

Chapter 2 Fact-finding

Chapter 2: Fact-finding

Introduction
Self-Evaluation
Gathering Information
Market Factors
Customers
Competition
Business Relationships
Energy Resource and Technology
Summarizing What Has Been Learned

INTRODUCTION

Turning a business idea into a company requires that the following questions be addressed:

- How is my company's product/service different from that of competitors?
- What is my company's competitive advantage? In other words: What characteristics give my company a good chance for success in a competitive market?
- How will my product be marketed and distributed most successfully?
- Who will supply the product or parts?
- What is the market and who are the target customers?
- How much money will be required to start and operate the business?
- How will the money be used?
- How will the business make money?
- Why will it succeed?

At this point, the answers to all of these questions are **assumptions**. That is appropriate for this stage in you go forward with the Business Plan and with the be on **testing these assumptions**. Every successful milestone in the development of your company. *you determine that your idea is truly viable.*



not known with certainty—they a company's development. As company itself, the focus will full test should be considered *Testing assumptions is how*

This chapter will elaborate on the Business ter 1 and add the next section of the Business also indicate ways in which you can gain insight into a company, and will set reasonable expectations you

Description written in Chap-Plan—the Opportunity. It will your own motivations for starting should have of your new business.

SELF-EVALUATION

Personal Objectives

Why are you starting this business? Is it to produce a regular income, to create a valuable infrastructure project you can sell, to build a company that will grow and take on many projects, or to gain experience?

It is important to know why you want to start a business, since *different objectives imply different business strategies or altogether different types of businesses*. For example, building a rural energy services company supplying a product or service to many households is a way to create regular income. That type of business can be grown over time. Alternatively, if your business objective is to develop an energy project and then sell it for a one-time payment, a hydroelectric project supplying power to the national grid would be a better idea.



Think about your goals, and then review the following list of typical business objectives. As you develop the business idea, consider the basic guidelines provided next to each objective and how you can integrate those strategies into your plan.

Exercise 2-1 Personal Objectives	
Create a valuable business over time by growing it slowly	Use all available income to reduce debt and maintain the project's operating condition. Look for loans not investment partners. Be careful about the financial health of the company. Place emphasis on a smaller, easier to complete first project. Reduce pay out to owners and use cash flow to attract and reward key members of the team and for working capital to grow business.
Produce a regular income	Include a salary line in operating expenses. Keep debt to a minimum and thereby increase cash flow available for regular dividends to owners. Requires more equity and less debt.
Earn a one-time fee or lump-sum payment	Increase the value of the project with minimum cash outlays. Line up buyers early. Evaluate options for the best time to sell.
Improve the well-being of a particular community	Incorporate local training and capacity building into project cost. Include 'buy-in' options to transfer responsibilities to local residents. Incorporate social benefits into businesses (e.g. community water pump or solar refrigerator for community clinic).
Gain experience	Partner with an experienced firm, sacrificing a larger ownership stake for the chance to gain experience quickly and move on independently.
Be involved day-to-day	Include a position within the team, provided your qualifications match needs. If appropriate and needed, include a salary line in operating expenses.
Be involved only part-time	Include each position and salary required within the team. Recruit a qualified general manager. Organize reporting relationships but place emphasis on plan and policy approval combined with reporting systems, all of which must be funded. Consider owner-engineer or project manager to protect owner's interests.

What Are Your Strengths and Weaknesses?

Business development and implementation are tasks for entrepreneurial personalities. There are many variables in business development and implementation—an ill-suited personality can spell doom for a solid idea and lead to great frustration. Entrepreneurs need to take stock of their personality and their skill sets.

What are the characteristics that define an entrepreneur? This is a highly speculative and subjective topic—and certainly not a test—but some patterns seem to emerge:

- Entrepreneurs are usually given high marks for high energy level and determination; independence and resourcefulness; originality; curiosity; and flexibility.
- Self-confidence and courage are attributes which are given lower but still important marks. Entrepreneurs tend to be self-demanding, self-starting and thorough.

Of course a person who does not possess all of these entrepreneurial characteristics can be successful in developing an energy business. *The crucial step for the entrepreneur is to understand his or her weaknesses and to use the choice of project and team to balance the equation.* For instance, a central supply business selling to the grid through

What Skills Will Your Business Require?

Before you can start a business, certain skill sets must be acquired. All successful businesses have included people with the necessary skills. Even if the skill sets do not exist at this stage, it is important to know what skills the team will need to establish your business successfully.

- ❑ **Marketing and Sales:** Identify customers for the product or services of the business and develop a pricing, advertising and promotion strategy to attract them. *A person needs to determine and make use of the business's competitive advantage.*
- ❑ **Operation:** Operate and maintain the business in a cost-effective manner.
- ❑ **Distribution:** Select the most efficient and effective method of delivering your product or service to customers.
- ❑ **Financial Planning:** *Estimate the financial requirements of a business and prepare a mix of financing alternatives*, including financial analyses such as Cash Flows, Income Statements and Balance Sheets (explained in later chapters).
- ❑ **Management:** Oversee and coordinate all of the participants in the business, with respect to the company's mission, performance, schedule and budget.
- ❑ **Permitting, Legal and Regulatory Matters:** Understand and comply with the relevant rules and regulations governing your business.
- ❑ **Negotiations:** Reach agreements with all of the parties with whom the business interacts—contractors, customers, government authorities, employees.
- ❑ **Bank and Investor Relationships:** Raise debt and equity and build business relationships that result in cost effective capital sources for the project.
- ❑ **Management Reporting (Monitoring and Evaluation):** *Maintain a system of performance measurement and evaluate performance against original plans and benchmarks.* Confer with lenders, investors and stakeholders regarding performance against this plan.
- ❑ **Pre-operational** (these requirements are for grid-connected projects only)
 - ❑ **Design:** Spell out the requirements of a physical project or product and correlate available resources to achieve desired performance.
 - ❑ **Engineering:** Prepare the detailed civil, mechanical, structural and electrical specifications of a product or project and supervise its physical implementation in a way that achieves desired performance at reasonable cost.
 - ❑ **Procurement:** Buy equipment, products and services needed to implement a project in a cost-effective manner.
 - ❑ **Construction:** Prepare the site, install equipment and



prepare for operations in accordance with project specifications, budget and schedule.

Whether proposing to produce electricity for sale energy services to individual households **team** will most likely be *THE* critical element of the business on which partners, lenders and investors will base their decisions. For some investors, it will be absolutely essential that the team include someone with very full experience—in a closely related activity. For others, it will be important that the team has substantial money at risk in the business from the very beginning. These requirements may not be as crucial for some parties, but these will tend to be early stage lenders and investors who will provide small amounts of money on the basis of message here is clear— *you must assemble the best possible team to plan and implement the best possible business.* As lenders and investors are reviewing your Business Plan they will be evaluating the types of questions given in Exercise 2-3. Go through the questions now, and answer them for your business idea.



to a national grid, or to start a small business providing and businesses, **the quality of the business** element of the business on which partners, lenders and investors will base their decisions. For some investors, it will be absolutely essential that the team include someone with very full experience—in a closely related activity. For others, it will be important that the team has substantial money at risk in the business from the very beginning. These requirements may not be as crucial for some parties, but these will tend to be early stage lenders and investors who will provide small amounts of money on the basis of message here is clear— *you must assemble the best possible team to plan and implement the best possible business.* As lenders and investors are reviewing your Business Plan they will be evaluating the types of questions given in Exercise 2-3. Go through the questions now, and answer them for your business idea.

Exercise 2-3 Does Your Business Team Have All the Skills?

Technical: Are there specific engineering or mechanical challenges that require specific technical skills on the team on a permanent basis? What are those challenges and skills? Can these needs be met through a contract relationship or must one of the core team be an expert?

Operation: How complicated is the day-to-day management? Are there many employees and partners to oversee?

Financial: What are the financial aspects of the business? How will the ongoing financial requirements be met over the life of the business? Can a chief financial officer be hired later or should the team include a financial expert from the outset? What are the accounting practices?

Negotiations and Sales: Will there be a need to regularly update the terms and conditions of ongoing business relationships with suppliers and customers? Will the business always be seeking new customers and relationships or will this be a one-time event?

Legal: Will the regulations and contractual relationships governing the business be fixed or will they change over time, requiring regular attention?

Political: Will regulations and policies affecting performance be evolving and require attention and lobbying?

Funding: What is the minimum amount of funding needed to complete work underway and make the business attractive to lenders and investors? How much has the team spent already (time and money) and on what? What, realistically, will be needed to complete all of the tasks identified? Then, how much cash equity is needed to assure that the team retains a substantial portion of ownership and control? How much cash equity does the team have? Is that enough to be credible when negotiating with lenders and investors? Is there an early stage financial source available to supply these funds? What will the team be giving up and gaining by taking a financial partner?

Entrepreneur Skill, Experience and Resources: Of the qualifications needed for the team, what skills does the team possess? Are there partners who round out this skill set? Are there advisors who can be hired to assure that all the skills needed are represented? Does the team have an experience base that will 'impress' lenders and investors? If not, is there an addition to the team that could solve this problem? Is it possible to contract with an experienced party as part of the team? If not, how does the entrepreneur propose to convince lenders and investors that all the skills and experience needed are at hand? Does the team have the time and money needed to complete the work identified?

GATHERING INFORMATION = FACT-FINDING

The goal of your Business Plan is to convince the reader that your business objectives and strategy will succeed. In order to do this, you need to know as much as possible about your potential customers and existing competition, by acquiring as much accurate and specific information about them as possible. The type of customer and market assessment you will do depends on the type of business that you're pursuing. The research for developing a small power station selling to a utility is different from that required to develop a company selling solar dried food to retailers. *Collecting information on customers and competition requires physically going into the area in which you wish to operate and collecting the data.* Additional information can be found in libraries or by telephone. The list below gives some ideas.

Customer Data Collection Methods:

- Phone interviews
- Face-to-face
- Mail surveys
- Large group meetings
- Desk studies - information gathering sources include existing studies, libraries, trade magazines)

Competition Data Collection Methods:

- Store visits
- Test goods
- Competitor reports
- Desk studies - information gathering sources include the Internet, trade magazines, libraries, chambers of commerce, boards of trade

Sources of Market and Political Information:

- Magazines: The Economist, Foreign Affairs
- Library
- Internet-USAID and UN websites

Successfully collecting market data is difficult and time consuming. For instance, research shows that only 5 per cent of people surveyed respond to mail surveys. Travelling through villages asking questions can also take a long time and the validity of the responses is often questionable. However, it is still essential that adequate market research be completed to convince a lender, investor or partner that the business concept has been analysed and that you can demonstrate why this business will work. There are several tactics for collecting information. For example, a great deal of information can be gathered by visiting or telephoning competitors and asking them about the product or services they offer, what they charge, their guarantees, etc.

A successful method for organizing customer information is to develop a questionnaire. A questionnaire allows you to ask a sample of your potential customers the same questions in order to draw reasonable conclusions about their demand for your product or service. It is likely that a lender or investor will ask you how you determined that your customers would be willing and able to purchase your product. Don't forget to cite resources used in fact-finding. A sample questionnaire is included as **Annex C** of the Toolkit.

The types of information that must be gathered can be divided into four categories, all discussed in detail in the following pages:

- 1. Market factors and trends:** What is currently affecting the proposed area of operations or product? Consider macro-economic trends,



energy plans and trends, government policy, and legal and regulatory issues. Summarize the major trends in the marketplace.

2. **Customers:** To whom will you sell your product or service, and why will they purchase it? Compile demographic statistics such as how they **will and can** pay for your product or service ('ability and willingness to pay'), where they live, source and amount of income, age, etc. As always, consider the direct and indirect benefits the customers will obtain from your product or service. Why will the customer be better off buying your products?
3. **Size:** Estimate the total size of the target market for your product or service both in terms of numbers of customers and gross sales and units of product or service sold (from competitors if necessary).
4. **Competition:** Compare competitors' products or services with those you are proposing in terms of quality, price, service, warranties, image, etc. *Be sure to describe your direct competition, but don't forget your indirect competition.* Your indirect competitors are the businesses that sell a product that is not the same as yours but could be used as an alternative by your customer. For example, if you want to sell solar lanterns for lighting to households near your village and they are currently using kerosene, an analysis of the kerosene market must be completed. Include estimates of their market share (do all customers buy from them, why or why not?) and your sense of their financial health (are they profitable or about to go out of business?).



Each of these categories is now discussed in more detail, to assist you in gathering your own data.

MARKET FACTORS

The proposed business must be aware of, and take into account, market factors in the target area and in the region or country. The likelihood of a business succeeding is determined not just by factors under its control. It is important that general market factors—economic, commercial, political, social, and environmental—instil confidence in the stakeholders needed to run a business (lenders, investors, suppliers, contractors, insurers, etc.). The most important general market factors that need to be favourable for an investor or lender are the following:

- Energy policy:** meaning the overall interest in and energy-related activities of government or international communities. Are there plans to extend the electric utility grid into your area of operations? When? By whom? How will they fund this activity? Are there plans to undertake or develop other non-grid connected energy projects in the operations area? Are there international or government supported programmes under way? What impact will these have on the business's ability to sell its product? Are there plans to change the current energy sale and purchase policy (perhaps switching from a power purchase agreement (PPA) to a wholesale market)? When is this to take place? What is the long-term outlook for the energy industry or proposed product/service?
- Macro-economic:** inflation, general economic stability and growth, currency stability, and employment growth. While these conditions need not be perfect, it is important to assess the general trend of the economy (improving versus declining) and the general perception of the regional and world economic community. Sometimes—and this is very frustrating for an entrepreneur to hear—it is just better to put an idea aside and wait until conditions improve.
- Commercial factors:** Are the rules for doing business, establishing a company, making investments, recovering investments and importing goods and services clear? What are the appropriate banking, investing and trading laws and regulations? Is there a history of businesses, such as the proposed one, being successfully implemented from a commercial perspective? Are in-country banks and investors involved in such businesses? Is there a 'commercial discipline' based on the general principles of socially responsible entrepreneurship and return on investment (versus top-down planning and state implementation)?
- Politics:** in the broadest sense of the term. Are laws and regulations transparent and enforced in a reasonable

manner? Is power transferred between political parties or factions in an orderly and predictable manner? Are policies transferred from one political appointee to another or does every appointment of a minister or election mean that a business is back to the beginning of the development process? Is corruption—payoffs, favours and conflicts of interest—part of the process of starting a business? Is there political support for the proposed business? Is it needed and will it be helpful (sometimes it is not)? What evidence exists of this political support, if needed and helpful, at the national or local level?

Social factors: will the target area benefit from the proposed business? What are the needs in the area? Is the business compatible with local conditions and plans? Is there social support for the business or product/service? How is this support demonstrated?

Environmental factors: there may be requirements for environmental impact assessments (for grid connected projects), otherwise this information is important to the types of investors that are interested in energy projects and not to the viability of the project. In other words, this can act as a positive characteristic of the business and should be included in the 'Impacts' section of the final Business Plan. What is the environmental impact of your product/service? Does the product/service have a positive environmental impact? Is it displacing wood burning, kerosene and/or candles? Is carbon use being mitigated?



General: what is the trend in your industry? Is demand increasing or decreasing? What is the total size of your market?

Every business has its own characteristics. It is important to determine, at the earliest possible point, the complete list of permits required and conditions to be met to obtain approvals. It is not necessary to acquire them at this stage, but if they are necessary and not available it may be the end of the business idea. The following questions should be addressed to the appropriate government agency:

- Must the business be registered? With what entity or entities? Must share capital be at a certain level?
- What are the requirements to obtain environmental permits and approvals? Must the consent of local communities and neighbours be obtained? Must a formal environmental impact assessment be prepared? Is there a public hearing or consultation process?
- What permits and approvals are needed to use natural resources, undertake construction, operate a business, interconnect with the electric grid or build a local grid and sell energy (e.g. generation and training permits or, if a spot market, permission from regulatory entity)?
- What licenses, permits or authorizations are needed to import equipment? What tariffs apply?
- Are there health and safety procedures to be followed? Must these be documented?
- Must the owners and managers register and report activities concerning their participation in the business?
- Must permission or a concession be obtained to provide energy services 'off the grid'?
- Has the opinion of an independent qualified advisor been obtained to document that the list of permits and their requirements is complete?
- What, if any, restrictions exist to securing international investors? Can dividends be repatriated to investors?

The following exercise will help you focus your business idea and will help you organize some of the information you are gathering. It covers the following topics:

- Existing and Proposed Energy Plans and Projects
- Macroeconomic Conditions
- National, Local Laws and Permits
- Research Materials Used

Chapter 1	Chapter 3					Chapter 4	
Introduction to Toolkit	Operations	Technology	Finance	Schedule	Risks	Impacts	Executive Summary & Closing

Exercise 2-4
General Market Conditions

Existing and Proposed Energy Plans and Projects

<p>Type of Clean Energy (e.g. solar, energy efficiency, biomass)</p> <p><i>E.g. Solar</i></p> <p>Type of traditional energy to be replaced (e.g. petrol, gas, diesel)</p> <p>National grid? (if no, specify nearest location of use)</p> <p><i>Other Notes</i></p>	<p>Description (current and future uses and development plans)</p> <p><i>Example: International Funded solar energy project to begin January 2003 that will donate half of the cost of equipment to the customer.</i></p>
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Macroeconomic Data-see **Annex D** for country-specific macro-economic information.

<p>Country Size</p> <p>Population</p> <p>Per Capita GDP (in US\$)</p> <p>Per Capita Income (in US\$)</p> <p>Exchange Rate / US\$</p> <p>Inflation (Annual)</p> <p>Interest Rates: Local Currency Deposits</p> <p>What has been the performance of the national currency in the past five years?</p> <p>What has been the performance of inflation in the past five years?</p> <p>Unemployment (urban data)</p> <p>Total Installed Grid Capacity (MW)</p> <p>Percent of Population Serviced by the Grid</p> <p>Per Capita Energy Consumption</p> <p>Energy Related Carbon Emissions, if applicable (mt)</p> <p>Local regulations for start-up energy companies (briefly describe legal norms and standards that apply to the energy sector, including taxes and incentives-such as subsidies-to small and medium enterprises):</p>	
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Laws, Regulations and Required Permits

Permits Needed to Start a Business:

Title	Issuer	Process and Requirements	Comments

Permits or Permissions Needed to Study a Project or Undertake a Feasibility Study:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Obtain a Concession or Right to Use Natural Resources:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Construct:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Assure Environmental Compliance:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Produce, Sell or Distribute Energy:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Operate a Project:

Title	Issuer	Process and Requirements	Comments

Other Permits:

Title	Issuer	Process and Requirements	Comments

Research Materials used

Region name researched:	
Author, source and date of energy studies:	
Author, source and date of economic studies:	
Author, source and date of social studies:	

CUSTOMERS

For energy businesses there are basically two types of customers: businesses selling products or services to *multiple customers* (households and other businesses) and businesses serving a *single or a small number of customers* (national utility or a large industrial company). There are far more types of energy businesses with multiple customers. The following is a list, by product or service, giving examples of businesses that serve multiple customers:

- Solar home systems for individual households.
- Solar hot water systems for individual households.
- Energy-efficient cook stoves for households or to be sold wholesale.
- Energy efficiency lighting products for sale to individuals, industries or wholesale.
- Small wind turbines for a household or community.
- Community water pumping or mini-hydro.
- Alternative cooking briquettes for sale to individuals or wholesale.
- Food products made from solar drying, cooking or freezer technologies for sale to individuals or wholesale.
- Products produced from technologies that use alternative energy as the input (such as nuts, oils, etc.) for sale to individuals or wholesale.

Businesses Selling to Multiple Customers

The rationale for these types of businesses is that the product or service will be sold directly to a household or wholesale to another business such as a supermarket or export market. In all of these cases it is imperative to conduct market research that will prove that a market exists for your product (now as well as in the future) and that you are capable of carving out a niche for your business. As already mentioned, **Annex C** provides a questionnaire that can be used for conducting research for multiple customers in an effective manner and should be completed by all prospective entrepreneurs.

The primary goal of customer research is to collect data to prove to your audience that customers are willing and

able to pay for your product or service. One way to do this is to find out what they are doing now to meet their needs and how much they pay for it. Then ask yourself, how will their life change if my business meets this need? Is it more or less expensive than what they previously used? Is it as reliable, available, and accepted? Would my new service or product require a major behaviour change for the customers? If so, what systems do I have in place to make that change easier for them? Will my product or service be technologically complicated for the end-user?

Answering the following questions will help you to address these issues:

Customer Questions

Types of customer targeted (individual, household, local government or community that may sell to households or individuals, industry)

Total estimated number of customers to be interviewed (e.g. 100 households, 5 communities, 20 industries)

What is the average customer's source of income?

Does income generation fluctuate through the year?

What do customers spend most of their income on?

How much do they spend on energy needs?

How do they meet their energy needs?

How do they meet their water needs?

How are the customers currently filling the need your business hopes to meet?

How much does it cost?

Are they satisfied with the other source?

How much are they willing to pay for your product or service?

What sort of behaviour change, if any, would be required for customers to use your product?

How will your business ease the behaviour change for them?

Business Selling to a Single Customer

The second category is a business serving a single (or a few) customer(s) usually under a contract for service. Examples of such customers are electricity utility companies and large industrial firms with a significant demand. These types of businesses generally do not require significant research of potential customers because the single most important element in determining whether or not the business idea will work is to find and secure the buyer, rather than to assess demand. The most common type of agreement between businesses and these types of customers is a power purchasing agreement (PPA). PPAs are contracts under which the buyer (usually the local utility or industrial facility) formally commits to purchase a specific amount of electricity at an agreed rate for a stated period of time.

Most PPAs cover payment for the purchase of capacity and energy separately. 'Capacity' is the assured supply of the project (measured in kilowatts or megawatts) being sold to the utility or industrial firm. 'Energy' is the actual output of the project, measured in kilowatt-hours or megawatt-hours actually produced and delivered. As electricity utility companies become more competitive through the elimination of monopolies, long-term PPAs are being replaced with Wholesale Market Mechanisms, which buy the energy output from projects based on its price compared to other

energy projects supplying the same electricity system (or grid) at the same time. Regardless of the size of the utility or industrial customer, it must be established that this customer can and will pay for the capacity and energy provided. Many utility companies are technically bankrupt and depend on government subsidies to meet their obligations. These companies (and others) tend to be very poor payers. It is therefore essential to determine that the buyer of energy and capacity can and will pay for the service provided over the life of the contract. The basic message here is this: just because the buyer is a large company do not assume that it will be a good payer.

Some of the things to check are as follows:

- What is the potential client's core business?
- Is information about it public or private?
- What is the buyer's net worth (the excess of its assets over their liabilities)?
- How much money does it owe (compared to its gross revenues and its total assets), and how has this changed in the last 5 years?
- What is its revenue and profit performance over the last few years?
- How well is its core business doing?
- What is its track record in borrowing and paying back loans?
- How much has it been able to borrow in the last five years? In the case of a utility owned by the government, has this debt been guaranteed by the government or is the credit of the utility itself good enough?
- In order to make a reliable assessment of your buyer's ability to pay, you may contact local banks or the local World Bank or IFC office. Local offices of well-respected international accounting firms or bilateral chambers of commerce are also good sources of information.
- If you are dealing with a private company that does not publish information, ask the company to supply information and ask them to let you speak with their bank.
- What is its credit rating?
- Has it been involved in any similar projects? What do these other projects have to say about its performance?
- How secure might a potential contract with these large customers be?
- What external factors may negatively affect the company's or utility's profitability?

COMPETITION

Whether proposing a rural energy business supplying electricity to a house, business, community or national grid, or starting a business selling fruit dried by the sun, a smart and easy way to conduct research is to find one or two similar businesses that have received financing or are operational and collecting revenues and study them. **Investors are not pioneers if they can avoid it.** Most choose to avoid it and lenders are almost never pioneers. So a good place to begin in the business development process is to answer the question, "Have others done this before?"

This is easiest, of course, if one or two businesses similar to the one you are proposing *have* been started. You need to do some research and document what happened to your competitor (and when). While everyone likes to think that is to her business is unique, uniqueness is definitely not an asset when trying to convince others to make loans or an investment.

If nothing like the proposed business has been built—and all too often this is the case—then the entrepreneur needs to build as many arguments as possible to *reduce the perception of 'pioneering risk' (when an investor funds a business for the first time)*.

For example, similar businesses may have been constructed and operated, albeit by the government or through an NGO programme using grant funds. This helps to reduce any perception that there are no qualified contractors or workers; that equipment is unknown, and so on. By citing such examples the entrepreneur confines the “newness” of the transaction to the fact that a private company is going to build this business (instead of the government).

There are cases, however, where the entrepreneur will be the pioneer (the authors have been involved in a few). In these cases it must be proven that even though no such business presently exists, there is demand for the product or service, and that sales and profits will be realized. Is this easy to argue from this starting point? No. Can it be done? Yes—through thorough documentation, step-by-step market research and cross checking of the validity of your assumptions.

The most effective way to define your competition is to think of similar businesses that compete for your customer’s money. When thinking of competitors, it is essential to consider both your direct and indirect competition. Remember, direct competitors are those that sell exactly the same type of product or service as your business, indirect competitors are those that sell a product or service that provides the same benefit for the customer.

For this section, information must be gathered regarding the numbers of competitors and details of their operations and financial stability. Completing this task will help you to understand your competitor’s strengths and weaknesses, the potential demand for your product and this information will eventually be used to develop your competitive advantage and build barriers between your business and your competitors.

Figuring out who are competitors can be done in several ways. One of the simplest is to consider the situation from the customer’s point of view and to think of all of the possible ways in which customers can solve their purchasing need. A way to learn about competitors while developing your business strategy is to keep records of them. Put together a file on each of your competitors and include copies of their advertising and promotional materials. Continue to add to the file and review it often—it will help you when you are determining your strategy for attracting customers. Now that you know your competition, complete the following exercise



Exercise 2-5 Competitors

1. Who are your five nearest direct competitors? What do they do?
2. Who are your indirect competitors? What do they do?
3. How are their businesses: steady? growing? declining?

4. What have you learned from their operations? from their advertising?

5. What are their strengths and weaknesses?

6. How does their product or service differ from yours?

7. From where/whom do they source their product?

8. What is the sales price of their product or service?

9. How far is the nearest competitor from where you hope to sell your product or service?

BUSINESS RELATIONSHIPS

In the first part of this chapter we discussed the types of skills that a business needs to succeed. These can be acquired either by hiring someone as an employee or through a contractor or supplier relationship. Remember some relationships can be solidified later, but it is not advisable to wait to find suppliers and contractors.

Good suppliers and contractors have choices as to the markets they serve. *Availability and reliability of suppliers is crucial for both large and small businesses.* Whether a company needs to buy 50 photovoltaic panels a month, 20 water pumps a year, 300 batteries every six months, ceramic liners for gasifiers and stoves, or a 25 MW hydroelectric turbine generator set, sources of supply are crucial. A components inventory and supplier network needs to be established as soon as practical and back-up sources identified. The inability to get replacement or spare parts in time can destroy a company trying to establish itself in the marketplace.

Suppliers will provide quotes for credible business proposals. Getting as much fact-finding and feasibility analysis work documented as possible, and presenting it well, will therefore get the attention of suppliers and contractors. Be cautious not to commit to purchasing anything until the financing is secured. The exercise at the end of this section suggests calling several possible suppliers and determining their availability, terms, costs, etc.



For businesses with a single client, lenders and investors will want to avoid 'Completion Risk'—meaning that once

construction has commenced, the lenders and investors want assurances that the project will be completed and will commence operation. Contracts known as EPC (engineering, procurement and construction), EPC-lump sum, Fixed Price or Turnkey are attractive to lenders and investors. Under an EPC contract, a contractor will handle all of the tasks needed to design and build a project according to a set, pre-quoted, price and will deliver the project fully operational. In these cases, the completion risk belongs to the EPC contractor and is secured by a performance bond. The EPC Contractor, in turn, contracts with sub-contractors and coordinates all the tasks involved. As an alternative to this, the business team itself can act as the prime contractor (the role of the EPC), hiring all the engineering, procurement and construction contractors. However, it needs to demonstrate conclusively that the project will be completed and that funds exist to handle cost overruns. A third choice is for the business team to hire a Project Management firm to coordinate the project. Once again, overruns need to be funded and completion assured.

On a larger project it is often a requirement that an operating and maintenance company be employed to run the project once construction is completed. Complete the Supplier Relationship questions on the following page to organize your research.

Exercise 2-6 Supplier Research

Write down a component inventory-what you need to purchase to sell your product.

Component Inventory:

What types of materials or products do you need to purchase for the sale of one product?

From which possible suppliers? Where are they located?

Which currency do they accept?

Write down possible suppliers and contact them to understand their terms, availability and process.

Supplier 1: supplies _____

Name:

Location:

Product type(s):

Sales price:

What are the payment conditions? (30-day credit, 90-day credit, in advance):

Payment is made in what form? (cheque, wire, money order, dollars, local currency)

When can the product be shipped? How long will it take to arrive?

Supplier 2: supplies _____

Name:

Location:

Product type(s):

Sales price:

What are the payment conditions? (30-day credit, 90-day credit, in advance):

Payment is made in what form? (cheque, wire, money order, dollars, local currency)

When can the product ship? How long will it take to arrive?

Supplier 3: supplies _____

Name:

Location:

Product type(s):

Sales price:

What are the payment conditions? (30-day credit, 90-day credit, in advance):

Payment is made in what form? (cheque, wire, money order, dollars, local currency)

When can the product be shipped? How long will it take to arrive?

ENERGY RESOURCES AND TECHNOLOGY

This Toolkit deals with four types of natural resources—wind, water, biomass and sunlight. The goal of this section is to explain how you must prove to partners and investors that the technology you plan to use is proven and appropriate, and that the resource exists in sufficient quantities.

When an investor or lender reads your Business Plan it must be clear that you have answered the following questions and that the sources of your information are reliable.

Energy Resources

- ❑ **Water:** What data exists regarding the flow of water and the 'head' (proposed elevation drop)? For how long has this data been collected? By whom? How has it been documented? Has the water data been independently evaluated? Have seasonal and year-to-year variations been estimated? Have the site conditions been studied and integrated with the water data? What documentation exists to prove that sufficient water resources exist?
- ❑ **Biomass:** What is the proposed biomass source? Has the biomass source been evaluated for its energy content (BTU/joule), moisture levels, collection, transport and storage characteristics? What quantities of this biomass source are available? Are there seasonal variations? How have the energy characteristics and quantities been documented? Has this biomass source been used before in this region in the manner proposed?
- ❑ **Sunlight:** What solar insolation data exist for the proposed project area? Have solar panels and balance of systems been installed in the project area? Is there any documentation of performance? Are there seasonal variations or extended periods of sub-optimal performance? How is the information documented?
- ❑ **Wind:** What wind speed measurements have been made? What data exist? For what period of time? Are the measurements site specific, using reliable equipment and accepted techniques? Have the results of these measurements been examined by a qualified and independent professional? What documentation exists to prove that sufficient wind resources exist?

Technology

Having established that natural resources exist in sufficient quantities, the next step is to determine if the wind, water, biomass or sunlight can be converted into energy at the proposed project site on the scale envisioned. In other words: Is the technology appropriate given the business assumptions?

- ❑ What type of technology will be used?
- ❑ Has this particular technology been used with this particular energy resource (e.g. rice husks)?
- ❑ Is the technology available at the targeted location? If not, can it be imported?
- ❑ Have suppliers of the basic conversion technology—wind turbine manufacturers, hydro turbine manufacturers, biomass conversion equipment manufacturers and PV systems integrators—reviewed the wind, water, biomass and sunlight data and confirmed that their equipment can produce the desired energy output?
- ❑ What other components are needed to assure energy output?

It is not enough that sufficient natural resources exist and that the technology is available. In the case of water and biomass energy projects, the right to use these resources must be assured, generally through a contract, with either fuel suppliers or with the government (e.g. through a concession for water rights).

- ❑ **Water:** What agreements are needed to secure the use of water at the proposed project site? Will a payment be required? What are the conditions of such a contract? For example, what percentage of water flow is allowed to be diverted? What is the term of the contract? What is the expiration date of this contract if the project is not operational within the term? What other related contracts are required?
- ❑ **Biomass:** What is the length and what are the terms of the proposed contract(s)? What percentage of the project's biomass requirement will be met by this contract(s)? What assurances exist that the biomass supply will be continuous? What is the financial condition of the supplier and the underlying soundness of the industry? What penalties exist for the buyer and seller for non-performance? What backup and supplementary supplies are available and on what terms?

In order for a business idea to become an opportunity, the choice of technology and energy resource must be justified. Answer the applicable questions above and verify the technical information from a qualified technical source. Suppliers may be a source for this information or may be able to direct you to other sources.

Is the information in this chapter too much to ask for? There is little point in proceeding with planning a business until this degree of specificity exists.

At this point all exercises should be complete and ready to be assembled into the first two sections of the Business Plan.

¹ It is possible to buy biomass in an open market at the then current 'spot' price but most lenders and investors are uncomfortable with the uncertainty this implies.

² For example, a sugar mill may be able to supply all the bagasse needed for a cogeneration project, but the mill may not be competitive due to factors linked to the world market for sugar rather than productivity within the mill itself.

SUMMARIZING WHAT HAS BEEN LEARNED

What have you learned thus far? Chapter 1 was an introduction to a Business Description, which is the section of the Business Plan where you convince your reader that this is an excellent business opportunity. You should be improving your Business Description throughout the entire Business Plan writing process. This chapter started by explaining characteristics often found in an entrepreneur— an exercise that was provided to help you assess your own qualities. Next, the reasons for collecting sufficient amounts of high-quality data were outlined, followed by a list of the types of data to collect (market, customers, competition, business relationships, and technology). At this point you should stop reading and collect as much data as possible pertaining to your idea. Then, you can move on to the final section of this chapter and compile your information into a comprehensible format that will be incorporated into the final Business Plan.

Before starting on your Business Plan, complete the checklist on the next page to identify gaps where information still needs to be collected. For each question, put a checkmark next to items that have been completed. For items that are incomplete write what needs to be done and when it will be completed.

Fact-finding Checklist

Has information on energy plans and other energy projects at the national/regional/local level been collected?

- All the information has been collected. ____
- The following information is still needed. _____

Have data on the macroeconomic, legal and political situation been researched?

- All the information has been collected. ____
- The following information is still needed. _____

How much is known about the quantity of natural resources-wind, water, biomass, sunlight-proposed to be used?

- All the information has been collected. ____
- The following information is still needed. _____

Has the information on what is required to obtain the exclusive use of water or biomass for the project been gathered?

- All the information has been collected. ____
- The following information is still needed. _____

Is the information regarding the use of the land on the site(s) known?

- All the information has been collected. ____
- The following information is still needed. _____

Have all the permits needed been identified?

- All the information has been collected. ____
- The following information is still needed. _____

Is the research completed on whether the technology is appropriate?

- All the information has been collected. ____
- The following information is still needed. _____

Have customers been identified? Have their particular characteristics (in terms of ability and willingness to pay) been assessed?

- All the information has been collected. ____
- The following information is still needed. _____

Has information on possible direct and indirect competition been collected?

- All the information has been collected. ____
- The following information is still needed. _____

Has an examination been made of the skills needed to implement this project and has this been compared with the skills and experience of the project team?

- All the information has been collected. ____
- The following information is still needed. _____

Now you are ready to assemble all the relevant information into the first two sections of the Business Plan.

What should be included in these sections? Answers to the exercises and issues raised throughout the chapter should be organized in a convincing way and presented in each section of the study. One way to organize this is explained here. Annex B also provides examples. Remember, this is a research document thus far, there is no analysis of the demand for your product or service or the business opportunity until Chapter 3.

Business Plan Outline

1. Title page: Business Name, physical and postal address, founder's name and contact information, and the date.
2. Business Description: review the Business Description from Chapter 1 in the light of the additional data collected (especially on customers and technology). Update the description and ensure that the information presented is convincing and sufficiently detailed. Remember everything following this part of the Business Plan is intended to prove why this Business Description represents a good idea. Your description should cover information about the following:
 - Company
 - Location
 - Product or Service
 - Technology and Resource
 - Customers

In addition to what you have already written, add two new topics based on information and instructions provided in this chapter.

- Market Factors: For example permits acquired or needed, country specific business, legal, social and environmental factors.
 - Business Relationships: Who are the potential equipment or product suppliers? Contractors? What are the required business relationships with the equipment or product suppliers or contractors? What are the terms for purchasing from equipment or product suppliers? Cost of freight and shipping?
3. Opportunity: write a section including information about your customers and competition. The goal is to illustrate that this is a good business opportunity.
 - Customers: explain who will buy your product or service and why. This section can be completed using the exercises in the 'Customers' section and completed questionnaires (Annex C, for example) and turning the

Chapter 1	Chapter 3					Chapter 4	
Introduction to Toolkit	Operations	Technology	Finance	Schedule	Risks	Impacts	Executive Summary & Closing

data into a written document. Be clear and convincing. The goal is to show that you understand your customers' ability and willingness to pay.

- Competition: turn the exercise in the 'Competition' section into a written document. The result should be an overview of your direct and indirect competition.

Congratulations!
You have completed the first two sections
of your Business Plan.