CANADA IN INDIA

CANADA IN ASIA

WHAT WORKS, WHAT DOESN'T IN THE INDIAN MARKET

A Strategic Guide for Canadian Business

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INTRODUCTION

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Ask Canadian executives what they think about international trade and you will get a picture of managers who are well aware of the crucial role foreign markets can play in their companies' future growth. A good manager will always recognize that international trade is the lifeblood of business and competing in the context of a globalized world is crucial to the firm's survival.

Put in this context, the performance of Canadian companies in some of the fastest growing economies of the world is a bit perplexing, to say the least. Let's contrast Canada's performance in India with Canadian services exports to and investments in the tiny island nation of Barbados, keeping in mind the following facts:

- India's economy is the 12th largest in the world — 192 times larger than Barbados;
- 850,000 Canadians are estimated to be of Indian origin — about 36 times larger than Canadians of Barbadian origin;
- India grew by 6% annually over the decade of the 1990s. A report by economists at Goldman Sachs[1] shows that if these growth rates continued, by 2025 India would be the fourth largest economy in the world — larger than Italy, France, United Kingdom and Germany.

Yet, by official measures, at $133 million, Canadian commercial services exports to India were 1/4 of commercial services exports to Barbados. The stock of Canadian Foreign Direct Investments (FDI) in India — $144 million — was 1/166th the size of Canada's FDI stock in Barbados!

Are Canadian executives forsaking the bustle of Bombay for the beaches of Barbados? Or are official figures far from reality?

Our current knowledge of what Canadian firms are doing in India is thin, to say the least. It is based mostly on anecdotal evidence provided by Canadian Trade Commissioners in the field or through company press releases.

Getting a more precise picture of *what* Canadian firms are doing in India and *how* they are going about achieving their goals is a crucial first step for any firm wanting to grow its Indian business.

This report provides the first comprehensive look at Canadian services and investment activity in India. It is new in two ways. First, it goes beyond anecdotal evidence and gives the hard numbers — estimates of Canadian services and investment activity in India. Second, it outlines the value propositions, entry and growth strategies deployed by successful Canadian firms in the high-growth Indian market — again something not available to a business audience in the past.

Our findings are based on a comprehensive research program with a two-pronged approach: desk and field research. We used a wide variety of data sources including official Canadian and Indian sources, a national survey of Canadian business perceptions conducted by APF Canada in Spring 2003, annual reports of Canadian firms, and company press releases.

Our field research took us to seven cities — Montreal, Ottawa, Toronto, Vancouver, Delhi, Mumbai and Bangalore. Over the course of five months, we conducted comprehensive interviews with executives from 53 Canadian and Indian firms known to have significant business activity in the two countries. We interviewed most of the big Canadian players known to have operations in India including Bombardier, Alcatel Canada, CAE Inc., Aecon Group, Sun Life Financial, Bank of Nova Scotia, SNC Lavalin and Hummingbird Ltd. We also interviewed executives at some of India's largest companies with Canadian operations, including: Infosys, Wipro Technologies, Kshema Technologies, Kumaran Systems and Tata Consultancy Services.

We hope the resulting findings provide businesses with strategic insight on what works and what doesn't in the crucial Indian market.

KEY FINDINGS

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1 CANADIAN SERVICES SALES IN INDIA UNDERVALUED

- We estimate that in 2002, Canadian firms sold $336 million in commercial services in the Indian market. This is about 2 1/2 times greater than commercial services exports reported by Statistics Canada.

- Three sectors — finance (31%), power (28%) and information and communications technologies (13%) — account for about three-quarters of these services sales.

- Other sectors — particularly those with a high services component such as life sciences, education and environment did not contribute much, if at all, to overall services sales by Canadian firms in the Indian market.

2 CANADIAN INVESTMENTS IN INDIA ALSO UNDERVALUED

- Our estimate of the stock of investment in India for a limited sample of only 43 Canadian firms for 2002 is $284 million — about twice Statistics Canada's estimate of total Canadian FDI in India. Our sample of firms does not include some significant Canadian investors, particularly in the Oil & Gas, Telecommunications, and Health Care sectors. We therefore view our investment estimates as being conservative.

- Investments in the financial services ($150 million), power ($64 million), and information and communications technologies ($30 million) sectors represented more than 85% of Canadian investments in India for our limited sample of 43 Canadian companies.

3 SUCCESSFUL CANADIAN SUPPLIERS PACKAGED THEIR PRODUCTS AS "SOLUTIONS"

- Most firms selling goods to businesses in India (the B2B market) use what we call the Service-based Commodity Model. The more successful firms essentially offered commoditized goods (software, hardware, capital goods, transportation equipment, etc.) by differentiating their products as a "service"or "solution." By doing so, the successful firms were able to win Indian customers who were prepared to pay a premium for a relatively reliable product. Examples of Canadian firms using this model included: Hummingbird Ltd., Teknion Furniture Systems and Memotec Communications Inc.

Entry Strategies: In most instances, development and manufacturing of the actual product was undertaken outside India. The more successful firms had in-house sales, distribution and service teams within India that handled installation and after-sales service. Their country managers were also of high quality and well connected in the India market.

Growth Strategies: Offices of affiliates or distributors were crucial to the delivery of services for the firms deploying the service-based commodity model. Successful firms were also looking to develop greater partnerships with established Indian distributors who were viewed as providing greater market penetration than their existing distribution networks.

4 CANADIAN "IT" FIRMS SHOW A HIGH LEVEL OF INTEGRATION WITH THEIR INDIAN COST CENTRES

- Most smaller Canadian technology firms deployed what we call the Integrated Commodity Model. While the visioning and marketing of products for these firms took place in Canada, in most cases, core code-writing work was done in India with development highly *integrated* into corporate strategies of the Canadian parent. The value essentially comes from low-cost, high-quality Indian labour. Primary clients for these firms were businesses with operations in North America and Europe (B2B market). Examples include: XStream Software Inc., Eftia OSS Solutions, Pivotal Corp., CAE Inc. and Alcatel Canada.

Entry Strategies: The emphasis of firms using this model were their local offices in India. Securing a location within software technology parks or cities where there was a large pool of skilled labour was viewed as an important entry milestone. Securing the electronic exchange of information was also viewed as crucial to product development. India-based country managers were viewed as crucial for successful firms. These country managers had more of an engineering function than a sales function.

Growth Strategies: These firms were more likely to view India as a hub that could be used for regional growth strategies. Many firms were poised to increase their staff capacity in India with a view to servicing Far Eastern, South Asian and Middle Eastern markets.

5 B2G MARKET DOMINATED BY TRUSTED ADVISORS

- Most Canadian firms that provided goods and services to Indian governments and or multilateral aid institutions (the B2G Market) deploy the Trusted Advisory Model. While most firms we interviewed were pure-play engineering consulting firms with a focus on construction, power and transport sectors, some are large Canadian firms that provide end-to-end project management solutions. Examples include SNC-Lavalin, RV Anderson, Acres International, Senes Consultants, CPCS Transcom and Lea South Asia Ltd.

- The value proposition used by firms deploying this model depended on their ability to provide trusted advice gained from vast experience in large international projects and their ability to compete at cut-throat prices in a crowded domain. These firms also typically were part of consortia that delivered a full range of services.

Entry Strategies: We found that in almost all instances, firms had partnerships with Indian and/or foreign firms when bidding for government contracts. Local project offices in India, offices of affiliates and Joint Venture (JV) partners, and travel by Canada-based personnel were all crucial to operational effectiveness and effective market entry. A typical entry strategy was to bid for and win government tenders.

Growth Strategies: The executives we interviewed saw India as a competitive market. For a variety of reasons — pricing, bidding procedures, revenue capture — most executives viewed India as a project destination rather than an investment destination. Growth therefore depended on the firm's ability to win government contracts.

6 SMEs ENGAGED IN INDIA TRADE OCCUPY NICHE MARKETS ONLY

- Small and Medium-sized Canadian firms typically use what we call R&D-based Innovation Models. Firms typically used in-house R&D skills to develop and exploit proprietary technologies that offer unique solutions and command high prices. This technology is typically developed in Canada and is limited to niche markets. Examples of firms that use this model are: BIO S&T, Newsco Newtech, PCI Geomatics and Eco-Tec Inc.

Entry Strategies: The more successful firms had long-standing distribution-type relationships with established Indian partners. While some firms had a small in-house distribution team, a large share of sales activity occurred through reliable Indian partners.

Growth Strategies: For the successful firms, a trusted relationship with their Indian distributors was the key to future growth. We encountered examples where that trust had completely broken down. As a result, growth prospects in the Indian market were limited. We also saw examples of trust at the highest corporate levels between the Indian and Canadian partners. That trust set the tone for a fruitful and growing business relationship in the Indian market.

7 WHAT WORKS AND WHAT DOESN'T IN INDIA

- Knowing what works based on experiences of Canadian firms active in the Indian market will be crucial to success in a large and growing market like India, especially given the dearth of good information on how to do business there. The dynamics of conducting business in the Indian market can be very different from how business is done in industrialized countries. Based on our interviews and field observations, we have developed a 10-point check-list that firms might find helpful when thinking about their entry and growth strategies for India:

Partnership has its Payoffs: If there is one piece of advice that potential entrants should keep in mind, it is that partnership is key to operational success in India. This is true regardless of whether you are a goods supplier, a services provider or a solutions-based organization. The key to the success of your offering in India is to build a network of contacts across the Indian private and public sectors.

Choose an Appropriate Entry Strategy: The type of goods and services you want to sell will determine how you choose to conduct your business in the Indian market. If you see yourself primarily as a goods exporter to India with a low service content, partnership with a reputable Indian company that will sell your product may be sufficient to get you started in the Indian market. This is particularly important for SMEs that may not have the resources to establish a dedicated distribution network.

If, on the other hand, your firm is a provider of services or solutions, it becomes important to provide high-quality service to Indian clients. While Indian partners could do this for you, we encountered many situations where it took time to build trust between Canadian and Indian firms. The appropriate entry strategy may then be to provide a combination of after-sales service together with Indian channel partners capable of delivering your solutions.

Seek Professional Advice: We found that having good India-based lawyers and accountants was a crucial first step to better understanding the intricacies of the Indian regulatory environment. India-based lawyers and accountants that work with foreign clients tend to be of very high quality and should be your first point of contact when deciding to enter the Indian market.

Quality Field Presence is Crucial: If India is going to be part of your firm's global growth strategy, it will be important to establish and nurture a quality field presence. Ideally, this field presence should be headed by a country manager who should be a company employee reporting directly to senior management. The role of the India country manager cannot be over-emphasized. This person will be the company's face, eyes *and* ears in the country. Business relationships will be made or broken depending on the abilities of the country manager to establish relationships with Indian clients.

View India as a Hub: Many of the service-based companies interviewed saw India not so much as a cost centre but as a hub that could be used for regional growth strategies. Many firms were poised to increase their staff capacity in India with a view to making it a regional hub servicing Far Eastern, South Asian and Middle Eastern markets. Establishing a flexible operation in India within the context of a regional growth strategy could lead to significant future payoffs. Again, the role of country managers and the team that they build around them would be key.

Costs Matter: If your firm is thinking about using India as a cost centre, you need to keep some trade-offs in mind. We interviewed XStream Software Inc. that decided to establish operations in Thiruvananthapuram (Kerala state) primarily because of the high cost of labour and land in established urban markets like Bangalore. Another technology firm we interviewed — Eftia OSS Solutions — mentioned the debonding requirements needed if a firm wants to relocate out of a software technology park. All of these costs need to be kept in mind *before* your entry into India.

Expect Competition to be Fierce: While India is still a low-income country, we were surprised by the quality of its management, its business culture and the degree of competition that exists in various sectors. Almost all firms interviewed had some comment to make about the “price sensitive” nature of the market or the competition they face from foreign and local companies. New Canadian entrants need to be prepared to face the competition and to adapt to Indian pricing structures.

Innovation is Valued by Indian Partners: In interviews with Indian firms that formed JVs with Canadian partners, we found that the primary reason for partnering was the technology that Canadian firms can bring to the partnership. We found that the Indian partners valued this contribution and were prepared to dedicate resources to market it in India. In developing business relationships in a competitive environment, the technology value added that Canadian firms can bring will be crucial in clinching contracts.

Follow-through: One observation from our field research was that partnerships that worked needed commitment, trust and follow-through by Canadian companies at the highest levels. We saw examples of JVs and strategic alliances that did not have much to show in terms of sales or collaboration. We also saw examples of JVs and strategic alliances doing interesting, ground-breaking work in the market. A significant operational difference was that successful partnerships had commitment at the highest levels by executives on both the Indian and Canadian sides.

Give it Time: Most Canadian firms interviewed recognized the importance of longer-term planning horizons to nurture their India markets. The advice given by Canadian firms that were in India for longer than five years was simple: do not expect quick returns although the rewards can be substantial in the longer term.

CANADIAN SERVICES SALES AND INVESTMENTS IN INDIA: THE HARD NUMBERS

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International trade is the lifeblood of the Canadian economy. Lost in most analyses of Canada's international export performance is the role of Canadian services exporters. This oversight is understandable. By official measures, services exports do not account for a large part of Canada's international trade transactions. In 2002, for example, the $58.3 billion worth of services exported by Canadian firms represented only 12% of total Canadian exports.

Trade practitioners, however, have long known that official statistics on services trade fail to capture the full scope of commercial services activity by Canadian firms overseas and the integration it entails. Statistics Canada's recent estimates confirm this — services sales of foreign affiliates of Canadian firms were in the order of $156 billion in 2001 — close to triple the cross-border exports of services recorded in Canada's balance of payments accounts.[2] Essentially, practitioners argue that official data does not capture economic activity occurring at the nexus of services and investment that has become such an important part of our globalized world.

This nexus is especially important when it comes to Canada's economic relationships with emerging markets like India. Services delivery in many sectors (such as construction services, legal services, engineering services) can only occur if there is close and regular contact with customers. In certain sectors in India, equity restrictions or regulatory requirements create the necessity of establishing JVs between Canadian and Indian firms that then provide services to Indian clients. Services delivery is also often part of a Canadian firm's global delivery model where a distribution team is established in India but services are delivered from countries other than Canada.

All of the examples cited above require some form of investment — either FDI or establishing marketing, sales or distribution networks. Most of them would not be recorded in official services export statistics between

SIDEBAR 1: **Why Official Data Do Not Echo Ground Realities in India**

Services Delivered by Foreign Affiliates

Characteristics inherent to services result in a disconnect between what is measured in official statistics and what Canadian service suppliers are doing, on the ground, in India. Foreign affiliates of Canadian firms are a case in point. Operational in India since 1995, Mahindra Acres Consulting Engineers Ltd. (MACE) is a joint venture between Mahindra & Mahindra — one of the top-10 industrial houses in India — and Acres International Limited — one of Canada's largest multidisciplinary engineering consulting firms. The JV company is focused on engineering consultancy work in India in sectors such as power, transportation, municipal services, urban infrastructure and various other infrastructure projects.

According to Mr. B. Suresh (Chief Operating Officer at MACE), the primary motivation for Acres International's decision to participate in a JV with an established Indian partner was the need to have an affiliate office in India to keep an ear to the ground for market intelligence, to maintain regular contact with its Indian clients and to penetrate the Indian market with quality staff at competitive prices.

Services delivered in India by this 80-person JV operation would not be recorded in Canadian balance of payments accounts because the services are delivered by a foreign affiliate of a Canadian firm and do not constitute a cross-border revenue stream for a firm resident in Canada.

Canada and India and we encountered many such cases in our interviews with firms (See sidebars 1 and 2).

What is needed to get a more accurate picture of Canadian business activity in India is "final destination" data that is closer to how firms themselves think of the revenues they derive from a service or investment transaction in any given market.

Our estimates on Canada's services sales and investments in India do exactly that. In a Business Perceptions Survey of the Indian market that APF Canada conducted in 2003, we asked 179 Canadian firms questions on revenue generated through services activities in India.[3] We complement these survey findings with data gathered from our interviews with 43 Canada-based firms as well as company annual reports, press releases and Indian investment approval data.[4]

The resulting portrait of Canadian services and investment activity in India is very different from the one that currently exists.

SERVICES SALES ESTIMATES

We estimate that Canadian firms had $336 million in commercial services sales in India in 2002. This is about 2 1/2 times greater than the 2001 cross-border commercial sales figures reported by Statistics Canada and a similar multiple found by Statistics Canada in its global analysis of Foreign Affiliate sales by services providers.

As we can see in Figure 1 (Page 11), three-quarters of these sales occurred in three sectors — Insurance, Banking & Financial Services ($105 million or 31%), Electric Power Equipment & Services ($96 million or 28%), and Information and Communication Technology ($44 million or 13%). Also significant were the Oil & Gas Sector ($24 million) and Consulting Services ($20 million).

These sector estimates on services sales by Canadian firms in India are radically different from similar figures provided by official sources. For example, our estimates on Banking & Financial services are *at least* 3 1/2 times larger than the official figures. Differences between our "final destination" and official figures are understandable given that a large bulk of banking and insurance transactions occur within the destination market.

Our services estimates in the Electric Power Equipment and Services sector also echo some on-going research undertaken at APF Canada that suggests that relative to some key OECD competitors (like the United States, Germany, Australia and Japan), Canada has a competitive advantage in the

SIDEBAR 2: Why Official Data Do Not Echo Ground Realities in India

The Global Service Delivery Model

In the information technology sector, an important element of a transaction is not so much the software delivered "in a box" but the downstream service or solutions needed to operationalize the software throughout an enterprise. We interviewed Mr. K. Balasubramanium (Regional Manager — Asia-Pacific) at Hummingbird Ltd. — a leading Canadian provider of information management solutions. Hummingbird has been involved in the Indian market for the past three years. The company has three sales offices in India (Chennai, Delhi and Mumbai) and employs four sales and support staff who are responsible for servicing its Indian partners.

Hummingbird has recently provided data warehousing software architecture to Ranbaxy Laboratories Ltd. — India's largest pharmaceutical company and among the top 10 generic pharmaceutical companies in the world. To support Ranbaxy's aggressive expansion in Europe and the United States, Hummingbird put in place a system of enterprise-wide data extraction, transformation, loading and reporting tools that allowed Ranbaxy to optimize business processes and strategic planning.

What is interesting about this case is that part of the services required for installing such solutions were delivered primarily through Hummingbird's regional offices in Singapore. Consequently, some services components of this transaction would not be recorded in Canadian statistics, again because the transaction itself did not occur between a Canadian resident firm and an Indian firm.

delivery of engineering services to India with the Electrical Power sector accounting for the bulk of Canadian services activity.[5]

INVESTMENT ESTIMATES

By official measures, the stock of Canadian Foreign Direct Investment is not very large. In 2002, for example, the total stock of Canadian direct investment in India was $144 million — 0.03% of Canada's total stock of FDI abroad. Almost three-quarters of this investment is in just two sectors — Finance and Insurance (71% or $102 million) and Electrical and Electronic Products (2.7% or $4 million).

Like statistics on trade in services, trade commissioners in the field argue that the level of Canadian investment activity in India is higher than stated in official statistics. Having interviewed 43 Canadian firms with operations in India, we would tend to agree with this view. It seems quite unlikely that the total stock of Canadian FDI in India, excluding Finance and Electrical/Electronic Products, is just $38 million.

Our estimate of aggregate Canadian investment in India for these 43 firms in 2002 is $284 million — about twice Statistics Canada's estimates. Figure 2 provides sector breakdowns.

As we can see, of the firms we interviewed, financial services firms accounted for over half of total Canadian investments in India ($150 million) followed by investments in the power sector ($64 million) and ICT sector ($30 million). These three sectors together accounted for over 85% of investments in the Indian market for the firms we interviewed.

It is clear from this limited firm-level interview data that official statistical sources are missing important elements of Canadian investments in India. Our estimates for the Insurance, Banking & Financial Services sector, for example, are 50% larger than official estimates. Our ICT investment figures are 7 1/2 times larger.

This latter result on the ICT sector is echoed by our analysis of Indian approval data and anecdotal information from company press releases (See sidebar 3). We found that at $121 million for the four-year period 1999-2003, Canadian approved investments in the ICT sector accounted for the largest chunk of approved Canadian investments into India. What is clear is that Canada's FDI stock in India in the ICT sector is likely an order of magnitude larger than the tiny $4 million figure cited in official statistics.

SIDEBAR 3: Why Official Data Do Not Echo Ground Realities in India

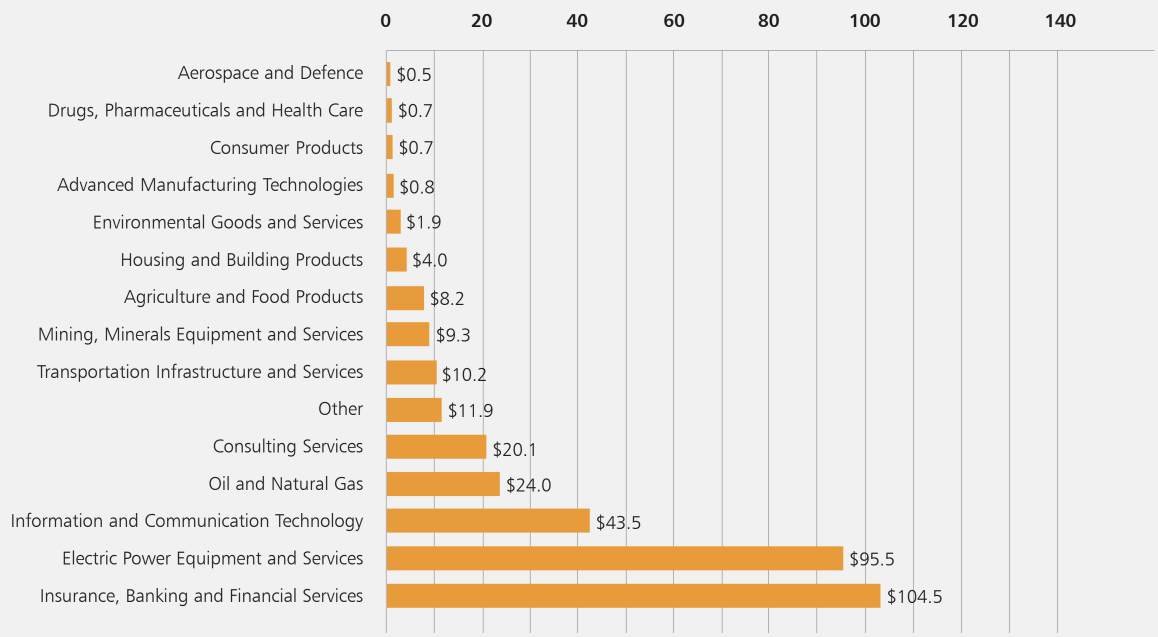
Global Tax Structures

International tax treaties and structures almost certainly lead to an underestimation of actual Canadian investments in India. Mauritian investments in India are a case in point. If we go by Indian approval data, proposed FDI approvals by the Indian government from the Sub-Saharan African country of Mauritius were four times larger than approvals from Germany, three times larger than approvals from Japan, and 12 times larger than approvals from Canada. In fact, over the 1991-2003 period Mauritius was the second-largest source of FDI in India by a wide margin!

Are "Mauritian" firms leaders in riding the Indian economic wave? A casual look at Indian approval data will show that most of these "Mauritian" firms are in fact global firms taking advantage of India's taxation treaty with Mauritius. These included firms like Goldman Sachs, Cargill, Starbucks, Intel, De Beers, AT & T Cellular, British Petroleum, General Electric and Ernst & Young.

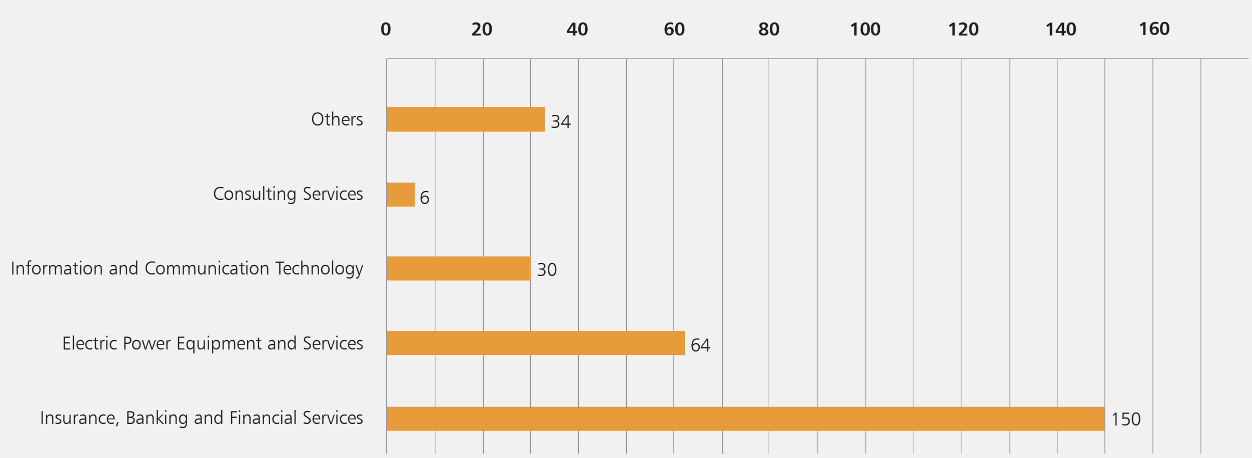
A good example of a "Canadian" investment in India recorded as a Mauritian investment is that of Telesystems International Wireless (TIW) Inc., a Montreal-based provider of wireless telecommunications services. TIW's investment in India in Rajasthan state's mobile telecom sector was made by Telesystems (Mauritius) Pvt. Ltd., a subsidiary of TIW Inc. Recent press releases revealed that TIW (Mauritius) was offered about $31.5 million for this investment by Bharti Tele Ventures. If we assume a 20% premium on book value, this investment alone would increase Canada's FDI stock in India by about 15%.

FIGURE 1: Services Sales by Canadian Firms in India, 2002 ($ millions)



Source: Asia Pacific Foundation of Canada

FIGURE 2: Canadian Investments in India, 2002 ($ millions)



Source: Asia Pacific Foundation of Canada

SUCCESSFUL CANADIAN BUSINESS MODELS IN INDIA

4

What makes the international operations of a Canadian firm a success? What strategies appear to work in the Indian market? As emerging markets like India become a greater focus of operations for Canadian firms, managers will have to find ways to respond to the challenges and opportunities of these markets.

In this chapter, we discuss some of our findings on the key markets that drive Canadian firms to consider India as a business destination, the models and strategies adopted by Canadian firms in the Indian market, and the effectiveness of various models and strategies.

It is important at the outset to make clear what we mean by the term "Business Model." In our interviews with firms, the term business model was used to describe everything from how a company earns revenues in India (projects, distribution arrangements, direct sales, etc.) to how a firm might be organized.

In our view, while these may be *components* of business models, they do not describe the organization's core logic for creating value. Business models should provide a sense of the firm's offering, its value proposition, why the firm chooses to enter a market like India; which markets it chooses to target within India; the approaches used by the firm to attract customers, investors and talent; and how the firm can manage change over time to remain competitive in a dynamic market like India's.[6]

Our interviews revealed that there are a limited number of business models used by firms for their Indian operations. Of the 43 Canadian firms (including JVs) we analyzed, 17 firms used what can be described as "Commodity Plus" models, nine used "Innovation Models," nine used "Trust Models," five used "Intermediary Models" and three relied on "Channel Models."

4.1 TYPES OF MARKETS IN INDIA

Reasons for Canadian firms going global abound. In interviews that we conducted, access to a large and growing market like India was the most often mentioned reason for entering or considering the Indian market. This was also confirmed by a nationwide survey of Canadian managers we conducted in February-March 2003 that showed about 75% of respondents felt that India's growth and size were important drivers for their firms' entry decisions.[7]

Size of markets was important for both large, multinational Canadian firms and small and medium-sized enterprises (See sidebar 4). Our interviews revealed four types of market segments targeted by Canadian firms in India:

1 **Niche Markets:** These markets tend to be occupied by a handful of competitors in specialized sectors that require a large degree of research & development (R&D) capital. In most instances, local Indian competitors are absent and the market is occupied by mostly foreign companies. Canadian firms tend to target these niche markets by using their R&D assets to develop proprietary technologies that typically command high margins. These firms are distinguished from others by the specialized sectors in which they are engaged and the lumpy nature of their sales activity in a market like India.

   Examples of these firms included Montreal-based BIO S&T and Pickering-based Eco-Tec Inc. BIO S&T, for example, provides cloning vectors and gene analysis kits to its Indian clients while Eco-Tec Inc. manufactures industrial water purification, chemical recovery and recycling systems for the power generation and the petrochemical industries. Both firms provide a highly specialized offering and both have had lumpy sales experiences in the Indian market.

2 **B2G Markets:** This market consists largely of firms providing services for infrastructure-related projects with the end-client being various levels of

governments in India and/or multilateral institutions. Competition is fierce and ranges from small one-person consulting engineers to large multinational corporations. Typically, Canadian firms tend to be focused on the engineering side of infrastructure and power-related sectors. Examples of B2G firms we interviewed included SNC Lavalin, RV Anderson Associates Ltd. and CPCS Transcom Ltd.

3 **B2B Markets**: These markets are occupied by competitors — both Indian and foreign — with a wide range of product offerings. Canadian firms active in the Business-to-Business segment of the Indian market use their extensive scale, efficiency and expertise to provide critical goods and services core to the operational needs of Indian firms in a wide range of sectors.

Examples of these firms include Hummingbird Inc. and Teknion Furniture Systems. Both firms provide goods and services packaged as "solutions" that improve the efficiency of their Indian clients. Firms focused on the private sector in India are not limited to any one sector. Hummingbird, for example, has undertaken work for Indian firms ranging from pharmaceutical to the film sectors.

4 **B2C Markets:** This is India's mass market. Canadian firms active in this mass market target sectors wherever there is significant consumer demand. Not many Canadian firms fall within this category. Examples that we interviewed included Minaean Building Solutions which provides steel-frame construction for the mass housing market in India and TIW Inc., a provider of cell phone services in Rajasthan state.

SIDEBAR 4: Size of India Market Important for Large and Small Canadian Firms

The Power and Construction Sectors Offer Big Opportunities

SNC-Lavalin is one of Canada's largest engineering and construction firms with a market cap of $2.5 billion. The company provides engineering, procurement, project management, infrastructure and facility management services worldwide. SNC-Lavalin has marketing or operating offices in over 30 countries with current projects in about 100. We asked Lance Howard — Senior VP, Turnkey Projects and Energy Division — what caused his firm to enter the Indian market. Two factors were mentioned. First, the size and growth potential of India's power sector was cited as the most important current driver. According to the Government of Canada's 2003 South Asia Trade Action Plan, during the current tenth five year plan (2002-2007), India is expected to add 41,000 Mega Watts (MW) of power generation capacity to the present installed capacity of about 100,000 MW. Demand is expected to grow to 212,000 MW by 2012 which will require an investment of over US$ 200 billion. Second, Mr. Howard mentioned that SNC-Lavalin has been in India for over 40 years undertaking international development projects for the Canadian International Development Agency and other multilateral development banks like the World Bank and Asian Development Bank. This long experience working in India has persuaded the firm to view India as an important market.

At the other extreme, Minaean Building Solutions Inc. (MBS) is a small Canadian firm headquartered in Surrey, British Columbia, with a market cap of $4.6 million. MBS markets innovative steel-based building construction technologies and is trying to break into the low-cost residential housing segment in India. We asked Mervyn Pinto, President and CEO at Minaean, about drivers into the Indian market. According to Mr. Pinto, India currently faces a shortage of 40 million dwellings and there is an active political demand for providing good quality housing for the mass market. Minaean's technology provides certain advantages that are unique to the Indian market. These include: higher strength-to-weight ratio, allowing structures to better withstand environmental disasters such as floods, earthquakes, high winds; non-combustibility; and steel's inorganic nature that will not warp, split, crack or creep — all of which are common construction problems in India. In Mr. Pinto's view, while competitors exist, MBS' offering is unique and well-configured to the India market.

4.2 MODELS USED BY CANADIAN FIRMS

A) Service-based Commodity Model

The service-based commodity model was the most typical used by Canadian firms that had a focus on the B2B market in India.

Value Proposition: The core value proposition of the more successful Canadian firms using this model was a commoditized offering in India that, through aggressive marketing and distribution strategies delivering "services" or "solutions," was successful in winning Indian customers. These customers were willing to pay a premium for a relatively reliable product made by a foreign firm with the certainty of above-average service accompanying the product "in a box."

CASE STUDY 1: Service-based Commodity Model

Hummingbird Ltd.

Value Proposition: *Headquartered in Toronto, Hummingbird is an information management company with "cradle-to-grave" technology solutions. Hummingbird's business can be divided into two distinct product families: Connectivity and Hummingbird Enterprise. Hummingbird's legacy business is its Connectivity software in which it is a leader, with almost 80% of a maturing market. Hummingbird's flagship offering, and the source of its revenue growth, is Hummingbird Enterprise™. This integrated software offers technologies comprised of portal, document, records management, collaboration, search, retrieval, business intelligence, and data transformation connectivity. According to Hummingbird, 90% of Fortune 500 companies and 85% of the Fortune 100 companies rely on Hummingbird to manage their enterprise content.*

We interviewed Mr. K. Balasubramanium, Hummingbird's Regional Manager (Asia-Pacific) who provided us with interesting insights into Hummingbird's India operations.

Entry Strategy: *According to Mr. Balasubramanium, there are a significant number of persons of Indian origin at Hummingbird, including key senior managers. This has resulted in a corporate culture that allows Hummingbird to be comfortable in international markets in general and India in particular.*

Hummingbird has been involved in the Indian market since 1999. The company has three offices in India in Chennai, Delhi, and Mumbai. These are primarily sales offices that employ four sales and support staff who are responsible for servicing its channel partners.

Growth Strategy: *Mr. Balasubramanium outlined two strategic corporate goals for Hummingbird in India. First, Hummingbird wanted to take advantage of the fact that it was the first end-to-end foreign enterprise solutions firm to enter the Indian market. Hummingbird would like to leverage this to rapidly increase its installed base in India. It would also like to use India as a hub for expanding the installed base regionally into the Middle East and Southeast Asia.*

A second corporate goal mentioned by Mr. Balasubramanuim was to have its channel partners in India certified so that they can develop the capability to deliver Hummingbird technology worldwide using Indian cost structures. To do this, Hummingbird's primary change strategy in India is to establish strategic alliances and partnerships with leading Indian IT service providers to help deliver its technology to Indian customers. Hummingbird currently has partnerships established with nine Indian IT consulting firms including Datamatics, TRRS Imaing, Wipro, ISG, Satyam Computer Services, and Tata Consultancy Services. These "channel" partners help deliver and service end-customers. There are some 50-60 end-customers in India for Hummingbird's solutions including in the manufacturing, pharmaceutical, telecommunications, enterntainment, and oil sectors.

Competitors: *According to Mr. Balasubramanium, Hummingbird's competitors vary according to segment in which the firm is active. In the imaging/documentation management side, Newgen based out of New Delhi is an important competitor in India. In data warehousing, Cognos & Business Objects are some of the important competitors in India. Larger firms like Microsoft, Oracle and SAP are also important competitors in other areas. According to Mr. Balasubramanium, Hummingbird's advantages over its competitors include seamless end-to-end solutions provided by its software and the strategic alliances it has with leading Indian partners.*

Entry Strategies: The entry strategies of these firms were also similar. Their product is, in almost all cases, developed and produced outside India while sales, distribution, and service teams within India and regional hubs handle installation and after-sales service. The role of the India country manager and regional centres in marketing activities within India was viewed as being crucial to success in the Indian market.

Growth Strategies: Offices of affiliates or distributors were crucial to the delivery of services for firms deploying this model. While it took some time to find a reliable partner, successful firms wanted to develop greater partnerships with established Indian distributors who were viewed as providing greater market penetration than their existing distribution networks.

CASE STUDY 2: Service-based Commodity Model

Teknion Furniture Systems

Value Proposition: *Established in 1981, Teknion is an international designer, manufacturer and marketer of office systems and related office furniture products including storage and filing, seating, casegoods, tables and ergonomic furniture. Teknion focuses on the contract (mid-high end) segment of the office furniture market in six major office furniture product categories. The company's worldwide presence is represented by showrooms around the world as well as by Teknion dealers worldwide. Based in Toronto, Teknion employs over 3,800 employees worldwide and operates manufacturing facilities in Canada, the US, Australia and Malaysia.*

Teknion's strength can be found in the products it offers. Since Tekinon's furniture are model furniture, they can be reconfigured at any time. Therefore, Teknion's core strength lies in the flexibility of its product which regular furniture cannot offer. Teknion also offers a complete system approach when it comes to furniture installation and its products are price competitive.

We interviewed Mr. Sanjeev Ahluwalia, Teknion's Country Manager in India.

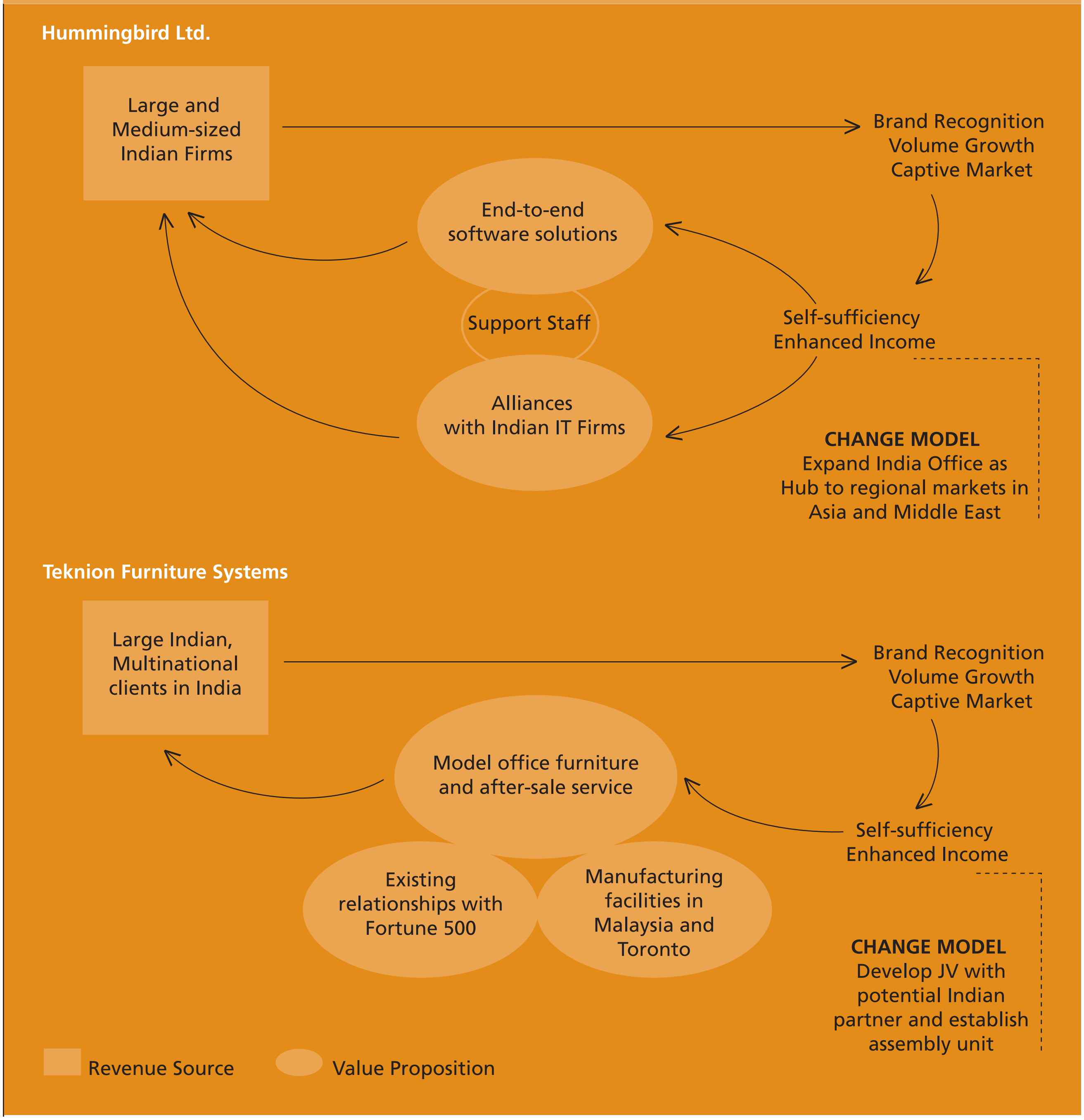
Entry Strategy: *Teknion has been active in India for three years. According to Mr. Ahluwalia, there were two factors behind Teknion's entry into the Indian market: a) the emergence of the Indian economy and; b) 200 of the 500 Fortune companies already have operations in India.*

Teknion, therefore, established a liaison office in India and the company's operations are focused in Chandigarh, Hyderabad, New Delhi, Mumbai and Bangalore. Teknion currently employs two permanent employees for its operations in India. These employees have an after-sales service function which includes reconfiguration and new orders. The firm also employs sub-contractors for installation of its furniture solutions. Teknion currently imports its furniture from its Malaysia operations.

Growth Strategy: *According to Mr. Ahluwalia, Teknion's goal in India is to establish the Teknion brand as a leading designer and promoter of high-quality model furniture solutions. In order to do this, the company intends to target 10% of the total furniture market by establishing relationships in India and networking with these relationships to reach the targeted companies. Teknion also plans on establishing a new showroom and a Joint Venture with an established local Indian distributor. In the longer term, Teknion plans to maintain an assembly unit with standard furniture and standard product ranges.*

Competitors: *In the Indian market, Mr. Ahluwalia identified U.S. and Malaysian companies as competitors of Teknion. European companies are also in the market, however, they are not as aggressive and therefore are not Teknion's major competitors. Mr. Ahluwalia mentioned that while Indian furniture manufacturers dominate the lower end of the Indian market, Teknion's target market includes Fortune 500 companies and major Indian corporate houses.*

FIGURE 3:


Hummingbird Ltd.
Large and Medium-sized Indian Firms
Brand Recognition
Volume Growth
Captive Market
End-to-end software solutions
Support Staff
Alliances with Indian IT Firms
Self-sufficiency
Enhanced Income
CHANGE MODEL
Expand India Office as Hub to regional markets in Asia and Middle East
Teknion Furniture Systems
Large Indian, Multinational clients in India
Brand Recognition
Volume Growth
Captive Market
Model office furniture and after-sale service
Existing relationships with Fortune 500
Manufacturing facilities in Malaysia and Toronto
Self-sufficiency
Enhanced Income
CHANGE MODEL
Develop JV with potential Indian partner and establish assembly unit
Revenue Source
Value Proposition

B) Integrated Commodity Model

We found that most smaller Canadian technology firms (and large Indian firms active in Canada) deployed the Integrated Commodity Model. Variously described as "offshoring" or "outsourcing," the distribution and sales focus of these firms was mostly in industrialized countries, with India acting as a large pool of highly skilled and relatively cheap labour.

Value Proposition: In this model, a Canadian firm delivers a commoditized offering internationally, and relies heavily on its India operations for core development activity. While the visioning and marketing of products happens in Canada, in most cases, core code-writing work is done in India. Smaller Canadian firms had a high intensity of labour (between 50% - 80% of their workforce) sourced from India.

CASE STUDY 3: Integrated Commodity Model

Eftia OSS Solutions Inc.

Value Proposition: *Founded in 1997 and headquartered in Ottawa, Eftia OSS Solutions Inc. is a privately-held firm delivering Operational Support System (OSS) software to telecom service providers. Eftia's clients are engaged in a wide range of sectors within the telecommunications domain, including: transportation communications; integrated providers of broadband, IP telephony and wireless services; and providers of consulting services to the telecommunications industry. Eftia's products provide telecommunications firms the ability to manage customer orders, network circuits and inventory, telephone/IP numbers, and trouble management solutions. Eftia OSS Solutions Inc. has 100 employees worldwide and sales/project offices across North America, as well as Europe and in India.*

We interviewed Mr. Cyril Soga, Vice President (Global Engineering) at Eftia who provided us with a detailed view of Eftia's operations in the India market.

Entry Strategy: *Eftia's Indian subsidiary was formed in 1999 primarily to drive sales into the Asia-Pacific and Middle Eastern markets both through marketing activities and delivery of professional services. Because of the slowdown in the international telecommunications sector, it became clear that the OSS space in the Asia-Pacific and Middle Eastern markets had not matured enough for any significant sales to be made in that region. In 2001, therefore, Eftia changed its approach in India with a focus on software development and engineering activities. More recently, Eftia's approach has swung back to a more balanced mix of product development and sales from its India operations given the recovery in the Asia Pacific telecommunications space.*

Consequently, the head of India operations at Eftia is its Country Manager (equivalent to the General Manager) who has reporting to him a Director of Engineering and a Director of Sales. Eftia follows an integrated organizational model where teams working in Canada and India report to the relevant manager functionally, regardless of location.

Growth Strategy: *According to Mr. Soga, Eftia has two broad corporate goals for its India offices. The overall corporate goal, which is currently being achieved, is to help the parent company provide cost-effective software solutions to its clients. Second, Eftia would also like to see its India offices become self-sufficient by becoming a sales driver both for the Indian market and regionally into the Asia-Pacific and Middle Eastern markets.*

According to Mr. Soga, in order to achieve its corporate goals for India, software architectural decisions made at Eftia are made regardless of location. This strategy allows Eftia to provide end products that are cost effective and of high quality. The strategy involves joint code-writing were Eftia's India engineering team is given broad outlines of what needs to be developed. Teams in Canada and India then work together to develop Eftia's software. This model also involves integrated teams where reporting mechanisms are more functional rather than location specific.

Another strategy being adopted by Eftia is to penetrate partnership chains in the Asia-Pacific region. An example of this is Eftia's strategic alliance with Tata Infotech Ltd., a leading provider of consulting services to the telecommunications industry in India and the Asia-Pacific region. Eftia hopes that by partnering with Tata Infotech and other key system integrators, it can provide professional services in the OSS space thereby creating a footprint and brand recognition for its products.

Competitors: *According to Mr. Soga, some of Eftia's competitors in its OSS space include Metasolv Software Inc., Granite Systems (United States), and Clarity Inc. (Australia).*

Entry Strategies: The emphasis of firms using this model was their local offices in India. Securing a location within software technology parks or cities where there was a large pool of skilled labour was viewed as an important entry milestone.

India-based managers were viewed as crucial for successful firms. These managers had more of an engineering function as opposed to a sales function. HQ management relied on these managers intensively to ensure that key project milestones were met.

Growth Strategies: These firms were more likely to view India as a hub for regional growth strategies. Many firms were poised to increase their staff capacity in India with a view to servicing regional markets.

CASE STUDY 4: Integrated Commodity Model

XStream Software Inc.

Value Proposition: *XStream Software Inc. develops software for creating computer-based simulation, assessment, live information, and training environments. The company's simulation and authoring tool, RapidBuilder, is one of the world's leading software solutions that enables users to build fully interactive simulations, training materials, multimedia tutorials, demos, and presentations through the simplified use of drag-and-drop design activity. A complementary software, RapidExam, enables users to create multimedia-centred exams without programming or the use of scripts.*

Established in 1998, XStream Software Inc. is headquartered in Ottawa and has 125 employees worldwide. XStream Software Inc. has two locations in India and two in Canada. From a sales perspective, XStream Software Inc. has seen its revenue increase significantly in the pharmaceutical, financial services, software, and telecom-munications industries.

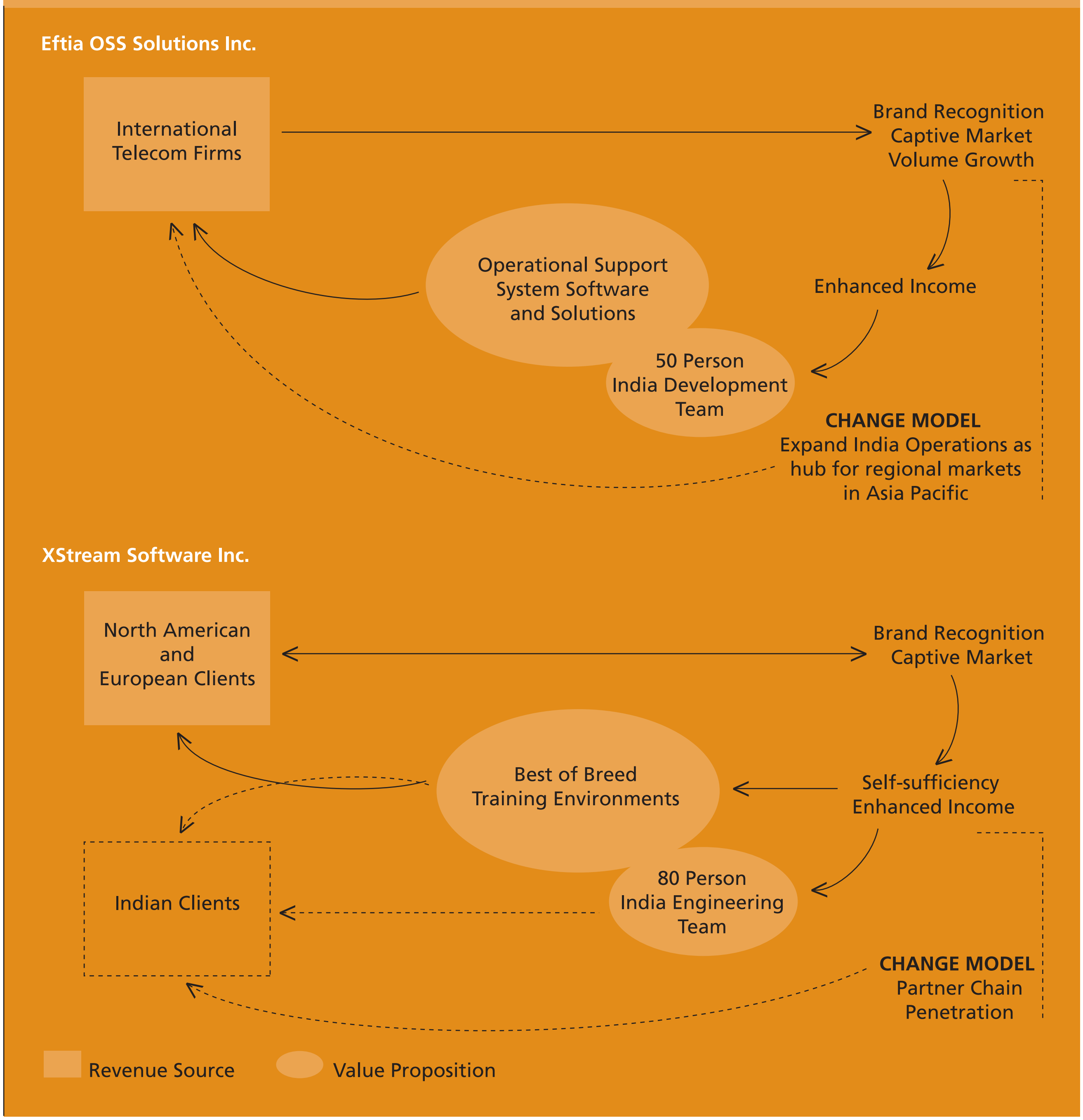
We spoke with Mr. Sunil Kumar Sethi, President & CEO at XStream.

Entry Strategy: *According to Mr. Sethi, talent and low costs were important drivers into the Indian market. While these two factors were the most important in building XStream's business plan, also important were cultural linkages of senior management with India. XStream Software Inc. has 107 employees based out of India. A large share of this employee base is out of Trivandrum in Kerela state. XStream's India operations are being managed by its Managing Director based out of India. Project Managers, Group Leaders, and Programmers report to the Managing Director in India. The Managing Director is based out of Trivandrum.*

Growth Strategy: *XStream Software Inc.'s current strategy for India is to focus on software development and engineering activities. In the medium- to long- term, XStream's approach is likely to evolve into a model where India is viewed as not only a source of product development but also as a destination for XStream's products and services. In order to meet this medium-term corporate goal in India, XStream Software Inc. is looking to form Joint Ventures with local marketing and technology firms. It is also looking to acquire local firms providing IT consulting services. The objective of this strategy is to partner with Indian firms that have the capability to convert XStream's technology and make it applicable and specific to the India market.*

Competitors: *According to Mr. Sethi, there is no direct competition for XStream's products and services in the India market.*

FIGURE 4:



Eftia OSS Solutions Inc.
International Telecom Firms
Brand Recognition
Captive Market
Volume Growth
Operational Support System Software and Solutions
Enhanced Income
50 Person India Development Team
CHANGE MODEL
Expand India Operations as hub for regional markets in Asia Pacific
XStream Software Inc.
North American and European Clients
Brand Recognition
Captive Market
Best of Breed Training Environments
Self-sufficiency
Enhanced Income
80 Person India Engineering Team
Indian Clients
CHANGE MODEL
Partner Chain Penetration
Revenue Source
Value Proposition

C) Trusted Advisory Model

Another important model used by Canadian firms active in India is the Trusted Advisory Model. These firms tend to occupy the B2G market segment. While most are pure play engineering consulting firms with a focus on construction, power and transport sectors, some are large Canadian firms that provide end-to-end project development solutions.

Value Proposition: The value proposition used by firms deploying this model in India centres around two elements:

1 Their ability to provide trusted advisory services gained from vast experience in large international projects that they have participated in over the span of decades. This experience allows firms to

CASE STUDY 5: Trusted Advisory Model

SNC-Lavalin Inc.

Value Proposition: *SNC-Lavalin's key value proposition in India is its size and experience. Both of these factors provide it with brand recognition and trust within government circles in India and a leg-up in the highly competitive Indian power sector.*

SNC-Lavalin is one of Canada's leading engineering and construction firms. The company provides engineering, procurement, project management, project financial services, infrastructure and facility management services. SNC-Lavalin has marketing or operating offices in over 30 countries with current projects in about 100 countries. SNC's size and experience matters in India since large infrastructure projects are common and require a firm that is financially capable of keeping a large portfolio of projects active.

We spoke with Mr. Lance S. Howard, Senior Vice President (Turnkey Projects, Energy Division) at SNC.

Entry Strategy: *SNC-Lavalin has over 40 years of experience in the Indian market. The initial impetus to enter India came from large power sector projects funded partly by the Canadian International Development Agency (CIDA). The company's activities in India have always been project-driven rather than investment-driven. The particular entry strategies adopted by SNC-Lavalin involve bidding for both large "Packages" in which revenues are generated from lump-sum turnkey projects in the power sector and smaller "Services" contracts — also mostly in the power sector.*

A : Turnkey Projects

Because of the size of these projects, turnkey projects almost inevitably involve international consortia. An example of SNC-Lavalin's turnkey projects in India is the Chamera Hydroelectric Project (Stage II). Chamera II is a run-of-the-river scheme for hydro power generation located on the Ravi River in Himachal Pradesh state. India's National Hydroelectric Power Corporation (NHPC) in New Delhi awarded the contract worth $500 million to an Indo-Canadian Hydro Consortium comprising the Indian company Jaiprakash Industries Ltd., and a group of Canadian companies led by SNC-Lavalin, including Acres International and GE Hydro. SNC-Lavalin's part of the contract will total CDN $140 million. The work performed by SNC-Lavalin included: review of overall and detailed planning, geological investigations, design of civil works, design of hydromechanical works, construction planning and scheduling, design of electromechanical equipment, and supply of electromechanical equipment (except generators).

B : Services Contracts

An example of services delivered by SNC-Lavalin in India is work done under CIDA's Energy Infrastructure Services Project (Phase II). Here too, SNC-Lavalin is part of a consortium consisting of Manitoba Hydro and Universalia to provide the Government of India, the State Governments of Madhya Pradesh, Andhra Pradesh, and Chhattisgarh advisory services in organizational restructuring and policy reforms. SNC-Lavalin provides advisory services on unbundling and restructuring of utilities, review of legal and institutional framework, development of system expansion investment plans, economic/financial and tariff studies, institutional strengthening and capacity building.

Growth Strategy: *SNC-Lavalin's growth strategy in India is simple. It markets itself widely in the Indian market at various levels of government and has a sound understanding of government contracts in the pipeline.*

Competitors: *The power space in India is highly competitive. SNC-Lavalin faces competition from Canadian and international firms and some international consultants. Mr. Howard mentioned that competition is particularly stiff from local Indian firms such as Bharat Heavy Electricals Ltd (BHEL).*

demonstrate their ability to provide either total end-to-end solutions or predictable operations.

2 Their ability to compete at cut-throat prices. Competition in the engineering consulting and related downstream services business in India is fierce with competitors ranging from one-person consulting outfits to large Indian contractors and multinational firms. Further, Government of India and multilateral development bank bidding processes often attract many players and are quite competitive. In all engineering contract-related environments, value is created by exploiting economies of scale to compete on prices.

Entry Strategies: We found that in almost all instances, firms had partnerships with Indian and/or foreign

CASE STUDY 6: Trusted Advisory Model

Mahindra Acres Consulting Engineers Ltd.

Value Proposition: *Like other successful engineering outfits in India, Mahindra Acres Consulting Engineers Ltd. (MACE) relies on its ability to deliver advice at a competitive price based on its size and experience. Operational in India since 1995, Mahindra Acres Consulting Engineers Ltd. (MACE) is a joint venture between Mahindra & Mahindra — one of the top-10 industrial houses in India and Acres International Limited — one of Canada's largest multidisciplinary engineering consulting firms. The JV company is focused on engineering consultancy work in India in sectors such as municipal power, transportation, municipal services, urban infrastructure, and various other infrastructure projects.*

We interviewed Mr. B. Suresh, Chief Operating Officer at MACE's offices in Mumbai.

Entry Strategy: *According to Mr. Suresh, overseas engineering expertise is a key component to winning large engineering consulting contracts in India. Here, Acres International Limited has an international reputation in the power sector in general and in the area of hydro-power in particular. Because of this good product mix, Mahindra & Mahindra felt that their firm would be better placed to compete in the Indian market in these segments if it partnered with a reputable engineering consulting firm such as Acres International.*

According to Mr. Suresh, the importance of different modes of service delivery depend on the type and sector of the project undertaken by the JV firm. He divided engineering consulting projects undertaken by MACE into 3 types. For projects that can be undertaken by the Indian arm of the JV (for example in the Agriculture sector), delivery of services from Acres International is quite minimal. Similarly, for projects that require administrative and managerial functions, most services are delivered by local staff in India. However, for projects that require Acres International expertise, there is very close interaction on all modes of service delivery. In such circumstances, the cross-border delivery of services, the Joint Venture's offices in India, offices of affiliates (such as Mahindra & Mahindra) throughout India, and travel by Canada-based personnel to India become quite important.

Growth Strategy: *Mr. Suresh pointed out that MACE would like to expand its core business activities in India in order to capture a sizable market share in the power consulting sector. The Joint Venture partners are also considering expanding their India base to provide back office support to reduce overall costs of drafting and other engineering activities.*

To meet this corporate goal, the JV is addressing the power market in India very aggressively. This involves bidding for a wide variety of consulting contracts and undertaking marketing activities within and outside of government. The firm is also developing capacities to deliver back office engineering work (such as drafting) to international standards.

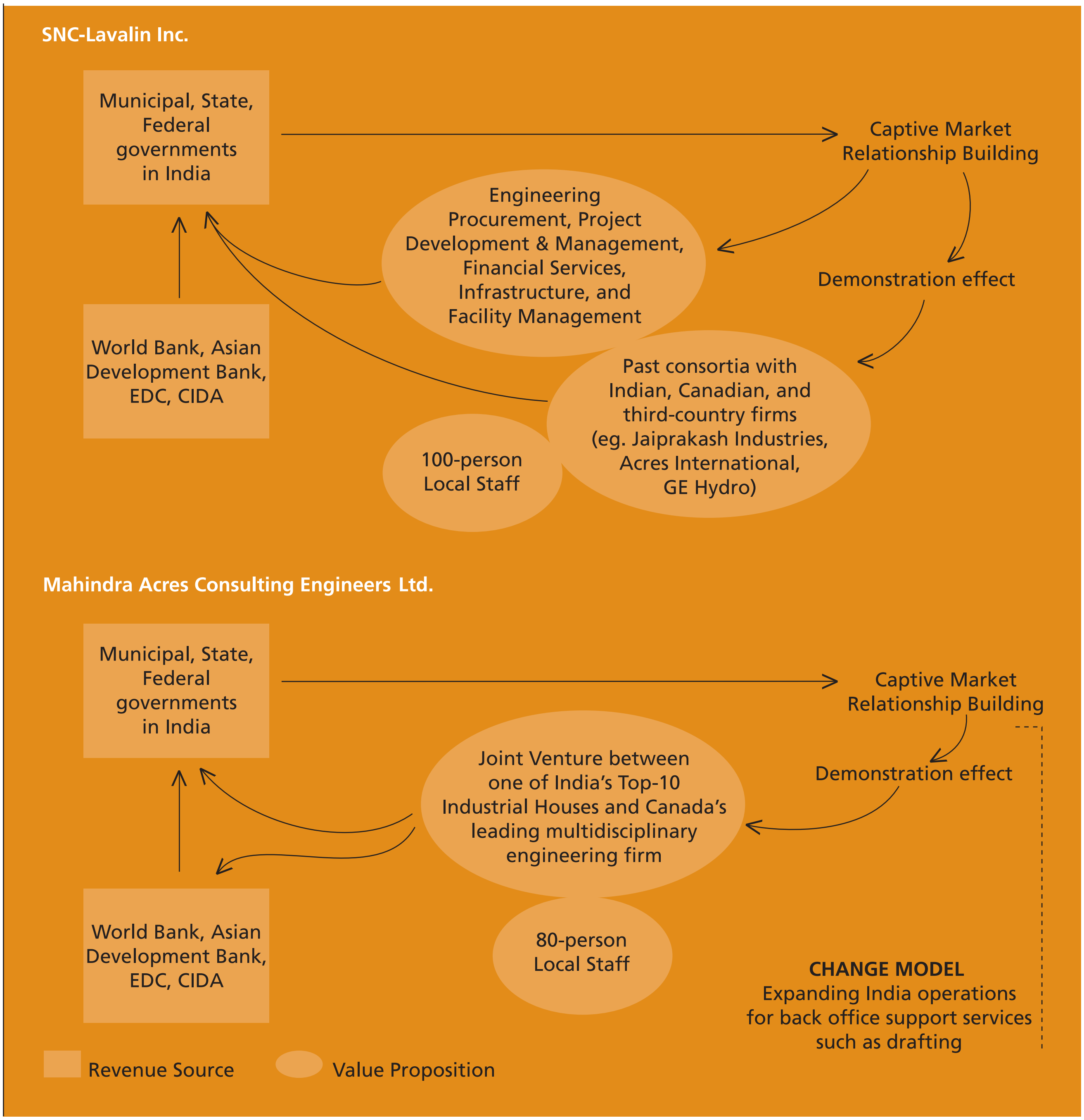
Competitors: *MACE's competitors range from single-person operations to multi-billion dollar international consulting firms. The type of competition depends upon the sector in which the project is focused. Competitors also vary in the nature of services — ranging from engineering services, project management services, planning and feasibility reports. Competitors named by Mr. Suresh included: Tata Consulting Engineers and Dalal Mott MacDonald Pvt Ltd.*

Mr. Suresh also provided some interesting insights into the tendering procedures of Indian contracts that tend to create a bias against Indian firms that have international partners as part of their consortium, compared to purely domestic firms. Two issues were raised here. First, while the technical component of a bid is rated on a pass-fail basis, the financial component is indexed to the lowest bidder. According to Mr. Suresh, while this is common international practice, since "India-only" consortia tend to have lower fees and may be marginally competent to pass the technical criteria, consortia with international partners tend to lose consulting contracts. The second issue raised by Mr. Suresh was that most of the consulting tenders have lump-sum pricing structure with travel, fees, overheads included in the lump-sum price. Under such circumstances, firms with a foreign partner are priced out of the market because of the inclusion of travel.

firms when bidding for government contracts. All firms we interviewed rated their local offices and those of their affiliates as being crucial to their Indian operations. Further, travel by staff from Canada was also deemed important to the delivery of services.

Growth Strategies: Because the infrastructure market in India is dominated by the government sector, the growth strategies adopted by most of the firms we interviewed consisted of marketing and business intelligence activities. For a variety of reasons — pricing, bidding procedures, revenue capture — these firms viewed India as a good destination to undertake lucrative projects but not actual investments in infrastructure activities.

FIGURE 5:



D) Innovation Models

Innovation models were, by far, the models of choice for small and medium-sized Canadian enterprises active in India. The firms we interviewed tend to occupy niche market segments of the B2B market.

Value Proposition: In this model, firms used in-house R&D skills to develop and exploit proprietary technology that offers unique solutions and commands high prices. This technology is typically developed in Canada. In most cases, a significant share of annual costs (between 5%-10%) are accounted for by R&D expenditures undertaken in Canada

Entry Strategies: The more successful firms had long-standing distribution-type relationships with

CASE STUDY 7: Innovation Model

Thermax – Eco-Tec Strategic Alliance

Value Proposition: *Thermax India Ltd. is a leading Indian engineering firm with a focus on developing energy-efficient and eco-friendly solutions for Indian industrial and commercial establishments. Thermax manufactures boilers and heaters, absorption chilling equipment, water treatment equipment including demineralizers, reverse osmosis plants, effluent treatment plants, etc. Thermax had annual revenues in 2002/03 of $168.2 million with exports to over 40 countries, 11 overseas offices, and 1,100 employees worldwide.*

The Canadian partner in this strategic alliance is a medium-sized Pickering firm, Eco-Tec Inc., which manufactures industrial water purification, chemical recovery and recycling systems for the power generation, steel, metal finishing, and petrochemical industries. Eco-Tec has over 30 years of experience producing such systems with over one thousand installations in 45 countries. Eco-Tec is a privately held company and a recipient of the Government of Canada's Canada Award for Business Excellence and was rated as one of Canada's 50 Best Managed Private Companies in 1995-1997.

The key value proposition of this strategic alliance is that pollution abatement and resource recovery must be an integrated package. Traditional models in the environmental sector tend to view pollution abatement separately and load it on to manufacturing costs. This tends to make manufacturing uncompetitive in many markets. The alliance's offerings, on the other hand, aim at recovering significant resources from industrial waste that can reduce overall costs for the manufacturer. By recovering these resources, the downstream waste-water treatment becomes much simpler.

Another important strength is that the relationship between Thermax and Eco-Tec is more than the traditional agency/distribution arrangement common in international trade and in trade between developed and developing countries. This is because the environmental sector tends to transcend the "goods" and "services" domain. The process requires significant on-the-ground presence both before and after the sale of an environmental good. Thermax provides both pre-market and post-market support in the form of local knowledge, marketing, prospecting, project management, detailed engineering, and monitoring/maintenance. This distribution-plus arrangement is also quite unique and not commonly observed between other Canadian and Indian firms.

We interviewed Mr. L. Venkateswaran, Executive Vice President at Thermax.

Entry Strategy: *According to Mr. Venkateswaran, two factors had an impact on Thermax and Eco-Tec tying the knot in India. First, both firms were committed to providing clients with environmental solutions that were also economically sustainable. Driving this shared vision of innovation and its deployment were corporate executives both at Eco-Tec and Thermax that made it easy for both firms to communicate on goals and strategies to develop the India market.*

A second factor outlined by Mr. Venkateswaran was that Thermax was also looking for new products and applications in the water, waste, and chemical recovery area because of its large market potential in India. Eco-Tec was considered an important partner because of its leadership position in Canada and internationally in this area.

According to Mr. Venkateswaran, the Strategic Alliance's offices in India, travel by Canada-based personnel to India, and travel by Indian customers to Canada were important modes of service delivery for the strategic alliance. Mr. Venkateswaran mentioned that Eco-Tec's CEO visits India at least twice a year. Project engineers from both Thermax and Eco-Tec travel to India and Canada on a regular basis. While travel by Indian customers to Canada was not an important mode of service delivery per se, *Indian customers often like to see facilities in Canada to assure delivery of downstream services and get a first-hand look at facilities and processes. This can be as important as the actual delivery of services in India.*

(continued)

(Case Study 7 continued)

Growth Strategy: *Mr. Venkateswaran outlined two corporate goals for the strategic alliance in the India market. First, Thermax and Eco-Tec are in the process of concept-selling their resource recovery business model to a wide range of industries in India. A second corporate goal is to undertake "demonstration projects" in key industries that would establish the Thermax-Eco-Tec brand among Indian manufacturers.*

In order to meet its corporate goals in India, the strategic alliance is targeting three sectors. The first is the refinery sector. For this sector, Thermax and Eco-Tec have done a complete survey of 80% of the refining industry in India to establish its engineering needs, cost structures, and problems faced in the area of environmental management. Eco-Tec and Thermax have installed Eco-Tec's patented salt removal technology for Reliance Petroleum's Jamnnagar refinery complex in Gujarat state. The Jamnnagar facility accounts for 24 per cent of India's refining capacity and is the world's 5th largest refinery at any single location. This installation was the first of its kind in India. Thermax and Eco-Tec would like to replicate this installation throughout the Indian refinery sector which consists of 14-15 refineries.

The second area of focus for the Strategic alliance is India's soda-ash industry. Here, Eco-Tec's very unique process (proven in the laboratory environment) has the potential to revolutionize resource recovery processes in this industry. While still in the testing stages, this sector has significant project potential with eight soda-ash plants in India requiring installations amounting to $5 million each.

A third sector that Thermax and Eco-Tec would like to develop is the range of water treatment products like demineralizers. Currently, the duty structure in this sector makes it cheaper to purchase such equipment in India. However, there is pressure within Indian industry to reduce these duties. When duties are reduced, Thermax and Eco-Tec hope to deliver superior technology solutions in the Indian market. Thermax is confident that there is a large B2B market for such products in India.

Competitors: *According to Mr. Venkateswaran, in terms of Eco-tec solutions, there are no competitors in the Indian market. One source of "competition" mentioned by Mr. Venkateswaran is that the environmental management practices of Indian firms tend to evolve slowly and change only when there are changes in the regulatory environment. This reduces sales growth potential for the strategic alliance.*

We also see two important threats to the strategic alliance's operations in India. First, while the potential in India's Environmental Goods and Services sector is large, growth prospects for this sector may be mixed. Part of the problem is the high rates of duty on environmental goods imported from abroad. Another factor is enforcement of environmental regulation already on the books. Because enforcement is lax, Indian manufacturers in the private sector may not be compelled to change their manufacturing activities in a way that creates demand for environmental goods and services. Further, the strategic alliance's focus on the refining sector may take some time to mature into firm orders, because this sector is dominated by Public Sector Units where procuring practices through tendering process pose certain limitations on the technocrats who may need such investments, but are unable to obtain approvals. Of the 17 refineries that India currently has, 16 are in the public sector. According to Mr. Venkateswaran, the public sector is less likely to acknowledge its environmental problems.

A second important threat to the strategic alliance is that Indian manufacturers themselves may need to be convinced about the economics of its offering. Because Eco-Tec's solutions are in a niche sector, risk perceptions are accentuated. These perceived risks can take various forms including questions on the "orphan" status of the technology in the Indian market, doubts about the availability of downstream services and parts, and questions on whether a North American technology can work in India. Such threats can only be reduced by continued prospecting, demonstration projects, and by developing brand equity in Indian and international markets.

established Indian partners. Mainly due to their size, it made sense for Canadian SMEs to specialize in the development of the technology and partner with Indian distributors that focused on market prospecting and sales.

While India-based country managers were crucial to the operations of an SME firm in India, most in-house SME distribution teams consisted of only 1-2 individuals. The organizational structure was, therefore, more fluid compared to other models deployed by Canadian firms in India.

Growth Strategies: We found some "failed" relationships during our interviews — primarily because of a lack of trust, commitment, and/or follow-through by the parties involved. As a result, growth prospects in the Indian market were limited. For the successful firms, we observed a long-term relationship and trust established at the highest corporate levels. This set the tone for a growing business relationship in India.

FIGURE 6:

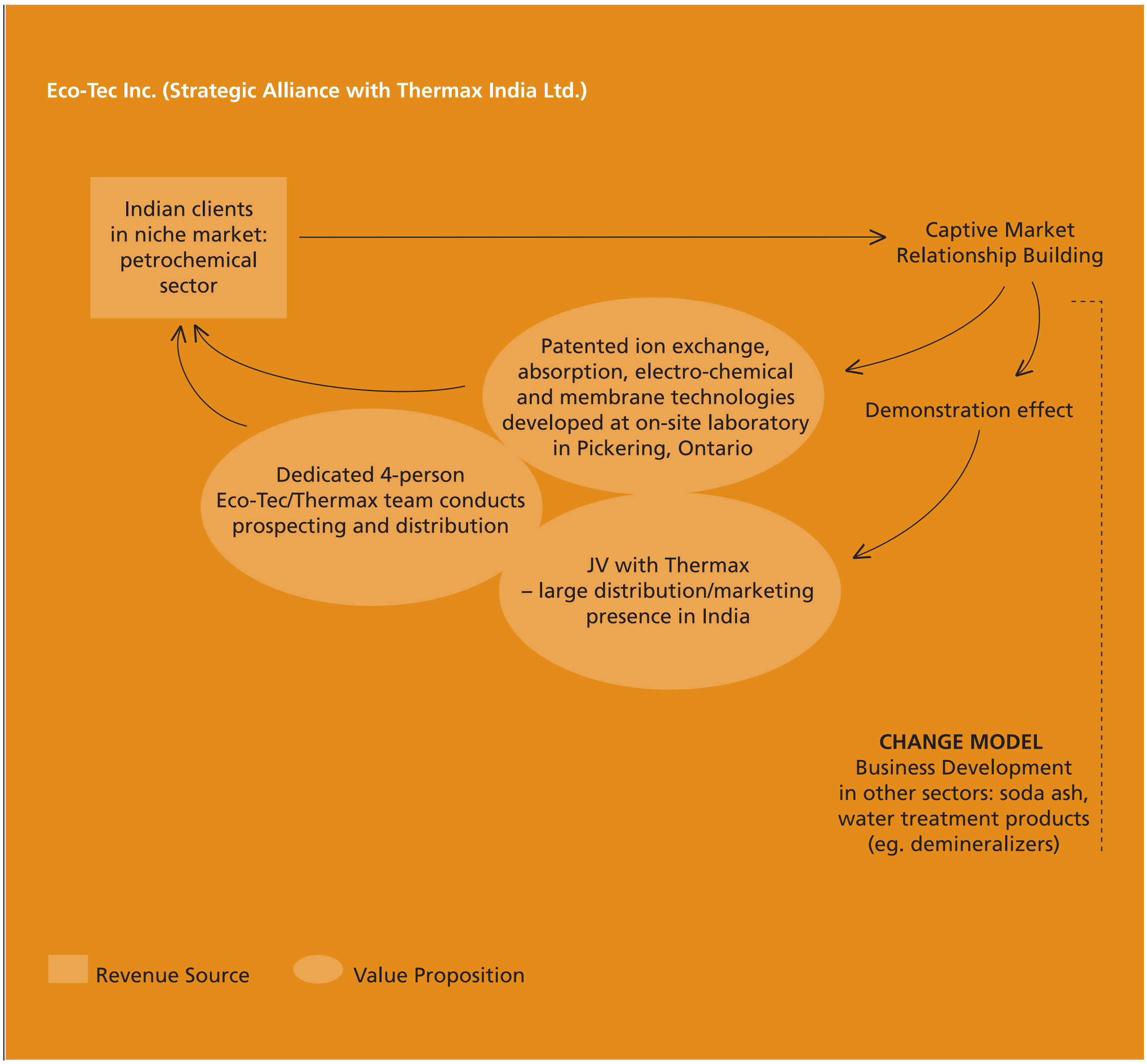


FIGURE 7:

Summary of Business Models Used by Canadian Firms in India

MODEL	VALUE PROPOSITION	MARKETS	SECTORS	ENTRY STRATEGY	GROWTH STRATEGY
Service-based Commodity	■ Commodity packaged as "service" or "solution"	B2B	Software Telecom Furniture Construction	■ Product developed outside India ■ Service teams within India and regional hubs provide installation and after-sales service ■ Country manager has mostly sales function	■ Developing partnerships with Indian channel partners for greater market penetration ■ Preparing India as regional hub
Integrated Commodity	■ Commoditized offering delivered internationally with core development work undertaken in India	B2B	Software	■ Product developed in India & Canada ■ Securing locations within software technology parks or low-cost centres ■ Country manager has mostly engineering function	■ Preparing India as regional hub
Trusted Advisory	■ Ability to provide trusted advice gained through decades of experience ■ Ability to compete at cut-throat prices	B2G	Infrastructure Power Environment	■ Establishing affiliates or project offices ■ Partnerships with reputable Indian firms	■ Bidding for & winning government contracts
Innovation	■ Proprietary technology that offers unique solutions based on R&D	Niche B2B	Environment BioTech Oil & Gas	■ Small sales and marketing team in India ■ Distributor-type arrangement with key Indian partners	■ Long-term commitment at highest corporate levels ■ Prospecting and aggressive marketing

WHAT WORKS AND WHAT DOESN'T IN THE INDIAN MARKET

5

Over the next two decades, India should figure increasingly in Canadian firms' global growth strategies. In a recent study that received much publicity, two economists at Goldman Sachs forecast India's economy to surpass Italy's by 2016, France's by 2019, the United Kingdom's by 2022, Germany's by 2023 and Japan's by 2032. Knowing what works based on the experiences of Canadian firms active in the Indian market will be crucial to success in such a large and complex market, especially given the dearth of good information on various sectors of the Indian economy.

The dynamics of conducting business in the Indian market can be very different from how business is done in industrialized countries. Companies must develop legal means to get around foreign-exchange restrictions; infrastructure can be a challenge; good talent may be hard to find and keep; local government regulations differ across jurisdictions; and market information is sparse. The essential commercial problem is creating certainty.

Based on our interviews and field observations, we have developed a 10-point check-list that firms might find helpful when thinking about their entry and growth strategies for India.

1. **Partnership Has its Payoffs:** If there is one piece of advice that firms should keep in mind, it is that partnership is key to operational success in India. This is true regardless of whether your firm is a goods supplier, a services provider or a solutions-based organization. The key to success in India is to build a network of contacts across the spectrum of the Indian business market. Building these networks will take time. One executive we interviewed mentioned that he has been going to India for over 20 years (at least twice a year). In the process, he has developed a very strong understanding of the Indian market in his sector and built personal friendships with key industry players.

2. **Strategize Your Entry:** The type of goods and services you want to sell and the market that you want to target will determine how you choose to conduct your business in India. If you see yourself as primarily a goods exporter targeting the B2C market in India, partnership with a *good* Indian distributor with connections that will sell your product may be sufficient to get you started in the Indian market. This is particularly important for SMEs that may not have the resources to establish a dedicated distribution network of their own. In fact, during our interviews we received many requests to help SMEs establish good contacts with Indian distributors capable of selling products locally.

   If, on the other hand, your firm is a B2B provider of services or solutions, private-sector Indian clients demand high-quality service. Most of the firms we interviewed had a core sales team reporting to HQ in Canada or regionally with a country manager as the operational leader. The provision of service was almost always done in-house or through frequent trips from regional or North American support centres.

   The B2G market segment needs different entry strategies. The bidding process on Indian government and multilateral aid contracts tends to be quite competitive. *All* of the firms involved in this market that we interviewed had project offices in India to keep an ear to the ground. Further, all of the firms were involved in consortia with Indian and foreign partners. Again, keeping ahead of the curve through partnerships will be key to success in the B2G market segment.

3. **Seek Professional Advice:** In the six weeks that our researchers spent in India, we received numerous solicitations for office rental space, potential export opportunities, legal and accounting advice for entry into India. Having a good India-based lawyer, accountant, and a real estate agent is a crucial first

step to better understanding the intricacies of the Indian regulatory environment. India-based professionals who work with foreign clients tend to be of high quality and should be the first point of contact when deciding to enter the market. They also provide a valuable filter to distinguish the wheat from the chaff.

4 **Quality Field Presence is Crucial:** If India is going to be part of your firm's global growth strategy, it will be important to establish and nurture a quality field presence. Ideally, this field presence should be headed by a country manager who should be a company employee reporting directly to senior management. The role of the India country manager cannot be over-emphasized. He or she will be the company's face, eyes, ears *and* legs in the country. Business relationships will be made or broken depending on the abilities of the country manager to establish relationships with Indian clients.

In our interviews, we found that the quality of interaction between the country manager and senior management varied considerably. One country manager felt rather out of touch with HQ. This firm also did not appear to have a strategy in place to grow the Indian market. Another was intimately involved in the planning process at the senior management level. This firm has grown its India and regional portfolio considerably in the past few years. Again, in our view, getting a good country manager and making him or her a vital part of the strategic planning process will be key to long-term success in India.

5 **View India as a Hub:** Many of the service-based companies we interviewed saw India not so much as a cost-centre but as a hub that could be used for regional growth strategies. Many firms were poised to increase their staff capacity in India with a view to making it a regional hub servicing Far Eastern, South Asian and Middle Eastern markets. Firms that mentioned this point included: Mahindra Acres Consulting Engineers, Eftia OSS Solutions, Hummingbird Ltd. and International Road Dynamics among others. Establishing flexible operations in India within the context of a regional growth strategy could lead to significant future payoffs. Again, the role of country managers and the team that they build around them would be key.

6 **Costs Matter:** If you are a firm thinking about using India as a cost centre, you need to keep some trade-offs in mind. We interviewed XStream Software Inc. that decided to establish operations in Thiruvananthapuram primarily because of the high cost of labour and land in more established urban markets. The average cost of purchasing commercial real estate in Thiruvananthapuram was Rs. 4,700 per square foot (approximately $138) while the cost of acquiring commercial property in south Mumbai was up to 2 1/2 times as much averaging Rs. 10,900 (about $320).

Another technology firm we interviewed — Eftia OSS Solutions — mentioned the debonding requirements needed if a firm wants to relocate out of a software technology park. Such requirements range from customs duties that must be paid on capital goods, office equipment, captive power plants, captive generators, etc. India's Software Technology Parks scheme also imposes a warehousing charge of 20% per annum on export obligations that are not fulfilled by a firm. Further, clearance of obsolete machinery in the case of debonding is decided by the Central Board of Excise and Customs on a *case-by-case* basis with firms required to give particulars of machines such as descriptions, use, dates of use, import details and disposal details.

Firms that serviced the technology needs of business clients in India felt that India's tariff rates on equipment with high price tags made it onerous to grow their operations in the Indian market. For example, Memotec's end-user prices of telecommunication equipment can be in the $100,000 range while Indian tariffs on such products are around 30%. Shipping a product, even for demonstration purposes, immediately adds an extra $30,000 — a not insignificant cost for small firms.

All of these costs need to be kept in mind *before* a firm decides to choose a location within the Indian market.

7 **Expect Competition to be Fierce:** We were surprised by the quality of India's management, its dynamism and the degree of competition that existed in various sectors. Almost all of the firms we interviewed had some comment to make about the "price sensitive" nature of the market or the competition they faced.

New Canadian entrants need to be prepared to adapt to cut-throat Indian pricing structures. Nowhere was this clearer than in consulting contracts with various levels of government. Most consulting tenders have a lump-sum pricing structure with travel, fees and overheads included in the lump-sum price. Under such circumstances, firms with a foreign partner are priced out of the market because the inclusion of international travel increases overall costs. Further, the technical component of a government bid is usually rated on a pass-fail basis while the financial component is indexed to the lowest bidder. Since "India-only" consortia tend to have much lower fees and may be marginally competent to pass the technical criteria, consortia with international partners generally tend to miss out on consulting contracts. While structuring contracts in this manner is common international practice, these issues provide examples of the type of obstacles Canadian firms are likely to face in the Indian market.

8 **Innovation is Valued by Indian Partners:** In our interviews with Indian firms that formed JVs with Canadian partners, we found that the primary reason for partnering was the technology that Canadian firms can bring to the partnership. We found that the Indian partners valued this contribution and were prepared to dedicate resources to market it in India. In developing business relationships, the technology value added that Canadian firms can bring could be crucial in clinching contracts.

A good example of this technology value added is the strategic alliance between Eco-Tec Inc. (Canadian firm) and Thermax (Indian firm). Eco-Tec and Thermax have installed Eco-Tec's patented salt removal technology for Reliance Petroleum's Jamnnagar refinery complex in Gujarat state. The Jamnnagar facility accounts for 24% of India's refining capacity and is the world's 5th largest refinery at any single location. This installation was the first of its kind in India, with Eco-Tec providing the technology and Thermax providing the distribution and after-sales service.

9 **Follow-through:** One observation from our field research was that partnerships that worked needed commitment and follow-through by Canadian companies at the highest levels. We saw examples of JVs and strategic alliances that did not have much to show in terms of sales. We also saw examples of JVs doing groundbreaking work in the Indian market. A significant difference was that successful partnerships had commitment at the highest levels by executives on both the Indian and Canadian sides.

10 **Give it Time:** Most Canadian firms we interviewed recognized the importance of longer-term planning horizons to nurture their India markets. The advice given by firms that were in India for longer than five years was simple: don't expect quick returns, while the rewards can be substantial in the longer term.

NOTES

1 See Wilson D. and Purushothaman, R. (2003). *Dreaming with BRICs: The Path to 2050*. Global Economics Paper No: 99. Goldman Sachs Group Inc: New York.

2 See Marth, Michael (2003). *Foreign Affiliate Trade Statistics — Canadian Operations Abroad, 1999 to 2001*. Statistics Canada: Ottawa.

3 See Assanie, N. et al. (2003). *Emerging India: Canadian Business Perceptions on Trade and Investment*. APF Canada: Vancouver.

4 For details on research methodology, sources of data, assumptions, and measurement issues, see Assanie, N. and Woo, Y.P. (2004). *Maturing Canada-India Services and Investment Linkages*. APF Canada: Vancouver.

5 See Assanie, N. and Woo, Y.P. (2004). *Maturing Canada-India Services and Investment Linkages*. APF Canada: Vancouver. pp. 22-23.

6 For a description of these models, see Linder, J. et al. (2000). *Changing Business Models: Surveying the Landscape*. Accenture Institute for Strategic Change: Cambridge.

7 See Assanie, N. et al. (2003). *Emerging India: Canadian Business Perceptions on Trade and Investment*. APF Canada: Vancouver.

ACKNOWLEDGEMENTS

We would like to thank Foreign Affairs Canada (FAC) for commissioning this research and providing project funding. Staff at FAC's South Asia Division in Ottawa, the Canadian High Commission (New Delhi), Consulate of Canada (Mumbai), and the Canada Trade Office (Bangalore) were instrumental in helping us make contact with Canadian firms active in India. They also provided valuable guidance on the thrust of this study. We would particularly like to acknowledge Richard Dubuc, Christopher Thornley, Benoit Préfontaine, Ping Kitnikone, Amitabh Arora, and D.P. Vittal for their helpful guidance and feedback.

We would like to thank Marguarite Luong, Jenelyn Torres, and Anne Chye at the Foundation for their excellent research support. We would also like to thank Mr. Maneesh Nanda (President, 3AM International Ventures Corp.) for excellent interviews conducted for this project. The document was edited by Ron Richardson and Kathy Forbes.