

**A FEASIBILITY STUDY FOR ESTABLISHING A SUSTAINABILITY
CONSULTING FIRM**

by

Susan F. Mathieu
Master of Science, University of Saskatchewan, 1996
Bachelor of Science (Honours), University of Saskatchewan, 1990

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Approval

Name: Susan F. Mathieu

Degree: Master of Business Administration

Title of Project: A Feasibility Study for Establishing a Sustainability Consulting Firm

Supervisory Committee:

Dr. Mark Moore
Senior Supervisor
Senior Lecturer, Faculty of Business Administration

Mark Selman, Ph.D.
Second Reader
Director, Learning Strategies Group

Date Approved:

Abstract

This study examines the feasibility of Mathieu Sustainability Consulting (MSC) entering the sustainability consulting industry and targeting the Canadian junior mineral exploration sector. The target market is attractive due to: (1) expanding domestic and foreign exploration investment; (2) increasing regulatory and societal pressures to integrate sustainability into exploration activities; and (3) the tendency of exploration companies to limit their size and retain specialized services on an as-needed basis. The sustainability consulting industry is attractive to enter as a non-employing sole proprietorship because: (1) there are few barriers to entry; (2) firms of varying sizes are able to coexist by adopting niche strategies; and (3) average industry profitability is projected to continue growing in the near-term. As an experienced sustainability practitioner in the international mining arena, the founder of MSC possesses unique and path dependent capabilities. These potential sources of competitive advantage will enable the founder to create and capture more value relative to rivals that do not possess these resources, resulting in increased willingness to pay for MSC's sustainability consulting services within the target market. Business risks are predominantly related to MSC's dependence on the cyclical and volatile junior mineral exploration sector.

Keywords: sustainability consulting industry; new entrant; junior mineral exploration sector; feasibility study

Dedication

To my husband, Steve, for your love, support and tolerant understanding throughout this latest adventure of mine. To my family, for your prayers and unwavering encouragement throughout my life. And to my special friends, who are always just a phone call away no matter where I might be.

*“An adventure is only an inconvenience rightly considered.
An inconvenience is only an adventure wrongly considered.”*

Gilbert Keith Chesterton (1874-1936)

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Chapter 1: Introduction

1.1 Purpose and Scope of Study

The purpose of this study is to determine the feasibility of establishing a firm specializing in providing environmental and sustainability consulting services for organizations within the Canadian mineral exploration industry. The study includes a strategic analysis of the business concept in order to assist the founder in evaluating the prospects for entering this segment of the sustainability consulting industry. On the basis of a positive entry decision, the author uses the insights gained from the strategic analysis to propose a business plan for starting the consulting firm.

This feasibility study is designed to analyze the factors that drive the consulting business opportunity and the competencies that are required to address the opportunity. Specifically, the study will answer the following fundamental questions:

- What is the market for the service?
- How attractive is the consulting industry for a new entrant?
- Does the founder have the necessary skills to enter the industry and sustain a competitive advantage?
- What is the optimal entry strategy?
- What activities are required to successfully start up this business?

The strategic analysis of the business concept begins with a description of the mineral exploration market to establish the key characteristics and demand drivers of the target market that are relevant to the new venture (Chapter 2). An analysis of the environmental and sustainability consulting industry is then performed to determine the attractiveness (profitability) of this segment of the industry from the perspective of a new entrant (Chapter 3). Next, an internal analysis of the proposed firm is conducted to determine the firm's potential sources of competitive advantage (Chapter 4). To complete the strategic analysis component of the feasibility study, the business opportunity is assessed in order to make the entry decision (Chapter 5). Information gained from the strategic analysis is incorporated into a proposed business plan for the consulting firm. The business plan includes an operations plan (Chapter 6),

a marketing plan (Chapter 7), financial projections (Chapter 8), and an implementation plan (Chapter 9).

To provide context for the feasibility study, a brief overview of sustainability and its relevance to the mining industry is addressed in this introduction. The business concept is also presented in this introduction to establish the focus of the subsequent strategic analysis.

1.2 Defining Sustainability

Sustainable development was originally defined by the Brundtland Commission as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development (WCED), 1987, para. 1). The goal of sustainable development is to promote a more balanced approach to development opportunities by considering socio-cultural acceptance and ecological protection as well as economic growth. In this manner, the decision-making process usually entails making choices among competing interests related to development. However, incorporating a sustainable development framework into the mechanisms for reaching decisions legitimizes these trade-offs (Mining, Minerals, and Sustainable Development, (MMSD) Project, 2002; WCED, 1987).

Sustainability represents the private sector’s approach to implementing the sustainable development framework by integrating social, environmental and economic considerations into the individual company’s strategies, policies, decision-making processes, and operations (MMSD, 2002). Establishing a balance between the three pillars of sustainability (i.e., socio-cultural acceptance, ecological protection and economic opportunity) is known as the triple bottom line (Elkington, 1997). Companies that accept sustainability as a broader business responsibility recognize that they have a duty of care to all their stakeholders, including employees, customers, governments, local communities, as well as shareholders (Industry Canada, 2009; MMSD, 2002). Considering the broader effects of their actions and thereby creating value for society as a whole determines a company’s social licence to operate (Prospectors and Developers Association of Canada (PDAC), 2007; MMSD, 2002).

1.3 Relevance of Sustainability to the Mining Industry

Mining activity is driven by society’s use of the products of the mining industry (Baird, 2009; MMSD, 2002). Mining is the source of many important minerals and metals, such

as potash, copper, nickel and gold, which are used in the production of items such as fertilizers, telecommunication wires, electronic devices, stainless steel and jewellery. However, mineral deposits also represent a non-renewable resource (i.e., a “depleting asset”) and hence the requirement to continually find new sources. As a result, mining companies from developed countries are increasingly exploring for new mineral deposits in developing countries that are rich in natural resources but lack the capital and infrastructure to advance them (Department of Foreign Affairs and International Trade (DFAIT) Canada, 2009; United Nations Conference on Trade and Development (UNCTAD), 2006).

The mining industry is an important contributor to the economies of developed countries (DFAIT, 2009). For example, over the past 20 years, the value of the mining industry to Canada’s economy has remained in the range of 3.0% to 4.5% of the country’s GDP; in 2009, this amounted to \$32 billion (Mining Association of Canada (MAC), 2010). In developing countries endowed with natural resources mining can also represent an important component of their national development plans (DFAIT, 2009; Organization for Economic Cooperation and Development (OECD), 2002). In these countries, mining industry investment results in: employment and support service opportunities for local communities; the generation of tax revenues and extraction royalties for national and regional governments; the transfer of skills and technology from home- to host-country; and the provision of local infrastructure. Mining investment can also serve as a springboard for industrialization (UNCTAD, 2006; OECD, 2002).

Mining, however, can also be a source of degradation to both the physical and social environment unless it is properly managed (OECD, 2002; MMSD, 2002). Furthermore, the mining industry can face unique social challenges (i.e., weak governance structures and institutions) when operating in developing countries (DFAIT, 2009; OECD, 2002). Specific concerns relate to the loss of environmentally significant habitats, long-term environmental damage, direct and indirect impacts of development on local communities, raw materials sourced from conflict zones, corruption and tax evasion, and questionable host-country benefits (i.e., the “resource curse”), to name a few (DFAIT, 2009; Bendell, Doyle and Irwin, 2009; OECD, 2002). For the mining industry, these “above ground issues can now be equally, if not more, complex and challenging than the ones normally encountered below ground” (PDAC, 2007, p. 1).

These concerns, combined with an increasing awareness of the social and environmental effects of mining, place significant external pressures on the mining industry to adopt ever higher standards of behaviour as they seek their social licence to operate (PDAC, 2007; MMSD, 2002). Over the last decade, more than two dozen global sustainability initiatives addressing the broader

range of environmental and social aspects of mining have emerged, adding to the level of knowledge required to operate responsibly (Bendell, Doyle and Irwin, 2009; PDAC, 2007). The ability to successfully manage sustainability issues according to these initiatives will affect the success of future mining development (MAC, 2010; PDAC, 2007).

1.4 Business Concept

Mathieu Sustainability Consulting (MSC) will be formed as a Vancouver-based independent sustainability consultancy targeting companies in the Canadian mineral exploration sector. As a sole proprietorship, MSC represents a self-employment opportunity for the firm's founder and draws on her twenty years of international environmental and sustainability experience in top mining organizations.

MSC's business objective is to help exploration firms develop and implement appropriate and practical ways to integrate social, environmental and economic consideration into their business strategies, decision-making processes and field-based exploration activities in order to earn their social licence to operate. The author believes that, due to the sustained growth of the Canadian exploration industry through most of the last decade and its relatively rapid recovery after the recent global economic downturn, this sector is underserved by existing environmental and sustainability consulting services. Further, demand for sustainability consulting services should increase with the projected continued expansion of the Canadian exploration industry.

1.5 Business Goals

Transitioning from an employee-based work environment to a self-employed business arrangement represents an opportunity for MSC's founder to achieve a number of personal and professional goals:

- **Income generation:** The consultancy will allow the founder to draw a reasonable salary from the business. To do so, the consulting opportunity will need to generate modest revenues in the first year, with steady growth over the next two years. After the first three years, revenues should be adequate to cover operating and business development expenses, as a minimum.
- **Work-life balance:** The consulting business does not need to be a full-time venture for the founder. By working for herself, the founder will be able to select the

consulting opportunities and determine the specific work hours that allow her to also manage family obligations and volunteer commitments.

- **Independence:** Self-employment will provide the founder with a greater stake in her own career development. It will also allow her to remain involved with a variety of complex challenges based in diverse settings. Working for herself will allow her to be selective in determining the direction of the company, decide whom she will work for, and provide the autonomy to determine how to complete tasks.

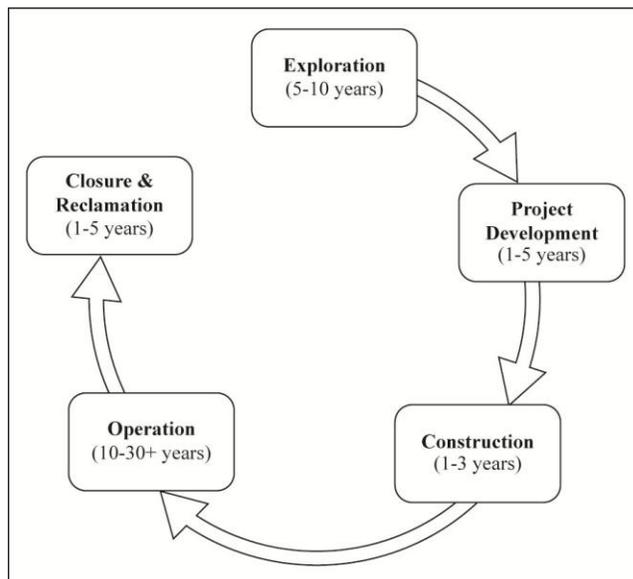
Chapter 2: Market Description

The purpose of this chapter is to initiate the strategic analysis by defining and describing the mineral exploration market in order to establish the key characteristics and drivers that are relevant to the new venture.

2.1 Mining Industry Definition and Life Cycle Stages

The mining industry is composed of those firms involved in the “exploration for, identification of, and/or extraction of solid minerals or metals from beneath the earth’s surface across a vast number of mineral commodities” (International Institute for Sustainable Development (IISD) and MacDonald, 2002, p21). This definition includes all stages of the mine life cycle from exploration through to project development, construction, operation and, ultimately, closure and reclamation (Figure 2.1).

Figure 2.1 Mine Life Cycle



Source: Author (2011)

Exploration is the essential first stage of the mine life cycle during which access to land is secured so that the search for mineral deposits can occur. The goal of exploration is to find a

deposit rich enough to sustain a profitable mining operation. Exploration represents a high-risk stage within the mine life cycle: the investigation and exploration of over 1,000 mineral deposits may result in only a single, economically mineable deposit (IISD and MacDonald, 2002). The exploration stage can last anywhere from five to ten years before progressing to the next stage of the cycle if the mineral deposit is deemed economical.

The project development life cycle stage involves passing the mining concept through a series of studies to determine its economic feasibility. Development projects are evaluated based on the deposit's mineable ore grade, engineering design, infrastructure requirements, environmental aspects, social and community provisions, and projected operating costs. During this stage, companies undertake extensive consultations with governments and local communities in order to incorporate technical, regulatory and community-based considerations into the design of the project. Project development can take up to five years to complete and represents another high-risk stage in the mine life cycle due to the inherent uncertainty of receiving regulatory and community approval while maintaining project economics.

If the development project is determined to be feasible, the next stage of the mining life cycle involves the construction of the mining operation and supporting infrastructure. As mining projects move to more remote and underdeveloped areas, construction involves increasingly larger initial outlays of capital to construct not only the mine operation but often the supporting infrastructure, transportation networks, and employee settlements. The construction stage can require one to three years depending on the complexity and location of the mining operation and supporting infrastructure.

The operation stage represents the only revenue-generating stage of the mine life cycle. This stage typically includes three integral steps: the extraction of rock containing the target mineral (mining); the physical separation of the mineral from the host rock (milling); and the initial transformation of the mineral to produce a refined metal end product (processing). Mining operations can last anywhere from ten to thirty years depending on the size and economics of the mineral deposit. Ongoing exploration activities may lead to the discovery of additional mineralization resulting in an extension to the life of the mining operation.

The final stage of the mine life cycle includes those activities involved in the ultimate closure of the mine site and ancillary facilities once productive mining operations cease. This stage involves the safe closure of all mine workings and waste storage facilities, demolition of structures not required by the local community and reclamation of the land surfaces to restore

safe and productive environments. This stage can span a period of one to five years. However, long-term monitoring programs typically continue for one to two decades after the mine is closed.

Due to the site-specific nature of the mineral deposits, firms within the mining industry cooperate by moving projects through the mine life cycle (IISD and MacDonald, 2002). As a consequence, there are two broad types of mining companies: exploration companies and production companies. Exploration is largely carried out by independent exploration companies. Actively producing mining companies may also carry out in-house exploration, but investment in this area can vary greatly with firm-level profitability and corporate strategy (PDAC, 2010b; IISD and MacDonald, 2002). Late-term project development and construction stages are typically carried out by production companies because they have access to internal sources of funding and capital markets. Production companies frequently acquire exploration companies in order to replace their depleting mineral deposits. However, economies of learning and limited access to adequate financial capital largely prevent exploration firms from entering the ranks of the producers group (MAC, 2010).

2.2 Mineral Exploration Companies

The defining characteristic of exploration companies is that they do not have a significant source of operating revenues and therefore they rely on equity markets to finance their exploration programs (MAC, 2010; PDAC, 2010b; Baird, 2009). This dependence on equity finance to fund exploration activities makes exploration the most volatile stage of the mine life cycle (Metals Economics Group (MEG), 2011). Exploration companies must be able to respond rapidly upon receiving financing, and at the same time have strategies in place to conserve cash and shed costs during down cycles in equity markets (IISD and MacDonald, 2002).

Exploration companies tend to be highly entrepreneurial due to their need to continuously raise equity capital to fund their high-risk exploration programs (Baird, 2009; IISD and MacDonald, 2002). They tend to be run by a few experienced geologists who hold equity positions within the firm rather than collect salaries (IISD and MacDonald, 2002). Although most exploration companies handle technical and administrative activities internally, they typically make significant use of specialized service providers (e.g., drill contractors) and hire teams of seasonal field workers (PDAC, 2010b; Baird, 2009; IISD and MacDonald, 2002).

Reliance on equity financing also influences the organizational cultures of exploration firms. The constraints on operating budgets coupled with the focus on finding mineral deposits often results in limited internal capacity to address sustainability issues (IISD and MacDonald,

2002). Certain attitudinal barriers exist as well: there is a mentality within many exploration organizations that the environmental footprint associated with exploration activities is relatively small and temporary and, therefore, inconsequential. Other exploration organizations believe that engaging with local communities with more than offers of temporary employment opportunities will set the stage for unmanageable community expectations (IISD and MacDonald, 2002). However, most Canadian exploration companies recognize the need to address sustainability issues that support responsible exploration activity as well as provide a sound base should an exploration project advance into production (MAC, 2010; PDAC, 2007). In 2009, the Prospectors and Developers Association of Canada (PDAC) launched the first sustainability initiative (named *e3 Plus*) directed specifically towards exploration companies. This program promotes good exploration practices and encourages innovation in order to improve social, environmental and economic performance while enhancing shareholder value (PDAC, 2010a).

2.3 Mining Industry Strategic Groups

The global mining market is segmented based on firm size and location of corporate headquarters. The size of mining companies is measured by their relative market capitalization and geographic scope (Table 2.1). The first strategic group is referred to as the junior mining sector and is defined as those firms capitalized at less than US\$200 million (MEG, 2000). Firms within the junior sector are junior producers, junior developers or junior explorers depending on whether they generate revenues from an operating mine, have large capital investments in mine development projects, or focus on exploration, respectively (PriceWaterhouseCoopers (PWC), 2010). Similarly, the mining production strategic group consist of senior producers, with market capitalizations greater than US\$2 billion, and mid-tier producers, with market capitalizations falling between those of the junior and senior sectors (MEG, 2000).

Table 2.1 Strategic Groups in the Mining Industry

Strategic Group	Market Capitalization	Geographic Scope (Number of Countries)	Representative Companies
Junior	< \$200 million	1 or 2	NovaGold Resources Inc. Chieftan Metals Inc.
Mid-Tier	\$200 to < \$2 billion	2 to 5	Kingsgate Consolidated Ltd. Iamgold Corporation
Senior	> \$2 billion	> 5	Barrick Gold Corporation BHP Billiton Ltd.

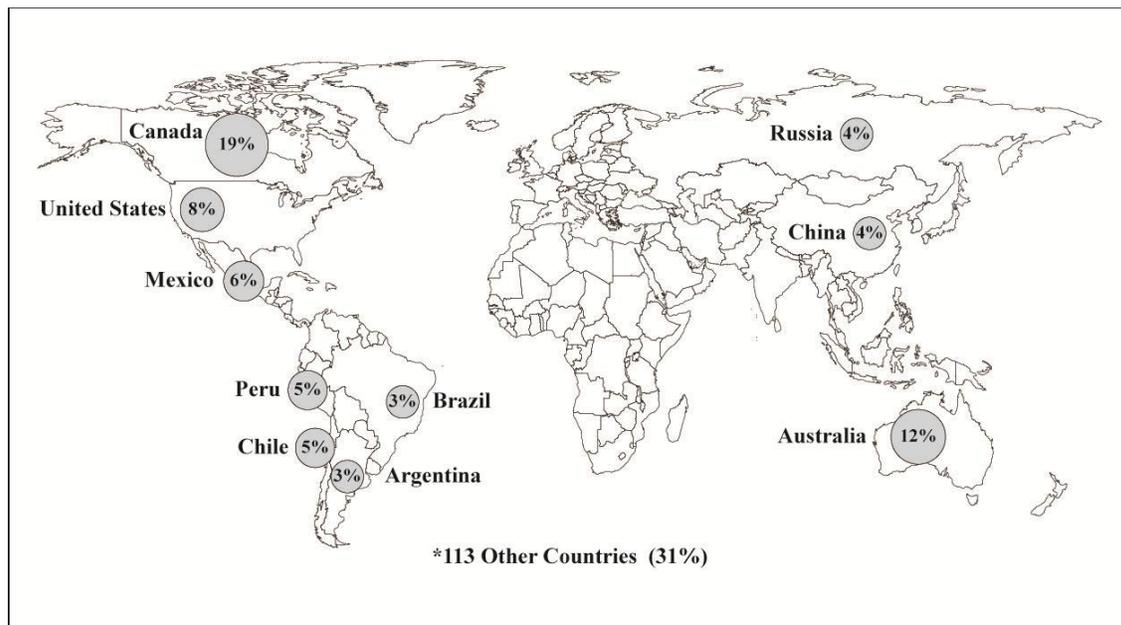
Source: Author adapted from MEG (2000)

The global mining industry is also segmented geographically depending on the location of the individual company's headquarters. Based on this criterion, the leading mining countries typically include Canada, Australia, United States, Mexico, Chile and Russia (MAC, 2010). Within Canada, the mining industry is further segmented by the geographic location of corporate headquarters: Toronto, Ontario is the location for most of the senior mining sector headquarters; Montreal, Quebec is the location for many junior and mid-tier producers focused on mining in Quebec; and Vancouver, British Columbia is the location for most of the junior mining sector headquarters (IISD and MacDonald, 2002).

2.4 Canadian Exploration Market

Global mineral exploration expenditures rose sharply from a low of US\$1.9 billion in 2002 to a high of US\$13.2 billion in 2008, before experiencing a record year-on-year decline to US\$5.5 billion in 2009 due to the economic and financial downturn (MEG, 2011). Recovery was rapid in 2010, with global mineral exploration expenditures gaining to US\$10.7 billion (MEG, 2011). In 2010, the Canadian junior and senior sectors accounted for US\$2.1 billion of the global exploration expenditures, representing the largest share (19%) of all countries (Figure 2.2).

Figure 2.2 Global Exploration Investments by Country of Origin

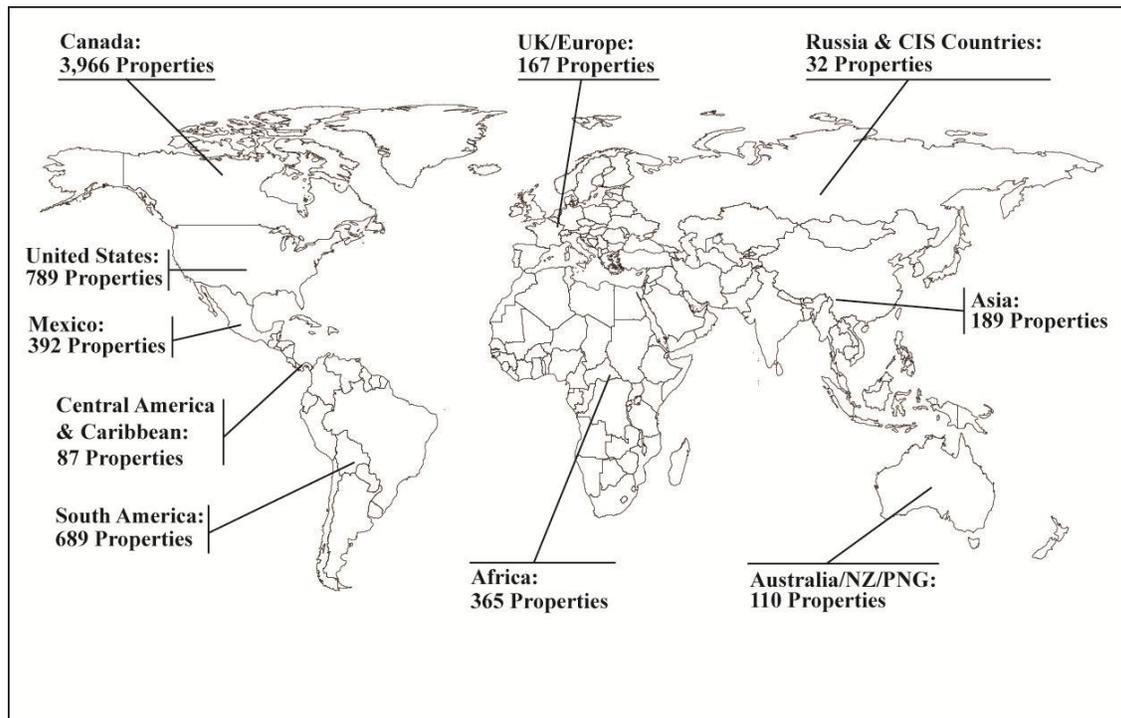


Source: Author adapted from MEG (2011)

The Canadian junior sector’s exploration investment increased from less than \$800 million in 2002 to a record high of \$2.1 billion in 2008, before expenditures decreased by 50% to \$1.1 billion in 2009 (Natural Resources Canada (NRCan), 2011). During the 2010 recovery, junior exploration expenditures increased approximately 36% to \$1.5 billion (NRCan, 2011).

The Canadian junior exploration sector is comprised predominantly of firms listed on the Toronto Stock Exchange (TSX) Venture Exchange and capitalized at less than \$50 million each (TSX Inc., 2011). In 2010, 1,178 Canadian junior exploration companies were responsible for 6,786 exploration projects worldwide (Figure 2.3): 3,966 or 58% were conducted in Canada; of the remaining 2,820 projects conducted in foreign jurisdictions, 40% (1,168) were located in Latin America and Mexico (TSX Inc., 2011).

Figure 2.3 Worldwide Distribution of Canadian Junior Mining Exploration Projects



Source: Author adapted from TSX Inc. (2011)

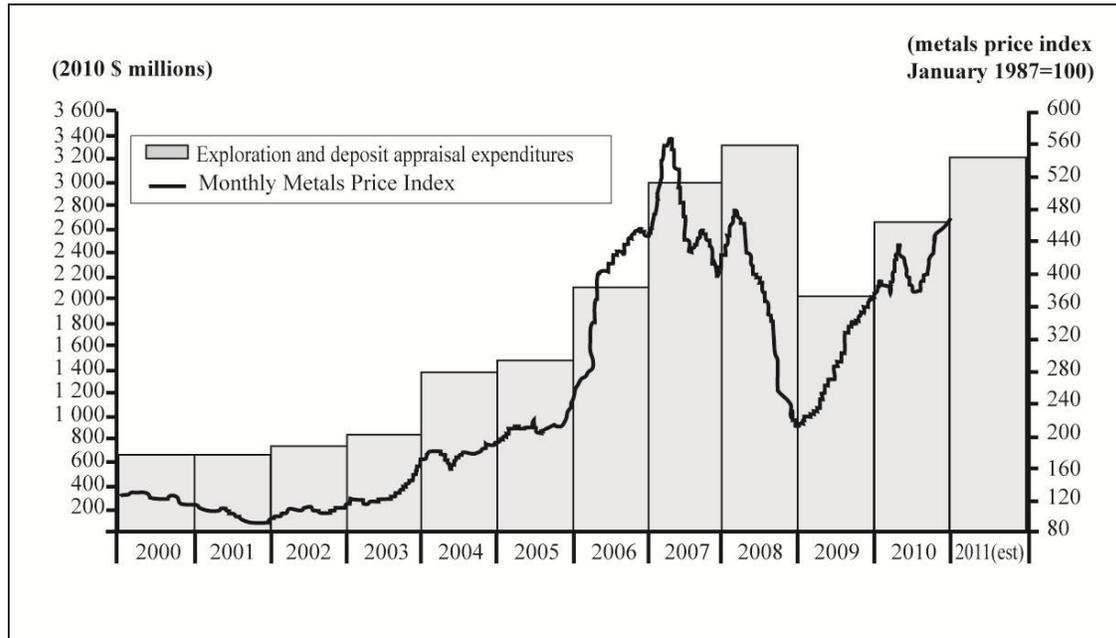
Canada has a strong global presence in junior mining finance and exploration activities due to two key factors. First, the TSX-Venture Exchange is unique in its ability to efficiently handle equity financing in the \$1 million to \$5 million range, which is the crucial level for junior exploration companies (MAC, 2010). Second, the Canadian government has supportive mining

tax incentives, including flow-through tax credits available only in Canada, that stimulate investment in high-risk mineral exploration ventures (MAC, 2010; PWC, 2010; Baird, 2009).

2.5 Exploration Market Drivers and Projected Growth

As illustrated in figure 2.4, metal prices are the primary driver of exploration spending (NRCan, 2011; MEG, 2011). Although higher metal prices do not directly benefit junior exploration companies because they tend to have insignificant production revenues, higher operating margins for producing companies “should trickle down to junior explorers and developers in the form of better market capitalizations” (PWC, 2010, p19).

Figure 2.4 Exploration Expenditures and Monthly Metals Price Index, 2000-2011



Source: Author adapted from NRCan (2011)

Metal commodity prices themselves are controlled by external supply and demand considerations (MAC, 2010; IISD and MacDonald, 2002). Increasing demand for base metals of all types is driven by economic growth in rapidly developing countries like Brazil, Russia, India and, especially, China (MAC, 2010; PWC, 2010; Baird, 2009). Consequently, base metal prices are steadily increasing as the world recovers from the 2008-2009 recession (PWC, 2010). Demand for gold and other precious metals remains strong amidst concerns over the declining US dollar and higher inflation (Gold Fields Mineral Service (GFMS) Ltd., 2010; PWC, 2010).

Exploration requires healthy levels of investment to ensure long-term metal supplies (MAC, 2010). During the 1990s, underinvestment in new mine capacity and exploration activities led to a dwindling supply of world class mineral deposits (MAC, 2010; MEG, 2011; PWC, 2010). During much of the last decade, however, investors have been returning to metal-based stocks, giving junior exploration companies better access to the equity they need to fund their exploration programs (MAC, 2010). However, due to the long lead times required to find and develop an economically viable mineral deposit, world metal supplies will lag significantly in the long-term (MAC, 2010; PWC, 2010).

Other supply-side factors that could increase future metal prices include: growing trends for resource nationalization in Latin America; and changes implemented by many national governments to increase royalty rates (MAC, 2010; PWC, 2010). Political changes such as these serve to increase risk or decrease the underlying economics of a mineral deposit, resulting in reductions to short-term exploration investment and long-term metal supplies.

The strong metal price fundamentals outlined above are, however, motivating junior exploration companies to search for new mineral deposits and replenish global metal supplies (Baird, 2009). Canadian mineral exploration spending is expected to continue its recovery and is projected to increase to \$1.8 billion in 2011, representing a 20% increase over 2010 exploration expenditures and almost a 64% increase over 2009 (NRCan, 2011).

MSC intends to focus on Canadian junior mineral exploration companies predominantly located in Vancouver as its initial target market. The author believes that there is opportunity to provide sustainability consulting expertise to these organizations because: (1) the junior exploration sector is projected to continue to expand in the near-term; (2) companies within the Canadian junior exploration sector are expanding their adoption of sustainability practices; and (3) exploration companies tend to have limited internal capacity and capability for sustainability.

Chapter 3: Industry Analysis

The purpose of this chapter is to conduct an analysis of the environmental and sustainability consulting industry in order to: (1) define the boundaries of the industry that MSC intends to enter; (2) describe the industry's key characteristics and performance; and (3) identify and evaluate the competitive forces influencing the industry's overall attractiveness (profitability) from the perspective of a new entrant.

3.1 Overview of the Environmental and Sustainability Consulting Industry

3.1.1 Industry Definition

Broadly defined, consulting industries provide advice and assistance to other organizations. Individual consulting industries are further distinguished by the particular type of expertise provided and by the education and training of the service provider (North American Industry Classification System (NAICS), 2007). With the growing interest in sustainability, consulting industries as a whole are responding by establishing new services to help their clients address a range of sustainability issues (Forrester Research, 2010). A search of the internet for sustainability consulting services illustrates that sustainability services cut across the environmental, management, financial and information technology consulting industries. Because sustainability services have evolved out of traditional service offerings, each consulting industry provides a particular type of sustainability service. To define the consulting industry for this feasibility study, the service offerings within each industry were examined to determine which industry has similar attributes to and would compete for similar clients as MSC. The relevant industry to be included in the competitive analysis is the Canadian environmental consulting industry (NAICS 54162) based on the following considerations.

First, the environmental and sustainability services proposed for MSC closely resemble those offered by firms within the environmental consulting industry. This industry comprises firms that are engaged in providing advice and assistance to other organizations on environmental issues, such as pollution prevention recommendations, environmental impact assessments, waste management, and contaminated soil assessments, to name a few (NAICS, 2007). Although, by

definition, the environmental consulting industry appears to address only one of the three sustainability pillars (i.e., environmental but not social or economic), other services provided by the environmental consultancies include social and community impact assessments and mitigation strategies, employee sustainability initiatives (health, safety and wellness programs), stakeholder engagement assessments, government relations strategies, and project-specific economic development opportunities (e.g., see Golder Associates website www.golder.ca/services).

Second, the social and community-based consulting services required by junior exploration companies (the target market) are often coupled with the environmental regulatory requirements as well as company-specific environmental management programs. Based on the author's experience within the mining industry, it is reasonable to presume that an exploration client would be motivated to address sustainability issues in a holistic manner to take advantage of consulting scope efficiencies, as well as reduce transaction costs associated with contracting multiple consulting services. Thus, the Canadian environmental industry definition is robust enough to provide an understanding of the general characteristics of the relevant consulting industry and the forces a new entrant would face.

3.1.2 Industry Supply Chain

The environmental consulting industry is a knowledge-based industry primarily engaged in activities in which human capital in the form of knowledge is the major input and expertise in the form of sustainability and environmental ideas and advice is the primary output. This results in a relatively straightforward supply chain depicting the flow of goods for the environmental consulting industry (Figure 3.1).

Figure 3.1 Environmental Consulting Industry Supply Chain



Source: Author (2011)

The industry supplier segment comprises two supplier groups. The key supplier group represents the various sources of human capital for the environmental industry, which include: (1) universities and technical institutions that supply individuals with specific education and training qualifications; (2) other environmental consulting companies (including sole proprietorships) that supply experienced consulting personnel; (3) client organizations that supply experienced

industry personnel; and (4) human resource and employment service companies that are retained to locate and supply personnel with the appropriate education or experience. A relatively minor supplier group for the environmental consulting industry includes those companies that supply computer hardware, software and information technology (IT) services. In some cases, though, IT services include the development of specialized or proprietary environmental and sustainability databases and management systems.

The environmental consultant segment consists of those firms that provide environmental and sustainability advice and assistance in response to requests from their clients (the buyers). This segment represents the “idea originators”. Value is created in this segment based on the specific type and level of expertise as well as the reputation of the consultants, which is reflected in the overall fee structure of the consulting company. Environmental and sustainability consulting services are typically provided on a fee-for-service basis managed through formal contracts established with clients. Structurally, the Canadian environmental consulting segment consists predominantly of small firms with fewer than five employees (Statistics Canada (StatsCan), 2009). Data for the American environmental consulting industry indicated that during the period 2006 to 2010, sole proprietorships comprised close to 83% of the industry but accounted for less than 20% of industry revenues (IBISWorld, 2010). The Canadian environmental consulting industry likely has a similar structure. The location of firms in the environmental consulting industry is closely tied to the location of clients, the presence of industries that have a greater environmental impact, and the availability of qualified individuals to perform the consulting activities (IBISWorld, 2010). Of note, British Columbia has more than 700 consultant and supply companies for the mineral exploration and mining sectors (Association for Mineral Exploration British Columbia (AMEBC) and Mining Association of British Columbia (MABC), n.d.).

The relevant buyers in the environmental consulting industry supply chain are the junior exploration companies headquartered largely in Vancouver. These companies retain environmental consultants to address specific sustainability and environmental issues that they do not have the internal resources (expertise or time) available for. After the buyers receive the consultants’ reports, they will either address the recommendations themselves or they will retain the services of consultants (either the same or different firm from the idea originators) to implement the recommendations.

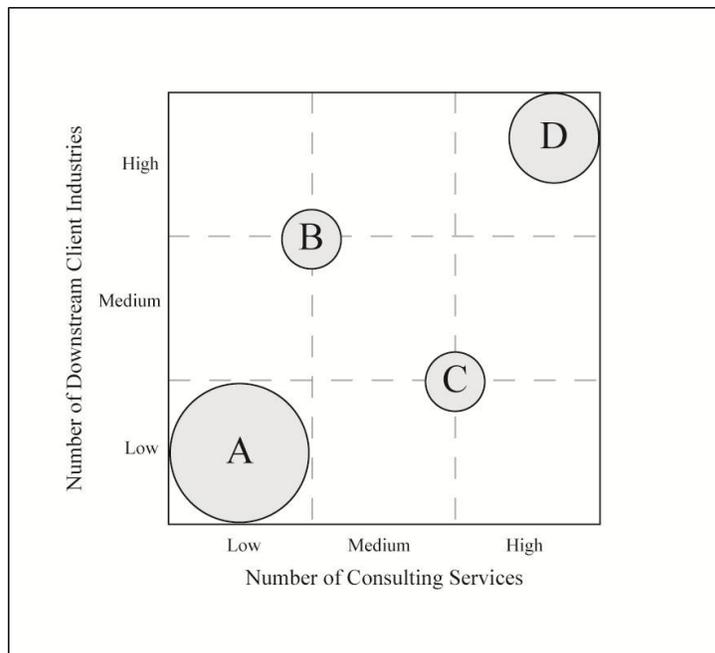
A general trend over the past decade features the environmental idea-generating segment integrating into the implementation segment to provide “one-stop-shopping” services for their

clients (IBISWorld, 2010). It should be noted, however, that in order to be classified as a consulting enterprise by Industry Canada, the firm must generate the majority of its revenues from advice that it provides to client firms and not from the implementation of its own or others' recommendations (NAICS, 2007).

3.1.3 Environmental Consulting Industry Strategic Groups

In the environmental consulting industry, firms largely compete based on the ability to provide a variety of service offerings tailored to the specific needs of their client base (IBISWorld, 2010). Analyzing the industry along two dimensions, namely the number of services a firm offers and the number of downstream client industries a firm serves, results in four strategic groups within the environmental consulting industry (Figure 3.2).

Figure 3.2 Strategic Group Map for the Environmental Consulting Industry



Source: Author (2011)

These collections of rival firms vary considerably in their strategic capabilities resulting in different approaches to competing within the industry. The first strategic group includes specialist consulting firms that provide a small number of services and target a small number of client industries (Group A). Specialist consultancies reflect the strategic approach and position of the sole proprietorships and, therefore, this cluster is relatively large in total number of firms. Examples of specialist consultancies in Vancouver include Ferguson Sustainability Engineering

and D.J. Fraser Consultants Limited. The next pair of strategic groups includes those firms that provide either a small number of services targeted at a relatively large client industry base (Group B) or a relatively large number of services targeted at a few client industries (Group C). Small to mid-sized “boutique” firms are found within these two clusters. Examples include Stratos Inc., EEM Sustainable Consultants, and Watts, Griffis and McOuat Limited. The fourth strategic group consists of those firms that provide a full range of environmental and sustainability consulting services to a large number of client sectors (Group D). This cluster is necessarily represented by the large multi-disciplinary environmental consulting firms. Examples include Golder Associates, AMEC Earth and Environmental, and SRK Consulting Limited.

Barriers to mobility among the strategic groups are largely created by the limits imposed on the ability of each firm to provide expertise across the range of service offerings and client industries, which is determined by the make-up of individual consultants within each firm. Thus, firm size typically needs to increase in order to provide a larger range of services or target a broader range of client industries. In this sense, firm size helps enforce the barriers to mobility between strategic groups within the environmental industry.

Understanding the nature of strategic groups within the environmental consulting industry helps determine competitors that MSC would face upon entry into the industry. More concretely, consultancies that provide specialized services for specific industries are not able to compete with the larger, more diverse firms for certain contracts. However, the converse is not true: individual consultants from both the boutique and integrated environmental consulting firms can still compete with individuals from the small specialist consultancies.

From the perspective of a sole proprietorship entering the environmental consulting industry, relevant competitors can be found within each of the four strategic groups and this competition is dynamic depending on the influence of industry demand determinants. Thus, for the subsequent industry analysis, it is important to understand the environmental consulting industry as a whole. However, significant differences between the specialist consultants and the other strategic groups within the industry will be noted when relevant to the analysis.

3.2 Industry Performance

The Canadian environmental consulting industry generated \$1.6 billion dollars in revenues during 2008, following a period of sustained growth since 2001 (StatsCan, 2009). In 2008, the British Columbia environmental consulting industry contributed 16%, or approximately \$260 million of total revenues, down from 19% in 2007 (StatsCan, 2009). Statistics Canada

(2009) data also illustrate that 72% of environmental consulting revenues in Canada were derived from services provided to the private sector, 17% provided to the public sector, with households responsible for the balance.

The operating profit margin, defined as earnings before interest, taxes, depreciation and amortization (EBITDA) divided by total revenues, for Canadian environmental consulting services trended upwards in 2006, 2007 and 2008, increasing to 15.8%, 16.9% and 18.6%, respectively (StatsCan, 2009). Operating profit margins for environmental consulting firms in British Columbia were slightly above national averages, increasing from 16.7% in 2006 to 19.2% in 2008 (British Columbia Statistics (BC Stats), 2009). Profitability in the environmental consulting industry was evident in 2008 despite the onset of the global recession, likely reflecting the strong demand fundamentals for the industry as a whole.

3.3 Industry Demand Determinants

Demand in the environmental consulting industry is driven by three main determinants. First, the level of environmental protection and community consultation regulations have a direct effect on the demand for the environmental consulting industry's services (IBISWorld, 2010). Increases in both types of regulations will, in theory, require expert advice to determine the best strategy for companies to implement these regulations. Furthermore, some consulting requirements are mandatory (e.g., the use of third-party environmental auditors) or specialized (e.g., environmental effects monitoring), thereby creating demand for the environmental consulting industry. The Canadian exploration industry's activities are heavily regulated domestically and most exploration companies will implement the same regulatory standards at their international operations as well (PDAC, 2007). Environmental protection and community consultation regulations in these other jurisdictions will tend to increase the complexity faced by Canadian exploration companies and thereby increase the demand for services from the environmental consulting industry.

Second, demand in the environmental consulting industry is determined by the downstream demand for other industry sectors (e.g., mining and construction). In turn, demand for these sectors is dependent on economic cycles and corporate profits (IBISWorld, 2010; StatsCan, 2009). During periods of low economic activity and reduced corporate profits, businesses are less likely to invest significantly in new projects. As a result, fewer consultants are sought to provide advice or conduct assessments. In contrast, when corporate profits are healthy, businesses are more likely to invest in projects that require specialized environmental and

sustainability input, and to implement sustainability initiatives that are more discretionary in nature. Downstream demand for specific industries can be influenced by regional economic cycles as well as global economic cycles. For example, despite the 2008-2009 global recession, service-related businesses associated with the rapidly expanding gold mining and exploration industries in British Columbia experienced the fastest rate of growth in the number of new firms between 2007 and 2009, posting a 10.4% increase (BC Stats, 2010). The dependence on downstream industry demand, however, creates a corresponding cyclicity and volatility within the environmental consulting industry.

Third, environmental consulting industry demand is driven by public sentiment and social expectations (IBISWorld, 2010). As the general public becomes more aware of environmental and social impacts of various consumer- and industrial-based activities, they become more inclined to demand more responsible business practices, as currently evidenced by the global mining and exploration industry. Organizations within the affected industries will likely retain environmental and sustainability consultants to help them address these emerging issues.

3.4 Industry Cost Determinants

The primary cost driver in the environmental industry includes the salaries, wages and benefits of employees. In 2008, these costs made up 46% of revenues in the Canadian environmental consulting industry, reflecting the knowledge-based nature of consulting industries (StatsCan, 2009). The data cited above do not include working owners' dividends or the remuneration of owners of unincorporated business (StatsCan, 2009). Thus, salaries will represent an even larger proportion of revenues for sole proprietors.

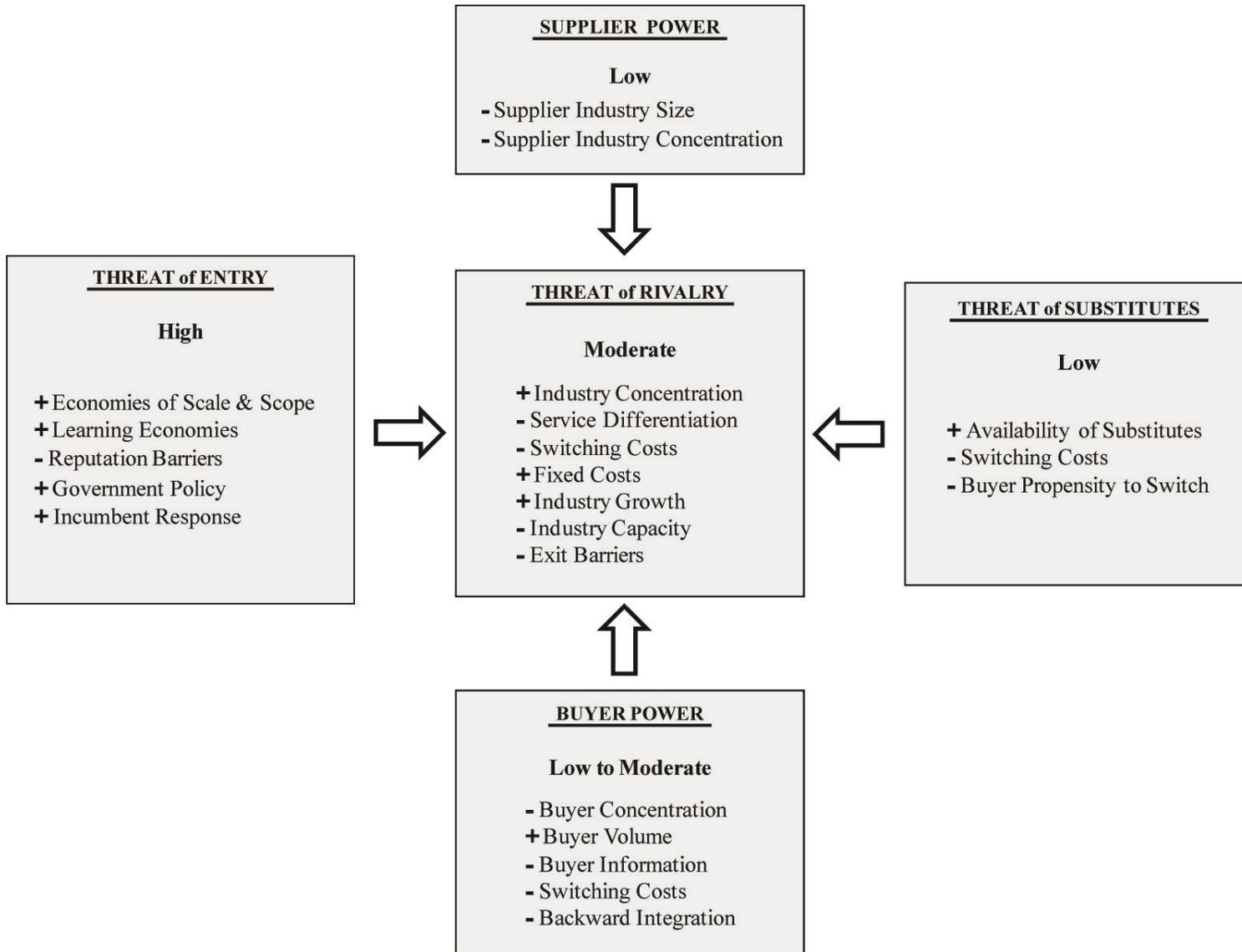
Firms within the environmental consulting industry compete to acquire and retain people with the appropriate competencies required by the firm to serve their clients. During expansion cycles in the consulting industry, increases in demand drive up prices for consulting services in the short run. Thus, individual consultants can also demand greater salaries for their services, which will increase costs within the environmental consulting industry.

3.5 Competitive Analysis

The nature of competition within an industry will influence how value is created and captured by industry players and will be reflected as average industry profitability. A key step in deciding whether to enter an industry involves evaluating the industry-level forces influencing the

industry's overall attractiveness (profitability) using Porter's Five Forces Model (Porter, 2008). The founder of MSC proposes to enter the environmental consulting industry as a specialist consultant providing sustainability consulting services to Vancouver-based junior mineral exploration companies. Thus, the competitive analysis will focus on the nature of competition within the environmental consulting industry as a whole, with major differences for specialist consultants highlighted where relevant. The results of this analysis are discussed below and summarized in figure 3.3.

Figure 3.3 Industry Analysis based on Porter's (2008) Five Forces That Shape Industry Competition



3.5.1 The Threat of Entry

New entrants in an industry influence the extent to which the value created and captured by an industry is reduced through competition with incumbents: successful entry results in reductions to the incumbents' market share. The threat of entry is dependent on entry barriers, which prevent an influx of firms into an industry whenever average profits (rents) rise above zero. Entry barriers in an industry are related to economies of scale, scope and learning, reputation, governmental policy, and expected retaliation from incumbents. Overall, the threat of new entry in the environmental consulting industry is assessed as **high** due to the absence of significant entry barriers, as discussed below.

- **Insignificant economies of scale and scope (+):** Economies of scale as an entry barrier represent the minimum size required to enter an industry as an efficient competitor. An environmental consulting firm does not require a minimum size to enter the industry, as evidenced by the large proportion of sole proprietorships and minimal capital investment requirements. Similarly, new entrants in the environmental consulting industry do not require a minimum scope, represented by the range of services offered or the breadth of downstream industry sectors served. A small new entrant, like an incumbent of similar size, would be able to target small or local clients with a set of specialized services, thereby decreasing the requirement for scale and scope to enter the industry.
- **Temporary learning economies (+):** Economies of learning represent the specialized knowledge that comes with time and experience within an industry. Incumbents in the environmental consulting industry have gained efficiencies over time by developing standardized service frameworks (e.g., document templates and databases) and experienced business processes (e.g., tendering capabilities and client networks). New entrants in the environmental consulting industry will not possess these learning economies and may struggle until they develop frameworks and processes that increase their overall efficiencies. However, these inefficiencies do not create a lasting barrier to entry.
- **Critical reputational barriers (-):** When incumbent firms have well-established reputations, a potential entrant may find it uneconomical to undertake the effort to establish its own reputation. In the environmental consulting industry, reputational barriers are significant barriers to entry because the consultation process is highly

personalized and many incumbent consultants are highly sought after. New entrants, therefore, require time and effort to build reputations demonstrating their specific expertise and ability to provide quality consulting services. Furthermore, the reputations of incumbent consultants result in well-developed client networks that generate new consulting opportunities. The development of client relationships represent sunk costs and may prove too large for a new entrant to overcome. Reputational barriers, however, may be overcome by a new entrant with a previously established reputation and network within its target client market.

- **Minimal government policy (+):** Government policy and regulation can function to create entry barriers in an industry if they prove costly or difficult for a new entrant to address, relative to incumbents that already meet the requirements. The environmental consulting industry is affected by minimal policy and regulatory requirements to enter or operate within the industry. Government policy, therefore, represents an insignificant barrier to entry. It should be noted that although a new entrant does not face any specialized professional requirements to enter the environmental consulting industry, optional skills-based certification can help differentiate a consultant and signal quality to the client leading to premium prices for services. This would apply equally to an incumbent.
- **Retaliation not expected (+):** The response of incumbents to a new entrant functions as a barrier to entry if the new entrant expects the incumbents to retaliate in a negative manner. Incumbents can, for example, implement coordinated pricing strategies designed to squeeze margins and eliminate new entrants. Retaliation towards a new entrant is not expected in the environmental consulting industry because the highly fragmented nature of the industry and the presence of market-driven fees reduce the ability of incumbents to act cooperatively.

3.5.2 The Threat of Rivalry

The degree of rivalry in an industry influences the extent to which the value created and captured by an industry is reduced through existing competition. Structural and behavioural determinants of rivalry include industry concentration, service differentiation, switching costs, fixed costs, industry growth, industry capacity, and the presence of exit barriers. Overall, the degree of rivalry within the environmental consulting industry is evaluated as **moderate** based on the following considerations.

- **Highly fragmented industry (+):** Industry concentration refers to the extent to which major players dominate the industry and is an indicator of the level of competition between industry players. The environmental consulting industry is highly fragmented and there are many, small sole proprietorships. Given that the environmental consulting industry includes many small players, upon entry, rivalry is expected to be high as each firm attempts to gain market share and competitors are unable to coordinate output to influence pricing.
- **Moderate service differentiation (-):** The lack of service differentiation increases the degree of rivalry within an industry. Consulting firms in the environmental consulting industry succeed by optimizing the proportion of differentiated, expert services designed for their target market in relation to more routine, undifferentiated services. In this way, upon entry, rivalry is expected to be constrained within the industry. Differentiation, therefore, is necessary to charge differential fees for environmental consulting services.
- **Moderate switching costs (-):** The presence of switching costs decreases the degree of rivalry in an industry. Clients incur costs when they move from one existing service provider to another, although switching to an established consultant reduces the risk relative to retaining a new entrant. Although the presence of switching costs constrains rivalry between existing competitors in the environmental consulting industry, switching costs are greater for a newly entered firm until a credible reputation is established with clients. Firms attempt to take advantage of switching costs by establishing long-term service contracts with clients for repeat services in exchange for priority responses or lower fees.
- **Relatively significant fixed costs (+):** The presence of fixed costs influences the degree of rivalry within an industry. Fixed costs in the environmental consulting industry are largely related to non-billable administrative and business development activities, such as advertising, marketing and proposal preparation. These types of expenditures are incurred independent of contracted (paid) services and can be significant for small specialist consulting firms with limited output. Larger firms, in contrast, are able to spread these fixed costs out over a larger level of output, thereby reducing the pressure on their cost structures. Thus, fixed costs in small firms increase rivalry within the industry and firms are expected to reduce fees to maximize billable hours (paid output).

- **Cyclical industry growth (+):** The growth rate of an industry also affects the degree of rivalry. The recent expansion of the environmental industry as a whole reflects its reliance on a broad range of downstream markets, which decreases rivalry in the industry. For the specialist consultant targeting a single client industry, however, the cyclical nature of downstream industry demand has a significant impact on business revenues. Industry contraction results in intense rivalry and severe price competition.
- **Adjustable industry capacity (-):** Excess industry capacity increases the degree of rivalry in an industry. Cyclical demand in the environmental consulting industry results in an overcapacity during economic downturns and exacerbate rivalry. Firms are able to respond to changes in demand by incrementally shedding personnel when demand cycles down and adding personnel when demand cycles up.
- **Low exit barriers (-):** When competitors face high exit barriers, they are more likely to compete aggressively. Exit barriers are largely related to asset specificity (i.e., capital investment required for only one purpose) and the presence of labour agreements. In this sense, the environmental consulting industry does not face high exit barriers. Thus, during periods of sustained losses, the industry is able to shed capacity as firms exit the industry. Emotional barriers to exit, however, influence the decisions by firms to exit: consulting firms that have been in the industry for a long time may decide to incur losses for longer than a newly established consulting firm.

3.5.3 The Threat of Substitutes

The level and sustainability of industry profitability depends on the ability of buyers to readily switch to another service industry to satisfy the same basic needs. The threat of substitutes influences industry profitability because it erodes value creation (i.e., willingness to pay for a service) within an industry. The threat that substitutes pose to an industry's profitability depends on the availability of substitutes, switching costs, and the buyers' propensity to substitute. Overall, the threat of substitutes in the environmental consulting industry is assessed as **low** based on the following factors.

- **Expanding industry substitutes (+):** The environmental consulting industry sells specific expertise to clients based on a combination of experience and knowledge. Other consulting industries, however, are expanding into areas of expertise traditionally held by the environmental consulting industry. Management, financial and information technology consulting industries broadened their lines of service to

include consulting services such as sustainability strategy and implementation plans, environmental and social due diligence reviews, corporate sustainability reporting and green-business planning.

- **High switching costs (-):** The presence of switching costs decreases the threat of substitutes in an industry. Similar to industry rivalry, clients incur costs when switching from one service provider to another. These switching costs, however, may be greater when the client moves to one of the substitute consulting industries due to the substitute's potential unfamiliarity with the client's business and the risk related to uncertain service quality. High switching costs will reduce the threat of substitutes. However, switching costs are likely not equal for all existing competitors. Newly established environmental consulting firms may face similar switching costs to entrants from substitute industries.
- **Low buyer propensity to substitute (-):** The threat of substitution for an industry is reduced when buyers are unwilling to switch to a substitute service. In the environmental consulting services industry, the propensity to change would depend on the buyer's: (1) relative risk of failure or non-compliance when using the services from a substitute consulting industry; and (2) perception of quality that the substitute consultant industry can provide. In a regulatory-driven industry, these factors are likely to reduce the threat of substitutes.

3.5.4 Buyer Power

Average industry profits tend to be lower when buyers have the power to negotiate favourable pricing terms for the service produced in an industry. Buyer power influences the appropriation of the value created by an industry because it allows buyers to squeeze industry margins by compelling competitors to either reduce prices or raise the level of service offered without compensating price increases. The sources of bargaining power of buyers include buyer concentration, buyer volume, buyer information, switching costs, and ability to backward integrate. Overall, the bargaining power of buyers is evaluated as **low to moderate** based on the following assessment.

- **Low buyer concentration (-):** Buyers tend to be more powerful if there are few of them. In the environmental consulting industry buyer power is weakened because of the large number and diversity of buyers (Datamonitor, 2010). Buyer power is likely

greater for newly established consulting firms, however, because they have a smaller client base.

- **Moderate to high buyer volume (+):** Buyers tend to be more powerful if each one purchases in volumes that are large relative to the size of the vendor. In the environmental consulting industry buyer power is strengthened due to the relative value of many service agreements. Power bower is particularly strong within the specialist consulting groups, where a single contract can represent a significant portion of the billable time requirements for the firm or individual consultant. Furthermore, buyer power is likely greater for newly established consulting firms because they have fewer clients.
- **Moderate buyer information (-):** Buyers tend to be more powerful if they have good information about prices and the other attributes of vendors' services, especially if those services are standardized. In the environmental consulting industry, buyers can acquire information about consultants' prices through a competitive bid process and select based on the best price. This buyer power may be offset, however, by the presence of asymmetric information in that consultants are retained specifically for the knowledge and expertise not available in the client's organization.
- **Moderate switching costs and low incentive to switch (-):** Buyers tend to be powerful if they face few switching costs and have the incentive to use this power. Clients incur moderate switching costs when they move from one environmental consulting firm to another one, thereby reducing the bargaining power of clients. Buyer power is further reduced by the low propensity for clients to switch consulting firms due to perceived risk and quality concerns in a regulatory-driven industry.
- **Moderate ability to backward integrate (-):** Buyers tend to be powerful if they can credibly threaten to integrate backwards into the industry. In the environmental consulting industry, instead of outsourcing to consultants, buyers could carry out the services themselves by hiring staff with similar capabilities as the consultants. This alternative may be less costly for clients. However, not all client organizations have the internal capacity or the resources to carry out such consulting services themselves, especially if they require highly specialized, short-term or infrequent expertise.

3.5.5 Supplier Power

Supplier power influences the appropriation of value created by an industry because it allows suppliers to reduce industry margins by increasing input costs. Supplier inputs to the environmental consulting industry supply chain relate to suppliers of human resources and information technology. Overall, supplier power is evaluated as **low** for the following reason.

- **Fragmented supplier industries (-):** Supplier power requires large, concentrated supplier industries in order to coordinate input prices. Suppliers to the environmental consulting industry are not large or concentrated, thereby minimizing their ability to extract rents from the consulting industry.

Chapter 4: Internal Analysis

The purpose of this chapter is to conduct an analysis of MSC to determine its potential sources of competitive advantage within the environmental and sustainability consulting industry. A firm's resources, defined as its tangible and intangible assets, can be sources of competitive advantage for a firm. As a sole proprietor consultancy, MSC's competitive advantage will be largely grounded in the resources and capabilities of the founder. Thus, this analysis uses a balance sheet methodology to first identify and then evaluate the firm's tangible and intangible assets in order to determine potential sources of competitive advantage.

4.1 Tangible Assets (Resources)

The tangible assets possessed by MSC that have the potential to create a competitive advantage for the firm are represented by its financial resources, physical resources and human capital.

4.1.1 Financial Resources

- **Borrowing Capacity:** Establishing MSC as a sole proprietorship does not require significant capital outlays nor is it likely to require any ongoing capital investments. However, the founder of MSC has a \$1 million line of credit with a commercial bank and is debt-free, and thus, she has the ability to quickly access capital if required to operate the business.
- **Internal Funding:** MSC's operations will be funded from internal sources derived from revenues earned from consulting assignments. Initially, cash flow from operations will be limited after start-up when the majority of time and effort will include non-billable business development activities. Cash flow during operations may also be a periodic issue for MSC due to the lag between initial contract establishment and receipt of payment for services. The founder of MSC, however, has sufficient savings to manage these short-term cash flow requirements.

4.1.2 Physical Resources

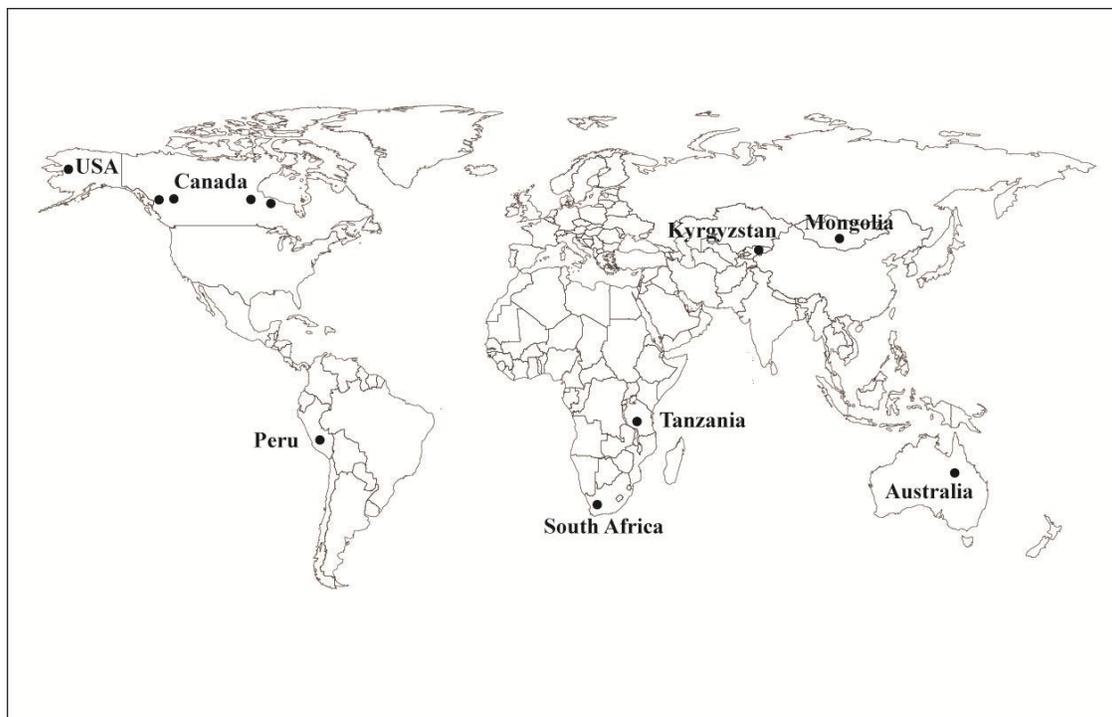
- **Home Office:** MSC will be operated from an existing, fully equipped, dedicated home office. This arrangement will enable the founder to reduce overheads by eliminating the requirement to lease long-term office space, and to also claim personal income tax deductions related to the home-based business. In addition, MSC's office is located less than 10 km from Vancouver's downtown core where many of the Canadian-based exploration company offices are located, which will facilitate consulting engagements.

4.1.3 Human Capital

- **Tacit Knowledge:** Human capital, represented by the tacit knowledge of the founder, is a key resource for MSC. Tacit knowledge can be defined as the “know-how of how to get something done” that is difficult to document, describe and duplicate. The founder's tacit knowledge stems from her education, experience and internal capabilities, each of which will be described in turn.
- First, the founder's education, which represents an aggregate of ten years of study, consists of a bachelor of science degree (with honours) in biology, a master of science degree in biology and a master's degree (candidate) in business. This combination of formal education is not common in the mining industry, yet it provides a solid basis in both the technical environmental and business spheres. Although education is a form of explicit knowledge, it is the founder's ability to apply this knowledge to address unique environmental and sustainability issues in the mining industry that makes her education a source of tacit knowledge.
- Second, the founder's tacit knowledge is based on twenty years of experience in international mining locations illustrated in figure 4.1. The founder has wide-ranging experience related to: (1) mineral exploration, project development and construction stages as well as mining operations; (2) developed and developing countries; (3) varied cultural and physical environments; (4) dramatically different regulatory regimes and governance institutions; and (5) complex technical and organizational challenges. This diverse and often demanding experience, gained over a significant period of time represents a source of tacit knowledge for MSC.
- Third, the founder's tacit knowledge also stems from internal capabilities that have allowed her to deal successfully with ambiguity and complexity frequently associated

with new work assignments. Supporting this is her ability to quickly evaluate a novel situation and understand its broader context in order to identify the stakeholders who will have a role in moving the situation forward. Her inclusive leadership style means that ambiguous concepts such as sustainability are disseminated through and understood across an organization. Further, her independent nature and strong work ethic contribute to her ability to overcome challenging work assignments. Thus, the founder's internal capabilities, further developed over time and with experience, present a source of tacit knowledge for MSC.

Figure 4.1 International Mining and Exploration Experience of MSC's Founder



Source: Author (2011)

4.2 Intangible Assets / Resources

The intangible assets possessed by MSC that have the potential to create a competitive advantage for the firm are represented by the founder's reputation, industry contacts and long-term contracts.

4.2.1 Reputation

- The reputation of a consultant is equivalent to the brand identity of a product: it signals to the buyer what to expect in terms of outcome (e.g. a certain quality or a specific approach). Over a period of twenty years, MSC's founder has built a reputation in the mining industry for being knowledgeable, dependable, focused and hard-working. She is also known for being a passionate advocate for the "business case" of environment and sustainability demonstrated through innovative and customized approaches to integrating sustainability into the operating frameworks of mining companies. Her reputation extends to Canadian federal and provincial regulatory agencies where she is known for being able to consistently deliver professional, thorough and practical results for the mining organizations she works for. Thus, the founder's solid reputation represents a credible signal to potential clients in the Canadian junior exploration market that the founder will be able to achieve the desired outcomes for their projects.

4.2.2 Industry Contacts

- The founder's diverse experience has led to a variety of mining, government, consulting and agency contacts. These contacts have all experienced the work ethic, results, team work and professionalism of the founder. Further, the nature of the mining industry is such that many of these contacts tend to circulate within the industry and, once established, they typically surface in a new role, often as senior decision-makers in junior exploration companies. Critical to the initial success of MSC, these contacts serve not only as potential clients but also as a network of supporters who can attest to the credibility and capabilities of the founder as a sustainability consultant. Through word-of-mouth, these contacts also provide an informal marketing avenue for MSC in what is a strongly interconnected professional community in the mining industry. Thus, the founder's network of contacts provides MSC credible and unique access to potential clients in the targeted junior exploration market.

4.2.3 Long Term Contracts

- The founder has secured a credible commitment with the Chief Operating Officer of a Canadian junior exploration company to serve as their lead sustainability

consultant. This commitment represents an average of 64 hours per month from June to December, 2011, with the possibility of additional work in 2012.

4.3 Resources Evaluation

A firm's resources can be sources of competitive advantage if they: (1) create more value relative to rivals; (2) are protected against duplication by rivals; and (3) are owned by the firm.

The financial and physical resources that create value for MSC were identified as: (1) a strong borrowing capacity relative to the financial requirements of a consultancy; (2) the ability to fund operations from internal sources; and (3) a home office that reduces firm overheads. Because these resources contribute to the functioning and operating efficiency of MSC, they are able to augment the overall profitability of the firm. These resources can also be easily duplicated by competitors within the environmental and sustainability consulting industry. Thus, although these resources are necessary to compete within the industry, they do not confer a competitive advantage to MSC.

The resources and competencies of the founder that create value for MSC were identified as: (1) the tacit knowledge based on a unique combination of education, experience and internal capabilities that she is able to apply to complex and often ambiguous sustainability challenges in the mining exploration industry; (2) a reputation in the mining industry as a skilled sustainability practitioner capable of delivering desired outcomes; (3) a network of industry contacts that realistically represent potential clients as well as sources of referrals to other clients in the target market; and (4) a credible commitment for sustainability consulting services during the first seven months of operating the consulting business.

The founder's tacit knowledge creates value for MSC because it can be used to address the varied and complex environmental and sustainability needs of the Canadian exploration market in a manner that incorporates the nature of the business as well as the varied locations and players involved in clients' projects. The founder's reputation creates value for MSC because it establishes a level of confidence in the Canadian exploration market that MSC is able to deliver the results they need, thereby reducing the risk associated with retaining a new consultant. The founder's reputation, itself, has the ability to add value to a client's organization as well: she was recently approached by a junior exploration company to have her name associated with their project to lend credibility to their sustainability commitments and improve their ability to gain community and regulatory approvals in order to secure external financing. The commitment from a junior exploration company to retain MSC for sustainability consulting services represents a

credible source of revenue for the firm during the initial start up phase. Furthermore, the founder's network of contacts will provide MSC credible and unique access to potential clients in the targeted Canadian junior exploration market.

These resources are path dependent and not easily duplicated because they are products of the founder's consistent efforts applied to unique and challenging work assignments over an extensive period of time. Furthermore, they were developed by the founder during times when the importance of the environment was not widely recognized and the concept of sustainability was evolving within the mining industry. In this sense, the founder is part of a small group of practitioners with experience relating back to the early stages and, therefore, she can be considered a contributor to the knowledge base. The founder's consistent efforts apply equally to the development of trusting relationships with contacts. Taken as a whole, the tacit knowledge, reputation and contacts of the founder represent resources that are owned solely by the founder and are protected in that they are not easily duplicated by rivals. Thus, these resources represent strategic assets for MSC and they confer potential competitive advantages to the firm.

These strategic assets will allow the founder to differentiate MSC's service offerings and specifically target the Canadian exploration market. The demand and willingness to pay for MSC's consulting services is evidenced from the various expressions of interest the founder has fielded over the past two years from exploration companies. Demand for the founder's skills is also evident in the recruitment calls from organizations within the mining industry as well as environmental and sustainability consulting firms (i.e., her potential competitors).

The scarcity value of and demand for these strategic resources and capabilities can diminish with time as the integration of environmental and sustainability considerations into business activities evolves into generally accepted practice. As more exploration and mining investment is occurring overseas, it is presumed that more sustainability practitioners are gaining this type of experience. As more practitioners are gaining similar experience they have the potential to enter the sustainability consulting industry. However, this potential threat to the founder's scarcity value is offset by a key consideration: any new work experience gained by the founder of MSC serves to continuously upgrade the founder's strategic assets and, therefore, sustains the value of the firm.

Chapter 5: Opportunity Analysis

The founder of MSC proposes to establish a firm specializing in providing environmental and sustainability consulting services to organizations within the Canadian junior mineral exploration sector. The purpose of this chapter is to evaluate the feasibility of this business concept in order to recommend an entry decision for MSC.

5.1 Summary of the Market Assessment

The overall assessment of the market for sustainability consulting services for the Canadian junior exploration companies is deemed attractive for the following reasons. First, there is a favourable investment environment for Canadian exploration companies to access equity to fund their exploration activities. Strong metal price fundamentals are the basis of this improved investment interest for stock in junior exploration companies. Demand for base metals is fuelled by growth in emerging economies, while demand for gold and other precious metals is driven by the desire to hedge against inflation and currency devaluations. On the supply side, underinvestment in exploration activities during much of the 1990s combined with the long lead-times, hefty capital requirements, and uncertain political and regulatory environments has led to dwindling supplies of world class mineral deposits. Furthermore, investment in Canadian exploration companies is facilitated by Canada's unique tax incentives for high-risk exploration investments. The favourable investment environment and strong metal price fundamentals are projected to continue driving increased exploration expenditures into the predictable future. However, both of these drivers of exploration activity are underpinned by global economic conditions, which creates some uncertainty for investment levels.

Second, there is a compelling reason for Canadian exploration companies to adopt globally accepted sustainability practices: access to land is a fundamental requirement to carry out exploration activities and this is dependent on the goodwill and acceptability of exploration activities by society at large. Access to land by exploration companies, however, is increasingly threatened by society's concern for the social and environmental effects associated with mining. Exploration is already an inherently high-risk venture due to the low probability of discovering an economically feasible mineral deposit. Thus, most Canadian exploration companies recognize

the need to address sustainability issues as a component of their risk management activities. External pressures to integrate sustainability into exploration activities will likely continue driving increasingly higher standards of behaviour in the Canadian exploration industry.

Third, the nature of the exploration business creates opportunities for sustainability consultants. The Canadian junior exploration sector is comprised of numerous small exploration companies predominantly headquartered in Vancouver. Junior exploration companies tend to limit their size and retain external service providers in order to maintain their responsiveness to changes in global economic cycles and tightening equity markets. The internal capacities of these exploration companies are typically limited to geological and financial expertise directed towards expanding their mineable resource base in order to increase shareholder value. Thus, exploration companies will look to consultants to help them address their site-specific sustainability issues in a manner that satisfies the numerous global sustainability requirements, including the recently released exploration-specific sustainability initiative (*e3 Plus*) by the PDAC.

5.2 Summary of the Industry Assessment

The overall assessment of the environmental and sustainability consulting industry is deemed attractive for a new entrant based on the following reasons. First, profitability (as measured by operating profit margin) of the environmental and sustainability consulting industry has grown since the mid-2000s from approximately 15% to 20% and is projected to continue to grow in the near-term. However, demand for consulting services is closely linked to the demand and profitability of their client industries. Small specialist consultancies targeting single downstream industry sectors will face greater risk (more volatile profitability) than firms that target multiple client industries.

Second, there are few barriers to enter the consulting industry. The absence of sunk costs in the form of capital investment as well as the absence of significant scale economies facilitates the entry of firms with as little as one employee (the sole proprietor). Although there are few regulatory or specialized certifications required to enter the consulting industry, new entrants must have relevant knowledge and skills that enable them to provide advice and assistance to other organizations.

Third, the environmental and sustainability consulting industry consists of firms of numerous sizes. Different strategic groups are able to coexist within the industry by adopting strategic positions that enable them to provide specific services to specific industry sectors. Although large multi-disciplinary firms are able to provide a greater range of sustainability

consulting services to varying client industries, there is opportunity in the consulting industry for small consultancies to provide specialized services to specific industries, which is reflected in the preponderance of non-employing consultancies. Thus, the key to competing in the environmental and sustainability consulting industry is based on the ability of the consulting firm to provide consulting services that: (1) other organizations are willing to pay for; and (2) are not easily duplicated by existing or potential competitors.

5.3 Summary of Internal Analysis

The assessment of MSC's resources and capabilities identified four potential sources of competitive advantage for the firm. The first potential source of competitive advantage is grounded in the founder's tacit knowledge, which represents a combination of: (1) graduate-level education in both the sciences and business fields; (2) twenty years experience as a sustainability practitioner involved in a variety of international exploration and mining projects; and (3) internal capabilities related to her ability to quickly understand operating situations and develop effective ways to apply sustainability concepts to them. This unique experience-based knowledge allows the founder to manage complex and often ambiguous sustainability challenges in the mining exploration industry.

The second potential source of competitive advantage is based on the founder's reputation in the mining industry as a skilled sustainability practitioner capable of delivering desired outcomes. The founder is known for being a knowledgeable and ardent champion of the "business case" for integrating environment and sustainability into the operating frameworks of mining companies.

The third potential source of competitive advantage relates to the founder's unique network of industry contacts. The founder's diverse experience has led to a variety of mining, government and consulting contacts in what is a strongly interconnected professional community in the mining industry. These contacts represent potential clients as well as sources of referrals to other clients in the target market.

The fourth potential source of competitive advantage is represented by a credible commitment with a Canadian junior exploration company to serve as their lead sustainability consultant. This commitment corresponds to an average of 64 hours per month from June to December, 2011, with the possibility of additional work in 2012.

5.4 Strategic Positioning

MSC's business objective is to help exploration firms develop and implement appropriate and practical ways to integrate social, environmental and economic consideration into their business strategies, decision-making processes and field-based exploration activities in order to earn their social licence to operate. The author believes that, due to the sustained growth of the Canadian junior mineral exploration industry through most of the last decade and its relatively rapid recovery after the recent global economic downturn, this sector is underserved by existing environmental and sustainability consulting services. Further, demand for these services is projected to increase with the projected continued expansion of the Canadian junior exploration sector.

The ability for MSC to enter and effectively compete in the environmental and sustainability consulting industry is grounded in the firm's ability to adopt a niche business strategy that allows it to coexist with other players in the industry while providing specialized sustainability services to the Canadian junior exploration market. The founder's potential sources of competitive advantage can be deployed to help achieve MSC's business objective. The founder's tacit knowledge creates value for MSC because it can be used to address the varied and complex environmental and sustainability needs of the Canadian exploration market in a manner that incorporates the nature of the business as well as the varied locations and players involved in clients' projects. The founder's reputation creates value for MSC because it establishes a level of confidence in the Canadian exploration market that MSC is able to deliver the results they need, thereby reducing the risk associated with retaining a new consultant. The founder's reputation adds direct value to client organizations as a component their bankable credibility required to secure external financing. The commitment from a junior exploration company to retain MSC for sustainability consulting services represents a credible source of revenue for the firm during the first seven months of operation. Furthermore, the founder's network of contacts will provide MSC credible and unique access to potential clients in the targeted Canadian junior exploration market.

MSC's resources are the products of the founder's consistent efforts applied to unique and challenging work assignments over an extensive period of time. Taken as a whole, the tacit knowledge, reputation and contacts of the founder represent resources and capabilities that are not easily duplicated by competitors. Furthermore, any new work experience gained by MSC serves to continuously upgrade the founder's strategic resources and, therefore, sustains the firm's competitive advantage.

5.5 Entry Decision

Based on this analysis of the business opportunity, it is recommended that MSC enter the sustainability consulting industry to provide specific sustainability services to the Canadian junior mineral exploration sector based on the founder's unique resources and capabilities.

Chapter 6: Operations Plan

MSC operations are designed to support the founder's potential sources of competitive advantage. Building on the founder's strategic resources and capabilities enables MSC to create and capture more value (i.e., willingness to pay) from the Canadian junior exploration market relative to rivals within the environmental and sustainability consulting industry. The operations plan for MSC describes its ownership and control, proposed service portfolio, and strategically relevant activities (i.e., the firm's value chain).

6.1 Ownership and Control

MSC will be set up as a sole proprietorship and will not have any employees besides the owner (founder). A sole proprietorship constitutes the simplest ownership structure and allows the owner full decision-making power as well as ownership of all business income and assets. A sole proprietorship also carries risk: as the business is not legally separate from the person who owns it, the owner can be held personally liable for any business-related financial obligations.

6.2 Service Portfolio

It is critical for the founder to convert the specialized skills and competencies gained as a worker into a portfolio of services that can be marketed as a consultant as well as support MSC's business objective. Thus, the service portfolio proposed for MSC was determined based on the following four criteria: (1) the relevant experience of the founder in leading environmental and sustainability initiatives; (2) the environmental and sustainability requirements of the junior exploration business; (3) the variety of consulting opportunities proposed to the founder over the past two years; and (4) the types of services that are within the scope of a one-person business. The resulting service portfolio consists of the following categories of sustainability consulting services directed towards the Canadian junior exploration market:

- **Integrated Strategic Sustainability Services:** This category of services helps a firm understand the strategic and organizational aspects of sustainability. The general approach involves linking the concept of sustainability with the organization's business strategy and objectives. This category of services also includes identifying

opportunities and methods to integrate sustainability considerations into an organization's leadership, organizational culture, policies and decision-making processes. Important for junior exploration companies, the outputs of these strategic sustainability services will need to: (1) support the entrepreneurial nature of the organization; (2) expand with the growth in project scope and complexity of the company; (3) integrate into the company-specific project evaluation processes; and (4) incorporate practical and cost-effective approaches to developing sustainability strategies.

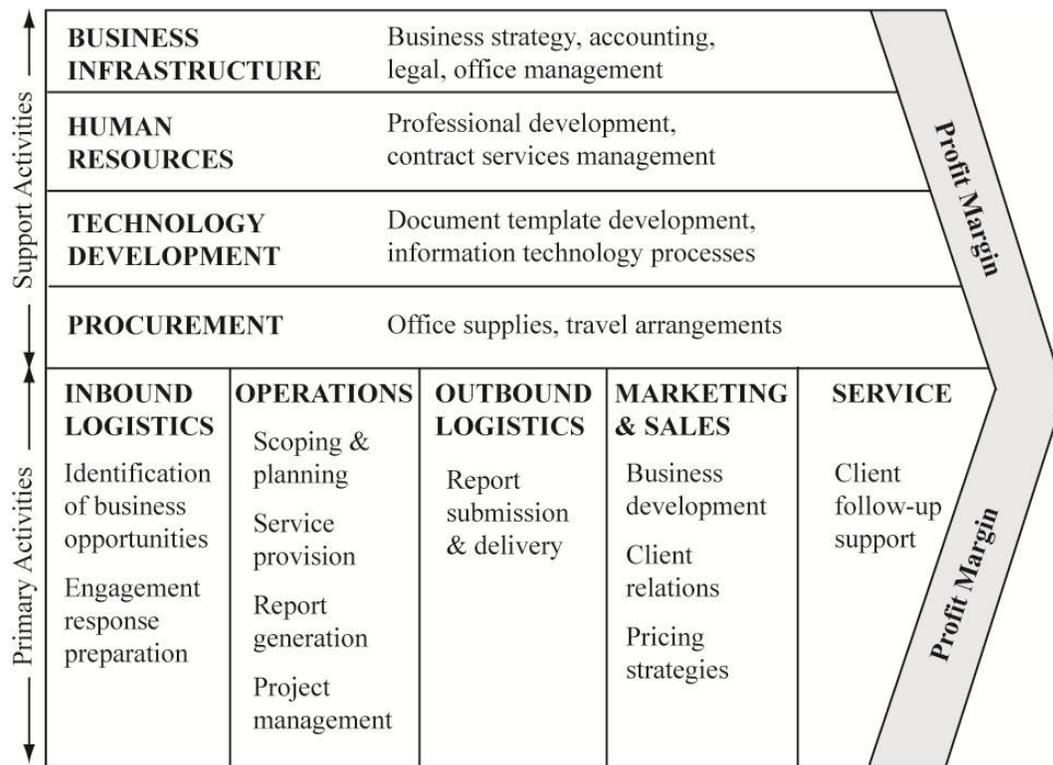
- **Sustainability Assessment Services:** This is the broadest category of services in the portfolio and generally involves the identification and evaluation of social and environmental issues and risks associated with specific exploration projects. The extent of these services depend on the specific stage of the exploration project, ranging from high-level reviews and due diligence studies, through to more in-depth scoping studies, to detailed assessments and mitigation concepts. The sustainability assessment category also involves the following specific consulting services: (1) evaluate the exploration project's scope of work in relation to country-specific socio-political aspects, regional labour and supply-chain characteristics, and environmental protection requirements; (2) identify key stakeholder groups to develop stakeholder engagement processes that assist the exploration company with managing local community expectations; and (3) assess relevant regulatory requirements for the exploration project to establish longer term permitting strategies as well as baseline environmental and sustainability study requirements.
- **Sustainability Implementation Services:** This category of services refers to planning and designing specific sustainability initiatives and programs for the exploration company to address the issues and risks identified in previous reviews and assessments. The implementation programs will need to consider international best practice in sustainability, customized to the specific requirements of the organization, the project and the country of operation. These services also include: (1) review of the exploration project's procedures and practices in order to integrate environmental and sustainability aspects; and (2) develop project-specific sustainability performance indicators and establish methods for measuring, tracking, and reporting progress.
- **Sustainability Personnel Development Services:** This service category includes the evaluation of the personnel within an organization who are responsible for

leading the successful implementation of sustainability strategies and programs. For junior exploration companies, responsibility for sustainability is not likely to fall to a dedicated sustainability practitioner but rather be a component of responsibility for company leadership and geological field staff. The identification of gaps in individual competencies related to sustainability concepts and practices will be incorporated into personal development plans or mentoring programs. Sustainability personnel development services also include working with the exploration companies to develop corporate and project-specific sustainability training programs.

6.3 Firm Value Chain

A firm's value chain represents a breakdown of a firm into its strategically relevant activities in order to show where and how a firm creates value (Porter, 1996). The value chain approach distinguishes between primary and support activities in an operation. Primary activities are those activities that directly generate a product or service; support activities are those activities that are shared across the primary activities that enable an organization to function (Porter, 1996). Based on the value chain concept, MSC's operation has been designed to support its business strategy of providing differentiated sustainability consulting services to the Canadian junior exploration sector based on the founder's potential sources of competitive advantage. MSC's proposed value chain is illustrated in figure 6.1.

Figure 6.1 MSC's Value Chain



Source: Author adapted from Porter (1996)

6.3.1 Primary Activities

MSC's primary activities include inbound logistics, operations, outbound logistics, marketing and sales, and service, as defined and described below.

6.3.1.1 Inbound Logistics

Inbound logistics typically include the receiving, warehousing, and inventory control of input materials. At MSC, inbound logistics include the identification of business opportunities and the preparation of responses to requests for consulting services from potential clients.

- Identification of Business Opportunities:** The identification of business opportunities is a key activity that adds value to MSC by increasing the potential demand for its consulting services. These activities do not generate direct revenues (i.e., billable hours) but rather are a cost of doing business. During MSC's initial operating period, business development activities will focus on establishing contact with the founder's industry network of business leaders in both the mining and exploration industries. The purpose of this outreach activity is threefold: (1) to

inform the founder's contacts that she has started a new business; (2) to generate interest in the market by using contacts to help spread the word; and (3) to identify potential clients or referrals to potential clients. Regardless of the outcome of this initial contact, promotional material about MSC will be sent as follow-up. After a period of time, costlier and more time-consuming business development activities will be implemented. These include joining on-line environmental and sustainability consulting industry groups, attending select exploration industry conferences, and developing a website for MSC.

- **Engagement Response Preparation:** Once a consulting opportunity is identified and discussed with the client, a formal agreement is established between MSC and the client. This activity is typically another cost of doing business (i.e., non-billable). However, it represents a concrete step leading to potential revenue generation for MSC. The form of this agreement will need to be flexible depending on the proposed scope of services and the sophistication of the client's organization. The simplest and most efficient response is a formal engagement letter that clearly outlines the proposed scope of work and includes a fee schedule and confidentiality agreement. It should be noted that MSC does not intend to respond to competitive bid requests, at least in the initial operating phase, due to the high level of effort and low probability of success.

6.3.1.2 Operations

Operations represent the next stage of primary activities in a firm's value chain and include the value-creating activities that transform the inputs into the final product. At MSC, operations include scoping and planning activities, consulting service provision, report generation, and project management.

- **Scoping and Planning Activities:** This set of activities includes familiarization with the client's organization (business strategies, organizational culture and capabilities) as well as with the client's project (location, level of activity) in order to complete the initial assessment of the situation and identify the potential sustainability issues the client needs to address. These activities are based on the founder's understanding of the exploration business and exploration activities, as well as her experience as a sustainability practitioner. If the project is complex, scoping and planning can result in a more detailed, agreed-upon scope of work that includes budgets and timelines for

delivering the specific consulting services. Where possible, the founder should include scoping and planning activities as billable work. However, in some cases, it may be necessary to include these activities as part of business development.

- **Service Provision:** The provision of sustainability consulting services represents the key revenue generating-activity for MSC. Revenue is generated on a pay-for-service model with associated expenses charged back to the client. The provision of sustainability consulting services incorporate the founder's understanding of the exploration business, exploration activities, sustainability requirements combined with the ability to interpret and assess the results in order to create tailor-made recommendations or implementation plans for the client. Depending on the scope of work, these activities may occur in the client's organization, at a client's project site or in MSC's home office. Project-based work may occur within Canada or in another country.
- **Report Generation:** Report generation involves the: (1) synthesis of the information and data gathered during the service provision activity; (2) analysis, interpretation and assessment of this information; development of recommendations and implementation ideas; and (3) creation of a concise document that is presentable to the client. Report generation is a high value added activity for the founder. However, for efficiency reasons, parts of this process can be outsourced to a clerical service (format, finalizing figures and tables, etc) or a technical writer (editorial function). The decision for outsourcing is dependent on the scope of work and on the client's expectation of the final product: the work may be straightforward and require minimal formatting.
- **Project Management:** Project management activities refer to those activities associated with managing the consulting service provision including scope, schedule and budget. These activities are sources of value for MSC for two reasons. First, project management activities help the founder manage deliverables (on time and on budget), which will contribute to the credibility of the MSC as a reliable consultancy. And second, project management activities function as a communication tool for tracking and reporting progress as well as setting scope limits to manage client expectations.

6.3.1.3 Outbound Logistics

Outbound logistics are the activities required to provide the finished product to the customer and typically include warehousing and order fulfilment. At MSC, outbound logistics include the submission of the final report to the client.

- **Report Submission:** Once the final report is generated, the document needs to be prepared for submission to the client. From an operating efficiency perspective, MSC will determine the most cost effective method of generating and submitting final reports to clients.

6.3.1.4 Marketing and Sales

Marketing and sales are those activities typically associated with persuading buyers to purchase the product. At MSC, marketing activities include client relations and other business development activities. Business development opportunities were previously discussed as part of inbound logistics (section 6.3.1.1). In addition, Chapter 7 outlines a detailed marketing plan for MSC.

- **Client Relations:** Developing and maintaining client relationships are critical to the success of MSC. Promoting the sources of competitive advantage (i.e., the founder's resources and competencies) to existing and potential clients in the junior exploration sector increases their willingness to pay for sustainability consulting services provided by MSC. Furthermore, because the consultation process is highly personalized, building strong relations with clients enhances MSC's understanding of client-specific organizational attributes, resulting in improved consulting services. Client relations are an important source of repeat business and referrals to new clients.

6.3.1.5 Service

Service activities are those that maintain and enhance the product's value after it is delivered to the customer. At MSC, service activities include follow-up support for the client after the consulting services are completed and the report is submitted.

- **Client Support:** Activities related to client support are extremely important to the success of the deliverable as well as the reputation of the founder. The need for follow-up support indicates that: (1) the product was not well understood by the

client due to poorly communicated findings and recommendations created by the founder; (2) the product did not meet the client's expectations; or (3) there are deficiencies within the client's organization that are creating a barrier to successfully implementing the recommendations. Understanding the root cause is critical for the founder in order to improve the consulting services provided to future clients as well as minimize damage to her reputation as a consultant, thereby impacting repeat work or referrals to other clients. If the source of the problem lies with the client, follow-up support activities also identify additional consulting opportunities for MSC.

6.3.2 Support Activities

MSC's support activities include business infrastructure, human resources, technology development, and procurement, as defined and described below.

6.3.2.1 Business Infrastructure

Activities associated with the business infrastructure that enable MSC to function as a organization include business strategy, accounting, legal and office management.

- **Strategic Activities:** The sustainability of MSC's competitive advantage depends on the dynamics of its target market and the consulting industry. Thus, the founder will need to periodically review trends in potential market demand and within industry-level competition in order to adjust MSC's business strategy accordingly. Changes to MSC's external environment may result in new opportunities to grow the business (e.g., provide different or expanded services, target new market segments within the mining industry or in different industry sectors) or they may result in tougher, more competitive scenarios (e.g., an economic downturn affecting exploration investment levels).
- **Accounting Activities:** MSC will need to manage and account for transactions at two levels. First, firm-level accounting transactions include all accounting activities related to managing the accounts, determining income tax requirements, and advising on other tax matters such as the payment of value added taxes. Second, client-level transactions involve issuing invoices, tracking expenses related to service provision, and receiving payment from clients. Due to the specialized nature of these activities, an experienced small business accountant will be retained to manage the firm-level accounts and to set up the client-level billing process, including the purchase and

installation of any software and the development of spreadsheets and billing templates.

- **Legal Activities:** MSC will need to review the business concept with external counsel before start-up to fully understand the extent of the founder's personal liability, determine ways to mitigate this risk, as well as develop a standard engagement letter and contract document. In addition, legal services may be required on a case-by-case basis when working in international jurisdictions.
- **Office Management:** MSC will be operated from the founder's home office. Any activities related to office management will be handled by the founder. A professional meeting room can be rented on an as-needed basis for client or government meetings if the client does not have adequate facilities or is not from Vancouver. Office rental activity is not billable to the client but is rather part of the overall cost of doing business.

6.3.2.2 Human Resources

Human resources activities represent those activities associated with the recruiting, development and compensation of employees. MSC will be operated as a non-employing establishment, thus, the human resources activities are minor in scope and relate to the founder's professional development and management of contracted services personnel.

- **Professional Development:** The founder will need to maintain a solid level of technical and professional capabilities to maintain her knowledge-based competencies. Technical capabilities can be grown through small business fora as well as at sustainability, mining and exploration conferences. These conferences also represent potential business development opportunities for MSC. Professional capabilities can be developed through career coaching (e.g., Simon Fraser University's career centre) or mentoring programs (e.g., Women's Executive Network).
- **Contract Services:** In general, MSC will depend on a number of different types of contract services to conduct operating activities related to clerical, accounting, legal, information technology, and travel services. These contract services are important contributors to MSC's legitimate and efficient operations. Thus, MSC will need to develop internal processes to facilitate relationships, manage quality and optimize usage.

6.3.2.3 Technology Development

Activities related to technology development typically involve activities such as research and development (R&D) or management information systems (MIS). The consulting services industry is a relatively low-technology industry, however, some consulting firms use R&D or MIS to develop differentiated services or minimize operating costs. At MSC, technology development will be limited to the purchase of specialized software (e.g., Accounting software and Environmental Management System software) and the development of templates (e.g., project assessment forms and reporting standards) to improve operating efficiencies.

6.3.2.4 Procurement

Procuring inputs is not a significant activity at MSC but can be properly managed to improve operating efficiencies. Procurement activities will relate predominantly to the purchase of office supplies. MSC will investigate establishing a small business account with an office supply company to manage this activity as efficiently as possible. Travel arrangements will likely be required as part of providing project-based consulting services. Although some clients may have their own travel systems, MSC will retain a travel agent on an as-needed basis to maintain flexibility and manage costs.

6.4 Value Chain Evaluation

Each of the activities a firm carries out on a day-to-day basis to create its products can contribute to a firm's relative cost position and create a basis for differentiation (Porter, 1996). The description of MSC's value chain identifies two categories of core activities that create a basis for differentiation by directly supporting MSC's potential sources of competitive advantage.

The first category of core activities consists of all the business development activities carried out by MSC, including the identification of business opportunities (input logistics), client relations and networking (marketing efforts), and client support activities (service). Although these business development activities represent non-billable overhead, allocating effort to these activities will potentially produce revenues for the firm through the acquisition of new clients and the retention of existing clients (i.e., repeat clients). Business development activities create value for MSC by generating demand for its consulting services as well as highlighting the unique and specialized abilities of the firm's founder, which should increase the junior exploration client's willingness to pay for MSC's consulting services relative to rivals.

The second category of core activities consists of operation activities, including consulting service provision and report generation. These activities generate revenues for the firm through the provision of billable consulting services to junior exploration clients that are based on the founder's potential sources of competitive advantage. Operation activities create value for MSC by increasing the client's willingness to pay for customized, appropriate and practical ways to integrate social, environmental and economic considerations into their business strategies, decision-making processes and field-based exploration activities.

MSC consists of a single employee, thus, output is restricted to the number of hours the founder is willing and able to allocate to these core activities. Furthermore, the lack of scale means that the founder will have to use valuable time (resources) to execute tasks that do not take advantage of her strategic resources and capabilities. Operating efficiencies can be gained by contracting out some of the non-core activities. Contracting out, however, will add additional transaction costs to the firm related to managing these exchanges. The lack of operating efficiencies will be especially prevalent in the initial stages of entry due to the presence of learning economies: MSC's founder will require time and experience with clients to gain efficiencies as a sustainability consultant.

Chapter 7: Marketing Plan

This chapter lays out a plan to market MSC's sustainability consulting services. Marketing activities can be grouped into those activities related to product, promotion, placement and pricing (i.e., the four Ps of marketing). MSC's plan to address each group of marketing activity follows.

7.1 Product

Product refers to the goods supplied to the consumer. MSC's product is the sustainability consulting services targeted at the Canadian junior mineral exploration sector. MSC's consulting services aim to help junior exploration firms develop and implement appropriate and practical ways to integrate social, environmental and economic consideration into their business strategies, decision-making processes and field-based exploration activities. As detailed in section 6.2, MSC's specific consulting services include: (1) Integrated Strategic Sustainability Services; (2) Sustainability Assessment Services; (3) Sustainability Implementation Services; and (4) Sustainability Personnel Development Services.

MSC's consulting services are designed to match closely with the types of sustainability services required by the junior exploration market. MSC is a new business and, therefore, the founder will need to adapt its service portfolio in response to feedback from clients or changes in the external environment. Thus, as part of product marketing, MSC will conduct regular reviews of the Canadian exploration market as well as the environmental and sustainability consulting industry in order to benchmark the firm's consulting services and resulting performance (demand).

7.2 Promotions

Promotions involve communicating information about the product to consumers and persuading them to purchase the product. MSC's founder intends to use a limited mix of promotional activities to build awareness of and generate business opportunities for MSC in the marketplace. Although the target market for MSC's consulting services is Canadian exploration companies based in Vancouver, targets for marketing efforts are more wide-ranging and include

specific companies found in each of the mining industry's strategic groups (i.e., junior, intermediate and senior players), as well as select environmental and sustainability consultants.

Building awareness for MSC, a new entrant in the sustainability consulting industry, is a crucial promotional activity and is the foundation for generating consulting opportunities. Initially, promotional activities will focus on the founder's existing network of contacts to communicate MSC's business concept and portfolio of services. Awareness will be created directly through the outreach activities of the founder and indirectly through these contacts communicating information about MSC to their network of contacts. Outreach activities targeted at the founder's network of contacts should also produce potential business leads for the founder to follow-up with and at least build additional awareness for MSC. This initial phase of outreach is designed to market the founder's reputation within the mining and environmental consulting industries. Her reputation is the basis of MSC's brand identity, which is also why the founder's surname was incorporated in the name of her company. A simple logo displaying the name of the company will be developed for promotional material and business documents (e.g., letterhead, invoices and business cards).

It is believed that sufficient consulting opportunities will be generated from the founder's network of contacts, based on the amount of interest exploration and environmental consulting companies have expressed in the founder over the past two years (during which time she left the mining industry to take up select consulting opportunities while pursuing a graduate degree in business). The founder will continue to develop momentum for MSC by ramping up promotional activities as time progresses. Although these promotional activities will be costlier and more time-consuming, they represent a fresh source of potential consulting clients. Promotional activities during this second phase include: (1) joining relevant on-line consulting industry networks, such as LinkedIn; (2) attending mining and exploration industry conferences, such as the Association for Mineral Exploration British Columbia's (AMEBC) annual Exploration Round-Up in Vancouver, which attracts legions of junior exploration companies and associated supply industries; and (3) establishing a website for MSC (an appropriate domain name is available and will be purchased as part of the firm's start-up activities).

Due to the importance of the network of contacts to MSC's business success, the founder will need to develop a system to track her communications with client contacts, such as who was contacted, when were they contacted, if and when a follow-up company brochure was sent, and what other follow-up activities are required. This system should also be able to record key contact information such as company profile and location of projects.

7.3 Placement

Placement refers to the location or distribution of the product and involves factors such as distribution and supply chains. For a service company, placement refers to how the service is delivered to the client. At MSC, sustainability consulting services will be distributed directly to the client through two types of distribution channels depending on the nature of the service. The predominant form of services throughout the consulting engagement will consist mainly of intangibles: information based on direct consultation, investigation, research, and analysis. Thus, distribution of the information will be through consultations, meetings, or project site visits. Tangible deliverables will take the form of written reports, which will be delivered to the client as physical or electronic documents.

The founder intends to concentrate her consulting efforts in Vancouver, both from a practical and strategic viewpoint. Vancouver, where the founder's home office is located, is Canada's geographic centre for junior mineral exploration company headquarters, making it an ideal location for maximizing opportunities to locate and serve clients from MSC's target market. Proximity to the client will enable direct communications with clients and increase operating efficiencies. An international airport is also located in Vancouver, which facilitates business travel to clients' project sites.

7.4 Pricing

Pricing refers to the cost of the product to the consumer and reflects the consumer's willingness to pay for the product. MSC will set its prices (fees) for sustainability consulting services based on an hourly charge-out rate. A schedule of rates will be established for different consulting services, depending on a project's complexity, the need for specialized skills and the amount of time required for the project. Exploration project site visits will be based on a daily charge-out rate, regardless of length of the day worked, recognizing that field work maximizes the amount of work in the shortest period of time.

For MSC, the determination of hourly charge-out rates incorporates the following three considerations. First, the fees reflect the quality of consulting services offered, the specialized nature of the services offered, and the founder's demonstrated expertise and reputation as a sustainability practitioner in the mining industry. Second, MSC's consulting fees incorporate relevant market conditions related to demand for the sustainability services. As described in Chapters 3 and 4, demand determinants include factors such as the expansion or contraction of

the exploration industry, the degree of regulatory requirements, as well as societal expectations for sustainability practices. Third, MSC's fees are based on knowledge of current market rates for subcontracted consultants performing similar work. Thus, initial pricing will range between \$150 to \$185 per hour. As part of product pricing, MSC's charge-out rates will be benchmarked on a regular basis.

Chapter 8: Financial Projections

The purpose of this chapter is to present the financial projections to start-up and operate MSC for the period May 2011 to December 2013. Summaries in this chapter are based on *pro forma* financial statements included in Appendix A.

8.1 Financial Requirements for Start-up

The founder's initial capital investment in MSC (designated as Owner's Investment on the *pro forma* Balance Sheet) includes \$15,000 cash and \$20,000 capital equivalent to represent the current value of MSC's fully-equipped home office. These long-term capital assets will be depreciated to zero using the straight-line method over a period of 36-months. MSC anticipates start-up in May 2011 at an estimated cost of \$10,075 (Table 8.1). Start-up will be funded internally through the founder's initial cash investment.

Table 8.1 Start-up Costs (May 2011)

Item	Projected Cost
Promotional materials, logo development	\$2,000
Office supplies, business cards, stationery	\$500
Computer software	\$1,700
Contract legal fees	\$2,000
Contract accounting fees	\$2,000
Contract IT fees	\$1,500
Business licence	\$175
Website domain purchase	\$200
Total:	\$10,075

Key start-up expenses, totalling \$5,500, relate to legal (\$2,000), accounting (\$2,000) and IT (\$1,500) contract services retained to assist with establishing the new firm according to MSC's operations plan. Computer software purchases, estimated at \$1,700, include standard financial and business operation packages, as well as environmental management system software. Contract IT service costs include the development of a client contact management

system. Initial business development costs (\$2,000) relate to producing MSC’s logo and promotional materials according to MSC’s marketing plan. Other minor start-up costs relate to creating and printing business stationery and business cards, purchasing office supplies, and covering municipal business licensing requirements.

8.2 Operating Revenues and Costs

MSC will begin operations in June 2011. Table 8.2 summarizes select financial information for MSC for the period June 2011 to December 2013.

Table 8.2 Profit and Loss Projections (June 2011-December 2013)

Profit & Loss Projections	2011	2012	2013
Sales	\$67,200	\$127,050	\$134,750
Cost of Sales	\$3,500	\$5,000	\$5,000
Gross Margin	\$63,700	\$122,050	\$129,750
Operating Expenses	\$41,389	\$66,667	\$68,667
Earnings Before Tax	\$26,200	\$63,050	\$67,750
Tax Expense	\$6,584	\$11,349	\$12,195
Net Income	\$15,728	\$45,034	\$48,888

Revenues (total sales) for the seven months remaining in 2011 are projected at \$67,200. This is based on an average of 64 hours per month at \$150 per hour (\$9,600 per month), as per the consulting commitment the founder has with a junior exploration company. In 2012 and 2013, revenues are projected to increase to \$127,050 and \$134,750, respectively, reflecting twelve months of operation per year, as well as increased charge-out rates for the founder (\$165 per hour in 2012 and \$175 per hour in 2013). Monthly output (i.e., hours worked per month) will remain capped at approximately 64 hours per month averaged over each year. Output rate is based on the founder’s business goals, which include non-profit oriented goals related to work-life balance and job satisfaction, as well as a profit oriented goal related to income generation. Revenue projections assume continued strong metal price fundamentals and a positive exploration investment environment over the period.

Operating costs for MSC include direct cost of sales, indirect operating costs and business income tax. MSC’s direct costs of sales are minimal reflecting the knowledge-based nature of the consulting business. Direct costs of sales relate to the generation of consultant reports, which are estimated at \$3,500 in 2011, increasing to \$5,000 in 2012 and 2013. Indirect operating costs refer to operating overheads, which average \$4,500 per month in 2011, \$5,500 per

month in 2012 and \$5,700 per month in 2013. A key component of overhead costs relate to the founder's salary, set at \$2,000 per month in 2011 and projected to increase by 25% to \$2,500 in 2012 and 11% to \$2,750 in 2013. From a business owner's perspective, it is more tax efficient to pay oneself a reasonable salary and reinvest net income into MSC (designated as Owner's Capital – Retained Earnings on the *pro forma* Balance Sheet). If desired, income can be paid out to the owner as capital drawings from the business (equivalent to dividends in a corporation).

Another key category of indirect operating costs address the business developments activities outlined in MSC's marketing plan. Business development costs relate to ongoing promotional activities estimated at \$100 per month. However, costs related to business development vary in intensity over the 30 month operating period, with higher levels of activities projected for the start of each year (total of \$1,500 during January and February in each of year 2012 and 2013). Increased business development activities at MSC will coincide with the planning cycles of Canadian junior exploration companies. Other business development costs include estimated conference-related expenses projected to begin in January 2012. The founder is able to adjust MSC's business development activities and related costs depending on her ability to generate business according to the marketing plan.

Business insurance, a large operating cost, is estimated at \$500 per month (\$3,500 in 2011 and \$6,000 in 2012 and 2013). However, the extent of insurance coverage for MSC, including personal liability and additional premises coverage, will be determined based on input from external counsel during initial start-up.

The provision for business income tax, estimated at 18% of net earnings (EBITDA), is projected to total \$6,584 in 2011 and increasing to \$11,349 and \$12,195 in 2012 and 2013, respectively.

MSC's net income is projected to average approximately \$3,700 per month for a total of \$15,728 (after initial start-up costs are accounted for) in 2011, \$3,750 per month for a total of \$45,034 in 2012, and \$4,100 per month for a total of \$48,888 in 2013. As noted previously, net income will be reinvested in MSC during the first 30 months of operation, after which time the founder will evaluate the benefit of drawing capital from the business.

The financial projections established for the first 30 months of operation validate the recommendation for MSC to enter the environmental and sustainability consulting industry as a sole proprietorship targeting the Canadian junior mineral exploration sector.

Chapter 9: Implementation Plan

The purpose of this chapter is to summarize the key activities required to start-up and operate MSC during its first 30 months. The implementation plan also serves as a check-list for the founder.

9.1 Start-up Activities

Table 9.1 Start-up Activities Check-list (May 2011)

Initial Business Set-up Activities:	
	Retain small business accountant on contract <ul style="list-style-type: none"> • set up business records and accounts • select and install accounting software • establish templates for invoices, statements, receipts, expense reports, timesheets
	Retain commercial lawyer on contract <ul style="list-style-type: none"> • provide advice related to business ownership structure, insurance needs (i.e., personal liability and premises coverage) and working in foreign countries • establish standard engagement letter, contract, confidentiality agreement
	Set-up contract with technical writer for editorial and clerical activities
	Register business name with BC Registry Services
	Open bank account for business and transfer initial investment funds to this account
	Open HST accounts under Business Number with Canada Revenue Agency
	Apply for WorkSafe BC's personal optional protection for self-employed (if necessary)
	Acquire business licence from City of Vancouver
	Purchase internet domain name for business
	Revise Business Plan
Initial Business Development Activities:	
	Design and develop company brochures, business cards and business stationery
	Develop contact list
	Retain IT technician on contract <ul style="list-style-type: none"> • develop contact management system
	Establish contract and scope of work documents with junior exploration company
	Initiate contact with network of potential clients

9.2 Operating Activities

Table 9.2 Operating Activities Check-list (June 2011-December 2013)

Activity	Target Date
Initiate professional development activities	Jun 2011
Conduct review of Canadian junior exploration market fundamentals	Oct 2011
Conduct review of consultant charge-out rates	Nov 2011
Initiate second stage of promotional activity <ul style="list-style-type: none"> • Develop business profiles and join on-line sustainability consulting networks • Review and revise company brochures • Initiate website design process 	Jan 2012
Establish new business contract(s)	Jan – Apr 2012
Attend AMEBC exploration conference (Vancouver)	Jan 2012
Attend PDAC exploration conference (Toronto)	Mar 2012
Retain accountant on contract for income tax submission	Mar 2012
Conduct review of Canadian junior exploration market fundamentals	Oct 2012
Conduct review of consultant charge-out rates	Nov 2012
Attend AMEBC exploration conference (Vancouver)	Jan 2013
Establish new business contract(s)	Jan – Apr 2013
Attend PDAC exploration conference (Toronto)	Mar 2013
Retain accountant on contract for income tax submission	Mar 2013
Review and update Business Plan	Aug 2013

Chapter 10: Conclusion

MSC's business objective is to help exploration firms develop and implement appropriate and practical ways to integrate social, environmental and economic consideration into their business strategies, decision-making processes and field-based exploration activities in order to earn their social licence to operate. The author believes that, due to the sustained growth of the Canadian junior mineral exploration industry through most of the last decade and its relatively rapid recovery after the recent global economic downturn, this sector is underserved by existing environmental and sustainability consulting services. Further, demand for sustainability consulting services is projected to increase with the projected continued expansion of the Canadian junior exploration sector.

MSC is well positioned to enter the sustainability consulting industry based on the founder's unique resources and capabilities, which represent potential sources of competitive advantage and create willingness to pay within the target market. The ability for MSC to effectively compete in the sustainability consulting industry is grounded in the firm's adoption of a niche business strategy that allows it to coexist with other players in the industry while providing specialized sustainability consulting services for the Canadian junior exploration industry.

Appendix A:

Mathieu Sustainability Consulting (MSC)

Pro forma Financial Statements (May 2011-December 2013)

Sales Forecast (2011)													
	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Year 2011
Unit Sales (# Hrs)													
Project Consulting					0	64	64	64	64	64	64	64	448
Unit Prices (\$/Hr)													
Project Consulting					150	150	150	150	150	150	150	150	150
Total Sales (\$)					0	9,600	67,200						
Unit Costs (\$/Hr)													
Project Consulting					0	0	0	0	0	0	0	0	0
Other Costs of Sales (\$)					0	500	500	500	500	500	500	500	3,500
Total Costs of Sales (\$)					0	500	3,500						
Personnel Plan (2011)													
	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Year 2011
Payroll (\$)													
Owner Salary					0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	14,000
Total Payroll (\$)					0	2,000	14,000						
Pro Forma Profit & Loss Statement (2011)													
	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Year 2011
Revenues (\$)													
Total Sales					0	9,600	9,600	9,600	9,600	9,600	9,600	9,600	67,200
Cost of Sales					0	500	500	500	500	500	500	500	3,500
Gross Margin					0	9,100	63,700						
Gross Margin (%)						95%	95%	95%	95%	95%	95%	95%	95%
Expenses (\$)													
Advertising & Promotions					2,000	100	100	100	100	100	100	100	2,700
Business License					175								175
Computer Software					1,700								1,700
Delivery Service						25	25	25	25	25	25	25	175
Depreciation						556	556	556	556	556	556	556	3,889
Fees - Contract Services					5,500	300	300	300	300	300	300	300	7,600
Insurance						500	500	500	500	500	500	500	3,500
Meeting Room Rental						100	100	100	100	100	100	100	700
Office Supplies					500	50	50	50	50	50	50	50	850
Professional Development						200	200	200	200	200	200	200	1,400
Salaries - Owner						2,000	2,000	2,000	2,000	2,000	2,000	2,000	14,000
Telephone						50	50	50	50	50	50	50	400
Travel (Business Dev)						250	250	250	250	250	250	250	1,750
Website Services					200	50	50	50	50	50	50	50	550
Utilities						50	50	50	50	50	50	50	400
Vehicle - Op. Ins & Mnce						200	200	200	200	200	200	200	1,600
Total Op Expenses (\$)					10,375	4,431	41,389						
EBITDA					(10,375)	5,225	26,200						
Operating Profit Margin (%)					0%	54%	54%	54%	54%	54%	54%	54%	39%
Depreciation						556	556	556	556	556	556	556	3,889
Interest Expense						-	-	-	-	-	-	-	-
Provision for Income Taxes						941	941	941	941	941	941	941	6,584
Total Other Expenses (\$)						1,496	10,472						
Total Expenses (\$)					10,375	5,371	47,972						
Net Income (\$)					(10,375)	3,729	15,728						

Pro Forma Balance Sheet (2011)													
	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Year 2011
Assets													
Current Assets													
Cash & Term Deposits					13,963	5,167	9,452	13,736	18,021	22,305	26,590	30,874	30,874
Accounts Receivable						7,680	7,680	7,680	7,680	7,680	7,680	7,680	7,680
Total Current Assets (\$)					13,963	12,847	17,132	21,416	25,701	29,985	34,270	38,554	38,554
Property, Plant & Equipment													
					20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Accumulated Depreciation					-	(556)	(1,111)	(1,667)	(2,222)	(2,778)	(3,333)	(3,889)	(3,889)
Net Property, Plant & Equip. (\$)					20,000	19,444	18,889	18,333	17,778	17,222	16,667	16,111	16,111
Total Assets (\$)					33,963	32,291	36,020	39,749	43,478	47,207	50,936	54,665	54,665
Liabilities & Owner's Equity													
Current Liabilities													
Tax Payable					-	-	-	-	-	-	-	-	-
Accounts Payable					9,338	3,938	3,938	3,938	3,938	3,938	3,938	3,938	3,938
Total Current Liabilities (\$)					9,338	3,938	3,938	3,938	3,938	3,938	3,938	3,938	3,938
Long-Term Liabilities													
Long-Term Debt					-	-	-	-	-	-	-	-	-
Total Long-Term Liabilities (\$)					-	-	-	-	-	-	-	-	-
Total Liabilities (\$)					9,338	3,938	3,938	3,938	3,938	3,938	3,938	3,938	3,938
Owner's Capital													
Owner's Investment					35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Retained Earnings					(10,375)	(6,646)	(2,917)	812	4,541	8,270	11,999	15,728	15,728
Total Owner's Equity (\$)					24,625	28,354	32,083	35,812	39,541	43,270	46,999	50,728	50,728
Total Liabilities & Owner's Cap. (\$)					33,963	32,291	36,020	39,749	43,478	47,207	50,936	54,665	54,665
Pro Forma Cash Flow Statement (2011)													
	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Year 2011
Opening Cash Balance					15,000	13,963	5,167	9,452	13,736	18,021	22,305	26,590	15,000
Cash Inflows from Operations													
Accts Receivables Current Month					-	1,920	1,920	1,920	1,920	1,920	1,920	1,920	13,440
Accts Receivable Prior Month					-	-	7,680	7,680	7,680	7,680	7,680	7,680	46,080
Total Cash Inflows					-	1,920	9,600	9,600	9,600	9,600	9,600	9,600	59,520
Cash Outflows from Operations													
Taxes Payable					-	941	941	941	941	941	941	941	6,584
Accts Payable Current Month					1,038	438	438	438	438	438	438	438	4,100
Accts Payable Prior Month					-	9,338	3,938	3,938	3,938	3,938	3,938	3,938	32,963
Total Cash Outflows					1,038	10,716	5,316	5,316	5,316	5,316	5,316	5,316	43,646
Net Cash Flows					(1,038)	(8,796)	4,285	4,285	4,285	4,285	4,285	4,285	15,874
Closing Cash Balance					13,963	5,167	9,452	13,736	18,021	22,305	26,590	30,874	30,874

Sales Forecast (2012)													
	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Year 2012
Unit Sales (# Hrs)													
Project Consulting	45	45	60	60	70	70	70	70	70	70	70	70	770
Unit Prices (\$/Hr)													
Project Consulting	165	165	165	165	165	165	165	165	165	165	165	165	165
Total Sales (\$)	7,425	7,425	9,900	9,900	11,550	127,050							
Unit Costs (\$/Hr)													
Project Consulting	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Costs of Sales (\$)	0	200	400	400	500	500	500	500	500	500	500	500	5,000
Total Costs of Sales (\$)	0	200	400	400	500	5,000							
Personnel Plan (2012)													
	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Year 2012
Payroll (\$)													
Owner Salary	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Total Payroll (\$)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Pro Forma Profit & Loss Statement (2012)													
	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Year 2012
Revenues (\$)													
Total Sales	7,425	7,425	9,900	9,900	11,550	11,550	11,550	11,550	11,550	11,550	11,550	11,550	127,050
Cost of Sales	0	200	400	400	500	500	500	500	500	500	500	500	5,000
Gross Margin	7,425	7,225	9,500	9,500	11,050	122,050							
Gross Margin (%)	100%	97%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%
Expenses (\$)													
Advertising & Promotions	1,000	500	100	100	100	100	100	100	100	100	100	100	2,500
Business License	200												200
Computer Software													0
Delivery Service	25	25	25	25	25	25	25	25	25	25	25	25	300
Depreciation	556	556	556	556	556	556	556	556	556	556	556	556	6,667
Fees - Contract Services	300	300	1,500	300	300	300	300	300	300	300	300	300	4,800
Insurance	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Meeting Room Rental	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Office Supplies	150	50	50	50	50	50	50	50	50	50	50	50	700
Professional Development	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Salaries - Owner	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Telephone	50	50	50	50	50	50	50	50	50	50	50	50	600
Travel (Business Dev)	1,250	250	2,500	250	250	250	250	250	250	250	250	250	6,250
Website Services	500	50	50	50	50	50	50	50	50	50	50	50	1,050
Utilities	50	50	50	50	50	50	50	50	50	50	50	50	600
Vehicle - Op. Ins & Mtc	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Total Op Expenses (\$)	7,581	5,331	8,381	4,931	4,931	4,931	4,931	4,931	4,931	4,931	4,931	4,931	65,667
EBITDA	400	2,450	1,675	5,125	6,675	63,050							
Operating Profit Margin (%)	5%	33%	17%	52%	58%	58%	58%	58%	58%	58%	58%	58%	50%
Depreciation	556	556	556	556	556	556	556	556	556	556	556	556	6,667
Interest Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Provision for Income Taxes	72	441	302	923	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	11,349
Total Other Expenses (\$)	628	997	857	1,478	1,757	18,016							
Total Expenses (\$)	7,653	5,772	8,682	5,853	6,132	77,016							
Net Income (\$)	(228)	1,453	818	3,647	4,918	45,034							

Pro Forma Balance Sheet (2012)													
	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Year 2012
Assets													
Current Assets													
Cash & Term Deposits	35,327	35,491	37,810	38,907	43,151	48,624	54,098	59,571	65,045	70,518	75,992	81,465	81,465
Accounts Receivable	5,940	5,940	7,920	7,920	9,240	9,240	9,240	9,240	9,240	9,240	9,240	9,240	9,240
Total Current Assets (\$)	41,267	41,431	45,730	46,827	52,391	57,864	63,338	68,811	74,285	79,758	85,232	90,705	90,705
Property, Plant & Equipment													
Accumulated Depreciation (4,444)	(5,000)	(5,556)	(6,111)	(6,667)	(7,222)	(7,778)	(8,333)	(8,889)	(9,444)	(10,000)	(10,556)	(10,556)
Net Property, Plant & Equip. (15,556	15,000	14,444	13,889	13,333	12,778	12,222	11,667	11,111	10,556	10,000	9,444	9,444
Total Assets (\$)	56,823	56,431	60,174	60,716	65,724	70,642	75,560	80,478	85,396	90,314	95,232	100,149	100,149
Liabilities & Owner's Equity													
Current Liabilities													
Tax Payable	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounts Payable	6,323	4,478	7,403	4,298	4,388	4,388	4,388	4,388	4,388	4,388	4,388	4,388	4,388
Total Current Liabilities (\$)	6,323	4,478	7,403	4,298	4,388	4,388							
Long-Term Liabilities													
Long-Term Debt	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Long-Term Liabilities (\$)	-	-											
Total Liabilities (\$)	6,323	4,478	7,403	4,298	4,388	4,388							
Owner's Capital													
Owner's Investment	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Retained Earnings	15,500	16,954	17,771	21,418	26,336	31,254	36,172	41,090	46,008	50,926	55,844	60,762	60,762
Total Owner's Equity (\$)	50,500	51,954	52,771	56,418	61,336	66,254	71,172	76,090	81,008	85,926	90,844	95,762	95,762
Total Liabilities & Owner's Cap. (56,823	56,431	60,174	60,716	65,724	70,642	75,560	80,478	85,396	90,314	95,232	100,149	100,149
Pro Forma Cash Flow Statement (2012)													
	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Year 2012
Opening Cash Balance	30,874	35,327	35,491	37,810	38,907	43,151	48,624	54,098	59,571	65,045	70,518	75,992	30,874
Cash Inflows from Operations													
Accts Receivables Current Mo	1,485	1,485	1,980	1,980	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	25,410
Accts Receivable Prior Month	7,680	5,940	5,940	7,920	7,920	9,240	9,240	9,240	9,240	9,240	9,240	9,240	100,080
Total Cash Inflows	9,165	7,425	7,920	9,900	10,230	11,550	125,490						
Cash Outflows from Operations													
Taxes Payable	72	441	302	923	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	11,349
Accts Payable Current Month	703	498	823	478	488	488	488	488	488	488	488	488	6,400
Accts Payable Prior Month	3,938	6,323	4,478	7,403	4,298	4,388	4,388	4,388	4,388	4,388	4,388	4,388	57,150
Total Cash Outflows	4,712	7,261	5,602	8,803	5,987	6,077	74,899						
Net Cash Flows	4,453	164	2,319	1,098	4,244	5,474	50,591						
Closing Cash Balance	35,327	35,491	37,810	38,907	43,151	48,624	54,098	59,571	65,045	70,518	75,992	81,465	81,465

Sales Forecast (2013)													
	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Year 2013
Unit Sales (# Hrs)													
Project Consulting	45	45	60	60	70	70	70	70	70	70	70	70	770
Unit Prices (\$/Hr)													
Project Consulting	175	175	175	175	175	175	175	175	175	175	175	175	175
Total Sales (\$)	7,875	7,875	10,500	10,500	12,250	134,750							
Unit Costs (\$/Hr)													
Project Consulting	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Costs of Sales (\$)	0	200	400	400	500	500	500	500	500	500	500	500	5,000
Total Costs of Sales (\$)	0	200	400	400	500	5,000							
Personnel Plan (2013)													
	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Year 2013
Payroll (\$)													
Owner Salary	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	33,000
Total Payroll (\$)	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	33,000
Pro Forma Profit & Loss Statement (2013)													
	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Year 2013
Revenues (\$)													
Total Sales	7,875	7,875	10,500	10,500	12,250	12,250	12,250	12,250	12,250	12,250	12,250	12,250	134,750
Cost of Sales	0	200	400	400	500	500	500	500	500	500	500	500	5,000
Gross Margin	7,875	7,675	10,100	10,100	11,750	129,750							
Gross Margin (%)	100%	97%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%
Expenses (\$)													
Advertising & Promotions	1,000	500	100	100	100	100	100	100	100	100	100	100	2,500
Business License	200												200
Computer Software													0
Delivery Service	25	25	25	25	25	25	25	25	25	25	25	25	300
Depreciation	556	556	556	556	556	556	556	556	556	556	556	556	6,667
Fees - Contract Services	300	300	1,500	300	300	300	300	300	300	300	300	300	4,800
Insurance	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Meeting Room Rental	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Office Supplies	150	50	50	50	50	50	50	50	50	50	50	50	700
Professional Development	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Salaries - Owner	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	33,000
Telephone	50	50	50	50	50	50	50	50	50	50	50	50	600
Travel (Business Dev)	1,250	250	2,500	250	250	250	250	250	250	250	250	250	6,250
Website Services	500	50	50	50	50	50	50	50	50	50	50	50	1,050
Utilities	50	50	50	50	50	50	50	50	50	50	50	50	600
Vehicle - Op. Ins & Mnce	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Total Op Expenses (\$)	7,831	5,581	8,631	5,181	68,667								
EBITDA	600	2,650	2,025	5,475	7,125	67,750							
Operating Profit Margin (%)	8%	34%	19%	52%	58%	58%	58%	58%	58%	58%	58%	58%	50%
Depreciation	556	556	556	556	556	556	556	556	556	556	556	556	6,667
Interest Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Provision for Income Taxes	108	477	365	986	1,283	1,283	1,283	1,283	1,283	1,283	1,283	1,283	12,195
Total Other Expenses (\$)	664	1,033	920	1,541	1,838	18,862							
Total Expenses (\$)	7,939	6,058	8,995	6,166	6,463	80,862							
Net Income (\$)	(64)	1,617	1,105	3,934	5,287	48,888							

Pro Forma Balance Sheet (2013)													
	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Year 2013
Assets													
Current Assets													
Cash & Term Deposits	87,057	87,385	89,871	91,255	95,788	101,630	107,473	113,315	119,158	125,000	130,843	136,685	136,685
Accounts Receivable	6,300	6,300	8,400	8,400	9,800	9,800	9,800	9,800	9,800	9,800	9,800	9,800	9,800
Total Current Assets (\$)	93,357	93,685	98,271	99,655	105,588	111,430	117,273	123,115	128,958	134,800	140,643	146,485	146,485
Property, Plant & Equipment													
Property, Plant & Equipment	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Accumulated Depreciation	(11,111)	(11,667)	(12,222)	(12,778)	(13,333)	(13,889)	(14,444)	(15,000)	(15,556)	(16,111)	(16,667)	(17,222)	(17,222)
Net Property, Plant & Equip. (8,889	8,333	7,778	7,222	6,667	6,111	5,556	5,000	4,444	3,889	3,333	2,778	2,778
Total Assets (\$)	102,246	102,018	106,048	106,877	112,254	117,541	122,828	128,115	133,402	138,689	143,976	149,263	149,263
Liabilities & Owner's Equity													
Current Liabilities													
Tax Payable	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounts Payable	6,548	4,703	7,628	4,523	4,613	4,613	4,613	4,613	4,613	4,613	4,613	4,613	4,613
Total Current Liabilities (\$)	6,548	4,703	7,628	4,523	4,613								
Long-Term Liabilities													
Long-Term Debt	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Long-Term Liabilities (\$)	-												
Total Liabilities (\$)	6,548	4,703	7,628	4,523	4,613								
Owner's Capital													
Owner's Investment	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Retained Earnings	60,698	62,316	63,421	67,355	72,642	77,929	83,216	88,503	93,789	99,076	104,363	109,650	109,650
Total Owner's Equity (\$)	95,698	97,316	98,421	102,355	107,642	112,929	118,216	123,503	128,789	134,076	139,363	144,650	144,650
Total Liabilities & Owner's Cap. (102,246	102,018	106,048	106,877	112,254	117,541	122,828	128,115	133,402	138,689	143,976	149,263	149,263
Pro Forma Cash Flow Statement (2013)													
	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Year 2013
Opening Cash Balance	81,465	87,057	87,385	89,871	91,255	95,788	101,630	107,473	113,315	119,158	125,000	130,843	81,465
Cash Inflows from Operations													
Accts Receivables Current Mo	1,575	1,575	2,100	2,100	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	26,950
Accts Receivable Prior Month	9,240	6,300	6,300	8,400	8,400	9,800	9,800	9,800	9,800	9,800	9,800	9,800	107,240
Total Cash Inflows	10,815	7,875	8,400	10,500	10,850	12,250	134,190						
Cash Outflows from Operations													
Taxes Payable	108	477	365	986	1,283	1,283	1,283	1,283	1,283	1,283	1,283	1,283	12,195
Accts Payable Current Month	728	523	848	503	513	513	513	513	513	513	513	513	6,700
Accts Payable Prior Month	4,388	6,548	4,703	7,628	4,523	4,613	4,613	4,613	4,613	4,613	4,613	4,613	60,075
Total Cash Outflows	5,223	7,547	5,915	9,116	6,318	6,408	78,970						
Net Cash Flows	5,592	328	2,486	1,385	4,533	5,843	55,220						
Closing Cash Balance	87,057	87,385	89,871	91,255	95,788	101,630	107,473	113,315	119,158	125,000	130,843	136,685	136,685

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