Bellavitis *et al.*, 2019).

⁴PWC Money Tree report: <https://www.pwc.com/us/en/industries/technology/moneytree.html>.

⁵Last accessed 10 December 2018: <https://www.statista.com/statistics/946659/global-crowdfunding-volume-worldwide-by-region/>.

⁶PWC and CryptoValley, last accessed 10 December 2018: https://cryptovalley.swiss/wp-content/uploads/20180628_PwC-S-CVA-ICO-Report_EN.pdf.

this book collects contributions that aim at tackling this gap, and that identify exciting new directions for research in this field.

Part 1: Beyond Traditional Venture Capital

The first part of the book focuses on some of the relatively most established providers of entrepreneurial funding: angel investors and government interventions. Such investors are key sources of capital specifically targeted to innovation and firm development (Drover *et al.*, 2017). Because of the substantial importance of business angels in the entrepreneurial ecosystem, these investors attracted substantial academic interest in recent years (e.g., Huang and Pearce, 2015). However, recently the focus has shifted from single business angels, to business angels networks. Accordingly, in Chapter 2, Bonini, Capizzi and Zocchi discuss first the relation between the membership in a business angel network (BAN) and the investment decisions of the BAN members which is measured as the share of personal wealth each angel invests in a given deal or the angel's share of equity stakes in the portfolio companies. Next, they also provide insights on the valuation of the contributions provided by business angels to the survival and growth of the angel-backed companies. The authors propose a performance index as an original proxy for survival and growth.

Further, the role of the government in entrepreneurial finance also spurred considerable academic and public debate, especially aimed at identifying the most promising form of governmental intervention. Chapters 3 and 4 discuss alternative policy approaches.

In Chapter 3, Standaert is devoted to an in-depth literature review on the efforts made by governments to support VC markets directly by injecting them with public funds. The author discusses rationales as well as concerns related to direct government intervention in VC markets. Next, he also highlights how distinct types of direct government intervention ((1) GVCs following a go-it-alone strategy; (2) GVCs syndicating with private VCs; and (3) governments investing in private VC funds) determine whether and how the objectives of the government intervention are achieved.

In Chapter 4, Aernoudt focuses on guarantees which are often wrongly considered as obsolete bureaucratic instruments leading to moral hazard at lenders' level. The author explains that a guarantee instrument is not only a valid policy instrument to cope with the financing gap but also to give a positive impetus to the use of VC as the American SBIC system shows. This chapter provides an overview of policy recommendations and criteria that have to be fulfilled to realize a well-conceived public guarantee system.

Part 2: Fintech Revolution and Entrepreneurial Finance

The second part of this book focuses on alternative entrepreneurial financing options offered through technology-based innovations, spurring from the so-called "fintech revolution". The most prominent example of such innovation is probably crowdfunding. Crowdfunding is a growing trend in peer to peer business and consumer lending, whose overall magnitude now dominates conventional financing instruments (Chapter 8). The four chapters in this part provide an update on funding innovations related to the crowdfunding phenomenon.

Chapter 5 by Adhami, Giudici and Nguyen Anh examine the success factors related to crowdfunding for "green" projects such as renewable energies. Their study employed a large sample of renewable projects on 27 specialized European crowdfunding platforms and highlights success factors related to the motivations of investors as well as specific contextual factors that include institutional quality and the degree of the problem the projects are meant to resolve. The study key contribution is how innovative fund raising is possible for projects that may likely suffer from market failure because of their public goods characteristics.

Chapter 6 is an interesting contribution by Maiolini, Cappa and Fasano, who unpick a different success factor for crowdfunding related to the problem of information asymmetry between fund raisers and investors. The authors propose communication enhancement measures that involve linguistic style approaches to gain empathetic attention from investors. The study examines the use of recurrent words and

linguist models representing narrative styles and provides evidence of the necessity of using communication to leverage emotions and achieve engagement by ventures that are raising funds from “the crowd”.

Chapter 7 by Martino, Wang, Bellavitis and DaSilva is a comprehensive summary of blockchain technology to date. It also provides insight into blockchain-enabled initial coin offerings (ICOs), which are shaping the future of entrepreneurial finance by providing a relatively low cost and speedy fund-raising process through a global pool of participants. The chapter provides a brief summary of blockchain technology and how its initial and best-known application in cryptocurrencies is now being leveraged to provide a new way to raise entrepreneurial finance through ICOs. ICOs issue newly-created cryptocurrencies (such as bitcoins) or tokens (cryptographically-secured digital assets) that are sold to the public in exchange for capital by start-ups. The main takeaway is the surprising exponential expected growth of this mode of funding from insignificant in 2014 to an expected \$12 billion (OECD estimate) by end of 2018. However, ICOs seem to be open to blockchain-related companies only at present and is not risk-free.

Chapter 8, by Anderloni and Braga, discusses a very interesting recent development in major European markets — the development of the mini-bond market for SMEs. An underdeveloped area, the chapter discusses institutional changes made in the countries under study — such as lighter regulation and setting up of relevant market platforms and legislation, to provide an enabling environment for institutional investors and potential entrepreneurial ventures wishing to trade. Although there is variability in the evolution of these markets in different countries, of interest is that crowdfunding to retail investors is possible for mini-bonds in several European countries.

Part 3: Soft Characteristics and Entrepreneurial Finance

The last part of the book consists of three chapters that discusses how the qualities of entrepreneurs, relate to success in fund raising. The three chapters focus on three key soft characteristics, namely (1) the lack of social capital for isolated entrepreneurs in developing countries, (2) the financial literacy and (3) self-efficacy development.

In Chapter 9, Martínez analyzes the difficulties for socially-isolated entrepreneurs in non-developed countries to access early-stage financing. By employing a grounded study of potential brokers — individuals who have made it their mission and goal to connect entrepreneurial venture teams to potential angel investors in central American contexts, the study unveils barriers to engagement between ventures and investors, and provides a set of solutions to how these barriers can be mitigated — thus, allowing hitherto isolated ventures to access early stage funding.

In Chapter 10, Calcagno, Alperovych and Quas focus on entrepreneurs' financial literacy. They begin by discussing how limited is our understanding of this topic, which naturally calls for substantially greater academic attention. While prior scholars mainly focused on financial literacy as the ability of households to manage their personal finance in a healthy way, the financial literacy of entrepreneurs affects their ability to make good financial decisions when managing their business activity daily. Therefore, financial literacy could determine entrepreneurial outcomes such as start-up creation, growth and survival. The recent policy interest for this topic highlights the potential important policy implications of academic studies in the field.

Lastly, Chapter 11 by Meyskens and Márquez illustrates the pedagogical value of social entrepreneurship competitions at the individual level. They empirically show that although funding promises might initially entice students to join a competition, the learning gained through participation in the competition has far greater value than the funding alone. Through experiential learning, they experience how difficult it is to actually start a venture. The authors conclude with avenues for future research and practitioner recommendations.

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