

Chapter 2

Planning the New Venture

Having great ideas and singling out the great opportunity is only the first step in a long journey to a viable venture. The next steps typically need some planning, mostly packaged into what will eventually become a “business plan.” The business plan is a document that evolves from the initial idea into a business concept proposal (BCP) and from there into an opportunity assessment. At each stage of this evolution, the entrepreneur can decide to proceed or move on to a more promising venture.

The exercise of putting a business plan together is a helpful one, and by the end of the process you will have a document that helps you and potential investors think about how promising the venture truly is. This chapter covers the whys and how-tos of a business plan in depth, looking at the main parts and why they are important, as well as what to do with your business plan. In addition, we will look at other common themes characteristic of the early phase of technology startups such as product development and marketing and communications strategy, as well as issues of intellectual property.

2.1 What Is a Business Plan?

A business plan is a document describing a venture’s opportunity, its product or service, context, strategy, team, required resources, and potential financial returns [1]. It is guided by three basic questions [2]:

- Where are we now?
- Where do we want to be?
- How are we going to get there?

There is ample material available on how to structure and write a successful business plan. We could even go so far as to say that the art of writing business plans has been commoditized over the years. Therefore, the mechanism behind the document should not present the entrepreneur with insurmountable challenges. What makes successful business planning so difficult is the time and thinking

necessary for the entire process. It requires – usually for the first time – sitting down and carving out and putting in writing every single detail about the what, whys, and how-tos of the business.

2.1.1 Why Write a Business Plan?

Business plans serve many functions . Mostly, they serve to do some or all of the following [3]:

- *Sell yourself on the business:* A carefully elaborated plan can help convince you that starting this business is the right thing for you to do.
- *Obtain financing:* A business plan is an essential prerequisite for convincing potential investors to finance the new venture.
- *Motivate and focus the management team:* Developing a business plan gets everyone thinking about the business goals and can ensure a joint understanding of the company's roadmap.
- *Obtain large contracts:* The fact of having thought about the future and put some strategy down on paper provides credibility, and presenting a sound business plan may facilitate larger contracts.
- *Attract key employees:* The business plan might help prospective employees to decide whether to join the venture.
- *Arrange strategic alliances:* As we stress in various chapters throughout this book, strategic alliances have become a dominant pattern in recent years, especially between small and large companies, and the bigger partner generally likes to see a business plan to guide the selection process.
- *Complete mergers and acquisitions:* In these cases, the business plan serves as a company résumé, helping to demonstrate that the value of the business is the highest possible.

In terms of targets for the plan, one emphasis is on raising capital. This means that while answering the three questions about where the company is today, where it should be in the future, and how to get there, the business plan also needs to convincingly demonstrate the ability of the business to generate satisfactory profits [4].

2.1.2 Who Should Write the Business Plan?

Always short on resources, entrepreneurs are sometimes taken with the idea of “outsourcing” the preparation of the business plan, using consultants or interns (often the case for startups in close proximity to research institutes). The help of such outsiders can indeed be highly beneficial, but it cannot replace the personal commitment of the business owners and management team. Only they have the

right level of insight and imagination as to the direction their business should take. And it is they who need to present and defend their plan and eventually build a venture on it.

2.1.3 Who Will Read the Business Plan?

It might be surprising to hear, but most entrepreneurs will say that they have written hundreds of different business plans – all for the same business! The issue here is that a business plan needs to be adapted to the audience to which it will be presented. A business plan can, for example, be directed at internal people such as the management team or employees. In this case it is more an operational document to help align individuals within the company. Much more common, though, in the startup phase of a firm is the type of business plan that is presented to the outside world – mostly to raise money from potential investors, sometimes also to present the firm to customers. Here, the audience and their interest in the plan is highly diverse, ranging from bankers, angel investors, venture capital providers, institutional investors and investment advisers to business partners, managers of other companies, and government agencies. Each presentation of the company and its business plan needs to be tailored to the interests of these different stakeholders.

2.1.4 What Should Be in the Business Plan?

Even though each business plan might be a little different, the overall structure will include some core elements that stay the same. Only their length and focus might vary with the audience. To be on the safe side, the plan should include the following points [5]:

- Cover page and table of contents.
- Executive summary.
- Description of the current situation: Basic company information, products/services, management team, business organization, future goals, vision, and mission
- Description of opportunity and market: Who are the buyers, who are the competitors, what are the competitive advantages of the company?
- Description of the business model, the marketing and sales strategy.
- Basic facts on the financials: Cash flow projection (life line), income statement (bottom line/profit and loss), balance sheet (business health/assets, liabilities, *etc.*), funding requirements.
- Risk analysis and possible exit strategies.
- Conclusion and appendixes: Résumés, literature, technical descriptions.

2.1.4.1 Focus on the Important Parts

The preceding list makes it clear that there is a plethora of information to include in the document. So how can this be accomplished if the document should only contain between 10 and 40 pages? The advice here is: Focus, and highlight the particular strengths of your business. For example, if the team is perhaps not as seasoned as the textbooks recommend, but the venture has already gained renowned customers, then of course the team section will be less extensive than the parts on the customers and track record [6]. The business plan is a marketing instrument that requires honesty but at the same time allows you to direct attention to the positive features of the new venture [7]!

Furthermore, although this may seem self-evident, the plan should follow the basic rules of style. Information should be clearly organized, segmented, and logically integrated. Make the executive summary as strong and compelling as you can; most people will judge the venture on it. Creating a truly compelling plan takes time and many, many revisions. Before the plan is declared final, it should in fact pass several checks by outsiders. In many cases, investors will also ask you to revise your plan after the final version!

The Business Concept Proposal (BCP)

As soon as you think you may have a potential business based on new technology, you should put together a preliminary BCP, as discussed in Chapter 1. *Under no circumstances should the document be more than two pages.* If it is, this indicates that you have not developed the idea enough, or that you are thinking about it in too complex a manner, or that the idea itself is not very good!

Doing this preliminary exercise should give a quick go/no-go decision and also give you some immediate material for the first draft of your business plan.

2.1.5 Common Pitfalls

Venture capitalists (VCs) receive hundreds of plans each week, and each week hundreds of plans are rejected. In addition, there are thousands of business plans spread all over the world, collecting dust in drawers instead of being lived and implemented. Some of the most common reasons that business plans fail are described in *Table 2.1*.

Table 2.1 Planning: Its Ailments and Symptoms [8]

Pitfall	Symptoms
No real goals	<ul style="list-style-type: none"> • Goals are vague, general • Goals are not specific, measurable, or time-phased • No subgoals or action steps • Activity oriented, not goal oriented
Failure to anticipate obstacles	<ul style="list-style-type: none"> • Excessive optimism • No alternative strategies • No conflicts recognized • Missed delivery date • Missed lead time forecasts • Didn't get support when needed • Crises prevail
Lack of milestones and progress reviews	<ul style="list-style-type: none"> • Don't really know how you are doing • Short-term orientation • Can't recall when you last reviewed how company was doing • No recent revisions of plan
Lack of commitment	<ul style="list-style-type: none"> • Procrastination • Focus on routine, daily activities • Failure to meet goals, milestones • Failure to develop specific action steps to meet goals • Lack of priorities • Missed meetings, appointments
Failure to revise goals	<ul style="list-style-type: none"> • Plan never changes, lacks resilience • Inflexible or stubborn in face of feedback dictating change • Goals not met or exceeded greatly • Unresponsive to changing situation • Help not sought when needed • Wasted time or unproductive tasks or activities • Activities don't match goal priorities
Failure to learn from experience	<ul style="list-style-type: none"> • Lose sight of goals • Mistake is repeated • Feedback is ignored or denied • Same routine – same crises as before • Unwillingness to change way of doing things • Not asking "What do we learn from this experience?"

2.2 Key Elements of the Business Plan

2.2.1 New Venture Team

Many factors need to come together to start and grow a successful new venture. However, first comes a great idea and directly after that the people who can realize it. It is generally believed that startups thrive and prosper when standing on the shoulders of more than one person – especially science-based and high-tech startups. A single entrepreneur typically can make a living out of the business, but

startups that are led by teams create substantial value. The advantage of having a team is mostly in the greater network, the more diverse knowledge and skills, and the possibility to divide and specialize tasks, which eventually enables faster growth.

However, forming a successful team is sometimes compared with the process of courtship and marriage. And like some marriages, there are divorces. So choose your partners wisely. This handful of individuals is likely to stick around for a while and will have to fight some battles. The way team members find one another varies significantly, and it is hard to say which way – if any – is best. Some teams form by accidents of geography, others through common interest, still others by working together or simply through past friendships [9]. However, only two distinct patterns can be identified for team formation as such: Either there is an individual entrepreneur who will be joined over the first few years by three or four partners, or the team was already formed at the outset. Both can be successful.

2.2.1.1 Beyond the Founders

However, apart from the founder or founders, the team is much bigger – a fact that is typically overlooked. Many more individuals, such as key employees, financiers, and outside professionals, help build the company, and they should be chosen with almost as much care as the founder team (*refer to Figure 2.1*):

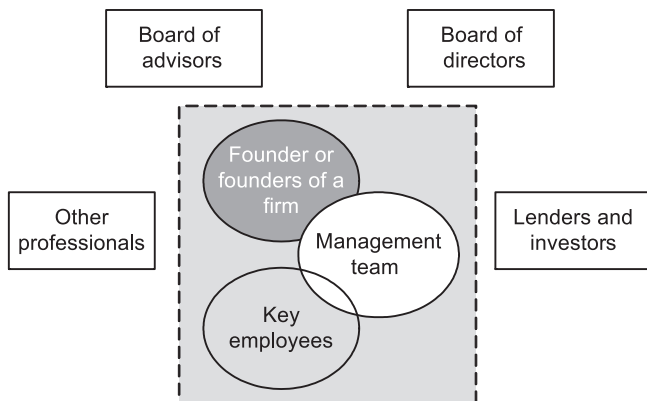


Figure 2.1 Elements of a New Venture Team

Source: Adapted from Barringer, Bruce R. and R. Duane Ireland. *Entrepreneurship: Successfully Launching New Ventures*. Upper Saddle River, NJ: Pearson Education, 2006, p. 128.

2.2.1.2 Team Quality

Starting a business is a demanding undertaking. The pressures can be enormous and there is no time for on-the-job training. The ideal entrepreneur has both industry

and management experience, *i.e.*, he or she has worked in the same or a similar industry before and preferably has had responsibility for budgeting and profit and loss [10]. If he or she cannot provide that, there should at least be seasoned board members or other mentors to provide that sort of knowledge and insight. Having a team is another way to increase the likelihood of all necessary experience being present, but the team members must complement and balance each other.

Team quality is also demonstrated in the way the team effectively operates as a team: Is it able to establish trusting work relations with a clear definition of roles and responsibilities? Can it put effective communication processes in place and create an atmosphere that allows constructive criticism, with respect?

A word of warning at this point: For several of the above-mentioned reasons, people tend to prefer working with others of the same background and values. This can be – but is not necessarily – beneficial. In the first few years, it is usually deemed better for the team to be highly diverse to accomplish their versatile tasks.

2.2.1.3 The Role of the Board

Several of the cases in this book prove the importance of the board of directors. First, the board can provide some legitimacy for an otherwise unknown venture. But more important is the fact that well-chosen and well-matched board members can provide invaluable advice. They can and should challenge the assumptions, strategies, and actions of the entrepreneurial team. For this reason, board members should come with seasoned industry and business experience.

2.2.2 Market Analysis and Sizing

Following the evaluation of the opportunity, this part of the business plan should be quite quick to do. But a business plan does need to give credible statements on the venture's market and size, beyond the back-of-the-envelope exercise done in the BCP. Often entrepreneurs do not have a clear understanding of what a market actually is and sometimes confuse it with an industry. However, the attractiveness of each can differ. So, to clarify: A market consists of a group of current and/or potential customers with the willingness and ability to buy products – goods or services – to satisfy a particular class of wants or needs. These potential customers may be consistent in their geographical location, purchasing power, or buying attitude [11]. An industry, by contrast, consists of sellers, *i.e.*, you and your competitors [12].

Analyzing a market can and should be done on two different levels: The macro- and the microenvironment. The *macrolevel analysis* typically asks questions about things such as the number of customers, aggregate money spent, and number of units and usage occasions. Answers to these questions are often to be found in secondary data sources such as trade publications, the business press, and so on.

Also, these sources might give answers to how fast the market has been growing and the expected growth rate in the future. The analysis should also cover macro-economic trends in terms of possible political, technological, and sociocultural developments.

The *microlevel analysis* is somewhat more intricate. It is about segmenting the market and putting a name to potential customers. At the end of the day, a successful business needs to find customers who are willing to pay for that business's product or service. Successfully entering and competing in a market is frequently accomplished by solving a customer need, which does not necessarily mean selling a particular feature of a technology. It is more about delivering benefits. Convincing customers that you have the best solution to their problems, or even teaching them that they have a need you can fulfill, is actually the challenging task. Typical questions to answer in the microlevel analysis are [13]:

- Is there a target market segment where we might enter the market in which we offer customers clear and compelling benefits at a price they are willing to pay?
- Are these benefits, in customers' minds, different from and superior in some way – better, faster, or cheaper – to what other solutions currently offer? Differentiation is crucial, since the vast majority of me-too products fail.
- How large is this segment, and how fast is it growing?
- Is it likely that our entry into this segment will provide entry to other segments we may wish to target in the future?

Answers to these questions are often found in a combination of primary data, mainly gleaned from talking to prospective customers, and secondary data – collected from the Internet or in libraries or from other sources, to determine segment size and growth rate, and thus supporting the entrepreneur's learning about customer needs. A proven approach to defining a segment or portfolio of segments to begin with is to screen for market attractiveness of the potential applications and compare it with the existing skills in the company, with "ease of commercialization," uniqueness of the applications, and scope of problems addressed [14]. The results will provide a guideline as to which are the most attractive products and with which of them the company is likely to succeed.

2.2.3 Industry and Competitor Analysis

No serious investor will believe a startup that claims there is no competition. If there really were no competition, there would be no market. Furthermore, even if it were possible that there was no competition, as soon as the startup began making money, many players would enter the market seeking to gain a share of the trail that the entrepreneur had blazed. Therefore, any serious business plan needs to contain a careful analysis of the industry, its outlook, and the competitive forces inside. At a bare minimum, the plan should lay out what percentage of the market

the venture could *realistically* achieve, both at the beginning and five years on once the big players and other startups enter the fray.

The typical approach here is to perform some textbook strategy analysis such as Porter's five forces or SWOT analyses, but this often reads like boilerplate material in a business plan. Instead, we would recommend tailoring the analysis to the opportunity. In no-nonsense language, explain what the market is, how quickly it is growing (backed up with references to credible market research), and who the main players are. Find a startup that was in a similar situation in a similar market and explain what its market share was and why yours would deviate (or not) from that of the other startup. Then, assuming there will be some competitive reaction, discuss how your company would respond and what your long-term market share would be. Make a table with the competitive advantages and disadvantages of all the players in the market.

2.2.3.1 Competitive Advantage

So it all comes back to whether or not you have a sustainable competitive advantage. A competitive advantage is essentially the ability to prevent others from exploiting the same opportunity, which should usually grant you the potential for higher returns than normal [15]. The critical question is how this advantage can be protected from competitors and whether it can be maintained over a long time. Two vital factors are [16]:

- *The presence of proprietary elements, i.e., patents, trade secrets, etc.* (intellectual property), that can possibly prevent others from copying your business
- *The presence of an economically viable business model, i.e., a model that generates sufficient revenue and gross margin to cover the cost structure of the business.*

We will take a closer look at both distinguishing factors in the two following sections.

2.2.4 Intellectual Property

Intellectual property (IP) is one of the most important and, at the same time, one of the most delicate assets to handle of the new technology-based venture. IP can be any product of the human intellect that has value in the marketplace, *i.e.*, products, technologies, methods, processes, new services, and new designs. Recognizing the value of the knowledge contained in these assets and identifying and legally protecting the parts that are the original property of the entrepreneur can become the heart of any commercialization strategy. Four main instruments of IP protection exist: patents, copyrights, trademarks, and trade secrets [17].

2.2.4.1 Patents

Patents are official titles to exclude others from making, selling, or using an invention for a limited time. These rights are defendable before a court. The process of obtaining a patent is usually lengthy and expensive [18]. Patenting an invention costs between \$10,000 and \$15,000 in most industrialized countries [19]. If patents are sought in all major countries where the invention might be practiced, the cost can easily reach around \$100,000 per patent! Plus there are additional costs that may be added for renewal and for litigation, if it should arise. In general, it is advisable to consult a professional to help obtain a patent. This ensures that the claim will be airtight and – if need be – defendable, assuming that the venture's resources stretch to being able to defend its rights (*see also Table 2.2*).

2.2.4.2 Trademarks

Words, names, or symbols that identify a company, product, or service and distinguish it from others are known as trademarks. They help companies to be uniquely recognized by their customers. They need to be officially registered and are renewable every ten years, as long as they remain in use. Obtaining a trademark is typically much faster and easier than obtaining a patent.

2.2.4.3 Copyrights

Tangible outputs of a person or company, such as a book, article, software, and the like, are protected by copyright. It grants official ownership and the right of commercialization. Officially, copyright is obtained by the creation of a tangible work. It is not necessary to indicate that something is copyright protected. However, attaching a copyright note (usually in the form © [first year of publication] [author or copyright owner]) helps make it more official and explicit.

2.2.4.4 Trade Secrets

Going beyond what is written in the technical description of a patent, trade secrets include business or technical knowledge that is kept secret for the purpose of gaining an advantage in business over a competitor [20]. They are, for example, customer lists, sources of supply, faster delivery, or lower prices. The protection is established by the nature of the secret and the effort to keep it secret.

Not all forms of protection are applicable to all forms of intellectual property. However, the main controversy that still has not been finally resolved is the role and extent of patent protection of IP. There are both academics and practitioners who maintain that a small venture would not be able to defend its rights anyway or, as the famous Silicon Valley entrepreneur Guy Kawasaki, noted: “You won’t

Table 2.2 Arguments for and against Patenting

For Patenting	For Keeping Technology Secret
<ul style="list-style-type: none">• Patents provide a defined period of exclusivity during which others can be prohibited from commercializing the invention, even if independently developed.• Patents establish ownership distinct from teams and individuals.• Market protection is assured longer if technology is easy to reverse engineer.• Patents prevent others from preempting the technology in a world where often it is not the first to invent that counts, but the first to file forms at the patent office.• Patents give something to exchange if in-licensing is desired.• Patents facilitate and clarify research collaboration and technology marketing agreements.• Patents allow greater freedom in choosing a business formula.• Patents can impose more restrictions on a licensee than is possible with know-how licenses, including, in some countries, longer duration of contracts.• Patents motivate inventors and are a sign of achievement.	<ul style="list-style-type: none">• Patents are expensive to obtain and offer weak protection.• Secrets can be kept indefinitely if well protected, while patents force early disclosure to suit market opportunities.• Sometimes it is impossible to prove that an end product infringes a patent.

have the time or money to sue anyone with a pocket deep enough to be worth suing.” [21]. So in many cases keeping something as a trade secret might be a more worthwhile option. *Table 2.2* lists some of the typical arguments of the discussion on patents vs. trade secrets [22].

2.2.4.5 Licensing [23]

Closely linked to protecting IP are the topics of licensing or transferring IP. All IP that is protected can essentially be licensed to another company in exchange for money or access to its IP and other resources. Simply speaking, a license is a contract by which one party commits to do or pay something in return for the other party’s doing or paying something. Any contingency that can be written into a contract can be written into a licensing agreement. Usually the licensee, who receives a right, pays an initial payment and ongoing royalties for permission to use the IP. This permission can be either exclusive (only the licensee is entitled to use the protected technology) or nonexclusive (others are also allowed to exploit the object of the license). A license can also be restricted to a specific purpose or geographic region.

The importance of licensing is that the owner of the property – the licensor – retains ownership [24]. He does, however, partially transfer rights to the licensee in a formal contract that binds both parties legally. This requires a careful definition of the content and scope of the contract, in particular, who has the right to exploit what, where, and when. Negotiating license contracts is frequently intricate, especially from the licensor's perspective. First of all, the entrepreneur always walks a fine line between attracting the potential licensee's interest and not revealing too much confidential information. Second, basic legal knowledge is absolutely imperative to understand the contractual obligations (of course, it is advisable to hire professional help here). Last but not least, determining the payment conditions requires some serious attention. A clear picture of the business model and interest of the licensee is needed.

Determining the payment conditions ultimately leads to the question of defining the license value on which the pricing can be based. This process should start by looking at the cost of creating the IP, *i.e.*, research and development costs, cost of commercialization, legal costs, *etc.* In a second step, the potential profitability of the business that is secured by the license should be assessed. Naturally, the licensor will want to share in this business value.

2.2.5 The Business Model

A business model essentially defines how a firm competes in the marketplace and how it earns profits from this activity. This includes, in particular, how the firm structures its relationships with customers and suppliers [25]. All else being equal, the profit that can be made from a technology depends on choosing the right business model. The tradeoff is to find a balance between quick market access and, at the same time, maximizing the returns from the investment made. It also relates to decisions on whether to make or buy, whether to sell or license products or components, and whether to sell a product or a service or a combination of both (*see also Figure 2.2*).

Internal factors that influence the choice within this continuum are the founder's long-term ambition *vs.* the immediate economic and promotional needs of the technology at the particular moment. Externally, it depends on the ability to mobilize particular market partners to deliver the technology effectively and quickly. The latter, above all, can serve as a strategic asset, preventing other companies from entering a particular market. The best product is no good if you cannot get the resources to build it or deliver it to your customer. Bearing this in mind, it is particularly important to understand that a business model goes well beyond the boundaries of the firm. It needs to be defined in relation to other market actors: Partners to deliver the product/service, customers, and competitors. As it is naturally difficult for small and unknown ventures to enter into these types of partnerships, it is advisable to seek out collateral benefits that could convince potential partners [26].

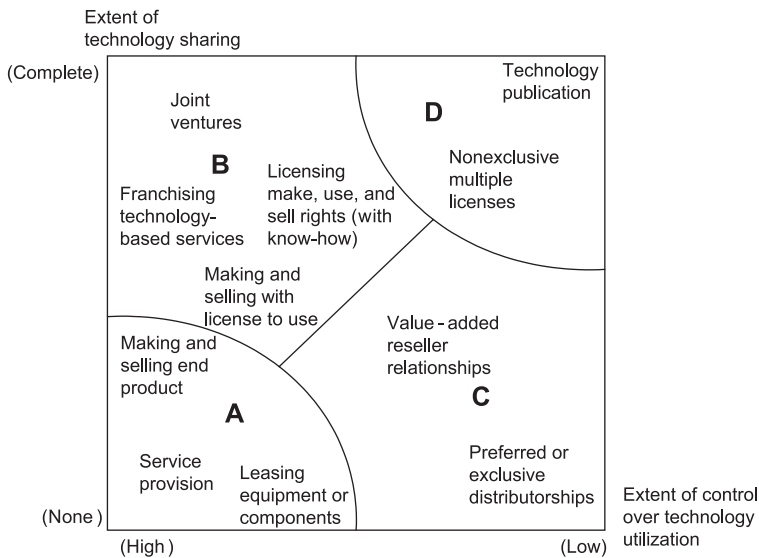


Figure 2.2 Instruments of Technology Commercialization

Source: Jolly, Vijay K. *Commercializing New Technologies: Getting from Mind to Market*. Boston: Harvard Business School Press, 1997, p. 100.

The major questions that help determine the business model are summarized in Table 2.3.

Table 2.3 Elements of a Business Model [27]

Component	Questions That Help Define the Component
Customer value	Is the firm offering its customers something distinctive or at a lower cost than its competitors?
Scope	To which customers (demographic and geographic) is the firm offering this value? What is the range of products/services offered that embody this value?
Pricing	How does the firm price the value?
Revenue source	Where do the dollars come from? Who pays for what value and when? What are the margins in each market and what drives them? What drives value in each source?
Connected activities	Which set of activities does the firm have to perform to offer this value and when? How connected (in cross section and time) are these activities?
Implementation	What organizational structure, systems, people, and environment does the firm need to carry out these activities? What is the fit between them?

Table 2.3 (continued)

Component	Questions That Help Define the Component
Capabilities	What are the firm's capabilities and which <i>capability gaps</i> need to be filled? How does a firm fill these capability gaps? Is there something distinctive about these capabilities that allows the firm to offer the value better than other firms and that makes them difficult to imitate? What are the <i>sources</i> of these capabilities?
Sustainability	<i>What</i> is it about the firm that makes it difficult for other firms to imitate it? How does the firm sustain its competitive advantage?
Profit site	What is the relative (dis)advantage of a firm vis-à-vis its suppliers, customers, rivals, complementors, potential new entrants, and substitutes?
Cost structure	<i>What</i> drives costs in each component of the business model?

A word of warning needs to be issued at this point: There is no standard business model. It might even be dangerous just to copy successful business models because their success depends not only on the model as such but also on the ability to execute it. The dependence on outside partners makes each firm's situation unique. And what works for one company will not necessarily work for another. That is why spending ample time on answering the above questions and analyzing the company's capabilities and, in particular, its access to outside partners is so important.

2.2.6 The Marketing Plan

There are two distinct ways in which products emerge – either as a result of a research-and-development project (*technology push*) or by first listening to a customer need and developing a product accordingly (*market pull*). Most products in the real world are the outcome of a mix of both models [28]. It is unlikely that any successful technology company will either exclusively develop to customer needs or exclusively try to find markets for its greatly engineered products. The first rarely succeed long term because they frequently miss out on the highly innovative and high-margin products that customers did not know they would like until they had them. The second group of ventures spends too much money developing products that mostly fail to find a customer at all. Science-based startups tend to be among the second group. They often struggle to strike a balance between engineering and marketing.

Marketing in startups is indeed a challenging task, and it differs from marketing in established companies. Particularities are a result of the venture's newness and size (see Table 2.4).

Table 2.4 Challenges for Marketing in New Ventures [29]

Characteristics	Challenges for Marketing in New Ventures
Newness of the firm	<ul style="list-style-type: none"> • Unknown entity to potential customers and other parties • Lack of trust in the new firm's abilities and offerings • Reliance on social interactions among strangers • Lack of exchange relationships • Lack of internal structures, processes/routines in marketing • Lack of experience in marketing • Lack of historical data
Small size of the firm	<ul style="list-style-type: none"> • Very limited financial resources available for marketing • Few human resources • Lack of critical skills in marketing • Limited market presence • Limited market power, disadvantage in negotiations
Uncertainty and turbulence	<ul style="list-style-type: none"> • Very low predictability of market and other data • Only limited information available for marketing planning and for marketing decisions • Best practices in marketing have yet to be determined for the specific industry • Dominant design of an offering is unknown • Competitive structure of the industry is changing, relationships with suppliers, distributors, <i>etc.</i> are unstable • High risk of wrong decisions, which may have fatal consequences for a small firm with limited resources

Because of these challenges, marketing is one of the most critical operations and needs a professional approach. However, empirical evidence shows that the marketing function typically emerges together with the firm and only gradually gains in professionalism. Surprisingly, it is one of the functions that founders relinquish last. One reason for this is its known importance, accompanied by the thinking, "I am the one who understands the product best," or "If I cannot succeed in selling my product, who else can do it?" Furthermore, many ventures start with some initial success, and as long as the business continues to run, the need for change or improvement goes unnoticed. This can backfire as soon as "daily life" is part of the reality. We would like to stress here the importance of defining a solid market strategy and investing in professional marketing.

2.2.6.1 Unique Selling Position (USP)

One of the first marketing tasks, typically going together with the market and industry analysis, is to define a unique selling position (USP). This is the perceived value of the product or service compared to competitors' offerings. The main question to answer is why the customer should buy this particular product and what makes it so unique. A learning point for many technology-based entrepreneurs is that the USP is essentially about selling benefits rather than features.

Mostly, it is not the technical detail that leads to the buying decision but the ease and comprehensiveness with which a customer need is solved.

The marketing plan then needs to elaborate, in more operational terms – usually done within the classical 4-P framework.

2.2.6.2 Marketing Mix (4 Ps)

Once the more strategic marketing plans have been shaped, it is time to define how you actually wish to reach your target customers on the operational level. Here, decisions need to be made on the classic four Ps: product, price, place, and promotion (Table 2.5).

The *product* strategy involves several aspects, in particular the scope of the product portfolios, the approach to product development, branding, packaging, *etc.* For many technology-based startups, generating a list of potential applications that lead to products is often the easy part. There are frequently more opportunities than the startup can possibly seize. The difficulty is deciding which of these applications to pursue, when, and with how much resource commitment. Often it is a fine line between what the technology can do at a particular moment in time and what the requirements of the market are. Tradeoffs need to be made and resources juggled. Many entrepreneurs struggle to identify which of the technically feasible features the customer values and would pay for. It cannot be stressed enough that talking to customers, learning about their needs, and then deciding about the product is one of the most crucial tasks.

The *pricing* decision is an extremely important one as it determines how much money the company can earn in the end. Naturally, the decision cannot be made autonomously but will be influenced by the demand, by the cost of operations, by competitors’ prices, and the like. Pricing objectives can be manifold, and the entrepreneur has to decide whether he or she prefers a strategy of survival, maximum current profit, maximum current revenue, maximum sales growth, and so on. In general, there are two approaches to pricing – cost-based or value-based.

Table 2.5 Critical Decisions for the Marketing Mix [30]

Marketing Mix Variable	Critical Decisions
Product	Quality of components or materials, style, features, options, brand names, packaging, sizes, service availability, and warranties
Price	Quality image, list price, quantity, discounts, allowances for quick payment, credit terms, and payment period
Place (distribution channels)	Use of wholesalers and/or retailers, type of wholesalers or retailers, how many, length of channel, geographic coverage, inventory, and transportation
Promotion	Media alternatives, message, media budget, role of personal selling, sales promotion (display, coupons, <i>etc.</i>), and media interest in publicity

While the first might be easier to justify, the second can yield significantly higher returns. It requires determining what customers are willing to pay and fixing the price tag accordingly. Often enough, this strategy allows for premium prices, in particular if the demand is strong, the technology is proprietary, and a compelling product (see above) has been created. Many experts warn startups against trying to compete too aggressively on price, *i.e.*, setting it deliberately low to gain market share. This strategy rarely pays off, as larger firms usually have a much stronger position in this competition and it denies the startup much-needed profits early on [31]. Certainly, if a venture is to employ this strategy, it is necessary to practice penetration pricing and not desperation pricing [32], with a concrete plan to monetize the product or service.

The *place* component of the marketing mix encompasses all activities that deal with bringing the product to the customer. In particular, it addresses the distribution channel. One of the first decisions the new venture needs to make is whether to sell direct or via intermediaries. This is not easy, as it will shape the entire sales and distribution organization – it determines the cost structure, the margins, and the dependencies of the new venture. Selling direct to a customer allows for much better learning about customer needs and for maintaining much more control over the initial product. However, it requires competences and consumes resources that might not be available in the venture. Using intermediaries can be a solution. Typically, this enables faster growth and is easier to scale. However, distributors also require a minimum commitment within the new venture: product materials need to be designed and the distributor's sales force needs to be educated. Therefore, the number of channels needs to be managed carefully. Likewise, care needs to be taken in picking the right channel partner because of the strong dependency on this relationship. A startup will inevitably lose some control over the product and the way it is sold, which requires a trust-based relationship.

Promoting a new technology-based product is best seen as a combination of market discovery (conceiving of products that satisfy a latent demand; compare with *demand pull*) and market creation (building demand where none exists: *technology push*) [33]. Most entrepreneurs think of advertising (print and broadcast media) when they think of promotion. However, such advertising can only raise awareness. It has less power to make people buy a product [34]. That is why, for most startups, spending a lot of money on ads does not pay off. Targeted customer contact, for example at trade fairs and the like, seems to be more promising for that purpose. Especially when selling technical products, direct contact with the customer can help build credibility and trust in the new venture and its product. However, some professional promotional material needs to be in place even at the early stages to demonstrate commitment and to inform the customer.

2.2.7 Financing the Venture

Financing a new venture is such a prominent function within the new venture creation process that we dedicate all of Chapter 3 to it. We will, therefore, only make a few remarks on financial planning here.

Mostly, a business plan serves to raise money. To succeed in this, it will have to lay out the investment needs and expected returns. The projections on investments and returns will usually cover three to five years. It will contain the projected income statement, a pro forma cash flow analysis (often monthly for the first year and quarterly for the following years), pro forma balance sheets, break-even analysis, and cost controls [35]. Of course, all forecasts should be as realistic as possible. However, it is unlikely that the entrepreneur can accurately anticipate how much capital and time will be required to accomplish his or her goals. Therefore, the major focus should rather be on the key drivers for business success. This includes at what level of sales the business starts making profit and when the cash flow will start turning positive [36].

By its nature, the financial plan will be based on many assumptions. To build credibility with potential investors, these assumptions need to be backed by reliable reference points or a plan for testing the assumptions. Often, market studies and comparisons with competitors will be such reference points. You can and should, for example, research material costs, competitors' prices, and the like. Still, there will be quite a few assumptions that come without quantifiable sources, where the entrepreneur relies on his or her own prior experience or sometimes just on gut feeling. What can help in these cases is trying to verify the assumptions with industry experts and other experienced people. In general, the entrepreneur should draw on different sources to cross-check the plans.

Eventually, each financial plan needs to talk about an exit strategy. It should be noted that the exit is intended to be for the investor, not (necessarily) for the founder! The end process is typically what investors are most interested in, as it is where they realize their returns. We will talk about exit again in Chapter 3 and at length in Chapter 5, but it should be noted here that investors typically prefer a wide range of possible options and that IPO may not always be the best. However, including or excluding certain exit options will attract different types of investors.

2.2.8 Talking About Risk

Because of the many assumptions about an unknown future, most people will readily agree that there is tremendous risk in any entrepreneurial venture. A serious business plan needs to account for this. It needs to include statements on the risks associated with the business and on the actions the entrepreneur envisions taking if issues occur. Risks are inherent in all parts of the business: in people, in

the assumptions about industry dynamics, in the market, and, of course, in financial planning.

In some of our cases, we recognize that a proven strategy to deal with the risk is to pursue a stepwise roll-out, *i.e.*, starting the business in a certain region, sometimes with limited features of product or service. In these cases, the venture is treated as a series of experiments, which allows learning about the true economics and the ability to determine in subsequent steps how much money will be needed at what stage.

2.3 Cases in This Chapter

The *Shockfish (B)* case describes what decision the management team made in terms of business focus. However, this was only the start. Shockfish needs fresh money to continue business, and Jim Pulcrano, the CEO, is tasked with giving presentations on the company's potential. Essentially, this means a fully fledged business plan needs to be developed, *i.e.*, the Shockfish team needs to elaborate the business model and select its target customer segments. Furthermore, it still has to discover the economics behind the business and possibly experiment with the financial drivers. Hence the student is asked not only whether or not he or she would fund the venture but also what information is needed to make that decision. The case offers a superb opportunity to have the structure of a business plan crafted, which would then need to be fleshed out and filled with real market information.

Somewhat more mature than Shockfish but also at an early stage in its business model definition is the company in the next case, *IR Microsystems (A): June 2002*. The venture, founded by seasoned engineers, has developed a low-cost solution to broad-range infrared spectrometry. Up to June 2002, the company had focused on R&D and sales while all other functions were outsourced. However, the team needs to make a strategic decision about whether to move up to the next step and turn the technology into a standalone product. This would likely entail keeping a hand in manufacturing and marketing the product. In fact, the founders still need to decide on their specific business model. The options range from licensing to becoming an OEM supplier to integrating downstream. In order to decide, the team had just started to develop a better understanding of its markets. In particular, it had identified a possible target segment. The challenge, however, is that the venture team would still need to pioneer this particular market, which had significant financial and human resources implications. To obtain both, the team had to flesh out their business strategy.

The next case, *InMotion Technologies Ltd.*, presents a venture with a somewhat more developed business plan than the first two cases. However, the long-term viability is subject to analysis. InMotion Technologies is based on innovative imaging algorithms that allow two pictures to be superimposed in the same picture frame. The first application considered by the venture team is in sports broadcasting,

where it can help compare the performance of two athletes over the same course. A second application was identified in sports training solutions, but the venture still needs to decide how to tap the potential here. Both markets come with distinctive requirements in terms of a business model. The first experiences in the market have shown the possibilities and limits in terms of scaling the business. Decisions need to be made and then the marketing strategy and additional investments need to be refined accordingly. At the same time, the technology is still in the process of maturing. The case invites the student to assess the strategy of the venture. Will the company take off?

This question will also be raised in the next case, *Boblbee (D): The Urban Backpack*. The new venture team is particularly challenged by marketing issues. Compared to the two preceding cases, Boblbee's product is much more clearly defined and the features developed. However, positioning it on the market is giving the company founders a headache, as is the entire marketing strategy. This includes the decision making for the classic four Ps and even adjusting the manufacturing capabilities and developing strategic partnerships to spur market penetration. The case is hence an excellent vehicle for studying the key elements of marketing in entrepreneurial ventures.

A more comprehensive overview of all parts of a business plan will be developed in the ensuing cases series, *VistaPapers A, B, B-2, and C*. It describes the efforts of the entrepreneur, Robert Keane, to develop the business plan for his project, VistaPapers, and the interaction with investors. He tries to set up VistaPapers as a catalogue marketer of specialized stationery and related products that enable customers to use their own PC and laser or ink-jet printer to economically produce high-quality printed communications in small quantities – even one copy. We follow Keane in his learning process in adapting the business plan to investors' requirements and in his dealings with unforeseeable external factors. Whereas the (A) and (B) cases focus on the formal presentation of the business plan to potential investors, the (B-2) case highlights the risks associated with new ventures. The (C) case, by contrast, stresses that a business plan is not a static document. It is the description of business over the venture's lifetime and thus will need to be adapted if the environment changes. The (C) case is also an excellent example of ongoing opportunity recognition. Robert Keane once more shows amazing foresight as he sets about revamping his entire print business and turning his company into an e-business.

The last case in this chapter, *Lyncée Tec SA: Scaling up a Technology Venture*, covers a wide range of issues in the early phase of a startup. Lyncée Tec is a small startup commercializing holographic microscopy solutions. After two years in business, the venture started operating at breakeven, financed entirely by sales. Nevertheless, the huge potential inherent in Lyncée Tec's applications had not been fully tapped. The company needs to grow more aggressively to become a serious industry player and to stay ahead of the competition. It needs additional external funding to speed up operations. Where should the money come from? The case outlines the venture's business plan and invites the student to analyze and provide comments on the business plan proposal and on the positioning of the

high-tech venture in the market. The case also provides a vehicle for reviewing and discussing the venture's financing strategy, which leads to the next chapter on financing entrepreneurial ventures.

References

- 1 Dorf, Richard C. and Thomas Byers. *Technology Ventures: From Idea to Enterprise*. New York: McGraw Hill Higher Education, 2005, p. 186.
- 2 Stutely, Richard. *The Definitive Business Plan: The Fast-Track to Intelligent Business Planning for Executives and Entrepreneurs*. London: Financial Times/Prentice Hall, 1999, p. 41.
- 3 Gumpert, David E. "Creating a Successful Business Plan." *The Portable MBA in Entrepreneurship*. Ed. W. D. Bygrave. New York: John Wiley & Sons, 1997, pp. 120–147.
- 4 Gumpert, "Creating a Successful Business Plan."
- 5 A more detailed list can be found in Stutely, *Definitive Business Plan*, p. 41.
- 6 Baird, Michael L. *Starting a High-Tech Company*. New York: Institute of Electrical and Electronics Engineers, 1995, Chapter 11.
- 7 Baird, *Starting a High-Tech Company*, Chapter 11.
- 8 Adapted from Timmons, Jeffrey A. *New Venture Creation: Entrepreneurship for the 21st Century*. Boston: Irwin, 1994, p. 381.
- 9 Timmons, *New Venture Creation*, p. 257.
- 10 Bygrave, William D. 1997. "The Entrepreneurial Process." *The Portable MBA in Entrepreneurship*. Ed. W. D. Bygrave. New York: John Wiley & Sons, 1997, p.16.
- 11 Mullins, John. *The New Business Road Test: What Entrepreneurs and Executives Should Do Before Writing a Business Plan*. London: Financial Times/Prentice Hall, 2004, p. 7.
- 12 Mullins, *New Business Road Test*, p. 7.
- 13 Mullins, *New Business Road Test*, p. 11.
- 14 Jolly, Vijay K. *Commercializing New Technologies: Getting from Mind to Market*. Boston: Harvard Business School Press, 1997, p. 100.
- 15 Baron, Robert A. and Scott Andrew Shane. *Entrepreneurship: A Process Perspective*. Mason, OH: Thomson/South-Western, 2005, p. 241.
- 16 Compare also with Mullins, *New Business Road Test*, p. 15.
- 17 The following description is mainly based on the very comprehensive overview in Barringer and Ireland, *Entrepreneurship*, pp. 282–297.
- 18 For a more detailed overview see Barringer and Ireland, *Entrepreneurship*, p. 284 ff.
- 19 Jolly, *Commercializing New Technologies*, p. 111.
- 20 Iandiorio, Joseph S. "Intellectual Property." *The Portable MBA in Entrepreneurship*. Ed. W. D. Bygrave. New York: Wiley, 1997, p. 335.
- 21 Refer to Kawasaki's blog on the Internet: Guy Kawasaki "The Top Ten Lies of Entrepreneurs." 2006. http://blog.guykawasaki.com/2006/01/the_top_ten_lie_1.html (accessed September 22, 2006).
- 22 Jolly, *Commercializing New Technologies*, p. 115.
- 23 Iandiorio, "Intellectual Property."
- 24 Iandiorio, "Intellectual Property."
- 25 Barringer and Ireland, *Entrepreneurship*, p. 100.
- 26 Jolly, *Commercializing New Technologies*, pp. 249–281.
- 27 See Afuah, Allan and Christopher L. Tucci. *Internet Business Models and Strategies*. 2nd ed. New York: McGraw-Hill, 2003.
- 28 Bell, C. Gordon. *High-Tech Ventures: The Guide for Entrepreneurial Success*. New York: Perseus, 1991, p. 86.

- 29 A comprehensive overview of the existing literature on the challenges in new venture marketing is presented in Gruber, Marc. "Marketing in New Ventures: Theory and Empirical Evidence." *Schmalenbach Business Review*, 2004, 56 (2), pp. 164–199.
- 30 Hisrich, Robert D. and Michael P. Peters. *Entrepreneurship*. Boston, MA: Irwin/McGraw-Hill, 1998, p. 269.
- 31 Barringer and Ireland, *Entrepreneurship*, p. 265.
- 32 Shapiro, Carl and Hal R. Varian. *Information Rules: A Strategic Guide to the Network Economy*. Boston, MA: Harvard Business School Press, 1998.
- 33 Jolly, *Commercializing New Technologies*.
- 34 Barringer and Ireland, *Entrepreneurship*, p. 269.
- 35 Coulter, Mary K. *Entrepreneurship in Action*. Upper Saddle River, NJ: Prentice Hall, 2000, p. 123 ff.
- 36 Sahlman, William A. "How to Write a Great Business Plan." *Harvard Business Review*, July-August 1997, pp. 98–109.

CASE 2-1

Shockfish (B)

John Walsh, Andy Boynton, and Alastair Brown

On the morning of September 11, 2000, Shockfish turned down the CHF 2.5 million offer. Its potential partner for wireless voting mechanisms would eventually go bankrupt.

The company chose to work on Spotme as a business “conference navigator” product. Shockfish decided on the business conference market because it had the most leverage across other areas, as those who attended business conferences were largely important decision makers in a variety of industries. For example, when used initially at an IMD conference, 28 new leads were originated from 400 customers. Shockfish hoped that after establishing itself in the business conference market it would then be able to head into other areas it had identified.

The company now had a vision: the Spotme product would be used at business conferences to increase the networking, productivity, and efficiency of an event. Despite this focus, Pulcrano was still left with many new questions as he sought to bring the product to market. In fact, it seemed as if his task had just begun. First, who should Shockfish sell its product to in order for it to be used at business conferences? Second, should it sell or rent the device? Third, how could it spark adoption and convince customers of the product’s value? Lastly, should it shoot for a service or turnkey product?

1 Crossing the Chasm

After deciding to focus on the conference navigator product, there were still many questions to answer:

- Who do we sell to?

There were many possible parties that could be interested in the Spotme product. First, large multinational corporations and professional organizations would have an interest because of all the large events they held. The decision makers about conferences in these companies and organizations could be CEOs, specific program managers, or a marketing department head. Second, event-management companies and professional conference organizers would have an interest in Spotme. They might use the product to differentiate their service from others, by reselling Spotme to clients. Third, venue owners might also be interested in purchasing the Spotme system in order to differentiate themselves. Lastly, technology providers that helped to service events might be interested in reselling Spotme as part of their technology package for an event. Thus, there were four distinct ways in which Spotme might successfully penetrate the business conference market. A conference often involved more than one of these parties making final decisions; therefore Shockfish needed to decide which groups were best to target.

- Do we sell the product or rent it? What price should be charged?

Shockfish initially proposed charging CHF 51,000 for renting the system for a 7-day event with 100 people. The charge would be CHF 105,000 for a 7-day event with 1,000 people. Each additional participant would cost the client roughly CHF 8 per day. Purchase of a system that had been enabled to handle 1,000 people would cost CHF 1.2 million. (These prices would end up changing drastically over time. At the time, though, Shockfish debated whether to sell or rent and whether these original prices made sense.)

Shockfish absorbed heavy upfront costs associated with developing, maintaining, and improving the Spotme system. Although the cost of producing one handset was unknown, Shockfish estimated that the cost of producing one Spotme device was similar to the cost of producing one of the most recent Palm Pilots.

- How do we convince consumers of the product's value?

Shockfish had to decide whether to “push” or “pull” the Spotme product in its marketing efforts. “Pushing” sales would mean selling a service to professional conference organizers, who would in turn sell the system to clients. “Pulling” new business would mean large-scale marketing efforts.

Additionally, the Spotme product had many different features and capabilities, so educating customers was a difficult task. Shockfish sought to identify a few attributes of the Spotme system that differentiated it from other products.

- Should Spotme be offered as a turnkey product?

If Shockfish could provide a turnkey product, then it would no longer have to bring representatives to each conference where the system was rented and would not have to spend time supporting the product after a sale. Yet, as of September 2000, a turnkey solution was at least two years away. Was it worth spending time reaching this goal so that the product could be sold or rented without support? If it chose not to shoot for a turnkey solution, should Shockfish hire new employees to specifically help users of its system?

2 Funding

Since its inception Shockfish had raised a total of CHF 130,000 through the Fondation pour l'Innovation Technologique, an organization in Lausanne geared toward helping startup companies. By early May 2000 it had largely run through this money. As the due diligence of its angel investors was concluding, Pulcrano had to give a presentation promoting the potential of Shockfish and Spotme.

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