Mathew J. Manimala
Kishinchand Poornima Wasdani *Editors*

Entrepreneurial Ecosystem

Perspectives from Emerging Economies

Springer

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To the entrepreneurial spirit of the millions in emerging economies and their tryst with institutional inadequacies.

Preface

Entrepreneurship is vital for maintaining and enhancing the vigor and vitality of any economy, be it developed or developing. This is because of the life-cycle phenomenon whereby existing businesses slowly have to mature and decline. This process is accelerated in the Information Technology era because of the fast pace of technology development leading to faster technological obsolescence of older companies. As a biological ecosystem is periodically rejuvenated and further developed by the new sprouts, an economy is maintained and developed by new ventures. It is therefore not surprising that entrepreneurship development is a priority for all nations, especially the developing ones.

Among the developing nations, a special group is identified as 'Emerging Economies' (EE) by economists and policy-analysts. Starting with a small but economically significant group of four countries, comprising Brazil, Russia, India, and China (BRIC), the groups have been expanded and modified to include about 30-odd countries depending on the purpose of analysis.It is estimated that they currently have more than 50 % of the GDP share and have the potential of overtaking the developed countries in terms of market capitalization in about two decades. Our review of the literature has found that the group (EE) is rather amorphous and self-organizing as per the exigencies of the situation. The main reason why this group of countries stands out from 'Developing Countries' is that they share some characteristics of developed countries but are still not fully developed. While most of the EE countries are growing at a relatively high rate, there are doubts about the sustainability of such growth, as there are institutional deficiencies as well as political, monetary, and social risks to businesses in these countries. In view of such risks, the general approach of the investors from developed countries is that they would invest in EE for value-creation and diversification of markets rather than for the safety of their investments or for deriving the full returns from them.

Under these circumstances, entrepreneurship and new venture creation assumes a special character in these countries. It is basically a process of muddling through to development in spite of institutional deficiencies, as we have observed in Chap. 1 of this book. Our review and analysis have shown that there are about nine types of

inadequacies plaguing the emerging economies, which we have discussed under the following subheadings: (1) Underdeveloped institutions, (2) Unclear and inconsistent policies, (3) Inadequate governance, (4) Disjointed infrastructure, (5) Limited funding options, (6) Inhibiting culture, (7) Personalized networks, (8) Ill-funded and ambivalent education system, and (9) Reluctant internationalization. Some of these issues and their impact on entrepreneurship have been brought out by the research-papers presented in the ICIER-BRIC International Conference held at Indian Institute of Management Bangalore during 8–10 December 2011. Fourteen papers selected from those presented at the conference along with the elaborate introductory chapter are the contents of this book (see details in Table 1).

The short summaries of the chapters given in Table 1 support the view presented in the introductory chapter that the institutional deficiencies prevalent in EE are adversely affecting the process of entrepreneurship and new venture creation, making it more of a 'muddling-through' process rather than a planned and systematic one. The chapters are organized under five parts (including the introductory chapter in Part I), each of which highlights a particular subtheme and its impact on new venture creation and management. Part II (*Entrepreneurial Ecosystem*) contains papers that deal with the entrepreneurial ecosystem in general as well as with specific aspects of it (such as culture, IPR laws and venture capital) with special reference to their impact on entrepreneurial motivation and performance.

Parts III–V deal with specific types of entrepreneurial initiatives that are largely used in EE as (partial) solutions to the institutional deficiencies in EE. The first of these (*Social Networks for Entrepreneurship*) is known to be effectively compensating for many of the institutional deficiencies coming in the way of entrepreneurial performance. The papers in this part describe the use of informal and formal networks (especially the personal networks) by entrepreneurs to manage issues like internationalization, collaborative business with larger forms, and even the stigma of entrepreneurial failures. The next part is on *Sustainable Entrepreneurship*. Under this heading, we combine two major aspects of sustainability—one about the 'entrepreneurial' ways of protecting the ecological environment from crude and careless entrepreneurial action and/or doing business in ways that are compatible with the demands of the environment (Green Entrepreneurship) and the other about the protection/development of the marginalized sections of people whom mainstream entrepreneurship fails to recognize (Social Entrepreneurship). The last part is about *Micro-Entrepreneurship*, which is used as a means of self-employment (especially among women) under conditions of resource-constraints, institutional inadequacies, and high unemployment rates that are characteristic of EE.

This book, therefore, develops a panoramic view of the issues and challenges of doing business in EE and demonstrates some of the effective ways of coping with the special circumstances prevailing in these countries. While the papers deal with specific issues, the introductory chapter is intended to provide a comprehensive understanding of the context in which such issues emerge and are dealt with. We do

Table 1 Organization of the book—parts, chapters, and themes

Part no. and title	Chapter no.	Title of the chapter	Authors of the chapter	Theme of the chapter
I. Introduction	Chapter 1	Emerging Economies: Muddling Through to Development	Mathew J. Manimala and Kishinchand Poornima Wasdani	This introductory chapter discusses the institutional inadequacies in emerging economies under nine subheadings and highlights their implications for entrepreneurship and new venture creation
II. Entrepreneurial Ecosystem	Chapter 2	An Empirical Analysis of the Singapore Entrepreneurship Ecosystem: A Case Study for BRIC Economies to Ponder	Raymond Keng Wan Ng	Identifies the problems in the business ecosystem of Singapore that de-motivate students from selecting entrepreneurship as their career option
	Chapter 3	The Impact of Ethnicity on Entrepreneurship: A Global Review and Lessons for Nigeria	Kabiru Isa Dandago and Yusha'u Ibrahim Ango	Assesses the impact of cultural attributes of ethnic groups on their entrepreneurial attitude
	Chapter 4	Economic Implications of Intellectual Property Rights in Evolving Markets	Rajesh Asrani	Develops a scale to measure the implications of intellectual property laws on foreign direct investments, growth of gross domestic product, rise in technology transfer, trade flows and joint ventures, in evolving markets
	Chapter 5	Factors Affecting Capital Structure of Indian Venture Capital-Backed Growth Firms	Swati Panda	Discusses the various factors that affect the capital structure of firms that use venture capital fund as the major source of their finance
	Chapter 6	Bridging the Cross Cultural Transformational LI (Distance Measure) at Huawei Technology India Private Ltd	Bidipta Das, Menaka Rao and Vasanthi Srinivasan	Discusses methods of attracting, retaining and grooming talent used by an international start-up in emerging market (India)

(continued)

Table 1 (continued)

Part no. and title	Chapter no.	Title of the chapter	Authors of the chapter	Theme of the chapter
III. Social Networks for Entrepreneurship	Chapter 7	How Do Entrepreneurs Benefit from their Informal Networks?	B. Sharada and Parameshwar P. Iyer	Comparing the benefits derived by entrepreneurs from different types of informal networks, this paper shows that the most beneficial one is the 'Ex-colleague network' and the least beneficial is the 'Alumni network'
	Chapter 8	Conceptualizing the Process of Opportunity Identification in International Entrepreneurship Research	Indujeeva Keerthilal Peiris, Michèle Akoorie, and Paresha Sinha	A conceptual paper that reviews the role of opportunity recognition in international entrepreneurship
	Chapter 9	Symbiotic Venture and Social Capital: The Effects of Market Orientation on Small Entrepreneur Firms in China	Ji Li, Zhenyao Cai, Hong Zhu, Tao Liu and Shengping Shi	Using 89 symbiotic dyads, the paper demonstrates the role of social capital in creating stability (trust, sharing resources and marketing successes) of symbiotic ventures (functionally collaborating large and small firms)
	Chapter 10	Social Fluidity Mapping System—A Way to Reduce Social Stigma in Business Failures	P. Baba Gnanakumar	Demonstrates the higher impact of social acceptance when compared to customer acceptance of entrepreneurship failure, on social stigma and the competitive advantage of the firm

(continued)

Table 1 (continued)

Part no. and title	Chapter no.	Title of the chapter	Authors of the chapter	Theme of the chapter
IV. Sustainable Entrepreneurship	Chapter 11	Green Entrepreneurship in India: Global Evaluation, Needs Analysis and Drivers for Growth	Ashish Sharda, Abhishek Goel, Ankit Mishra and Satish Chandra	Describes the process of starting, developing and sustaining a green enterprise and identifies the lack of government support and the knowledge of the processes involved in starting a green enterprise as the major reasons for its limited acceptance and prevalence
	Chapter 12	Green Awareness by Corporates and Entrepreneurs in India: A Case Study of Pune City in Maharashtra State	Pradnya Chitrao and Asha Nagendra	Discusses the environment-friendly business practices that would help business become sustainable
	Chapter 13	Social Entrepreneurship—Building Sustainability Through Business Models and Measurement of Social Impact	Shinu Abhi, Vasanti Venugopaland Sandeep Shastri	Discusses the business models of social enterprises that ensure sustainability of the businesses under conditions of resource constraints
V. Micro-Entrepreneurship	Chapter 14	Implications of Driving Factors for Entrepreneurship: A Case Study for Immigrants, Ethnic, and Religious Minorities' Entrepreneurship in Pune City	Sonal Muluk, Poonam Rawat and Mahesh Laxmikant Abale	Discusses the motivating factors of immigrants as well as religious and minority groups to select entrepreneurship as their career by creating micro-businesses in most cases
	Chapter 15	Success and Life Satisfaction among Women Micro-Entrepreneurs	Latha Krishnan and T.J. Kamalanabhan	Assesses the relationship between entrepreneurial success and life satisfaction of women engaged in micro-businesses

hope that this book will serve almost as a handbook on new venture creation and management in emerging economies, which may provide useful insights into actual and potential entrepreneurs as well as the academics (researchers), consultants, trainers, and policy-makers who are actively involved in the various aspects of Entrepreneurship Development in Emerging Economies.

Mathew J. Manimala
Kishinchand Poornima Wasdani

Acknowledgments

This book is a collection of selected papers from the ICIER-BRIC International Conference held during 8–10 December 2011 at the Indian Institute of Management Bangalore, India. We are therefore indebted to the promoters and partners of International Consortium for Innovation and Entrpreneurship Research (ICIER) who collaborated on a research project on the Entrepreneurial Ecosystem in BRIC countries, which led to the conduct of the First ICIER-BRIC International Conferenceon a much needed theme of "*Entrepreneurship and New Venture Creation: International Models and Benchmarks,* with aspecial focus on emerging economies."

The research project was initated by Prof. Fabio Corno of Milano Bicocca University, Italy, with the funding support from Fondazione Cariplo, Italy, through the kind courtesy of Mr. Riccardo Porro, Program Officer. The partners for this research from the BRIC countries were: (1) Instituto de Economia, Universidade Federal do Rio de Janeiro (UFRJ), Brazil (under the leadership of Prof.RenataLebre La Rovere); (2) Moscow International Higher Business School (MIRBIS), Russia (under the leadership of Prof. Elena Pereverzeva); (3) Fudan School of Management, Fudan University, Shanghai, China (under the leadership of Prof. Daniel W. Lund); and (4) Indian Institute of Management Bangalore, India (under the leadership of Prof. Mathew J. Manimala, one of the editors of this volume). The editors thank the initiators, partners, and supporters of this research project which provided the primary impetus for the ICIER Conference.

While the research project formed the academic foundation for the conference, its conduct was greatly facilitated by the partial funding support received from the International Entrepreneurship Forum (IEF) through the kind courtesy of Prof. Jay Mitra, Coordinator of IEF and Director of Centre for Entrepreneurship Research (CER), University of Essex, UK. Another part-sponsorship was received from Emerald Group of Publishing through the kind courtesy of Mr. Biju Ganesan. We hereby express our heartfelt thanks to Prof. Jay Mitra and to Mr. Biju Ganesan as well as to our other academic collaborators, the International Council of Small Business (ICSB) represented by their India chapter, the Council of Small Business

and Entrepreneurship (CSBE) and its Chairman Prof. Y.K. Bhushan, and the *South Asian Journal of Management*, which published a special issue based on selected papers from the Conference.

Academic as well as infrastructural support for the Conference was provided by the Indian Institute of Management Bangalore (IIMB) through its Centre of Excellence, the N.S. Raghavan Centre for Entrepreneurial Learning (NSRCEL). We gratefully acknowledge the support received from Prof. Pankaj Chandra (Director, IIMB), Mr. N.S. Raghavan (Chairman-NSRCEL Advisory Council), and Prof. K. Kumar (Chairperson-NSRCEL). Besides, we have also received the wise counsel and support from Prof. J. Philip (President, XIME Bangalore), for which we thank him as also the Conference Administrators, Ms. Princy Thomas and Ms. Padmashree Vijayakumar as well as the officers and staff of IIMB, particularly Ms. R. Gowri for the secretarial assistance provided by her.

The conference was well received with more than 150 scholars presenting their work, of whom about 50 were from abroad, especially from emerging economies (EE), whereby the Conference could generate EE-specific perspectives on the development and management of Entrepreneurial Ecosystem in these countries. The inspiration for the present book has emerged from these perspecitves. From the 150-odd papers presented in the Conference, we selected 14 papers for this edited volume after a rigorous review process. We thank all the reviewers who helped us with the selection of the papers, and above all thank all the participants of the Conference and especially the authors of the selected papers, whose contributions have stimulated us to reflect on the way entrepreneurs overcome the institutional inadequacies of EE with a 'muddling-through' process and integrate these 14 papers under this framework to bring out this book. We are immensely grateful to the contributors of the papers included in this volume.

Lastly and most importantly, we acknowledge the support of the Springer team comprising Ms. Sagarika Ghosh, Ms. Nupoor Singh, and many others. We especially appreciate their professionalism and technical perfection, and thank them for their meticulous work of editing and publishing this book.

Mathew J. Manimala
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About the Editors

Mathew J. Manimala is Professor of Organization Behaviour and Chairperson-OBHRM Area at the Indian Institute of Management Bangalore (IIMB), India. Prior to joining IIMB, he served as Senior Member of Faculty and Chairman, Human Resources Area, at the Administrative Staff College of India (ASCI), Hyderabad. At IIMB he has worked closely with the N.S. Raghavan Centre for Entrepreneurial Learning (NSRCEL) primarily to build the research competencies of the Centre during its early years, when he served as the Jamuna Raghavan Chair Professor of Entrepreneurship for two terms and as the Chairperson of NSRCEL for one term. He is a Senior Enterprise Fellow of the School of Entrepreneurship and Business (SEB), University of Essex, UK, and a member of the International Advisory Board of the Institute of Management Innovation at Kinki University, Osaka, Japan. Currently, he is involved in setting up the International Consortium for Innovation and Entrepreneurship Research (ICIER) in collaboration with European and BRIC countries institutions. Professor Manimala has received several academic honors including a *Certificate of Distinction for Outstanding Research in the Field of New Enterprise Development* (Heizer Award) from the Academy of Management. He has been awarded research fellowships by prestigious international agencies such as the European Foundation for Management Development (for a research fellowship at Manchester Business School, Manchester, UK: 1990–1991) and the Shastri Indo-Canadian Institute (for a research fellowship at the University of Calgary, Canada: 1998–1999). In July 2011 he was honored by CMO-Asia with the "Best Professor of Human Resource Management" Award at the Second Asia's Best B-School Award function held at Singapore, and in February 2013 a similar award was conferred on him by ET NOW in association with B-School Affaire and the Word Education Congress. Professor Manimala has done extensive research in the area of Entrepreneurship. His work on

Entrepreneurial Heuristics is acclaimed by the community of researchers (including the Academy of Management) as a pioneering work in the field, wherein he has also perfected and used a novel methodology called the 'Case-survey method'. He has published more than 50 research papers and articles in refereed international journals and presented papers mostly in international conferences, and is the Editor of *South Asian Journal of Management*.

Dr. Kishinchand Poornima Wasdani is Academic Associate, Indian Institute of Management, Bangalore, India. She obtained her Ph.D. in Management from the Indian Institute of Science, Bangalore, India. Her doctoral work was on "the opportunity recognition potential of pre-, early- and late-stage entrepreneurs." Since then, she has been active in researching and publishing in the area of entrepreneurship, and has a few research papers in refereed journals and case studies in textbooks and edited volumes. Besides, she is also involved in entrepreneurship training as well as academic conferences, and was one of the organizers of the ICIER-BRIC International Conference, 2011—selected papers from which form the content of this volume. Poornima is also the Associate Editor of *South Asian Journal of Management*.

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Part I
Introduction

Chapter 1
Emerging Economies: Muddling Through to Development

Mathew J. Manimala and Kishinchand Poornima Wasdani

"We have reached a tipping point in global economic affairs. No longer is it possible to argue convincingly that the US or European nations determine the agenda for the world economy as a whole. 2009 will surely go down as the year when we both uncovered the scale of the crisis in the developed world and celebrated the resilience of much of the emerging world in the face of what appeared to be a perfect economic storm" (HSBC 2010, p. 10). These words of Stephen King, Chief Economist of HSBC Group, are representative of the widely held belief that the future of the world economy would be safe-guarded by the Emerging Economies (EEs) rather than by the developed ones. The rising resilience of emerging markets and developing economies (EMDEs) has also been shown by several research studies, among which a 60-year longitudinal study by the IMF is especially noteworthy (Abiad et al. 2012). The performance of these economies after the crisis of 2008–2009 showed that their resilience is not only in comparison with the advanced economies, but also with their own pasts (Ceballos et al. 2012).

There are a few other trends in the EE economies that are often cited as indicators of their future prominence, some of which are listed below:

- By 2020, the GDP of BRIC countries and Mexico will be among the top ten, thus changing the power equations (Economy Watch 2010).
- By 2030, the middle class in India and China will surge to become the top spenders of the world capturing 23 and 18 % of the global consumption, respectively, where the United States will be a poor third, with only a share of 7 % (Kharas 2011).
- By 2050, the BRIC's GDP will have outgrown the G7's by more than double, whereby BRIC economies will be three times bigger than the entire world's economy today (Little 2008).

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- EE will become important for foreign investors, as the numbers of EE-based MNCs are steadily growing. For example, between 2006 and 2008, the number of multinationals from Brazil, Russia, India and China rose from 15 to 62 in the Financial Times (FT) 500 list (Infosys 2011).
- Global R&D spending of EE-based technology companies is steadily increasing, with China and India having about 20 % of share in the global R&D spending and emerging as net exporters of R&D. These companies are introducing "Frugal Innovations" that are designed, engineered, and priced for the low-to-middle range market segments. Some of these products have found their way into developed markets in a process of "Reverse Innovation". As of 2010, there were 44 EE companies among the biggest 1,000 technology companies in terms of their R&D spending, which is an almost three-fold rise from the 16 in 2005 (Roland 2012).

Although there have been apprehensions expressed by some researchers (Bhattacharya and Patnaiky 2013; OECD 2008, 2009, 2011) about the sustainability of EE's economic performance, the general mood is upbeat about their ability to emerge as a major power-group in the global economy. It is against this context of ambivalent perceptions that we take a re-look at the nature of this group of countries (generally dubbed as "Emerging Economies") as an economic entity and critically examine their prospects for continued growth and development in the face of a variety of problems being faced by them.

1.1 An Amorphous and Self-organizing Group?

Though "Emerging Economies" is one of the widest used terms in discussions of global economies, it takes different meanings in different contexts to suit the main issue under discussion. The discourse on the emerging economic power of a few developing countries was initiated by the Goldman Sachs economist Jim O'Neill in 2001, when he coined the acronym "BRIC" to designate a new group of developing countries, toward which the economic power would gradually be shifting from the developed G7 nations (O'Neill 2001). The four countries—Brazil, Russia, India, and China—were initially identified as the fulcrum of this new force, primarily because of the geographical and demographical size of these countries, the burgeoning middle-class in these countries and their increasing purchasing power, and the economic liberalization policies that catapulted them into new growth trajectories, which would make them wealthier than many G7 or OECD countries by 2050. Some strengths of the BRIC economies, as perceived by an investment bank (HSBC) is reproduced in Exhibit 1.1, which could be seen as representative of how the rest of the world views them.

It was soon realized that the BRIC are not the only countries in the developing world that have the potential for attaining such economic clout. Other nations were gradually added to the list, expanding the "BRIC" acronym to "BRICS" (including

Exhibit 1.1 The BRIC strengths—through an investor's lens

Brazil
Self-sufficientSelf Sufficient in oil; large offshore discoveries in 2007 are likely to make it a big oil exporter
World's largest exporter of commercial jets
World's fourth-largest steel exporter
World's tenth-largest economy
HSBC 2010 GDP growth forecast: 5.8 %
Russia
World's largest exporter of natural gas
World's second-largest exporter of oil
World's third-largest exporter of steel and aluminum
World's eighth-largest economy
HSBC 2010 GDP growth forecast: 4.7 %
India
Strong, well-capitalized banks
Low-cost and highly educated English-speaking labor force
Global leader in IT and business-process outsourcing
World's fifth-largest economy
HSBC 2010 GDP growth forecast: 8.2 %
China
Economy has grown more than tenfold since 1978
Accounts for about 60 % of foreign direct investment in emerging markets
Significant presence in aerospace, shipbuilding and IT
World's third-largest economy
HSBC 2010 GDP growth forecast: 10.3 %

Source HSBC 2010

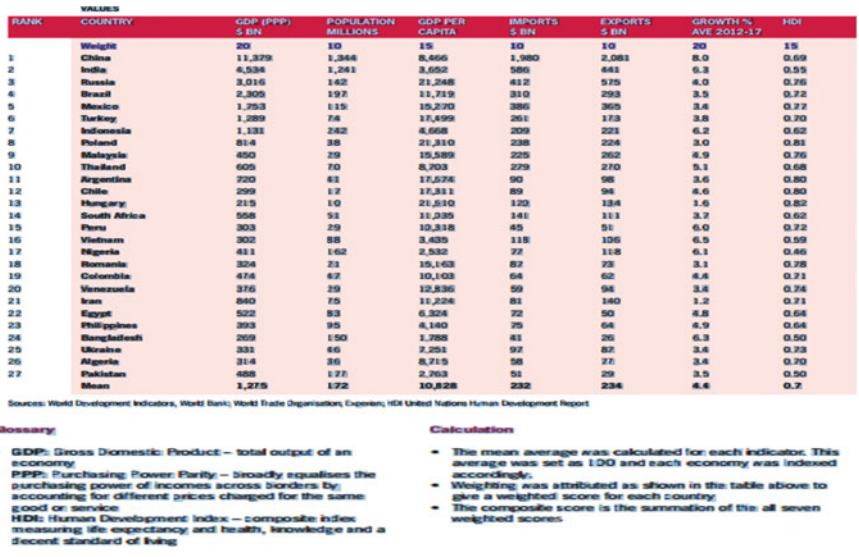
South Africa) and "BRIICS" (including Indonesia and South Africa). However, such modifications to the BRIC acronym were not able to accommodate all the countries that may fit a broad definition of emerging economies. One such broad definition is by Hoskisson et al. (2000, p. 249) who define them as "low income, rapid growth countries using economic liberalization as their primary engine of growth," and further state that "they fall into two groups: developing countries in Asia, Latin America, Africa and the Middle East and the transition economies in the former Soviet Union and China."

While this definition is broad enough to include a large number of countries in similar situations, there were questions like how low is "low income" and how rapid is "rapid growth." Would it be legitimate to have Kenya or Bangladesh in the same group as Russia or Poland where the per capita income is more than 10 times higher than that of the former? On the growth-rate, however, there is a different picture, with none of the transition economies being able to match the growth-rates of a few from the developing regions. In fact, in a study (Roland 2012) where a

choice of 20 emerging markets was made on the basis of a single criterion of projected growth-rate up to 2030, the countries that got included were: Argentina, Brazil, China, Colombia, Egypt, India, Indonesia, Iran, Iraq, Malaysia, Mexico, Nigeria, Pakistan, Peru, Russia, Saudi Arabia, South Africa, Thailand, Turkey, and Vietnam. It may be noted that there are no transition countries in this list (except Russia). Besides, it also does not strictly conform to the "regional specification" in the definition cited above, as it includes Turkey from Europe.

The lack of clarity on the definition of EE has made it convenient for different agencies to adopt different definitions to suit the purpose of their discourse. EE can therefore be described as an amorphous or self-organizing group that takes the required shape based on its surroundings. Against this background it may be noted that a weighted average approach for computing EE Opportunity Index based on seven variables—namely: GDP at purchasing power parity (20 %), Population (10 %), GDP per capita (15 %), Imports (10 %), Exports (10 %), Average projected growth for 2012–2017 (20 %), and Human development index (15 %)—adopted by Grant Thornton (2012) to identify and rank-order EE countries has produced a list of 27 countries, spread across all continents except North America and Oceania (see Table 1.1). In this computation too, the relevance of the BRIC group clearly stands out, with China, India, Russia, and Brazil occupying the first four ranks, albeit in the reverse order of BRIC. The later additions to the BRIC list—Indonesia at Rank 7 and South Africa at Rank 14—are not poor choices, although not the next best.

Table 1.1 Emerging markets opportunity index: a rank-ordered list of EE countries



VALUES

RANK	COUNTRY	GDP (PPP) $ BN	POPULATION MILLIONS	GDP PER CAPITA	IMPORTS $ BN	EXPORTS $ BN	GROWTH % AVE 2012-17	HDI
	Weight	20	10	15	10	10	20	15
1	China	11,379	1,344	8,466	1,980	2,081	8.0	0.69
2	India	4,534	1,241	3,652	586	441	6.3	0.55
3	Russia	3,016	142	21,248	412	575	4.0	0.76
4	Brazil	2,305	197	11,719	310	293	3.5	0.72
5	Mexico	1,753	115	15,270	386	365	3.4	0.77
6	Turkey	1,289	74	17,499	261	173	3.8	0.70
7	Indonesia	1,131	242	4,668	209	221	6.2	0.62
8	Poland	814	38	21,310	238	224	3.0	0.81
9	Malaysia	450	29	15,589	225	262	4.9	0.76
10	Thailand	605	70	8,703	229	270	5.1	0.68
11	Argentina	720	41	17,574	90	98	3.6	0.80
12	Chile	299	17	17,311	89	94	4.6	0.80
13	Hungary	215	10	21,310	120	134	1.6	0.82
14	South Africa	558	51	11,035	141	111	3.7	0.62
15	Peru	303	29	10,318	45	51	6.0	0.72
16	Vietnam	302	88	3,435	115	106	6.5	0.59
17	Nigeria	411	162	2,532	72	118	6.1	0.46
18	Romania	324	21	15,163	87	73	3.1	0.78
19	Colombia	474	47	10,103	64	62	4.4	0.71
20	Venezuela	376	29	12,836	59	94	3.4	0.74
21	Iran	840	75	11,224	81	140	1.2	0.71
22	Egypt	522	83	6,324	72	50	4.8	0.64
23	Philippines	393	95	4,140	75	64	4.9	0.64
24	Bangladesh	269	150	1,788	41	26	6.3	0.50
25	Ukraine	331	46	7,251	92	87	3.4	0.73
26	Algeria	314	36	8,715	58	77	3.4	0.70
27	Pakistan	488	177	2,763	51	29	3.5	0.50
	Mean	1,275	172	10,828	232	234	4.4	0.7

Sources: World Development Indicators, World Bank; World Trade Organisation; Experian; HDI United Nations Human Development Report

Glossary

- GDP: Gross Domestic Product – total output of an economy
- PPP: Purchasing Power Parity – broadly equalises the purchasing power of incomes across borders by accounting for different prices charged for the same good or service
- HDI: Human Development Index – composite index measuring life expectancy and health, knowledge and a decent standard of living

Calculation

- The mean average was calculated for each indicator. This average was set as 100 and each economy was indexed accordingly.
- Weighting was attributed as shown in the table above to give a weighted score for each country
- The composite score is the summation of the all seven weighted scores

Source Grant Thornton (2012)

It seems that, in spite of using several variables and a weighted average computation, the size of the countries, along with two other closely associated sizes of population and GDP, is the most dominant influence on the ranks in this index.

The wide variations in the characteristics of an emerging economy have led to the search for the critical factor that would distinguish an emerging market from others. As mentioned above, many of these characteristics, though apparently distinctive and often promulgated as such, become unacceptable because of conceptual as well as practical reasons. A few such factors are briefly outlined below (Hoskisson et al. 2000; Mody 2004; Infosys 2011):

- *Low or middle income* (*per capita GDP*) *combined with high growth-rates*: While this combination is seen as an important characteristic of emerging economies, there are issues about the definitions of "low income" and "high growth". As may be seen from Table 1.1, the difference in per capita GDP is more than 12 times between the lowest income country (Bangladesh) and the highest (Hungary). Similarly, there are wide variations in the growth rates too, where the difference between the lowest (Iran with 1.2 %) and the highest (China with 8 %) is about 7 times.
- *Suboptimal levels of industrialization*: While these companies are growing fast, they have not fully utilized their potential for industrialization. In terms of a commonly used three-stage model of economic development (Porter 1990; Porter et al. 2002), they are likely to be in the "factor-driven" or "efficiency-driven" stages, with hardly any country in the "innovation-driven" stage (although some industries, say defense and space, in countries like Russia have reached that stage). Granting that the countries are in one of the two early stages, there could still be a question about how similar these two stages are. In fact, the differences among the three stages are more prominent than the similarities, which is especially true of their institutional environments (Acs et al. 2008). If at all we need to find some similarities between countries in the first two stages, it is the fact that they have not reached their full industrialization level.
- *Economic liberalization*: A major policy-measure adopted by many of these countries to achieve full industrialization is the economic liberalization, enabling a transition from a centrally planned or highly regulated/protected economic system to a free market system. The process is normally known by the acronym LPG (Liberalization, Privatization, and Globalization) and is expected to benefit the liberalizing country in several ways, the most important of them being the flow of foreign investment and technology.
- *Facilitation of Foreign Direct Investment* (*FDI*): While the LPG process helps in creating macro- and microeconomic conditions favorable to FDI, many countries actively try to attract foreign investors by creating favorable legal, regulatory, infrastructural, and informational environment (see, for example, Ng and Tuan 2002; Government of India 2003).
- *High-risk/High-profit business environment*: Such an environment is not deliberately created by the governments but is a by-product of the LPG process. Reforms, especially in economies with wide disparities, in income-distribution

are unlikely to be smooth. The erratic and uneven pace of reforms may lead to high volatility in the local conditions and result in mismatches of efforts and outcomes in complementary sectors, which in turn would adversely affect the institutional maturity. While such a situation would naturally enhance the risk levels, it is also a source of highly profitable opportunities, and thus may attract the more adventurous investors, local as well as foreign. Though there is general agreement among researchers about the higher volatility (and therefore higher risk) in emerging economies compared to the developed ones, this is not the case about the "higher-profit" proposition; some researchers (e.g.: Klingen et al. 2004) observe that that the average return to private investment in emerging markets over a few decades has been no higher than the risk free rate for investments in the US treasuries. Investments in emerging economies would therefore be inconsistent and haphazard.

- '*Emerging institutions*': One reason for the higher risk in emerging economies is observed to be the "emerging" nature of its institutions. In other words, the intermediaries (private, NGO, or government) that "minimize the sources of market failures" are also emerging (that is, not fully developed). In fact, according to Khanna and Palepu (1999), this emerging nature of institutions is the most critical characteristic of an emerging economy. Apparently, all other characteristics listed above are a consequence of the underdeveloped institutional environment.

1.2 Underdeveloped Institutions

The collective findings of research on emerging economy institutions are that they are still evolving and are plagued with inconsistent policies and informal decision systems. One researcher has identified four different types of institutions in a country, namely: economic, government (including the firm level governance factors), business, and social institutions (Tan et al. 2008). While this classification is broad enough to include most institutions, further subclassifications like the legal, political, cultural, educational, etc. would be useful for focused analysis and action. In general, it is observed that the underdeveloped formal institutions like economic and legal ones and the immature informal institutions like social and cultural ones (code of conduct, norms and values) influence the behavior of entrepreneurs in the emerging economies (Tonoyan et al. 2006). The high cost of protecting rights, enforcing legal decisions and the inadequacy of financial institutions, result in high levels of corruption in these economies (Tonoyan et al. 2006).

When the institutions are underdeveloped and informal, enterprises tend to create personal ties with people in power and exploit these networks to influence the success of a firm. An obvious consequence of this practice is that the conduct of business would become less transparent, which results in the dominance of a few businesses in emerging economies, making them less accessible to a wide range of

foreign business collaborations. Hence the number of collaborations become limited, in which the foreign companies' ability to resist corruption would get restricted, as they are dependent on the local partners' personal ties and networks for getting the business done. Consequently, they are forced to abandon the practices being followed by them in their countries of origin and adopt the practices (some of which may be corrupt) of their partners in the emerging economies. Of course, the foreign collaborators can influence the culture and practices in small measures, especially if supported by journalists, NGOs, third party monitors, industry stakeholders, and consumer groups (Tan 2009).

Institutions are normally valued for the support they extend in starting and managing the business, which include access to capital, protection of property rights, and various other kinds of government assistance (Volpe and Schenck 2008). In the emerging economies, institutions are highly volatile and unreliable about providing the aforesaid requirements of entrepreneurs, which ironically create entrepreneurial opportunities for institutional brokering, spanning institutional voids, and bridging institutional distances (Tracey and Phillips 2011). These opportunities help the firms of developed economies more than their counter parts in developing economies with business recovery, business making, and money-making (Tracey and Phillips 2011). World Economic Forum Financial Development Report (WEF 2012b), ranks 62 of the world's leading financial systems and capital markets based on 120 parameters to create an assessment of the different aspects of complex financial systems, including the institutional environment, the business environment, financial stability, banks, capital markets, and overall capital availability and access. The report attributes the poor performance of the emerging economies to poor record in enforcing contracts, low levels of liberalization, inadequate IT and communication infrastructure, and general high costs of doing business (WEF 2012b). The institutional fragility causes market inefficiencies, which are overcome by foreign investors by altering their mode of entry into the emerging economies, as shown by Meyer et al. (2009) in their study of four emerging economy nations, namely: Vietnam, South Africa, Egypt, and India. It was observed by them that in a weaker institutional framework, joint ventures (JVs) are used to access many resources through partners' social networks, but in a stronger institutional framework, acquisitions are perceived as safe and are preferred as the entry strategy, as it can help in accessing resources that are intangible and organizationally embedded.

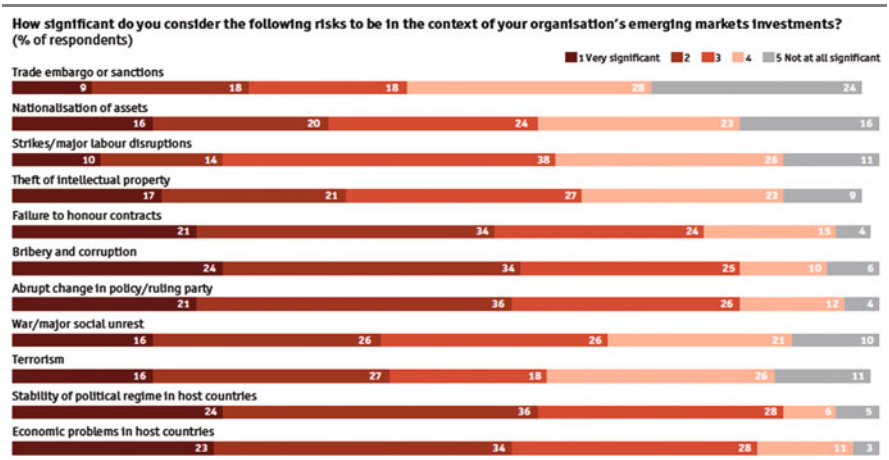
According to a report by the IMF and the World Bank (2011), the most critical institutional deficiency in emerging economies is with the financial system, which is characterized by limitations of numbers and variety-with banks leading the sector as against capital markets and other financial institutions which remain under developed-greater dependence on foreign capital, weaker institutional frameworks, and financial market infrastructures, capacity constraints, relatively greater involvement of the state in the financial system, and greater use of international currencies for domestic financial transactions (financial dollarization). Inadequacies of financial and other institutions in emerging economies lead to inability for enterprises to raise adequate financing, shortage of skilled employees, difficulty in communicating with

customers due to the nonavailability of local infrastructure and delays and obstructions due to unpredictable government behavior, which can hinder the overall progress of these economies and stunt their growth (Khanna and Palepu 1997).

Institutional inadequacies in emerging economies are apparently a major concern for international investors, as may be seen from the results of a survey by the Economist Intelligence Unit (2006). The survey was conducted among 177 executives (with about 91 % of them having influence over risk-management decisions in their companies) from a wide range of industries spread across three main regions of the world (each one accounting for about one-third of the respondents), namely: Asia and Australia, North America, and Western Europe. Their risk-perceptions about 11 factors affecting investments in emerging economies are reproduced in Table 1.2.

Combining the ratings of 1 (Very Significant) and 2 (Significant), it could be stated that the most risky factors are: Stability of political regime in host countries (60 %), Bribery and corruption (58 %), Economic problems in host countries (57 %), Abrupt changes in policy/ruling party (57 %), and Failure to honor contracts (55 %). Obviously, the major concerns of investors are about politics, governance, and culture, all of which have an impact on the nature and functioning of institutions. For example, the political parties in emerging economies have a tendency to interfere with institutions, especially those under the government, unlike in the developed economies where the interference is minimal and legally regulated. Institutions are susceptible to the influence of the government and political parties because they are designed in that way in the first place by the politicians who do not

Table 1.2 Risk factors affecting investments in emerging economies: EIU survey



Source Economist Intelligence Unit Survey

want to give them autonomy but keep them under their control. With limited autonomy for decision-making, institutions in emerging economies tend to become the orderlies or handmaids of the political bosses and hence they make ad hoc decisions that vary with the nature of their bosses and the variety of influences on them. It is no wonder that foreign investors are more concerned about the stability of governance and policies than any other factors.

In this context, it would also be appropriate to reflect on what the respondents consider the least risky factors. The lowest scoring factor is "Strikes and labour-disruptions" (24 %). Though the labor laws and the trade-union activities are to a large extent controlled by the government and the political parties, the companies may be confident of keeping the labor satisfied under their employee-welfare-oriented practices, which are largely under their own control. The second lowest scoring factor is "Trade embargoes and sanctions" (27 %), which are not feared, as they are likely to be quite infrequent. Besides, globalization and WTO are here to stay and hence there could be nothing to worry in the medium term. The overall perception seems to be that the internal institutional environment is riskier than the external/international environment.

1.3 Unclear and Inconsistent Policies

As noted in the subsection above, underdeveloped institutions can be both a cause as well as an effect of unclear and/or inconsistent policies. Researchers have observed that the absence of public policies that ensure rule of law for peaceful coexistence and sustainable development is the cause of poverty and poor entrepreneurship in developing countries (Mbaku 2013). Well-designed policies, particularly focusing on driving entrepreneurship, are also able to trigger economic recovery after a recession (Ogbolu and Singh 2012). Government policies can have an impact on entrepreneurship in several ways, such as: by inculcating entrepreneurial values in the society, promoting capital markets, changing management practices of the firm, especially by creating marketing orientation and providing incentives for growth (Shariff et al. 2010; Rante and Warokka 2013). In other words, the government polices do not directly influence entrepreneurship; instead they indirectly influence it by developing strong institutions that enforce law and regulations for the smooth operation of entrepreneurs and their firms (Tende 2013).

While the importance of appropriate and consistent policies is widely recognized, entrepreneurship in the transition economies often happens under weak policies and informal institutions and hence they have to depend more on social institutions and trust among the network members (Xheneti and Smallbone 2008). In such an environment, firms have serious limitations in contributing to the economic development of the country, as they do not get any institutional support in dealing with the changes in the national as well as international economy (Smallbone and Welter 2001).

One of the reasons for polices to be unclear and inconsistent in emerging economies, as mentioned above, is the underdeveloped institutions and poor resource support systems for creating strong institutions and implementing policies consistently (Onifade 2010). Additionally, there is an issue that these economies follow a procyclic approach to the different trends in the economy. This means that the public spending increases during economic boom and reduces during recession. Similarly, the tax rates are increased during recession, which adds to the burden on the economy and depresses it further, but reduced only during boom periods (Caudra and Horacio 2007). Developed economies, on the other hand, adopt countercyclic policies to manage their affairs during the positive and negative turns of the economy. This means that their governments enhance their revenues by collecting higher taxes during boom periods and saving for the bad times to support their people with these savings, besides helping them by reducing taxes in recessions. In other words, the correlation between government spending and GDP is positive in the case of developing economies, whereas the correlation is negative for developed economies (The Economist 2013). While it is logical to follow a policy of "saving for the rainy day", emerging economies are not able to adopt the "counter-cyclic" policies because of the poor institutional quality in the country, characterized by the pressures created by political parties and unfriendly capital markets that force the governments to go into a "booty-sharing" mode during boom periods and tax the people for their requirements during adverse periods (The Economist 2013). However, there are indications that the developing economies are slowly realizing their mistakes and are adopting the countercyclic approach to deal with economic vicissitudes, especially since the early 2000 when a series of bankruptcies and crises shook the globalized business world (Frankel et al. 2013).

In the absence of policy and institutional support in developing countries, there could be far greater impact for other issues on the economy, such as: information asymmetry, illiquidity, greater exposure to supply shocks in general and trade volatility in particular, lower credibility with respect to both price stability and default risk, etc. (Frankel et al. 2013). The supply shocks mentioned above could be external (related to the global economy and trade) or internal (related to domestic economic conditions). Besides, weak policy structures also encourage informal (hidden) entrepreneurship, which could be a burden on the economy, as they use the resources without having to pay for them or remit any taxes on the revenues (Williams and Nadin 2012). Moreover, the weak governance and institutional environment are often seen as the fertile ground for corruption, misreporting, and nontransparent transactions (Braguinsky and Mityakov 2013), which would adversely affect the resilience and growth of the economy (The Economist 2013).

The institutional and policy environment of a country would be largely dependent on the roles that the government plays, which would be different in different emerging economies. For example, in China the government plays a regulatory and supportive role, whereas in India it is participatory (Kshetri and Dholakia 2011). Whatever be the nature of the roles, it is the government that frames polices, about infrastructure development, institutional reforms, and innovation promotion (Onifade 2010), besides making the laws governing all sectors of the society

including the business sector (Teal et al. 2011). While the government can and do regulate the business activities in a country, it may not be very effective in promoting it; the major push for the latter will have to come from the business orientation and capabilities of entrepreneurial individuals (Yiu et al. 2005).

To conclude this subsection, it would be useful (especially for policy-makers) to have a summary of the major research findings on this subject, which is provided below:

- Government policies should not only focus on fostering economic development but also on the social inclusion and development (Hall et al. 2012). This would help the country to develop as a whole instead of restricting development to a few wealthy and powerful sections of the society. Inclusive development is more sustainable in the long run, as it would ensure collective efforts to support economic development. While policies cannot be a fool-proof instrument for avoiding failures, they can reduce the impact of failures as well as create systems that incubate success for entrepreneurs (Lee et al. 2013).
- The IPR (Intellectual Property Right) policy and competition policy have a great influence on the choice of entrepreneurship. If the legal system of a country is geared up for protecting IPR, it would encourage collaborative ventures between EE companies and those from developed countries; on the other hand, legal and policy environment that promotes competition would create a culture of innovation among entrepreneurs (Gans and Persson 2012).
- Localization of policy-making or the creation of region-specific polices, as in Germany, Spain, and the U.S., instead of adopting a centralized approach to it, could drive innovativeness, competitiveness, growth, and a culture that is conducive to entrepreneurship (Grimm 2011; Sternberg 2012; Sobel et al. 2013).
- Polices that support innovative startups, by raising residual claims (giving a larger share of the payoffs from innovations to the innovators) and reducing the risks of innovations, would stimulate innovation-based firms and ventures which would be the real contributors to economic development (Michael and Pearce 2009). It is not the number of entrepreneurs that facilitate economic growth; instead, it is the high growth ventures that are real contributors to innovativeness, job creation, and wealth generation. Hence, the government should chart out polices that incentivizes innovative entrepreneurs with high growth potential than the ones with low growth potential (Shane 2009). However, policies that encourage entrepreneurship and innovation, in general, (irrespective of their growth-prospects) are particularly useful during an economic downturn, as they would support the state of the economy by reducing the rate of unemployment (HBR 2012).
- There is often a tendency to equate entrepreneurship with micro, small and medium enterprises (MSME), and hence the belief that the MSME policies of a country are the only ones having an impact on entrepreneurship. Nothing is farther from truth—entrepreneurship is influenced by a host of other policies, such as the ones on general regulation, trade, labor, export-import, competition, taxation, regional development, socio-cultural norms, gender, diversity, IPR, FDI, bankruptcy, and so on (Jahanshahi et al. 2011; Lee et al. 2013). A study

conducted in India has highlighted the need for an integrated approach toward all these policies (Jahanshahi et al. 2011). In their eagerness to support entrepreneurship, governments of emerging economies sometimes tend to be overprotective, which would be counterproductive and can make people less enterprising, and reduce their motivation for growth and development through innovation (Bilas et al. 2011).

- While the inadequacies of policies can provide opportunities to entrepreneurs to fill the void, there is also a danger of a flourishing sector of informal or hidden entrepreneurship, which may be harmful to the economy and should be dealt with (Williams and Nadin 2012)
- Among the several reasons for policy-failures in emerging economies, one of them is the failure to make local adaptation of successful policies borrowed from developed countries, which could be due to lack of resources (Scott and Jensen 2008). Besides, there is constant pressure on the political system to show results in the short term and hence they tend to neglect the long-term measures, which leads to suboptimal performance in the long run (Huggins and Williams 2011). Last but not the least, the various political and social pressures operating in emerging economies tend to make the policy statements and implementation procedures rather complex, giving ample room for corruption and manipulation, which is also a reason for policy-failures in emerging economies (OECD 2013).
- Researchers have also made several recommendations on policy reforms for encouraging productive (market-based) entrepreneurship and/or discouraging unproductive (political and legal) entrepreneurship. One such set of recommendations made by Sobel (2008 p. 652) is listed below:

1. Reducing or eliminating state personal and corporate income taxes.
2. Reducing or eliminating state turnover or business and occupation taxes.
3. Workers compensation reform (privatization, damage caps, rule enforcement).
4. Medical malpractice reform (privatization, damage caps, rule enforcement).
5. Judicial reform (eliminating partisan elections for state courts, liability limits).
6. Eliminating state minimum and maximum price and wage limits and restrictions.
7. Reducing occupational licensing restrictions (and enacting right-to-work laws).
8. Constitutional limits on eminent domain and environmental property takings.
9. Reducing government ownership of productive resources (e.g., land holdings).
10. Broad reductions in government employment, expenditures, and levels of taxation.
11. Broadly applied, simplified tax codes that reduce the ability of groups to lobby for specific exemptions, credits, and rate reductions.
12. Reduce the returns to lobbying by eliminating state "budget digests" and other forms of pork-barrel legislation that use state money to fund local pet projects.
13. Increased use of market-based reforms such as medical savings accounts, school vouchers, and privatized retirement funds.

1.4 Inadequate Governance

The government of a country naturally has an influence on the entrepreneurial activities in the country. The laws and regulations made by the government will affect all facets of life in a country including the way people live, the property they own, the goods they purchase, the taxes they pay, the occupations they take up, and so on. Obviously, these will have an influence on entrepreneurship both at the macro and micro levels, the former with respect to the creation of an entrepreneurial culture and the latter to providing operational support to entrepreneurs (Lerner and Sahlman 2012). The macrolevel policies of the government directed toward creating employment, increasing economic prosperity, managing recession, and developing regional competitiveness would naturally stimulate entrepreneurship (Huggins and Williams 2011; Hall et al. 2012). The micro-level influences of such policies will be seen in the decisions of individuals with respect to self-employment (Román et al. 2013), commercialization of innovations (Gans and Persson 2012), entry of women into entrepreneurship (Bădulescu and Borza 2012), and so on. Governance structures and policy environment will differentiate countries in terms of their entrepreneurship potential as well as outcomes (Xheneti and Smallbone 2008).

In order to create integrated policies for supporting the development of entrepreneurship in a country, governments and policy leaders should focus on four important goals (Kanter 2012), namely:

1. Linking knowledge creation to venture creation to speed up the conversion of ideas into market-ready enterprises.
2. Linking small and large enterprises to promote the growth of younger companies and revitalize large corporations through partnership with innovative SMEs.
3. Improving the match between education and employment opportunities, through apprenticeship programs and other education–industry links.
4. Linking leaders across sectors to develop regional strategies and produce scalable models to create an ecosystem that facilitates entrepreneurship.

In other words, the governments should facilitate collaboration/partnerships among various entities in the society, such as the R&D institutions and enterprises, small/medium and large enterprises, educational institutions and industrial organizations, and so on. Besides, there has to be proper integration of policy formulation and implementation (Sternberg 2012; Jahanshahi 2011). For example, even if a country has a good policy of protecting the intellectual property, it will not help innovators if the legal system is weak in implementing it. Similarly, the IPR policies should provide for the realization of higher profits at a faster pace without long time-lags (Michael and Pearce 2009). A similar observation was made by Tende (2013) in a Nigerian study, where the well-formulated credit-policies became ineffective for want of a strong legal system to support them.

Improving governance is a priority in most of the emerging economies, as good governance is a major facilitating factor for entrepreneurship and economic development. Researchers have observed that an effective way to improve governance is

to have public information systems that not only catalogs the various policies and regulations of national, provincial, and local governments, but also gives details on the implementation procedures involving licenses, compliances, and jurisdictions (Chi and Sun 2013). In other words, policies and regulations should get disseminated to the local levels and the implementation system and machinery should be strengthened (Grimm 2011; Sternberg 2012; Jahanshahi 2011). The importance of strengthening the implementation of policies is also highlighted by an OECD report (OECD 2013), where they identify the following three steps as critical for maintaining an effective policy environment that can support and promote entrepreneurship:

1. Properly deliberated and clearly written down legislation and regulations for implementation.
2. Greater use of performance-oriented management in public administration.
3. Streamlining of the judicial system, with special emphasis on reducing incentives to procrastination.

Governance issues in developing economies have been a focus of researchers' attention in recent times. The salient findings in this regard are briefly outlined below.

1. Developing economies, in their anxiety to catch up quickly with the advanced nations, have a tendency to copy the successful polices of the latter. Since the policies are not internalized and adapted to the local conditions, their implementation becomes difficult. Shortage of resources in developing economies add to the difficulties in implementing the "borrowed" policies, and finally lead to failure of polices in accelerating entrepreneurship (Scott and Jensen 2008).
2. With the presence of large sections of people in developing economies, whose basic needs are not met, governmental policies often tend to be crowded with subsidies, which provides support mainly to firms with low growth potential (Mason and Brown 2013). Since it is the high growth entrepreneurs who contribute to economic growth in real terms (Wong et al. 2005), the subsidy-regime fails to promote economic growth. The small and micro entrepreneurs, sustained by subsidies do not contribute to wealth creation of a nation in a meaningful way (Wennekers et al. 2005), although their own self-employment is a relief to the economy.
3. The subsidies and assistance schemes make entrepreneurship in developing economies dependent on government as well as necessitate a large number of procedures for managing the system, In order to extract the support and subsidies from the bureaucracy, entrepreneurs often adopt the easy route of paying bribes, which is euphemistically termed as "greasing the wheel". Though the immediate needs of the entrepreneur gets satisfied by this system, it kills the competency-based entrepreneurship and often gives rise to destructive entrepreneurship (Baumol 1996).
4. Governmental support in developing economies is focused on promoting success and ignores the need for dealing with failures. For the ventures supported by the subsidies and grants, this can create a casual attitude toward failure, as the

entrepreneurs do not lose much in case of a failure. For the unsupported entrepreneurs, the lack of support in case of failures would create a fear of failure and hence they would hesitate to try creating ventures (Lee et al. 2013).

5. One of the ways in which entrepreneurship can be stimulated in a country is by attracting foreign investments and promoting joint ventures with reputed foreign companies. Wills and Gint (2000) provide a framework for the role of government in foreign investment promotion and attraction.

   a. Policy advocacy: Facilitating business and economic environment with a special focus on the factors attractive to foreign investors.
   b. Image building: Promotion and marketing activities such as advertising, event participation, and conducting information briefing sessions with a view to enhancing the international business friendly image of the country.
   c. Investment attraction (or generation): Identifying and publishing new investment leads.
   d. Investor facilitation and servicing: Providing investor support services such as information dissemination, assistance with overcoming regulatory and other administrative hurdles, arranging site visits, and introducing investors to potential business partners, etc.

The bleak scenario being discovered by researchers would suggest that there would be less number of entrepreneurs in developing economies compared to the developed ones. However, the GEM (Global Entrepreneurship Monitor) studies have reported that there are more entrepreneurs in developing countries than in the developed countries and a few of them are high growth entrepreneurs (Reynolds et al. 2004). One of the reasons for this counterintuitive phenomenon could be the presence of large number of necessity-based entrepreneurs (who are on their own because of the high rates of unemployment). Another reason could be that entrepreneurs spread their resources across several businesses in related areas to mitigate the policy inadequacies (Lingelbach et al. 2005), thus creating more number of low-growth ventures. There is also a possibility that a few ventures are created for filling the institutional voids created by government inaction (Ahlstrom and Bruton 2006). The overall finding on the impact of government policies on entrepreneurship in emerging economies is that it is relatively low and mobilizes entrepreneurial resources in unanticipated directions. The primary impetus for venture creation is not from government actions but from the business orientation and capabilities of entrepreneurs (Yiu et al. 2005).

1.5 Disjointed Infrastructure

Infrastructure of a country comprises the facilities that help the citizens to lead a comfortable and enlightened life as well as enable the movement of people and goods and facilitate communication within and outside the country. These include the facilities such as housing, water supply and sewerage; power plants grids and

other energy generation and distribution systems; hospitals and other healthcare systems; schools, colleges, universities, training institutions, and higher education institutions; roads, bridges, and highways; railways, harbors and airports; telephones, Internet, and other communication systems; and so on. Obviously, this is a very complex system, where every constituent has to be coordinated with the others. One of the major problems in emerging economies is the poor quality and disjointed functioning of these facilities. As the quality of these facilities and institutions is indicative of the level of development achieved by a country, there is a strong focus on these in most of the developing countries, as may be inferred from the listing of a few infrastructure project details in Exhibits 1.2 and 1.3.

The large-scale increase expected in demand for and investments in infrastructure in emerging economies highlights the current inadequacies as well as the potential for growth in this sector. The infrastructural inadequacies of emerging economies have been brought out in a study of 144 countries (WEF 2012a), where the emerging economy countries have been rated quite low by corporate executives on the transport, telecommunications, and energy infrastructure. The lack of sophisticated infrastructure will have adverse impact not only on the business activities within the country but also on the international trade and other activities abroad (Ngwenyama and Morawczynski 2009). A study of the transportation infrastructure has shown that its quality will have a direct impact on the transaction costs for the operators in the country as well as for their customers (Pheng and Giang 2012).

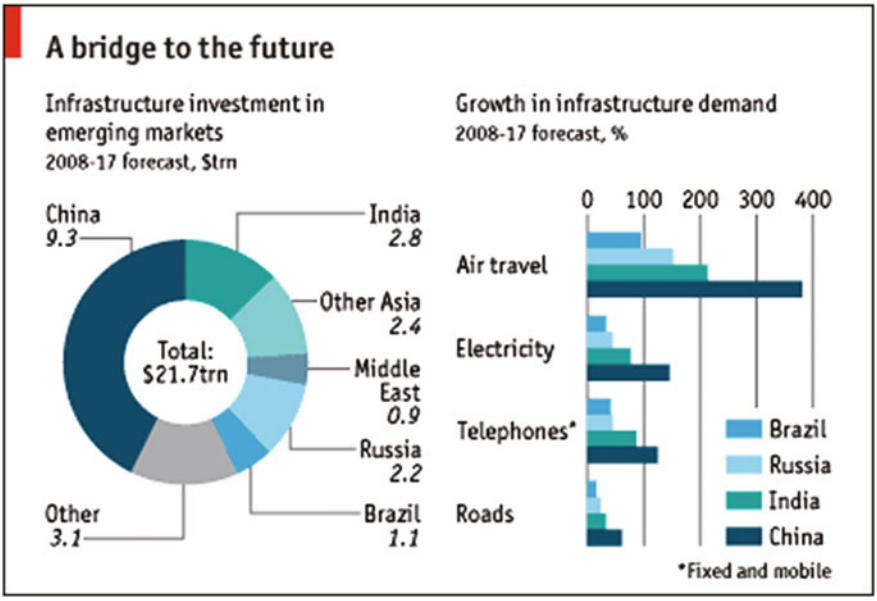
It is also pointed out that the growth of the infrastructure sector would offer tremendous opportunities for entrepreneurs, as the governments in these countries are not able to execute these projects without private sector participation right from the planning stage to the execution (Ngwenyama and Morawczynski 2009). In fact, developing countries often use government and public sector investments in infrastructure as a stimulant to attract private sector investments into this critical area (Spechler 2011). While the direct actions by the government are necessary in the early stages of infrastructure development, the more effective method in the later stages would be the strengthening of market institutions (Iyer et al. 2012), which in turn would attract private players to the sector. The market mechanism in infrastructure development helps in getting it constantly adjusted to the business needs

Exhibit 1.2 Infrastructure projects in a few emerging economy nations

• Russia has committed an investment of US$400bn on 304 infrastructure projects to be completed by 2015, and of US $300bn on railways to be completed by 2030
• India has launched a US$44bn national highway development project, with a target of building 22 km of new roads every day
• In 2009 alone, Mexico built or made repairs to 8,500 km of highways
• China has initiated a railway project with a projected length of 42,000 km

Source Macquarie 2011

Exhibit 1.3 Infrastructure investments in four major areas in emerging economies



Source The Economist (2008)

within and outside the country and thus making it suitable for the emerging needs of the business (Pheng 2012). On the other hand, these projects are also expected to contribute to pollution and global warming, and hence may come under pressure for slow down (The Economist 2008). While the infrastructure projects themselves would offer opportunities to entrepreneurs, this is not the only support they provide to entrepreneurship. As mentioned above, the quality of infrastructure will have a great impact on the performance of other businesses and on the overall economic development of the country.

The importance of infrastructure for the development of innovative entrepreneurial ventures in a country has been brought out by many studies including the multi-country research project, Global Entrepreneurship Monitor (Xavier et al. 2013). According to this report, among the nine key entrepreneurial framework conditions (EFCs), it is the physical and legal–commercial infrastructures that facilitate the development of other EFCs. Physical infrastructure consisting of physical resources, communication systems, utilities, transportation, land, built-up space, etc. should be accessible to all businesses including new and small ventures at affordable prices. Similarly, commercial and legal infrastructure consisting of legal rights to property, commercial, accounting, legal, and assessment services as well as institutions that support or promote new ventures should be fair and accessible. In this context, one cannot overemphasize the facilitation offered to new and small ventures by the communication technologies based on ICT, as they

significantly enhance the reach and speed of access and enable cost-savings (Meddour et al. 2011), especially because of the versatility of these technologies and the possibility of putting them to multiple uses (Liu and Nath 2012; Suh and Boggs 2011), particularly for the development of scientific infrastructure based on research and development (Alemu 2013).

It is obvious that there are wide variations among emerging economies in the level and quality of their infrastructure. As it may be observed from Exhibit 1.3 above, China shows the maximum potential both in terms of the demand as well as the investment plans—and may also face more issues about the pollution and other environmental issues. Other studies have also highlighted such differences. For example, Prater et al. (2009) have observed that while China has strong transportation and telecommunications infrastructure, India leads in terms of the softer types of infrastructure such as skilled labor for supporting information technology (IT) and complex manufacturing-based operations, and goes on to suggest that India has a very good opportunity to be a support service provider for the rest of the world.

The case of poorer countries in the group would be still different—a country like Nigeria, for example, although having abundant oil resources, will need to initiate sustained policy reforms, improved governance, and public–private investments in social, human, and physical infrastructure to make full use of its resources (Oshikoya 2008). In other words, it has to address the entire institutional environment including the infrastructure. Basically it is a question of supporting the physical and communication infrastructure with the human and social infrastructure (Bruton et al. 2007; Khanna and Palepu 1999), so that people are capable of making good use of the available infrastructure. It is therefore important to lubricate the physical infrastructure with the social connectivity (networks) for its smooth functioning (Purdy et al. 2011; Bentlage et al. 2013) and the development of the psychological and social capital of the citizens (Newman et al. 2013), the absence of which, along with the problems of low levels of coordination and synchronization, could be a major reason for the infrastructure in emerging economies to remain disjointed and jerky.

1.6 Limited Funding Options

Among the several options available for financing new ventures (such as personal funds, friends and family members, business angels, banks, microfinance lenders, development finance institutions, venture capitalists, etc.), entrepreneurs tend to rely mostly on personal funds, especially in emerging economies (Porter and Spriggs 2013). For example, the Global Entrepreneurship Monitor (GEM) study in India showed that about 68 % of new ventures relay on personal funds for startup (Manimala 2002).

The greater preference for personal funds in developing countries is apparently not only because of the limited availability of external funding but also because of the apprehensions about being able to service the external funds and the fear of

losing control and ownership. Notwithstanding this, it is a fact that external funding options for entrepreneurial ventures are limited in emerging economies, although the ventures need it very much especially at the growth phase (Butler and Cornaggia 2011; Bittencourt 2012). In fact, unlike the firms in developed countries, firms in emerging economies prefer to rely on internal funding even at the growth phase (Bena and Ondko 2012), which adversely affects their growth and performance. Here too, it is the absence of well-developed institutions that support a competitive banking structure and credit information availability that impedes the use of external funding by entrepreneurs (Beck and Demirguc-Kunt 2006). The limited use of external funding in developing countries is often serviced by bank funds, development finance, microfinance, and to a lesser extent by business angels and venture capitalists (O'Donnell et al. 2013).

1.6.1 Bank Finance

Banks are the principal source of finance for SMEs in emerging economies, particularly in the early-stage of venture creation and growth (Mallick et al. 2010; Rahaman 2011; Allison et al. 2013), although it is an inappropriate source of funding in the early stage. Bank finance in early stages would constrain the cash-flow of the fledgling venture, as it has to constantly worry about the payment of interest rather than investments in innovation and growth (Jeng and Wells 2000; Lingelbach 2013). "Patient" investments by way of equity participation would be the ideal type of external finance for new ventures in the early stages of their development. In spite of this, SMEs in emerging economies have to depend on banks for external funding, as the other external sources are underdeveloped; alternatively, they would use informal sources such as moneylenders, who have industry-specific specializations and are easy to access (Beck et al. 2013). Informal sources are also preferred because of the limited availability of formal credit, institutional inadequacies of regulation and enforcement, political and economic segmentation of the markets, and the weaknesses of the microfinance programs (Tsai 2004).

While bank finance is the most popular external source of funding for entrepreneurial ventures in emerging economies, it has its share of problems on account of various constraints specific to these countries. Governments in these countries often fail to develop policies that create interbank competition, legal and institution-level safeguards for financial transactions, and equality of access to finance (Gimet and Lagoarde-Segot 2011). Studies conducted in India have highlighted a few additional issues relating to bank finance for SMEs, such as the tardy development of the banking sector, with inadequate coverage of branches in many localities (Kendall 2012) and the inability and even unwillingness of banks to finance the vulnerable segments (Sonne 2012). There could also be an element of unwillingness on the part of entrepreneurs to avail of bank finance because the bankruptcy laws in emerging economies are generally unfriendly to the enterprises (Peng et al. 2010).

Besides, in many of these countries, the banks are in the public sector, which may help in improving the coverage, but may lead to red-tapism and inefficiency (Cooray 2011).

The performance of banks in a country both in terms of breadth and depth—that is, the number of branches, accounts per capita, and deposits as a proportion to GDP (Demirguc-Kunt et al. 2011)—is observed to have an impact on the efficiency of its capital allocation, access to funds by entrepreneurs, growth of its enterprises, and the general economic development (Fiordelisi and Molyneux 2010). In order to enhance the performance of banks, it is necessary for governments in emerging economies to have a financial policy that incorporates financial liberalization, transparency, and regulation (Cubillas and González 2014).

1.6.2 Business Angels

The Committee on Angel Investments, Government of India (Planning Commission 2012, p. 6) defines an angel investor as "an individual who invests his own money directly in a seed-stage venture in which there is no family connection". As this committee was set up for assessing the regulatory constraints for angel investors and incentivizing their operations—by providing tax credits, liberal exit options, stiffer regulatory norms, etc., as laid down by the Securities and Exchange Board of India (SEBI 2012)—it further elaborates on the definition and delineates the boundaries so as to identify the angels that deserve to be promoted. The limit of investment prescribed is INR 50 million for an individual angel and INR 100 million for an informal group acting as an investor. Another important criterion is that the investment should be in a seed-stage venture, which is defined as a less than 3 year-old unlisted company, having a turnover of less than INR 250 million, and not belonging to a large industrial group (having INR 3,000 million or more as the group's turnover). All the limits prescribed are inflation-adjusted and therefore will change with economic conditions.

The special focus on angel investors is justified because it is often treated as an indication of economic development. For example, the total number of angel investment in India in 2011 was around 50 with a total investment of about USD 20 million, while in Canada it was USD 390 million; similarly, the proportion of angel investments in seed-stage funding in India is about 7 %, whereas in the USA it is as high as 75 % (Planning Commission 2012). The target of the Planning Commission (2012) is to raise the angel investments in India to the level of USD 700 million/year within about 10 years, which according to them is the level required for supporting entrepreneurship in a developed economy.

The plight of the other developing countries is also similar, as is revealed in a 4-nation study (covering Vietnam, Thailand, Indonesia, and the Philippines) by Scheela and Jittrapanun (2012). Many of the emerging economy nations realize the importance of angel investments for high-potential ventures, as the angels not only bring money but also provide supervision, mentorship, and access to

business-related networks. The main problem, however, is that there is a shortage of angel investment, which is partly due to the lack of fully developed legal and financial institutions needed to support such investors (Scheela and Jittrapanun 2012; Scheela and Isidro 2009). This view is also supported by the finding of Zheng et al. (2012) that high levels of underinvestment and contracting costs combined with weak institutions (legal, political, financial, and economic) would lead to a preference for short-term funds over long-term ones such as angel funds or venture capital.

The quality of the institutional environment (as indicated by business corruption, property rights protection, trustworthiness of politicians, stock-market stability, and soundness of the banking system) has an impact on the immediate environment for startups (comprising venture capital, informal sector activities, protection of minority shareholders, time to start a business and access to loans), as pointed out in the *World Competitiveness Report* (Lopez-Claros et al. 2006). Both these types of environment have much lower ranks for emerging economies compared to the developed ones and therefore adversely affect the angel investment activities (Scheela and Jittrapanun 2012). An oft-repeated solution is to educate the entrepreneurs as well as the policy-makers (Lerner 2009; Lerner et al. 2012), which is possibly too general and too vague for any immediate practical benefit.

1.6.3 Venture Capital

Though the first venture capital company was founded in the USA as early as in 1946, this system of venture funding became popular during the period of 1995–2000 when the industry was undergoing a transformation from being capital intensive to being knowledge intensive (Jungman et al. 2004). New ventures with high growth potential need large amounts of investments as well as proper guidance and mentoring. The traditional sources of large external funds such as pension funds, insurance companies, and money managers are neither interested nor capable of providing such guidance and mentoring, which led to the emergence of the venture capitalist (VC) who, unlike the traditional fund-providers, are "active investors" (Jensen 1989; Jeng and Wells 2000). The idea of venture capital is now slowly spreading into emerging economies, where it has undergone some changes in its operational efficiencies due to the institutional environment prevailing in these countries (Ahlstrom and Bruton 2006). Findings of a few research studies in this regard are briefly outlined below:

- Venture capitalists emerged in developed countries in the private sector as a response to the needs of entrepreneurial ventures. However, in developing countries, the initiative often came from the public agencies, and therefore most of the VC firms emerged as public–private partnerships (Lingelbach 2013).
- Among the various stages of development in the life of a venture (prestage, startup or early stage, and late stage), VCs in developed countries support them

from the startup stage itself, whereas in developing countries VC funds are focused mostly on the late stage (Jeng and Wells 2000; Ahlstrom and Bruton, 2006; de Lima Ribeiro et al. 2008). Large and active investors available in the pre and early stages can have a tremendous impact on the firm's R&D activities and innovativeness (Ayodeji 2012). Firms in emerging economies tend to miss out on these benefits, as they get the VC funds only in the late stage (Ahlstrom and Bruton 2006; Lingelbach 2013). In fact, the VC funds in emerging economies are used for ventures based on secondary technologies rather than for developing innovative new technologies (Knight 1994), which is the practice in developed countries.

- Unlike in developed countries where the market conditions and the strength of the formal institutions guide the venture capital decisions, the dominant considerations for such decisions in emerging economies are the personal relationships as well as the informal networks (Salehizadeh 2005; Zhang and Poh-Kam 2008; Imamuddin 2009; Khanin et al. 2012)—and VCs often try to develop relationships with the family members and relatives of the entrepreneurs (The Economist 2004). All these are being reinforced by a relationship-oriented culture in developing countries as against the performance-oriented culture in developed countries (Imamuddin 2009). Besides, the high levels of cultural traits such as uncertainty avoidance, collectivism, power-distance, and masculinity, which are observed to be the characteristics of emerging economies, tend to promote the use of more short-term debt as against the longer term equity participation (Zheng et al. 2012). As a consequence of such personal considerations, the control and monitoring by the VCs in emerging economies become lenient and nonprofessional (Karsai et al. 1997), which is aggravated by the culture in developing countries of not accepting outsider controls (Naqi and Hettihewa 2007). Besides they may also be too generous and over-optimistic and give the ventures more than what is needed, which may lead to careless and wasteful spending on the part of the ventures (Khanin et al. 2012).
- The institutional environment in emerging economies is often characterized as ambiguous and inefficient in protecting the interest of the investors (Peng 2001). The inadequacies of the institutional environment, especially the wide-spread corruption and the lack of enforceable accounting standards, legal support, and information dissemination, can also have an adverse impact on the performance of the firms (Hoang and Antoncic 2003). Hence the investors hesitate to take risks in selecting candidates with potential for innovation and growth (Meyer 2001; Bruton and Ahlstrom 2003; Pruthi et al. 2003). VCs therefore would use their network connections to safeguard themselves rather than make use of professional management systems or institutional remedies (Hoang and Antoncic 2003).

Financing of new ventures in emerging economies have to go a long way to catch up with the professional systems in the developed countries. In the present scenario, it is the personal relationships and informal networks that guide the financing decisions in emerging economies. There are also a few cultural features and weaknesses in the institutional environment that make it safer and more

expedient for entrepreneurs to rely on internal/personal funds and short-term external funds in the early stages of their ventures. This, however, has an unhealthy consequence that entrepreneurs are not able to focus on the development of new technologies or innovative and growth-oriented venture.

1.7 Inhibiting Culture

Culture influences values, attitudes, and beliefs of the people in a society (Hofstede 1980). While the economic, political, and legal environment of a country is known to influence entrepreneurship, it is the culture that ensures the availability of an "adequate pool of entrepreneurially oriented individuals" (Mueller and Thomas 2001, p. 69). The influence of culture is so powerful that in countries like India, women entrepreneurs experience business satisfaction not so much from its financial performance but from the family support that is given to the entrepreneur (Prasad et al. 2011). "It is culture that serves as the conductor, and the entrepreneur as the catalyst (to entrepreneurship)" (Berger 1991, p. 122).

The need to bring about cultural changes for promoting entrepreneurship was highlighted as early as in the 1950s, when Parson and Smelser (1956) suggested that dramatic cultural change is required to achieve economic growth particularly in poor countries. This is because the level of restrictions imposed by social institutions on the market will decide the allocation of resources to it (McClelland 1965). The ideal market morality should shift "individual loyalties to generalized others" (McClelland 1965, pp. 194–196). Individuals should innovate to benefit the society and not primarily for creating wealth for themselves, which would make innovation and entrepreneurship respectable and culturally supported.

Linkages between a society's beliefs and its entrepreneurial initiatives have been demonstrated by several scholars (see, for example, Weber 1978; McClelland 1965; Sapienza et al. 2006). Weber (1978) proposed that the foundation of a capitalist society based on entrepreneurial behavior of individuals is the "Protestant Ethic"; McClelland (1965) believed that entrepreneurship is deeply rooted in the cultural orientation of "achievement" instilled in the individual by the nursery rhymes and stories; Sapienza et al. (2006) found that the economic growth of a society is governed by three preferences namely: (1) Political preference, (2) Economic preference, and (3) Religious preference (prior beliefs).

There are broadly two functions of entrepreneurship, one is to innovate (create break-through ideas) and the other is to mobilize the resources required to implement the innovation. According to Tiessen (1997), these two functions require different orientations. The former requires an individualistic orientation since it depends on the creativity and initiative of individuals, whereas the latter requires a collectivist orientation since it leverages resources using internal and external ties (the social-exchange approach). Firms in developed economies (except for Japan) have a predominantly individualistic culture and therefore mobilize their resources by contractual agreements, performance-based incentives, and venture capital

agreements (the market-approach). Firms in emerging economies generally operate in collectivistic cultures, where it is more appropriate to use their social networks to procure their resources.

Apparently, the collectivistic culture fails to promote innovation, which may be the reason why emerging economies are slow on innovation and often borrow the innovative ideas from the developed economies to build their business. Of the two functions of entrepreneurs, that is, idea generation (innovation) and resource mobilization (for implementation), the former is apparently more critical than the latter, as there is an alternative for the latter—innovators could use the "market-approach" in place of the "social-exchange" approach for resource mobilization. It is therefore not surprising that the developed economies are stronger on innovation and entrepreneurship compared to emerging economies (Tiessen 1997).

Among the various functions of business that the culture of an economy would influence, the choice of finance that they choose for their business between market financing (equity) and bank financing depends on the power distance in a country. Economies with a culture characterized by higher levels of power distance, concentration in equity markets, control of corruption, and efficiency of debt enforcement would choose market financing over bank financing for their capital requirements. On the other hand, the economies with the culture of greater uncertainty avoidance, and greater political legitimacy would choose bank financing over equity-financing (Aggarwal and Goodell 2010).

In one of the pioneering studies on the cultural differences among nations, Hofstede (1980) identified four dimensions of culture, namely: (1) individualism–collectivism (that is, the degree to which individuals are integrated into the groups), (2) masculinity–femininity (that is, competitive achievement vs. collaborative nurturance), (3) power–distance (that is, acceptance that power is not distributed equally in the society); and (4) uncertainty avoidance (that is, preference for structured situations so as to minimize chance happenings) and later added a fifth dimension, (5) short-term versus long-term orientation. Subsequent researchers examined the relationship between these dimensions and various aspects of innovation and entrepreneurship.

Some examples of the research findings on the culture and entrepreneurship linkages are illustrative of the role of culture in influencing entrepreneurship. Countries with high power distance (where power is perceived as unequally distributed among individuals) have individuals with low innovative orientation (Yaveroglu and Donthu 2002). Countries with individualistic cultures have individuals with high internal locus of control (Mueller and Thomas 2001) and therefore an attitude of differentiation and uniqueness, which can support entrepreneurship (Aaker and Maheswaran 1997; Yaveroglu and Donthu 2002). Cultures with high uncertainty avoidance tend to develop individuals with low innovative quotients (Steenkamp et al. 1999). Similarly, countries like the USA, the UK, and Australia, with individualistic cultures and low uncertainty avoidance develop an innovative problem-solving style whereas countries like Japan, Finland, and Mexico with collectivist culture and high degree of uncertainty avoidance develop adaptive problem-solving style (Mueller and Thomas 2001).

While the above-mentioned studies have highlighted the impact of individualism and collectivism on entrepreneurship when acting in combination with other traits like uncertainty avoidance, some researchers have attempted to identify subcategories within individualism and collectivism. One such interesting categorization identifies "horizontal" and vertical subdimensions to individualism and collectivism (Singelis and Sharkey 1995). According to them:

- Vertical Individualism (VI) is the extent to which individuals strive to be distinct from one another and desire special status for each one;
- Horizontal Individualism (HI) is the extent to which individuals strive to be distinct from others without desiring any special status for themselves;
- Vertical Collectivism (VC) is the extent to which individuals emphasize interdependence within their groups but competition with out-groups.
- Horizontal Collectivism (HC) is the extent to which individuals emphasize interdependence within and across groups but do not submit easily to a single person's authority.

Research conducted by Maheswaran and Shavitt (2000) based on this subcategorization has brought out some interesting findings about entrepreneurship in different cultures. Vertically individualistic countries—like the USA, the UK, and France—have a culture dominated by competition. The individuals of such societies focus on distinguishing themselves from others and use entrepreneurship as the principal means of demonstrating their distinctive achievements. Horizontally, individualistic countries—like Sweden, Norway, and Australia—which value individual distinctiveness without any special status for each may have a relatively weak focus on individual entrepreneurship. Vertically collectivist societies like Japan, Korea, and India value intragroup collaboration and intergroup competition and therefore would be ideal for corporate or group-based entrepreneurship. The horizontally collectivist countries like Israel and Africa believe in interdependence and sociability (Maheswaran and Shavitt 2000).

With respect to the dimension of masculinity, it was observed that a high degree of masculinity was associated with a high degree of innovativeness potential of individuals and therefore with a greater degree of entrepreneurship (Hofstede 2001; Steenkamp et al. 1999). While "masculinity" as a personality characteristic is not the exclusive prerogative of males, the subtraits or values defining "masculinity" (such as competitiveness, aggressiveness, assertiveness, achievement orientation, materialism, ambition, power, etc) are more common among males than females, which is why the term "masculinity" is used for describing this cultural dimension. This may also explain why there are more males than females (roughly two-thirds to one-third) among entrepreneurs, which is a global phenomenon irrespective of the national culture or the state of the economy, as was observed by the Global Entrepreneurship Monitor studies (Xavier et al. 2013).

Trompenaars and Hampden-Turner (1997) studied cultures using the dimensions of people-orientation and task-orientation and found that it is this difference in orientations that explains the difference in the focus of firms (and their managers) of various countries toward the nature of their achievement. Firms that operated in

people-oriented cultures (e.g., the Netherlands, Japan, and Germany) have great concern for quality of products/services as well as the work-life of their people, whereas firms operating in task-oriented cultures (e.g., the US and the UK) are focused on financial outcomes in terms of profitability and return on investment (Harris and Carr 2008).

A second pair of dimensions that was investigated by Harris and Carr (2008) was the long- or short time-orientation, which is similar to Hofstede's (1980) classification of long-term and short-term orientation of individuals. Eastern and Northern European countries are concerned more about achievements beyond their lifetime, such as lasting relationships and family reputation. Hence, they invest more time for relationship management. On the other hand, Anglo-Saxon countries focus on quick financial returns and hence would like to achieve quick results in limited period of time (Harris and Carr 2008). The latter is likely to be seen as entrepreneurially more successful. As mentioned above, the original four cultural dimensions of Hofstede (1980) have been investigated for almost all the countries of the world. One such study (Aggarwal et al. 2012) has reported the average scores (out of 5) for these four dimensions in respect of ten culturally similar groupings of countries, which are reproduced in Table 1.3, along with a listing of the countries included in each of these cultural groups in the notes below the table. In general, one could say that innovative and entrepreneurially active countries are relatively high on individualism and masculinity, and low on power-distance and uncertainty avoidance, although there would be several exceptions which may be attributed largely to the different types of entrepreneurship. Though it is difficult to generalize about emerging economies, it may be noted that they have strengths in respect of some dimensions and weaknesses in respect of others. In order to appreciate this, readers may check the scores of the cultural groups of the BRIC countries (Brazil, Russia, India, and China), which are often treated as representatives of emerging economies. Although these four countries are classified under four different cultural groups (Brazil under Latin American, Russia under Eastern European, India under South Asian, and China under Confucian Asian), each of them has one or two appropriate scores (high or low depending on the dimension), which supports innovation and entrepreneurship whereas the inappropriate dimensions inhibit them. Culture in emerging economies is apparently performing an ambivalent role vis-à-vis innovation and entrepreneurship (Tiessen 1997).

If culture is a dominant influence on entrepreneurship and if all countries do not have the appropriate culture for stimulating entrepreneurship, then the question arises as to how a country can change its culture. While culture is relatively stable, it does change, although very slowly, especially because of intercultural interaction (Manimala 2008) and interventions in the learning system (Manimala et al. 2009). Hofstede's (2001, p. 12) model showing the antecedents and consequences of culture (see Fig. 1.1) points out the importance of outside influences on culture, a major part of which is the interaction with other cultures by way of trade, tourism, education, and even negative interactions like invasion and colonization. Aspirations for upward mobility is natural for human beings, whether it is about material welfare or cultural practices. Hence it is natural for people to pick up the better

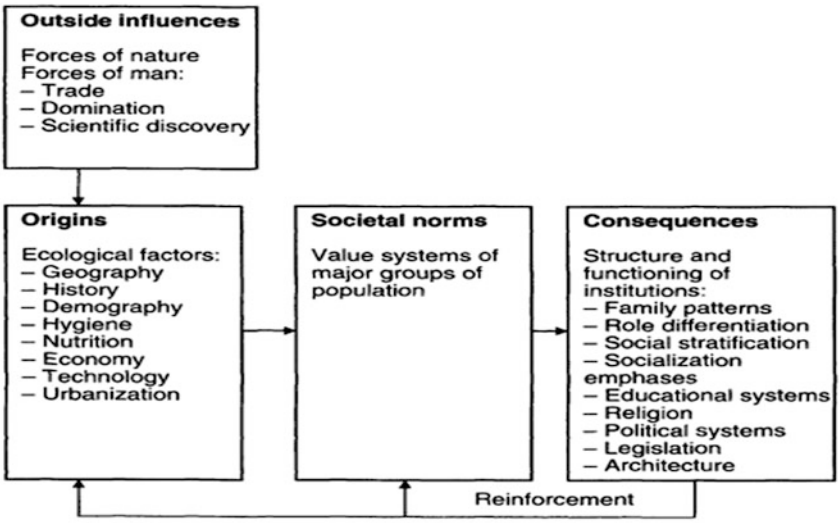
Table 1.3 Average scores on four cultural dimensions for ten clusters of national cultures

Cultural dimensions→ Groups of countries	Individualism	Masculinity	Power distance	Uncertainty avoidance
1. Anglo-Saxon	4.418	4.110	3.488	3.773
2. Confucian Asia	3.406	4.207	4.149	3.282
3. Eastern Europe	3.555	4.043	4.094	4.718
4. Germanic Europe	4.203	3.859	3.277	4.113
5. Latin America	3.356	4.079	4.181	4.394
6. Latin Europe	3.962	3.806	3.784	4.453
7. Middle East	3.611	3.807	4.190	4.443
8. Nordic Europe	4.237	2.549	3.270	3.523
9. South Asia	3.398	3.906	4.423	3.804
10. Sub-Saharan Africa	4.174	4.143	3.892	3.892

(*Source* Aggarwal et al. 2012)
The mean scores (with % range) of the cultural groupings are 3.83 (29 %) for individualism, 3.85 (60 %) for masculinity, 3.85 (33 %) for power distance; and 4.0 (40 %) for uncertainty avoidance. Countries included in the ten cultural groupings are as follows: (1) *Anglo-Saxon* includes Australia, Canada, Ireland, New Zealand, South Africa and the UK. (2) *Confucian Asian* includes China, Hong Kong, Japan, Singapore, South Korea and Taiwan. (3) *Eastern European* includes Albania, Georgia, Greece, Hungary, Kazakhstan, Poland, Russia and Slovenia. (4) *Germanic European* includes Austria, Germany, the Netherlands and Switzerland. (5) *Latin European* includes France, Israel, Italy, Portugal, Spain and Switzerland. (6) *Middle Eastern* includes Egypt, Kuwait, Morocco, Qatar and Turkey. (7) *Nordic European* includes Denmark, Finland and Sweden. (8) *South Asian* includes India, Indonesia, Iran, Malaysia, the Philippines and Thailand. (9) *Latin American* and (10) *Sub-Saharan African* countries are self-evident

features of other countries' economy or culture. Entrepreneurship (and all that promotes it including certain cultural practices) and the material welfare it brings with it has therefore become an aspirational issue for all societies.

From the table of correlations given in Fig. 1.1 it can be inferred that "limited good syndrome' most negatively affects economic growth since it assumes that the economy is a zero-sum game and creates opportunistic behavior which benefits the protagonist only in the short term, as the underlying assumption is that access to resources can be gained only at the expense of others (Marini 2004). Thus the indulgence in practices to benefit oneself shows low concern to societal ethics and advantage. According to Marini (2004), both achievement syndrome and trust syndrome are needed for economic growth. This finding of Marini is in line with Fukuyama's (2001) hypothesis that cultural traits that encourage individual motivation and activate social capital are both important for economic growth, since the former increases individual productivity and the latter creates trust as well as resources, which helps in reducing transaction cost and increasing market accessibility (Maridal 2013). The overall picture from the various studies discussed above is that there are inhibiting features to the culture of Emerging Economies as far as entrepreneurship is concerned. However, they are not insurmountable but are slowly undergoing a change.



Correlation coefficients between values to be transmitted to the next generation and economic growth (1960–1989) in 25 countries[a]

Values to be transmitted grouped by syndromes of economic culture	Correlation coefficients between value chosen by respondents and economic growth
Limited good syndrome	
Obedience	−0.68
Religious faith	−0.53
Tolerance	−0.43
Good manners	−0.10
Achievement syndrome	
Independence	+0.47
Thrift	+0.60
Determination	+0.38
Hard work	+0.08
Generalized trust syndrome	
Responsibility	+0.53
Post-materialistic syndrome	
Imagination	0.00
Unselfishness	−0.08

[a] Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, G. Britain, India, Ireland, Italy, Japan, Mexico, The Netherlands, Nigeria, Norway, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, USA, West Germany.

Fig. 1.1 Antecedents and consequences of culture and the correlations of a few cultural values with economic growth (*Source* Hofstede 2001)

1.8 Personalized Networks

It is observed that entrepreneurs in emerging economies use more of personal ties than the business and political ties for venture creation, fundraising (Zhang and Wong 2008), and internalization (Alnuaimi et al. 2012). Personal ties also influence

their choice of entrepreneurship as a career (Chuluunbaatar et al. 2011). The widespread use of personal ties in emerging economies is predominantly because of the weakly regulated business environment (Yu et al. 2013), weak institutional polices, underdeveloped legal systems, immaturity of venture capital market, and the lack of economic planning (Zhang and Wong 2008). The business and political ties are used to a limited extent, especially for increasing firm performance, internationalizing the firm, choosing mode of entry into foreign nations, innovating and managing new and rapidly changing technologies as well as managing a weakly regulated legal system (Alnuaimi et al. 2012; Sheng et al. 2011; Lorenzen and Taube 2008).

While there are differences among entrepreneurs in developing and developed countries in terms of the nature and use of networks, there is no doubt that networks are creatively used by entrepreneurs to further their business goals. Some research findings from the emerging economies in this regard are briefly outlined below:

- One of the reasons for the preference for personal ties over professional ties is the closed nature of the society and culture in developing countries. In such cultures, it is rather difficult to go out of one's close-knit groups to build professional networks as the time taken to develop and maintain new ties outside the personal contacts is long since the assessment of the proposed member's status, building of trust, and exchange of favors are important prerequisites for getting included in a group. On the other hand, in close-knit groups, creating personal ties does not need any special efforts, as the frequency and intensity of interaction are high in small groups limited to the immediate and extended family members and the subcommunity one belongs to (Greve and Salaff 2003).
- Though there are research findings supporting the preferential use of personal networks by entrepreneurs in developing countries, this does not preclude the use of professional networks, especially in the post-startup phase. It was observed by Le and Nguyen (2009) that entrepreneurs in emerging economies use their ties with customers and government officials to secure bank finances (which is the principal source of venture funding in these countries), whereas they use their ties with suppliers to secure supply-chain finance and thereby reduce the dependence on bank finance.
- A major purpose for which entrepreneurs in emerging economies use their networks is to overcome the bureaucratic inefficiencies and institutional inadequacies (Estrin et al. 2013). Businesses therefore tend to be run by social obligations rather than the market requirements (Zhang and Wong 2008), thus creating a different type of impact on their strategies, innovation, and ethical practices. Interestingly, it is observed that social obligations among entrepreneurs could lead to the formation of industrial clusters even under unfavorable environmental conditions because entrepreneurial actions are guided more by relationships rather than by profitability/viability expectations (Arbuthnott and von Friedrichs 2013). The phenomenon of the social construction of the entrepreneurial environment and "affect-based" entrepreneurship are not peculiar to emerging economies, as it was also observed in North-East Scotland (Jack et al. 2008;

Bøllingtoft 2012), France (Nakara and Fayolle 2013) and New South Wales (Shoebridge et al. (2012), where the critical factor for the entrepreneurial plunge was found to be the social relationships even under favorable environmental conditions. One of the consequences of such behavior by entrepreneurs (especially in developing countries where it is more common) is that the ventures tend to become necessity-oriented rather than innovation/growth-oriented.

- As mentioned above, it is the professional networks that are more commonly used by entrepreneurs even in emerging economies when they have to manage the institutional burdens, which are mainly of three kinds: (1) Regulatory burden, characterized by the inadequacies of institutional/administrative mechanisms for governance and regulation; (2) Cognitive burden, characterized by limited knowledge about the markets, resources, and processes related to business and its management; and (3) Normative burden, characterized by negative beliefs about entrepreneurship as parasitism and profiteering (Manolova et al. 2008; Reynolds et al. 2005). Entrepreneurs in emerging economies develop such "professional" (rather non-personal) networks through associational activities such as: voluntary participation in trade associations, political parties, religious groups, cultural organizations, sports organizations, social welfare organizations, consumer organizations, environment organizations, and professional associations (Burt 1997; Luo 2003). The efficacy of such networks to deal with institutional inadequacies was demonstrated by De Clercq et al. (2010) in a study covering 15 developing countries. Other researchers have also observed this and have clarified that the personal networks are used mainly for mobilizing early stage funding support for the venture (Knack and Keefer 1997).
- The networking orientation of entrepreneurs in developing economies is being seen even in technology-oriented activities like new product development, according to a Chinese study (Mu and Benedetto 2011), which found that among the four strategic orientations of entrepreneurs (namely: market orientation, technology orientation, entrepreneurial orientation, and networking orientation), the most dominant one is networking orientation. Apparently, these entrepreneurs see networking as the principal means of access to new technologies, knowledge, resources, customers, suppliers, partners, etc. As a collectivity, however, there is something more in these networks than mere exchange of favors, which makes their businesses relevant for the market, in spite of their allegedly low market orientation.
- The overall picture that emerges from the review of literature on the nature of networking in developed and developing countries is summarized in the Table 1.4. This comparison is based on the parameters proposed by Kristiansen (2004), which are the number of members in the network, strength of ties, diversity of network members, and flexibility of networks.

Since the emerging economies are aspiring to catch up with the developed ones in the race to economic development, they will have to be as entrepreneurial or more as the latter. Researchers and policy-makers, therefore, have often suggested

Table 1.4 Entrepreneurial networks: a comparison of developed and developing countries

Parameters	Developed economies	Developing/emerging economies
Number of members	Large	Small
Strength of ties	Mix of strong and weak ties	Close/strong ties dominate
Diversity of network	High	Low
Flexibility of networks	High	Low

Source Kristiansen (2004)

that there is also a need for a corresponding change in the networking styles of the emerging economies. Some of these recommendations are given below.

- Governments of developing countries should include the development of social networks in their micro-level institutional policies and encourage the (potential) entrepreneurs to broaden it beyond their family and community members, which will eventually be useful for their entrepreneurial initiatives (Román et al. 2013).
- Government and other promotional agencies should set up a network of business incubators, which can facilitate diverse kinds of professional networking activities as well as insulate the fledgling ventures from environmental shocks. The networking and other benefits of such incubators (credibility, connectivity, know-how, risk-sharing, seed-funding, as well as legal, liaison, technical, and marketing services) have been highlighted by research studies in several countries, such as: Chandra et al. 2003 (India); Tötterman and Sten 2005 (Finland); Fang et al. 2010 (Taiwan); Robinson 2010 (Bolivia, Peru, Chile, Argentina, and Brazil).
- There are a few suggestions for entrepreneurs as well. Peng (2001), for example, recommend that entrepreneurs should: (1) establish alliances with larger, more legitimate, and more powerful players for enlarging and strengthening their networks; (2) take collective action to promote entrepreneurship development and new venture facilitation through forums like business and industry associations; (3) create linkages with established educational institutions for R&D support.
- Ideally, there should be four types of networks in the entrepreneurial ecosystem, which can enrich, energize, and strengthen entrepreneurial action, as proposed by Kanter (2012): (1) networks for linking knowledge creation to venture creation to speed up the conversion of ideas into market-ready enterprises; (2) networks for linking small and large enterprises to promote the growth of younger companies and revitalize large corporations through partnership with innovative SMEs; (3) networks for improving the match between education and employment opportunities, through apprenticeship programs and other education industry partnerships; (4) networks for linking leaders across sectors to develop regional strategies and produce scalable models.

Obviously, the emerging economies have a long way to go before they could create the ideal types, varieties, and numbers of networks that can lead their economies to economic development through innovation and entrepreneurship.

1.9 Ill-Funded and Ambivalent System of Education

While education has been recognized as a top-most priority of governments in developing countries because of its perceived role in modernizing the society (Cox 1968), reducing corruption (Garcia-Sanchez et al. 2011), increasing life-expectancy (Wigley and Akkoyunlu-Wigley 2006) and so on, many of these countries are still experimenting with various systems of education, often bewildered by its multi-dimensional and sometimes ambivalent impact. Such ambivalence is especially seen in the impact of education and training on entrepreneurship in emerging economies. On the one hand, education helps increase the self-efficacy of individuals (Ajzen 1985), create entrepreneurial intentions among them (Muofhe and Dutoit 2011), improve the quality of ventures (Leibenstein 1968), as well as the product quality, access to formal credit options, and performance of the organization (Mottaleb and Sonobe 2013). On the other hand, it increases the opportunity costs of selecting entrepreneurship as a career option (Leibenstein 1968), with the result that the more educated individuals develop a job-seeker orientation. This ambivalence is supported by the finding of an Indian study (Manimala and Kumar 2005) that the relationship between education and entrepreneurship is seen as a bell-curve, where there are proportionately more entrepreneurs in the moderate-education group compared to low and high-education groups.

In spite of the policy level priorities being announced by the emerging economies, the education system in these countries remain largely ineffective in terms of the numbers or quality to be achieved. For this reason, the growing population in developing economies, instead of being a boon, is turning to be a bane to them due to underdeveloped human capital (Mahmood 2012). While the average spending on education by different countries of the world remain in the range of about 5 % of their respective GNPs (UNESCO 2012), the fact that the GNPs in emerging economies are far lower than those of the developed economies makes their spending on education limited and inadequate, which may be a major reason for the education system in emerging economies being underdeveloped. A few such research findings are listed below.

1. A South African study (Tonkin 2010) has found that the primary and tertiary levels of education are poor in that country, which is a major hindrance to the development of entrepreneurial orientation among its citizens. Similarly a study in Ghana (Arthur-Menah and Alagaraja 2013) has found that the vocational education that was intended to develop technical and entrepreneurial skills among people has actually contributed to the neglect of human skills development.
2. Most of the schools (in Nigeria) lack the required physical infrastructure and qualified teachers, and are plagued by high rates of absenteeism (de Figueiredo-Nery et al. 2008). When it is not possible to provide even the basic education properly, naturally one cannot think of entrepreneurship education (Ejiogu et al. 2012).
3. Apart from other drawbacks within the system, the attitude of the society toward failure in academics also plays a role in influencing entrepreneurial orientation.

Failure is treated as incapability to learning instead of as an opportunity to develop skills that would help in facing real-life challenges.

4. Even though public education in emerging economies is more affordable (because of low or no fees) than private education, the quality of schools under the public education system is rather pathetic (Epstein and Yuthas 2012; Idrees and Siddiqi 2013). Besides, public education focuses on the primary level, almost to the neglect of secondary and tertiary levels (Castelló-Climent and Mukhopadhyay 2013), with the result that very few of the so-called "educated" individuals in these countries reach the tertiary levels (Tooley 2012; Gruber and Kosack 2014). Consequently, there are fewer number of people with higher levels of education, which should otherwise have acted as a stimulant for entrepreneurship, as it broadens the perspectives and opportunities for people. Even when the required number and types of institutions are available, for every 1 % increase in tertiary education, there has to be a 13 % increase in illiteracy rates (Castelló-Climent and Mukhopadhyay 2013). An additional problem is with the orientation of people who get tertiary levels of education—they are oriented to think of education as a means of securing employment, which is partly because the system presents itself to the students in that manner. Obviously, such an education system will be unable to create any entrepreneurial orientation among the students (Akin 2012).
5. Associating education with the prospects of employment and career may also have other unanticipated consequences on the education system itself. While the expectation of employment is high among the educated individuals, the job opportunities in developing countries often do not match the numbers and levels of the educated (Quinn and Rubb 2006; Horii and Sasaki 2012). This may lead to a loss of faith in formal education among the people and a deterioration of education into job-oriented training (Bhaumik and Dimova 2004), which would condition the "educated" people to think in a particular fashion and thereby restrict innovative ideas and practices.
6. The motive for education in emerging economies, therefore, tends to become the extrinsic benefits of it rather than the intrinsic development that it could bring about for the individual. While the association of education with employment is a major reason for it, there are also other factors contributing to this extrinsic orientation. For example, the parents' socioeconomic characteristics and aspirations for their children as well as the nature of available educational facilities in their neighborhood may have a greater influence than the interest of the student on the type of education provided (Huisman and Smits 2009). The choice of a course of study for extrinsic reasons is reinforced by the fact that in many emerging economy cultures it is the parents who finance the studies of their children even at the tertiary level. The children therefore will be forced to accede to their parents' wishes rather than follow their own special interests, which is possible and done in a developed country culture where tertiary level studies are funded by the students' own money or by scholarships (Arvin 1999).
7. If the parents are uneducated, children are more likely to drop out of school than if they are educated (Horii and Sasaki 2012). In fact, it was observed by a

UNESCO study (Epstein and Yuthas 2012) that the main problem with the education system in emerging economies is not the lack of enrollment but the high rates of dropouts especially at the secondary and tertiary levels, which is also causing a refocusing of educational efforts on continuing education and vocational education in developing countries (Saracevic et al. 1985). Gender inequality in education is also a reason for dropouts from school in emerging economies—in many cultures girls are not educated beyond secondary level (Lincove 2006). Consequently, the next generation will also have a different orientation to education because of the low levels of education attained by the mothers.

8. Institutions in emerging economies are rather slow in adopting the newer educational technologies like open online courses that can reach a large section of the poor society at affordable cost (Bartholet 2013). Underdeveloped infrastructure (such as computers, Internet connectivity, mobiles, videos, etc) makes it difficult for the spread of e-learning systems that could enormously help in the diffusion of education (Leigh 2006). Another reason for a slow growth in the use of e-learning is a mindset among the students in developing countries that associates education with classroom teaching (Andersson and Hatakka 2010).
9. The relative importance given to education by the developing countries as compared to the developed ones may be gauged by a peculiar trend in the spending on education. In developing countries it follows a procyclic trend (that is, increasing with increase in GDP) unlike in the developed countries where it follows an acyclic trend—that is, educational spending is independent of GDP movements (Arze del Granada et al. 2013). In other words, the developed countries spend on education as required, irrespective of the trends in the economy, whereas the developing countries spend as affordable (rather than as required).

The overall impression gained from the above research findings is that there is no consistent educational policy in developing countries. It is swayed by the availability of human and financial resources. The system is not goal-directed and so may not be able to take care of the human development needs of the nation. Obviously, it will have an adverse impact on the development of the human potential and consequently on innovation and entrepreneurship.

1.10 Reluctantly International

In the era of globalization, firms have very little choice about internationalization, although the firm-specific and country-specific factors would influence the extent of internationalization. Among the country-specific factors that affect the firms' decision to go international, the more prominent ones are the following (Teece 1986; Khanna and Palepu 1997; Isenberg 2008):

1. Commercial environment of the country;
2. Infrastructure especially those for transportation and telecommunication;
3. Legal, labor, and political environment;

4. Education System;
5. Psychic barriers that arise due to differences in language, culture, and religion; and
6. Level of economic development.

The firm-specific factors, on the other hand, may revolve around the search for suitable manufacturing locations, investors, talent, and profitable markets (Isenberg 2008). It is further observed by Isenberg (2008) that, to be successful in their attempt to internationalize, the firms should be clear on their reasons for entering a particular market, build networks in the market with powerful counterparts, develop excellent supply-chain management abilities, and create a multicultural orientation in the organization.

While the factors mentioned above are of importance for internationalization in general, there is a fundamental difference between developed countries and emerging economies in their orientation toward internationalization. The latter are more often guided by the contacts they have in another country whereas the former creates such contacts if internationalization is considered a strategic option based on their business exigencies and the perceived opportunities in another country (Filatotchev et al. 2007).

The fundamental difference between the developed and emerging economies is that the former is more proactive and the latter more reactive. Researchers have therefore investigated the factors that influence the decision of a firm in an emerging economy to internationalize their operations and have come out with a large number of them. A few of them are listed below:

- Firm's international experience (Khavul et al. 2012);
- Top managers' global experience and technology experience (Sahaym and Nam 2013);
- "Internetization"—that is the firm's ability to adopt Internet-based technologies (Etemad et al. 2010);
- Home industry competition and export intensity and opportunities (Yiu et al. 2007);
- Export rewards in the country and its export dependence (Chi and Sun 2013);
- Firm's adaptive capacity—that is, its ability to coordinate, recombine, and allocate resources to meet foreign requirements (Lu et al. 2010);
- Founding team's experience (Khavul et al. 2012) and prior exposure to foreign operations;
- High entrepreneurial orientation as opposed to market orientation (Li et al. 2011), as the latter would orient the firms to restrict themselves to familiar markets:
- Marketing practices that make use of technologies rather than rely on face-to-face interactions, which are more common in emerging economies (Pels et al. 2004);
- Ability to leverage on one's knowledge capabilities, technology capabilities, and networking capabilities (Zou and Ghauri 2010);
- Ability to build and keep business relationships especially with local stakeholders (Emelyanov et al. 2011);

- An organization structure that is conducive to accommodate and utilize foreign partners (Kocak and Abimbola 2009);
- A planned and systematic approach toward exports rather than a reactionary response to fortuitous circumstances (Williams 2008);
- Training systems and top management support (Chi and Sun 2013) for dealing with different business contexts and the ability to unlearn and reorient the team into a multifaceted learning system (Zahra and Wright 2011);
- Institutional quality (size and age) in the concerned economy (LiPuma et al. 2013).

It is obvious that the list of influencing factors is too long, and perhaps unattainable for most countries and/or firms in the emerging economy group. The consolation, however, is that internationalization can happen in two ways—by the "push" from the emerging economies and/or by the "pull" from the developed countries. The latter aspect is often neglected in the discussions on the subject. According to Arnold and Quelch (1998), the "pull" from developed economies is facilitated mainly by two factors: (1) As an economy starts developing, there will be a growing segment of "rich" people with enough disposable income, which the MNCs would be interested in exploiting by introducing sophisticated products of theirs into these emerging markets; (2) The Internet has made it possible for small- and medium-sized MNCs also to exploit business customers in emerging economies in spite of the constraints of their limited resources, which would enable the entry of larger numbers of foreign players into these markets.

In the reverse direction (that is, when emerging economy firms move into developed economies), there can be three sets of factors that would influence the process (Yamakawa et al. 2008):

1. Industry-based factors, which are listed as: high degree of competition and technology intensiveness; low level of institutional and country risk; greater market potential; innovation-seeking imperatives instead of those based on exploitation of existing environment and technology; and organizational capabilities.
2. Resource-based factors, which are listed as: learning imperative and orientation; availability of VCs, business angels, and other funding options; existence of strategic alliances among firms to overcome capability deficiencies; and entrepreneurial orientation for identifying and exploiting innovative opportunities.
3. Institution-based factors, which are primarily characterized by the existence of a fair and robust regulatory system and of institutions that promote entrepreneurial traits and attitudes among the people.

However, the benefits (in terms of the technical, economic, and human progress) from international operations, alliances, and collaborations can be enjoyed by firms in emerging economies only if they have sufficient absorptive capacity, which is defined by Cohen and Levinthal (1990, p. 128) as the firm's "ability to recognize the value of new information, assimilate it, and apply it to commercial ends." The absorptive capacity of firms would be supported by a fair and open policy on foreign direct investment (Borensztein et al. 1998), economic freedom in the

country (Azman-Saini 2010), existence of well-functioning financial institutions (Durham 2004), and well-developed legal and political institutions (Demetriades and Hook Law 2006).

In either direction of internationalization, there are three predominant modes of entry (Robinson 1961; Mottner and Johnson 2000; Zhanget al. 2007), namely: joint venture, acquisition, and green-field investment (that is, startup investment in new facilities). The choice among these three modes is decided largely by the cost associated with each and the uncertainty prevalent in the country (Kogut and Singh 1988). Cultural differences between the two countries and the international experience of the partners are two major parameters used in assessing the cost and uncertainty involved in a particular investment (Caves and Mehra 1986). Other attributes that influence the overall cost and uncertainty include transaction costs, sharing of complementary knowledge and distinct knowledge, industrial competition, intensity of marketing and research expenditure, and organization fit between the two firms in terms of their administrative practices (Kogut and Singh 1988). A green-field investment is usually preferred if the cost of resource mobilization and management are low whereas joint venture or acquisitions are preferred when intensity of marketing and research expenditure are high (Caves and Mehra 1986).

In many cases, firms adopt a phased strategy for internationalization. According to Douglas and Craig (1997) there are four stages in this process, namely: domestic focus, initial entry into foreign market, beachhead expansion, and global rationalization. Of these four, the first one is about doing business in the home country and hence it is ignored in Table 1.5, as the discussion here is about internationalization.

Table 1.5 The three stages of internationalization and the factors influencing the strategies in each of these stages

Initial foreign market entry or beachhead stage	Beachhead expansion stage	Global rationalization
Saturation of domestic market Movement or domestic customers overseas	Local market growth	Cost inefficiencies and duplication of effort between countries
	Meeting local competition	Learning via transfer of ideas and exprience
Sourcing opportunities overseas Entry of foreign competition in home market	Local management initiative and motivation	Emergence of global customers
Desire to keep abreast of technological changes	Desire to use local assets more effectively	Emergence of global competition
		Development of global marketing infrastructure
Advances in communications technology and marketing infrastructure		
Diversification of risk		
Government incentives		

Source AGPS (1996): Industry Commission Annual Report

The second and third stages (the first and second in the table) are described using a concept in military strategy, namely, the "Beachhead Strategy", which is employed by soldiers landing on shore through the sea-route and securing a small territory initially and then slowly expanding inward. In business, particularly in startup operations and entry into international markets, the beachhead strategy is about focusing one's resources on one key area, usually a niche involving a smaller market segment or product category, and conquering that market first before moving into larger markets and product categories. The factors influencing the strategies in each of the three stages of internationalization-as enumerated by the Industry Commission Report of the Australian Government (AGPS 1996)-are reproduced in Table 1.5

Strategies described in the above table are relevant after a firm has made a decision to go into a particular country. A more fundamental decision, however, is whether to enter a country at all, which is a function of a large number of country-specific factors. A report by the Australian Trade Commission (Austrade 2007) has categorized these factors into five major types, namely: (1) Macroeconomic factors, (2) Microeconomic factors, (3) Socioeconomic factors, (4) Political and regulatory factors, and (5) Legal factors (see Table 1.6. for details).

Table 1.6 Country-specific factors influencing the entry-decision of an internationalizing firm into a particular country

Macroeconomic factors	Microeconomic factors	Socioeconomic factors	Political and regulatory factors	Legal factors
Macroeconomic stability of the country, i.e.,	Access to cost-effective labor	Access to regional and other export markets	Political stability of a country	Legal system, enforcement of contracts
Interest rate stability Exchange rate stability	Access to labor with necessary skills/education	Size, nature, and purchasing power of local market	Transparency in decision making, absence of corruption	Law and order
Inflation stability	Access to raw materials and production inputs	Openness to trade and investment	Local laws and regulations, red tape	
	Access to land/ property			
	Access to adequate infrastructure at acceptable cost			
	Environmental and quality of life factors			

Source Austrade (2007)

It is obvious that the emerging economies' slow performance on internationalization may be attributed to their inadequacies on these factors, as it was noted in the other subsections as well. Apparently the emerging economies are handicapped in both the directions of internationalization—while the developed countries are inhibited in entering the emerging economies because of the perceived inadequacies of the above factors, the developing countries are inhibited by their own lack of resources and firm-specific competencies in entering into developed economies. Such lack of confidence can be overcome primarily by having an associate in developed countries. This is why it is often observed that internationalization of developed country firms are guided by business opportunities whereas that of emerging economy firms are guided by the contacts they have in the other countries. As the world is getting increasingly globalized, the emerging economy firms have no option but to internationalize. While they are being swayed by the pulls and pushes, the fact remains that they are increasingly (though reluctantly) getting international.

1.11 Conclusion: Muddling Through to Development

Though it is difficult to identify a common set of characteristics that distinguish emerging economies from developed ones, there are several similarities among this group of countries, which set them apart. A comprehensive survey of literature has revealed that the more prominent characteristics of emerging economies can be summarized under nine headings, as shown above. They are: (1) Underdeveloped institutions, (2) Unclear and inconsistent policies, (3) Inadequate governance, (4) Disjointed infrastructure (5) Limited funding options (6) Inhibiting culture, (7) Personalized networks, (8) Ill-funded and ambivalent education system, and (9) Reluctant internationalization. The overall impact of these inadequacies is that entrepreneurs have to overcome several constraints for setting up and growing their ventures. Hence much of their innovativeness would be exercised on devising the means to overcome these constraints rather than in designing, developing, and marketing innovative products and services. Thus they tend to develop a style of muddling through toward venture creation and growth.

While researchers have proposed different kinds of strategies to improve the performance of the countries on each of the above dimensions, isolated actions on separate issues are unlikely to produce any synergistic impact. Taking a lesson from the history of the developed nations, one could say that among all the above dimensions, the one that would bring about overall changes is the interventions in the education system. As pointed out by Manimala et al. (2009), the history of developed countries shows that the economic development of those countries was preceded by changes in the community's learning and education systems (as may be seen in the case of Europe, where the Renaissance and the consequent openness to learning laid the foundations of modern scientific and economic development, and in the case of Japan, where the Meiji Restoration and the following educational reforms led to the modernization and development of Japan). In a comprehensive

model proposed by them in the above paper on the influence of the national environment on entrepreneurship, they classify the elements of the environment into two main categories—the general environment which influences the development of the entrepreneurial individual and the task environment which channelizes the entrepreneurial capabilities of the individuals into business-related activities, which in turn promotes economic development. A third category, the Learning and Education Environment, whose constituents could fall into either the "general" or the "task" category depending on the nature of education offered, is also the principal means of interventions in the other two types of environment (see Fig. 1.2). Emerging economies, therefore, cannot afford to ignore education or organize it in a haphazard manner, if they would like to catch up with the developed ones in terms of entrepreneurship and economic development.

Although there is a global initiative led by UNESCO to provide "Education for All", EFA for short (launched in the year 2000 at the World Education Forum, Dakar, Senegal, with the participation of 164 countries), which aims to meet the learning needs of all children, youth, and adults by 2015, the progress on this project is tardy (UNESCO 2012, 2013), which may be attributed to constraints of budget and the priorities of allocation (Delamonica 2004). Since the latter half of the twentieth century, developing countries have been trying very hard to improve the quality of their education system especially with the involvement of faculty and other specialist resources from developed countries (Ballarin 1991). Many have also experimented with privatization and public–private partnership with regulatory control (Pessoa 2008), though with limited effectiveness mainly because of the funding inadequacies (Delamonica 2004). Similarly, the more cost-effective systems of distance-learning (Rena 2007) and e-learning (Leigh 2006) have also not been creating the desired impact due to inadequacies of technological and infrastructural support.

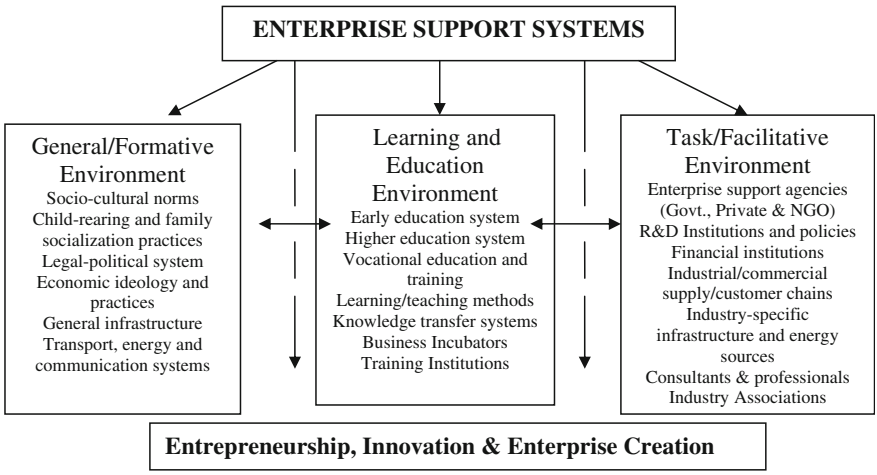


Fig. 1.2 Learning and Education system as a link between formative and facilitative environment. *Source* Manimala et al. 2009

Taking a clue from the system of education being followed by the developed countries, some researchers have argued that most of the problems with the education system in the developing economies would be solved if the system is granted autonomy, which is of three kinds: (1) academic autonomy for the faculty members to design and teach the curriculum of their choice, so as to develop and impart intellectual wealth of great quality; (2) institutional autonomy giving operational and decision-making freedom to the institute's constituents, who can thereby decide on the best way to implement their programs; and (3) financial autonomy giving the freedom to raise and use funds according to each institution's priorities and internal rules (Pandey 2004). While these autonomies can and would produce the desired improvements in a mature economy, their efficacy in developing countries would be doubtful, as the latter countries are evolving toward academic and professional maturity and have serious shortages of resources and inadequacies of academic infrastructure and resources. Hence the ability of the education system in developing countries to promote innovation and entrepreneurship would be limited, which will take a while to reach the full potential through a process of "muddling-through".

When the quality of the human capital is improved, all other systems would experience corresponding improvements. Emerging economies are currently following a reactive strategy of going with the tide of the LPG (liberalization, privatization, and globalization) process rather than initiating innovations and developing opportunities based on the innovative ideas of their own human capital. With changes in the education system, individuals may develop a more proactive attitude toward learning, innovation, and development, which can also bring about changes in the other dimensions of the entrepreneurial ecosystem, with the result that the muddling-through style would give way to proactive planning and systematic development.

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Part II
Entrepreneurial Ecosystem

Chapter 2
An Empirical Analysis of the Singapore Entrepreneurship Ecosystem: A Case Study For BRIC Economies to Ponder

Raymond Keng Wan Ng

2.1 Definition of Knowledge-Based Entrepreneurship

There are many definitions till date of what knowledge-based means. Many would agree that it is a prefix which means the integration of domain knowledge in the processes of businesses to add justifiable economic value comparing with similar businesses.

To the author, incorporating expert knowledge alone is insufficient to affect sustainable knowledge-based enterprise. Ideally, four more components, i.e. market knowledge, industry knowledge, area knowledge and cultural knowledge should be incorporated into the business model. Hence his definition is:

"Knowledge-based Entrepreneurship is a process of application and customization of a combination of domain, market, industry-specified, area and cultural knowledge to affect economically prudent and sustainable business venture".

2.2 Scenario Analysis

Many people reading this paper would be puzzled why the world's number one ranked country rated by the World Bank—for the ease of doing business is having problems in growing home-grown knowledge-based enterprises.

The author thanks the readers for their attention and welcomes all constructive feedback. He is an active global entrepreneur consultant and educator and could be reached at wealthconsultant@yahoo.com.

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For almost two decades of globalization and a decade of synthesizing the software and hardware of the enterprise infrastructure through government initiatives and incentives, why is there still a lack of interest in enterprise take-up rate? Could it be because of the lack of capital formation opportunities? Or poorly implemented government policies? Could it be due to poor entrepreneurial execution knowledge? Or could be good jobs are just too easy to come by? Is it because of the minute size of the domestic market or the big government-linked corporations causing an oligopolistic environment which retards knowledge-based entrepreneurship?

According to the United Nations Human Development study of 38 highest human development countries, Singapore has one of the highest income gaps between the rich and the poor—indicated in the GINI Coefficient Index. It was also voted as the top 10 most expensive city in the world to live and do business by the UK Financial Times recently. These and many more questions lie behind the mindsets of those aspirers to embark entrepreneurship here. In sum, our problems are unique and complex.

With growing trends of unemployment, underemployment and volunteered early retirement, the author had decided to embark these issues to examine the root cause and formulate possible solutions for stakeholders in the Singapore entrepreneurship ecosystem to deliberate and decide. These major stakeholders would include: policy-makers, educators, parents, students and private sector participants amongst more than 60 groups being identified.

A simplified but relevant questionnaire was conceptualized. The questionnaire survey was carried out involving 100 students from various universities and polytechnics. The results were collated, analysed and evaluated. This had led to a series of strategy proposals and to be implemented concurrently.

2.3 Introduction

Singapore is a small country by world standards. It is about 700 km^2 in geographic size. With a population of about 5 million, majority of local graduates seek employment in the city-state. Rarely would they embark on overseas' career, though the trend had changed marginally in the last 10 years—as more were forced to take up jobs in regional emerging economies like China, India and the others. Generally, there are resistance in overseas' postings due to family reasons and working within a comfort zone.

As a global trading hub and a leading financial centre in South-East Asia; Singapore's competitive edge remains in the area of service. However, due to the impact of globalization and a continuing trend of inflation especially in big ticket items like residential real estate, cars and energy driven largely by an influx of foreign expatriates from the region; a scenario of upwards wage pressure to keep up with inflation, diminishing jobs for locals and the migration of jobs to lower cost jurisdictions became prevalent.

This situation had further depressed the salary scale of most Singaporean graduates. Hence, many caught in this predicament had to either follow the jobs and relocate—usually to emerging economies and leaving their families or to accommodate a situation of underemployment or worse, choose unemployment by choice.

These negative outcomes had also caused many stakeholders' groups like parents, sponsors and students to rethink and re-evaluate the economic value of investing in tertiary education in Singapore—which could cost an average of US $80,000 per student for a 3-year undergraduate degree where many had finance through educational loans and/or the parents' life savings.

From the author's perspective, actions and reform on public policies can help to alleviate the current predicament. In many ways, the situation could also be converted into timely opportunities for individuals and the country to exploit.

2.4 Research Objectives

The objectives of the research include:

1. To identify to "gaps" and "cracks" in the current entrepreneurship ecosystem.
2. To discover the level of knowledge on entrepreneurship amongst students from different discipline.
3. To identify the knowledge and skill gaps to attain global-centric enterprise competence.
4. To examine the attitude of students towards starting a knowledge-based business against finding a salaried job.
5. To mitigate the problem of increased underemployment and unemployment amongst the graduate cohort.
6. To propose strategies to increase the number of knowledge-based entrepreneurs amongst local graduates.

2.5 Significance of Study

This study is intended to make significant contributions to the following stakeholders:

- To the students, they will discover the importance of acquiring not just entrepreneurial knowledge and mindsets but also enterprise competencies to work a profitable business from scratch in the midst of a prolonged global economic and political crisis.
- To the policy-makers, it will provide an alternative roadmap to achieve new milestones from an entrepreneurial perspective.
- Policy-makers and politicians would be less pressurized in trying to create "executive-level" jobs in an environment without real demand.

2.6 Literature Review

Take-up rate in knowledge-based entrepreneurship amongst tertiary graduates were deemed to be low in the Singapore context. Though she has been rated as the number one spot in the world for being the easiest place to do business (IFC 2009) and one of the most active participants amongst nations in the Global Entrepreneurship Monitor; there seems to be some disconnections between people and policies from the perspective of entrepreneurship engagement amongst Singaporeans.

According to Tan and Yoo (2006) during a Ministerial Meeting on Entrepreneurship; he demonstrated concerns about the low take-up rate of the Entrepreneurial Talent Development Fund—an initiative to boost entrepreneurship amongst the three state-funded universities and five polytechnics in Singapore. The fund was started in 2004.

In 2006, Singh a Member of Parliament and Head of the action community for entrepreneurship taskforce also expressed reforms needed to streamline the existing capabilities schemes introduced by government agencies such as SPRING (Standards Productivity and Innovation Board) and IE Singapore (International Enterprise in short) and the Minister had taken note.

As it is, entrepreneurship has got a lot to do with mindsets, environment, opportunities, and personal qualities like risking taking, the ability to lead, take initiative and to work effectively in a team amongst others. Personal resilience as Coutu (2003) rightfully affirmed as a quality sought in employees.

Bennis and Thomas (2003) suggested that great leaders are people who are confident, loyal and dedicated. They believe that it has something to do with managing adversity. Referencing their views to the local context, many youths or Generation Y—as socially coined; have been a pretty protected breed in a prodigal sense. Dual income parents with domestic helpers in most families might have contributed to the weaknesses in character building.

Arikan (2010) concluded the entrepreneurship is a collective phenomenon and wronged researchers treating the process as an isolated component directed attention to individual entrepreneurs as a primary driver of entrepreneurial transformation to impact economies. He advocated the involvements of government at local level, research and education institutions, financial institutions, workforce in the region and even local socialites as information disseminators. The author believes that more private sector empowerment is necessary versus the current practice of having a statutory board—SPRING (Standard Productivity Innovation Growth Board) Singapore to facilitate the funding programmes. He is also of the opinion that the facilitation of entrepreneurial mindsets and business competencies across the nation should be funded by government programmes but with led by business leaders. On the whole, he agrees with Arikan's philosophy.

For a service-based economy like Singapore, innovation is the key to maintaining sustainable economic growths. Drucker (1985) had pointed that most innovation were resulted from a conscious and purposeful search for opportunities.

He adhered that discipline must be instituted in the work processes. He also emphasized that one needs to only look at simple, focused solutions to real problems when seeking innovation opportunities. In line with Drucker (1985)'s philosophy, the author is of the view that the current teaching of innovation as a subject is not prevalent and equitably spread across tertiary institutions in Singapore.

The issue of which model to adopt is always mind-boggling budding entrepreneurs. Bhide (2000) suggested "bootstrapping" as the way to go. He advocated that the "big money model" of entrepreneurship with no track record and highly leveraged through venture capital or angels funding had failed in many cases as witnessed in the dot.com era of the early 2000s.

A study conducted by Inc. Magazine on the 500 fastest-growing U.S. start-ups also attested the value of using bootstrapping as a strategy. From a Singapore perspective, the author supports this view and has developed a microenterprise model named the 100K Enterprise Model, incorporating similar principles.

Bhide (2000) advocated seven principles to increase the odds of success for start-ups. These include:

- Start operation fast
- Quick break-even
- Select cash generating projects
- Offer high-margin products or services through business-to-consumer model
- Audit growth
- Focus on cash flow
- Build banking relationships
- and do-it-yourself versus hiring.

Matching these principles with the author's 100K Enterprise Model, there were many similarities. However, the latter has clearly defined standards and criteria like selecting projects with a 20 % or more profit margins, break-even within 9 months and adhering to international financial reporting standards amongst other qualitative measures.

Isenberg (2010) in his article entitled "How to Start an Entrepreneurial Revolution" also advocated that start-ups should not be given easy money. An over-capitalized new venture is likely to burn more cash and expend unwisely. He also stressed that many government had used misguided policies to address entrepreneurship issues. The author is of the view that some of Isenberg's virtues could be applied in the Singapore context and would investigate further.

Bygrave and Hunt (2004) had identified the average start-up capital required by entrepreneurs in business service and consumer-oriented sector. Their findings in The GEM Report concluded that the "necessity-based" consumer product or service model requires an average start-up capital of about US$25,000 versus the "opportunity-driven" business service model which need a bigger budget of US $76,000. For start-ups with intention to employ 10 person or more after launching for 5 years would need an average of US$113,000 as start-up capital.

Though the above are just ballpark figures to work a business; it gives budding entrepreneurs a good reference regarding the sufficiency of capital usage.

Fenn (2010) observed the practice of extreme collaboration, technology exploitation, game changing, brand building, social capitalism and redefining work culture by Generation Y entrepreneurs. She had also affirmed that less than 5 % of start-ups had actually scaled beyond the US$1 million mark in annual revenue intake. Her work as a journalist was admirable. The author sees the relevance that the model could be franchised to many "knowledge-rich" communities including Singapore and pockets within BRIC nations. He advocates start-up entrepreneurs to take courage and open a wider net—crossing borders to invite global partnerships—in the spirit of building world-class enterprises from the beginning.

In an article entitled, "The Global Entrepreneur", Isenberg (2008) cited examples of some start-ups had attempted business across borders from day one and not necessarily to follow the past patterns where companies were built in their home turf for years before crossing borders. He also suggested to entrepreneurs to exploit the "Diaspora" networks where people capitalizes on their ethnic origins to penetrate new markets, especially the emerging ones—where the overseas Indians and Chinese had done so.

As the domestic market in Singapore is small, the author is of the view that knowledge-based start-ups must have a global vision from the very start. The business model should be global-centric though mobilization into foreign markets must be meticulously planned and could progress with progressive geographical proximity like within 4 h radius in flight time or serving clientele base from a different time zone, i.e. New York and Europe.

Khanna et al. (2005) in an article entitled "Strategies That Fit Emerging Markets" cited the challenges in penetrating emerging markets. He observed that the "institutional voids" occurring in many markets including the BRICS (i.e. Brazil, Russia, India and China) lacks efficiencies in their intermediaries, regulatory systems and contract-enforcing methods—though at varying degree amongst markets. Though written from the perspectives of multinational corporations, the author sees the relevance of these issues for knowledge-based enterprises going regional.

To conclude, Bhide (2000) affirmed that most promising start-ups in the U.S. environment only contributed to 5–10 % of the total establishments. The others remain as "marginal" microenterprises. He also asserted the public policies cannot promote the formation and evolution of new business to a significant degree. Government initiatives tend to be "lagging" mechanisms. The author agrees with Bhide to a large degree. The below 10 % figure stated could be drawn from well-funded start-ups that were born by established entities like a research arm of a transnational enterprise of a product of Massachusetts Institute of Technology to set an example.

However, he is of the view that public policies at least in the Singapore context could help in many ways to alleviate the "pain" factors of microenterprises and start-ups. According to statistics, more than the simple majority of SMEs reported less than S$1 million in annual revenue collection. This reflects the limitations of a small domestic market as well as weak "brand" marketing amongst most SMEs.

Status, recognition and trust were also being discussed by Bhide (2000). In societies like Singapore, start-up entrepreneurs still hold low self-esteem.

This literature review is not an exhaustive one. It is intended to give readers a gauge of the author's level of knowledge and passion in the topic, as well as to indicate the scope and depth of research he has endeavoured.

2.7 Research Methodology and Design

This study basically employs a descriptive method through observations, interviews and questionnaire survey. This is partly to keep resources and costs manageable within reasonable time allocated.

The author designed and conducted the survey and interview personally within the proximity of targeted institutions—including three publicly funded universities, five polytechnics, government-approved private universities within the institutions, as well as public libraries across Singapore.

The survey and interview had included contents in the following areas:

- Perception of entrepreneurship
- Knowledge and exposure in entrepreneurial learning across different disciplines, i.e. engineering, information technology, sciences, business administration, accountancy, arts and social sciences, etc.
- Perception of entrepreneurship as a life skill
- Perception of the social status of entrepreneurs in the singapore context
- Perception of global credentialing of entrepreneurs
- Preferences for entrepreneurial learning contents, pedagogies and assessments
- Motivating factors to start enterprise in the Singapore context
- Knowledge and of government initiatives and level of institutional support, i.e. university's entrepreneurship club and society and government financial assistance scheme targeting start-ups
- Level of enterprise competence
- Level of interests to engage entrepreneurship before or upon graduation
- Reasons for not taking up
- Respondents' inputs (open-ended questions), such as under what circumstances and terms will they choose to engage entrepreneurship immediately upon graduation.
- Structured interviews (consisting "What-if" Questions) to confirm the "gaps" and "cracks".

2.8 Delimitation of Data

As an academic exercise, it was financially imprudent and difficult for the author to attain bigger sample size of 400–500 student population spread equitably across every faculty of learning and to every tertiary institution in Singapore. However, this has been mitigated by drawing inputs from some practising entrepreneurs and managers about their views of the Singapore's entrepreneurship ecosystem.

Despite the aforementioned, not all data could be captured by drawing opinions and feedback from the respondent pool. Areas like securities legislation, capital markets formation with regards to new venture creations and the process of re-engineering in the training and development process for global-centric entrepreneurs are beyond the current level knowledge of amongst tertiary students with little or no enterprise experience. This was where empirical observations, secondary research and the author's expertise had complemented in narrowing the limitations.

2.9 Survey Findings, Analysis and Evaluation

The questionnaire survey was conducted in the month of July 2011. Candidates participated include students from the following institutions:

1. National University of Singapore (NUS)
2. Singapore Management University (SMU)
3. Nanyang Technological University (NTU)
4. University of Singapore Institute of Management (UNISIM)
5. Murdoch University (Australia)/Kaplan Higher Education Singapore
6. University of Western Australia
7. University of Wollongong (Australia)/PSB Academy Singapore
8. University of Newcastle (Australia)/PSB Academy
9. University of Buffalo (New York, USA)/SIM Global Education
10. Temasek Polytechnic
11. Management Development Institute of Singapore (MDIS)

The questionnaire survey took about 2 weeks to conceptualize, design and test. It took another 4 weeks for data collection from students within the tertiary institutions from the above mentioned and also in public space like the National Library.

2.10 Survey Findings

The results of the questionnaire survey include:

- More than 80 % of those surveyed are passionate to start and run a successful business.
- 57.6 % had indicated sufficient knowledge and skill to initiate business.
- Only 10 % had indicated that they will not support such initiative.
- Only 53.4 % had indicated that they have to financial means to raise a sum of S $10,000 of risk capital.
- 94 % had voted that entrepreneurial knowledge and skill set is best learned through experienced entrepreneurs versus pure academics.
- 81 % had endorsed the team-based model to improve the odds of start-up support by financiers and sustainability.

- Only 16 % of respondents had some knowledge of government assistance scheme.
- More than 75 % of the respondents were agreeable to higher take-up rate if entrepreneurship is being taught across every faculty of learning.
- 57.8 % had indicated sufficiency of support rendered by their institution with regards to entrepreneurship learning and incubation.
- 70.4 % had supported the initiative the author has proposed for government to provide overseas incubation centres and lodging facilities.
- About 70 % of the respondents have demonstrated high regards in the social status of knowledge-based entrepreneurs.
- More than 69 % had also voted that international credentialing of knowledge-based entrepreneurs would bring standards and best practices up to world-class level.
- More than 60 % had responded that entrepreneurship curriculum is not included in their degree programme.
- Less than 10 % of the students' cohort achieved "enterprise competence" during their studentship.
- More than 70 % had indicated the lecture method, closed book exams, group projects and case studies as the prevailing pedagogies.
- To assess the travel patterns and area knowledge of respondents, it was discovered that more than 30 % had not travelled during the last 3 years. The most travelled destinations include China, Malaysia, Thailand, Australia and India.
- It has also been observed that about 20 % of publicly funded university students had some form of overseas internship opportunities.
- Regarding which government incentives would motivate enterprise creations, more than 50 % of respondents had indicated home-based business rental allowance and intellectual properties protection grants as most important and about 40 % indicated global branding and tax holidays for the first 3 years as prime motivators.
- More than 57 % had indicated interests in starting business upon graduation.

2.11 Post-Interview Analysis

It is evidenced from the feedback of interviewees, there are interests in creating own business. However, opportunity to learn entrepreneurship knowledge and mastery of basic skill sets are not prevalent across institutions.

Through face-to-face interview, the author had collected the following "qualitative" information:

1. Students' cohort largely engages education to find a salaried job.
2. When the job market tightens up, many were ignorant of alternatives and usually take up odd jobs or being employed.
3. A large minority changed career type and wasted the time and financial resources invested by parents.

4. Most tertiary students have no career goals. They find long-term goal setting hard to achieve.
5. Most tertiary students are domesticated in thinking and have poor knowledge of what is happening outside the Singapore sphere.
6. There is a lack of "fighting" spirits as most youths were "heavily protected" by parents and an environment where their safety and belonging needs are readily achieved.
7. School curriculums were outdated—usually focus on local context, mathematics and sciences but little on "thinking" subjects, such as global economics, global history, geography and politics.
8. Most are still been taught to learn by rote.
9. The simple majority only network within small social groups.
10. More than 80 % do not ask questions in class.
11. Most students embarked paper qualifications with mindsets to match minimum market-based salary scale and put applicability of knowledge and skill sets secondary.
12. Less than 10 % are readily equipped with global enterprise competencies to engage knowledge-based entrepreneurship.
13. The simple majority does not have a role model that they can emulate.
14. Many are weak in oral communication and interpersonal skills.

2.12 Proposal of National Entrepreneur Competency Assessment (NECA) Certification Scheme

Justifying from the results of the survey, one-on-one interview as well as other secondary research, the author proposes a National Entrepreneur Competency Assessment (NECA) Certification to act as our national enterprise standard and a catalyst qualification for entrepreneurial development.

The following include more than 70 knowledge areas that have been identified and they include (though not exhaustive) (Table 2.1):

2.13 Method of Delivery

The NECA Certification could be delivered by several modes. They include:

- Web-based learning, assessment and testing
- Distance learning (supported by hard copy materials) and e-tutor support
- In-class workshop
- Train the trainers and deliver in schools and tertiary institutions

Table 2.1 NECA competency-based certification units

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
1	Understand the entrepreneurial process	• Illustrate with a mind map and explain the entrepreneurial process based on the individual thinking process from interest gathering, conceptualization through harvesting		
2	Define knowledge-based entrepreneurship and its impact on you enterprise and the economy with reference to the current global context	• Conduct a research on SMEs contribution to the gross domestic product • Substantiate a case of your start-up contributions to the Singapore economy		
3	Discuss what personal traits successful entrepreneurs must have to succeed	• Research on characteristics of success entrepreneurs • Discuss and identify personal strengths and weaknesses		
4	Assess the current environmental and sociological factors impacting your business	• Research from Business Times and Straits Times and select 10 events that could impact your business in domestic markets • Research from regional or global news, i.e. CNN, CNBC Russia Times or Bloomberg and list major events that will impact your business		
5	Identify and conduct an industry analysis on your business type based on Global Industrial Classification Standards (GICS) Index	• Present a customer analysis report • Present a competitor analysis report • Evaluate the two and strategize a niche		
6	Discuss how your apply knowledge into your business processes	• Formulate a knowledge application process plan and justify the integration		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
7	Define global entrepreneurship	• Define entrepreneurship • Integrate knowledge content into your business processes • Differential the value add between knowledge-based and non-knowledge-based business model. Illustrate with an example		
8	Discuss the challenges starting a business in Singapore and illustrate strategies to capitalize and/or circumvent these challenges	• Identify 5 main challenges your proposed business will face (1) in the start-up phase (2) 3–5 years down the road		
9	Identify business opportunities within (a) local (b) regional context	• State the opportunities identified and draft out an action plan		
10	Define the differences between ideas and viable business opportunities	• Be explicit in your definition and illustrate with an example		
11	Define and apply Bootstrapping strategy into your business	• Identify five bootstrapping strategies applicable to your business model		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
12	Conduct sustainability test based on your business model	• Present a feasibility plan to justify the risk/return ratio, potential benefits against costs and sustainable strategies to be employed and global scalability potential • Using financial metrics, justify if your business is able to pass these benchmark: (1) Market size potential >S$1 million revenue per annum (2) Annual growth rate >20 % (3) Entry barriers, i.e. special qualifications/licence/ regulation/global brand equity/intellectual property protected = in place (4) Gross margin >40 % (5) After-tax margin >20 % (6) Return on asset >20 % (7) Break-even <18 months (8) Return-on-investment >30 % (9) Founders' control >60 % (10) Management team market knowledge/expertise = Advance (11) Entrepreneur focus = Full-time (12) Ability to adapt in challenging scenario = Quick to adapt		
13	Determine resources needed for your business	• Present a breakdown of resources and capital expenditures needed to sustain the business in the first 2 years • Develop an operational plan including capital budgeting for property, plant and equipment • Develop an outsourcing and or off-shoring strategy		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
14	Determine the size of start-up capital	• Present a step-by-step build up approach to size your capital needs		
15	Decide on business form	• Consider the legal business form to adopt, i.e. sole proprietorship, partnership, Limited Liability Partnership (LLP), Limited Liability Corporation (LLC)		
16	Decide on capital structure—percentage in equity and debt. Justify	• Deliberate and justify your capital structure decisions as well as any anti-dilution provisions to be incorporated		
17	Identify sources of capital	• Identify local and foreign sources of capital		
18	Prepare documents for private placements	• Research private placement memorandum • Develop a customized PPM to suit your invitation to treat		
19	Selling to investors	• Role play the investors proposition process		
20	Develop prototype	• Design and/or reverse engineer existing product/service • Locate prototyping contractors • Work out per unit cost • Design just-in-time process		
21	Market testing and evaluation	• Launch market testing to first 100 primary target audience • Solicit feedback • Refine quality and customer value proposition		
22	Conduct break-even analysis using formula: $0 = (SP - VC)S - FC$ where SP = Unit selling price, VC = Variable cost per unit, S = Sales in units and FC = Fixed costs	• Identify (1) all fixed costs (2) all variable costs • Identify (3) total costs (4) total revenue • Illustrate with a graphical representation		
23	Harvesting strategies for investors	• Set a time horizon for investors to exit investments • Set an annual valuation policy • Offer alternatives		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
24	Construct your business model	• Present a viable business model embedding your competitive and differential advantages		
25	Create intrinsic values	• State explicit in all marketing materials your firm's intrinsic offerings versus industry practices		
26	Construct bottom-up market sizing	• Determine your market coverage • Align your current resources to capture optimal market share • Sum up market size in dollar terms		
27	Construct differential advantages	• List and justify the differential features of your product/ service offerings that will positively impact your competitive edge		
28	Incorporate creativity in your business	• Present a creativity process plan		
29	Incorporate innovation in your business	• Discuss the differences between creativity and innovation • Develop an innovation plan for your service/product/ process		
30	Apply business ethnography	• Conduct a field observation exercise to understand how your customers do business and prepare a report offering solutions to make them more productive and profitable.		
31	Refine product and service offerings	• Perform a market survey of competitive offerings • Prepare a report to improve its features and processes		
32	Define forecasted market size in geographical coverage, human resources, time and capital needed	• Using secondary data from competent third parties like the World Bank, The Economists, IMF, etc. via the internet and prepare a report incorporating resources within your firm's capabilities		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
33	Conduct customer anthropology for B2B model	• Conduct a field survey or request to perform joint marketing with your customers to understand their clientele business processes • Identify gaps and solutions to help your customers get the sale		
34	Forecast sales in percentage and dollar value from (1) primary target audience (2) secondary target audience	• Define your primary target audience and secondary target audience profile and its market size in numbers and dollar terms respectively—from a bottom-up approach		
35	Determine demographics and psychological profile of customers	• Using most recent statistical report, develop a customer profile plan		
36	Conduct industry analysis with reference to your industry and those that may impact your business greatly to determine the trend in the next 3 years	• Using trade publications relevant to your industry, prepare a trend report for the next 3 years factoring current economic, social and political factors		
37	Forecast size of your business in 5 years time. Justify	• Prepare a short report justification a 5 year scenario with regards to your industry based on GICS Index		
38	Set pricing policies	• Set a competitive pricing policy to win over customers		
39	Determine frequency of customer purchase: per week, per month, per quarter, per year	• State the type of product/service offerings • Determine the frequency and size of purchase		
40	Determine which stage of the industry cycle is your offerings in	• Reference your industry to the Global Industry Classification Standards (GICS) • Identify which phase is your product/service is undergoing and carve a niche that is economically profitable to justify your efforts		
41	Define and determine your gross margin	• Understand the importance of real gross margin • Use a benchmark of 40 % benchmark to gauge the viability of business potential		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
42	Develop channel strategy	• Create affiliates network • Create franchise schemes • Create business opportunity scheme • Create agency, dealership and distributorship • Create global importers network		
43	Develop risk management plan	• Buy a franchise • Buy into an established business • Identify all potential risks • Consider types of insurance needed and its costs: (a) Key person (b) Directors buy–sell agreement (c) Employee benefits insurance (d) Property and casualty insurance		
44	Develop proactive competition strategy	• Investigate and decide country of domicile with regards to FTA, market size, global branding, corruption and transparency standards, costs and taxes and regulatory friendliness towards global businesses		
45	Demonstrate research capabilities	• Submit a research report investigating global innovation, business competition and industry development with reference to your business	5,000 words (1 week)	
46	Develop your value chain	• Design and incorporate a value chain process into your business plan		
47	Develop global markets (country-specific)	• Conduct demographic and psychological analysis • Identify potential global markets and size by country • Estimate the buying power per customer per country • Justify your selection		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
48	Select global market penetration strategy	• Technology transfer • Licencing • Outsourcing • Exporting • Foreign direct investment • Franchising venture financing • Merger and acquisition		
49	Integrating marketing, branding quality and intellectual properties strategies (emphasizing differential advantages)	• Develop product/service strategy • Develop a communication plan • Develop a just-in-time distribution strategy (indicating collection methods and turnaround time to process an order) • Justify pricing policies • Develop promotional and outreach campaign (online and on-site) • Site and traffic analysis and decision-making • Online marketing policies • Develop branding strategies • Protect all intellectual properties		
50	Employ e-commerce strategy	• Plan and develop your website • Demonstrate web enhancement capabilities • Employ search engine optimization • Develop a global e-commerce value chain • Present web strategy plan including strategic partnership, lead generation and follow-through processes • Conduct beta testing		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
51	Define corporate entrepreneurship	• Understanding how intrapreneurship can contribute positively to any organization • Under the challenges and design a company-wide "Intrapreneurship Initiative" • Initiate an innovation project		
52	Develop an ethics plan	• Establish a method to contain ethical responsibility		
53	Incorporate cause related marketing	• Initiate a campaign integrating profit and social objectives		
54	Establish relationship with business incubators	• Develop a regional incubators list • Communicate and establish a business relationship		
55	Design innovation strategy	• Decide on service/product offerings • Reverse engineer its processes • Add economic and aesthetic values to existing offerings using knowledge-based concepts • Justify incremental values		
56	Develop venture team/s	• Define collective entrepreneurship • Set stringent selection criteria for founding team • Establish a board of advisers • Set a timeline to reach the benchmark • Set clear and equitable policies • Develop and endorsed a shareholders' agreement		
57	Understand how to apply and exploit government assistance schemes	• List all government assistance schemes helpful for small and medium-sized enterprises • Develop an action plan to capitalize on the applicable schemes		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
58	Conduct environmental assessment	• Conduct a SWOT analysis (strengths, weaknesses, opportunities and threats)		
59	Identify regulatory impact on your business	• Assess the regulatory environment • Identify potential risks exposure • Develop contingency plan		
60	Create barriers to entry	• Design a defensive plan to protect your business		
61	Conduct marketing research	• Gather secondary and primary data • Evaluate and justify decisions • Report your findings • Refine target market profile • Design a "no-frills" 1 year marketing campaign		
62	Plan sales strategy	• Plan sales strategies • Allocate sales and distribution resources • Sales force development • Establish incentives for sales force and buyers' motivation • Develop consultative selling process • Role play consultative selling proposition • Develop customer value proposition		
63	Perform financial ratio analysis	• Understand the relevance of financial ratio and its application • Define ROIC, ROE and ROA • Define gross profit margin, net margin EBITDA, account receivable turnover, average collection period, inventory turnover, working capital • Define current ratio, quick ratio, cash ratio, debt-to-equity ratio, times interest earned and cash flow to liabilities		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
64	Identify global market opportunities	• Align service and product to global customers • Identify 3 specific countries to serve for the next 2 years. justify your decision • Develop a global market access plan • Identifying importing opportunities • Identifying exporting opportunities • Identifying foreign direct investment opportunities • Identify joint venture opportunities • Identify franchise and licencing opportunities • Identify manufacturers' sales representation, distributorship and dealership opportunities		
65	Understand trade blocs	• Define the roles of WTO, NAFTA, MERCUSOR—Latin American common market, EU, ASEAN, MENA and how to benefit from them • Define free trade agreement and discuss how to exploit them • Identify your country top 10 trading partners and substantiate with latest statistics and identify trade opportunities		
66	Incorporating quality initiatives	• Identify all quality initiatives that could impact your business results, i.e. ISO 9000, ISO 14000, Singapore quality class (equivalent to EFQM standards), people developer standards, National Skills Recognition Standard (NSRS), etc. • Establish a budget for quality standards attainment • Design a quality initiative and set a 2 year target to achieve it		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
67	Prepare a harvesting plan	• Identify time horizon to sell • Establish your enterprise value using (a) multiple of earnings (b) discounted cash flow (c) industry-adjusted market value approach • Discuss how to effect a leveraged buyout (LBO) • Understand the acquisition process • Understand the initial public offering (IPO) processes • Understand the listing criteria for the CATALIST Market (Singapore's Second-tier equity exchange)		
68	Prepare company strategic plan	• Communicate mission and vision • Communicate annual milestones • Communicate expectations and opportunities to employees, investors and customers • Prepare a visionary 5 year plan		
69	Present business plan	• Prepare a 20-page business plan • Present within 15 min • Refine the plan • Present to bankers and accredited investors • Incorporate disclaimer and confidentiality clauses		
70	Apply financial Bootstrapping	• Identify opportunities within your stakeholders and processes where bootstrapping strategies can be applied		
71	Prepare pro forma financial statements	• Prepare pro-forma income statement • Prepare pro forma cash flow statement • Prepare pro forma balance sheet (for Year 1–3 in monthly period)		

(continued)

Table 2.1 (continued)

S. no.	Unit of competence	Element of competence	Performance standards	Date/ pass/ retake
72	Research listing requirements	• Discuss listing criteria in CATALIST (Singapore's secondary stock exchange) • Compare and contrast with U.S. NASDAQ and london alternative investment market and report the differences and opportunities		
73	Prepare for employment	• Research and discuss employment regulations and procedures in Singapore • Define the legal term of an "employee" and a "contractor" under the Singapore law • Discuss the vicarious liabilities of an employer when employee breach performance or broke the law • Discuss the process and obligations to establish a Central Provident Fund Account (CPF) for employees • Discuss your legal obligations as an employer • Discuss opportunity to outsource		
74	Motivate founding team	• Plan talent resource • Plan incentives • Plan career path • Set-up Employee Share-Ownership Plan (ESOP)		
75	Plan public listing	• Understand listing requirements • Compare CATALIST with NASDAQ (US) and London Alternative Investment Market (AIM) • Compare CATALIST with Hong Kong and Australia small cap listing • Compare CATALIST with India small cap listing		

Disclaimer The above list of competencies and underpinning knowledge is not exhaustive and may overlap in some cases. Knowledge of Social Entrepreneurship and Minorities-focused Entrepreneurship are not included

- Online learning supported by a national call centre administered by a core group of certified business advisors
- On-site assessment centre.

2.14 Assessment Criteria

- Students must demonstrate competencies by showing sufficient knowledge within each unit of competence identified through presentation, project submission; oral defence and questioning, discussion, prototype demonstration and other method pre-approved by the Assessor.
- The time limit for each assessment would be up to 3 h regardless of online or on-site mode.
- The passing grade is 60 % under a knowledge band system.
- There will be a maximum of three retake permitted to each candidate.
- Candidate would only need to attempt only unit/s below stipulated standards and need not repeat those passed.
- There will be a quarterly review of contents, pedagogies and assessment standards to constantly update and refine the certification process.

2.15 Linking NECA Certification to a Global Credential

There should be a global competency standard set for knowledge-based entrepreneurs. Creating a credential based on a standard equivalent to the United Kingdom National Vocational Qualification Framework at Level 7 (Masters Degree level) or the ISO 17024 Standards in certifying the competence of individuals—would entice more tertiary graduates to pursue entrepreneurship with pride and confidence. NECA graduates could complete a 10,000 word Capstone Enterprise Project and receive a Certified Practising Entrepreneur (CPEntr) designation. This will help to bring up the societal value of entrepreneurs in the Singapore context.

2.16 Linking NECA Certification to All Government Financing Schemes

The current practice of funding of start-ups did not include any process to ascertain the enterprise competencies of the lead entrepreneurs and their co-founding teammates. Linking NECA Certification will offer another level of selection to identify and discern the passionate and knowledgeable from the half-hearted.

It would also serve as a risk management instrument for investors and lenders in making risk-calculated decisions. The certification process is thus a value-added component to help more like-minded entrepreneurs in the capital formation.

NECA Certified Entrepreneurs should be rewarded with incentives, i.e. higher funding quantum to all government assisted schemes. If certification is mandated as criteria to apply for government assistance, the quality and quantity of competent entrepreneurs would increase.

2.17 Linking NECA Certification to the 100K Enterprise Model

This Model has been created by the author to address the learning needs of potential knowledge-based entrepreneurs globally and to complement the NECA Certification Scheme. It is global-centric in its perspectives and will serve microenterprises well to achieve business sustainability and excellence.

The term "100K" was coined to help start-up entrepreneur to target his first major milestone—reaching a US$100,000 net profit. Though it is not a rigid target, it provides a realistic milestone for start-ups to achieve. Several principles were incorporated into this model. They include:

1. Team-based model
2. Promotes democratic capitalism
3. Global product/service positioning
4. Scalable potential to reach a revenue of US$1 million per annum
5. Be service-oriented
6. Emphasis on consultative selling
7. Capitalize on intellectual properties
8. Exploit web presence
9. Must incorporate in a country with high corporate governance standards and least corruption
10. Break-even within 9–12 months
11. Promote a culture of fun, respectfulness and democratic in its policies and practices
12. Adherence to International Financial Reporting Standards
13. Operate a business with a minimum gross margin of 40 % or an operating margin of at least 20 %
14. Return on invested capital to be more than 30 %
15. Quick ratio of more than 2.0
16. Employ Bootstrapping Strategies
17. Emphasize on just-in-time model
18. B2C model preferred
19. Initiate a quality programme at the launching stage
20. Must be knowledge-intensive

21. Capitalize on equity financing from accredited investors through private placements
22. Hold more than 60 % of its shareholdings
23. Demand owner–employees to engage world-class continuous learning and certification.

Note: This list is not exhaustive and is continuing evolving.

As of this writing, there are no tertiary institutions heard off which promotes quantitative performance measurement of the learning outcomes of students. There is also no accountability from institutions in the transfer of knowledge versus its effectiveness and relevance to industries.

The 100K Enterprise Model is an ideal framework for collegiate entrepreneurs to start real-time businesses. Students should be taught the competencies to start, market and growth real income in college under close supervision of professors. This team-based model (ideally consisting 3 members) would help students to master the real art of enterprise development which theories and exams had not proven its worth. Further reading could be extracted by visiting "100K Enterprise Model" via Google search.

2.18 Analysis of the Singapore Entrepreneurship Ecosystem

A holistic approach to solving the "entrepreneurial gap" would not be complete without a thorough analysis of the local entrepreneurship ecosystem.

More than 60 stakeholders' groups were identified. And they include:

1. Ministry of Education
2. Parents' Group
3. Ministry of Defence: (a) National Servicemen
4. Ministry of Home Affairs: (a) Singapore Police Force (b) The Civil Defence Force
5. Ministry of Finance
6. Prime Minister Office (PMO)
7. Policy-making: (a) What should change for the better?
8. ACRA
9. Standards, Productivity, Innovation and Growths (SPRING) Singapore—A Government statutory board in charge of enterprise development
10. EDB (Economic Development Board) Singapore
11. International Enterprise (IE) Singapore
12. ASME (The Association of Small and Medium Sized Enterprises)
13. Singapore International Chamber of Commerce
14. Singapore Chinese Chamber of Commerce
15. Singapore Malay Chamber of Commerce

16. Singapore Indian Chamber of Commerce
17. APEC (Asia-Pacific Economic Cooperation) Countries
18. Money Centre Banks
19. Sovereign Wealth Funds
    (a) Government of Singapore Investments Corporation (GIC)
    (b) Temasek Holdings
20. Ministry of Trade and Industry: Ministry in charge of Entrepreneurship
21. Ministry of Transport:
    (a) Land Transport Authority
    (b) Mass Rapid Transit (MRT)
    (c) Singapore Bus Transit Services (SBS)
    (d) Taxis operators
22. Ministry of Community, Youths and Sports
23. Insurance Companies
24. Stock Exchange of Singapore (SGX)
25. The CATALIST Market (Sponsor-Supervised Fund Raising Platform of The Singapore Exchange)
26. Institute of Certified Public Accountants (ICPAS)
27. The Law Society
28. Polytechnics and Institutes of Technical Education
29. The National Library
30. Jurong Town Corporation (JTC)
31. Singapore Science Park/Ascendas Land/Capitaland
32. Major Oil Companies (Exxon Mobil, Shell, etc.)
33. Singapore Airlines (SIA)
34. Budget Air Carriers
35. Civil Aviation Authority of Singapore (CAAS)
36. Inland Revenue Authority of Singapore (IRAS)
37. Sports Council of Singapore
38. Infocomm Development Authority of Singapore (IDAS)
39. Advertising Standards Association of Singapore
40. Institute of Public Relations of Singapore
41. Universities and Polytechnic Libraries
42. Singapore Accreditation Council
43. International Organization of Standardization (ISO)
44. European Foundation for Quality Management (EFQM)
45. Malcolm Baldridge National Quality Award (US) Standard
46. Singapore Tourism and Convention Bureau
47. Telecommunication Authority of Singapore
48. Telco companies
49. Media Corporation of Singapore
50. Ministry of National Development: (a) Housing and Development Board (HDB)

51. Town Council in Singapore
52. Licencing Authorities in Singapore
53. Ministry of Manpower
54. National Trade Union Congress (NTUC)
55. Ministry of Environment: (a) National Environmental Agency (NEA)
56. The Peoples' Association & the Community Clubs
57. Singapore Press Holdings
58. Grassroots organizations
59. Non-governmental organizations
60. Parents–Teachers Associations
61. The Academy of Principals
62. National Teachers Association/Union
63. Ministry of Foreign Affairs: Singapore embassies based overseas

2.19 Reforming the Education Process

An in-depth examination of its education policies and practices was conducted and some severe "knowledge gaps" were identified. On a positive note, opportunities for process enhancements are also available at each level of the educational chain—ranging from the 179 Primary Schools, 154 Secondary Schools, 18 Pre-Universities, 5 Polytechnics, 3 Institute of Technical Education Colleges through the 3 state-funded universities. The National Servicemen and PMETs (Professionals, Managers, Executives and Technicians) and Private Post-Secondary Education Sector had also presented opportunities for re-engineering and improvements.

Collectively, it impacts a population of more than 600,000 people.

Solutions proposed include:

- Create an experiential learning curriculum to develop global entrepreneurial mindsets for students from Primary 3 through Primary 6 level impacting 270,000 students. This subject must be graded as a core subject. The objectives include identifying young talents and to discover the strengths of individuals which academic subjects failed to provide.
- Provide a minimum of 3 "Enterprise Coach" in each Primary School.
- Introduce "Enterprise and Innovation" and "Economics and Globalization" as two core modules in all Secondary Schools—impacting more than 250,000 students.
- Provide a minimum of 5 "Enterprise Coach" in each Secondary School.
- Get Parents to be involved in "Enterprise" Projects.
- Initiate collaboration with overseas' universities like Babson, IIMs, Cambridge University and Harvard University.

- Set up a "Globetrotter" Fund for all tertiary students.
- Obtain community leaders to support and endorse on a continuous basis.
- Introduce a "Science-based or Arts-based Entrepreneurship" subject (depending on stream) as a core subject in all Pre-Universities—impacting 20,000 students from 17 Junior Colleges and 1 Centralized Institution.
- Provide a minimum of 5 "Enterprise Coach" in each Pre-University.
- Incorporate a regional business opportunities identification trip for Pre-University students funded by Edusave (a joint government–parents scheme) and surpluses from our sovereign funds.
- Introduce a Master of Technopreneurship Certification equivalent to the United Kingdom National Vocational Qualification (NVQ) standards at Level 4 at each Institute of Technical Education (ITE) impacting 14,000 students—with initiative to integrate technical discipline with a 30 % enterprise development curriculum.
- A minimum of 5 "Enterprise Coach" is mandatory in each ITE College.
- Incorporate industry-specific overseas' internship for all ITE Master of Technopreneurship students.
- Integrate Bachelor degree and Chartered Engineer qualifications in all Polytechnics.
- Review and re-engineer all curriculums and pedagogical approach by incorporating a minimum of 25 % of total contact hours in Global Technopreneurship and Innovation as a Capstone Module in every Polytechnic. This will impact 80,000 students cohort.
- Initiate similar mechanism emulating the 'Bayh-Dole Act of 1980 on government policies in the transfer of technologies and supporting the research and development of commercially viable institutions' research projects.
- Revise the university curriculum and pedagogical approach to include a "Just-in-time" contents and experiential-based learning.
- Mandate Global Entrepreneurship as a core module across all faculties of learning to impact a student cohort of 80,000.
- Revise recruitment policy to invite industry practitioners with more than 20 years experience to embark a full-fledged professorship of practice in the respective field.
- Create a one-stop Enterprise Incubation Centre for PMET Sector to learn and network within Community Clubs based in every constituency with the support from SPRING Singapore, ACRA and the Member of Parliament. This initiative will impact more than 200,000 nationwide.
- Mandate all Private Education Providers to introduce Global Entrepreneurship Module for all Level 4 onwards Diploma and Degree courses. This initiative impacts about 80,000 private post-secondary school students.

2.20 Proposal for Other Stakeholders

- Revise Government Assistance Schemes through drawing public consultation to make existing schemes more user-friendly and favour the masses instead of benefiting a few.
- Revise the Home Office Scheme and expand usage rights, size of owner–employee per unit, infrastructural links to all publicly funded databases.
- Revise Land Transport Policies to encourage entrepreneurial activities, i.e. exemption from Certificate of Entitlement Process and decrease in road taxes amongst others.
- Revise the current Securities laws and initiate a Direct Public Offering Securities emulating the U.S. Small Corporate Offering Registration (SCOR) Regulation D Rule 504 Model to allow for microenterprises (less than 10 employees) to raise up to S$200,000 per annum and to be administered under a Non-for-Profit Charter. This initiative will benefit more than 50,000 new business firms and companies annually registered and incorporated and also the existing 130,000 SMEs.
- Expand Incubation Space from 30 sq ft per workstation through 500 sq ft units across industry zone across the island republic by rejuvenating unused School Buildings and Flatted Factories into "Global Enterprise Hubs".
- Teach Entrepreneurs to exploit Free Trade Agreements with host countries to facilitate easier market access and co operations.
- Negotiate with FTAs Partners to have greater flexibilities in granting business VISAs to Singapore-based entrepreneurs and residing rights to his family.
- Revise the Policy to allow Singapore-registered entrepreneurs to access all tertiary institutions' student-domain resources, i.e. libraries, laboratories, workshops and technical support with equitable terms and conditions.
- Soliciting support from Sovereign Wealth Funds, i.e. Temasek Holdings and The Government of Singapore Investment Corporation (GIC) to invest 1 % of this net profit to build world-class Singapore-based enterprises. A recent financial report indicated a collective net profit of about $12 billion.
- Introduce a Flat Enterprise Tax of 8–10 % for SMEs with less than S$1 million in revenue to keep Singapore competitive and attractive to foreigners to set up enterprises here.
- Cut down public expenditures referencing return-on-assets of immovable assets and productivity metrics, such as per employee contributions.
- Revise Banks' practices on setting minimum balance amounting to S$10,000 to start a checking account.

2.21 Implications and Propositions for BRIC Nations

Every BRIC economy is different in its make-up and hence faces different challenges.

Brazil may be overpopulated and have difficulties in controlling birth rates and hyperinflation. Too much concentration in the Saul Paulo and Rio de Janeiro region may hurt the other region's development and cause income inequality issues. Russia may be experiencing an overly dependence in its natural resource, rampant corruption, shrinking population and other geopolitical issues. India being the most democratic amongst BRIC nations has weak central government, slow in policy consensus, corruption, cultural conflicts and disharmonized business regulations across all states—not discounting frequent unanticipated terrorisms from external and internal sectarian groups. Likewise, China being the most stable in governance and economic growths had also shown cracks in human rights issues, ageing population and income inequalities in many provinces.

Despite these issues prevailing around BRIC nations, there are ample opportunities available that BRIC leaders could exploit and would help to mitigate the existing problems. Introducing strong public policies and building enterprise infrastructures is one solution each BRIC government must collectively agree and act swiftly. The political will to support positive change will be the driving force for sustainable economic growth. This could only be achieved by casting political differences aside and placing people's interests first.

The Singapore scenario as presented could still be a role model for BRICS economies despite its current weaknesses in its links across the entrepreneurship ecosystem. Policy-makers and all stakeholders in BRIC could still learn from the cues presented in this Paper and customize them to fit their respective context.

As a collective bloc, BRICS nations should seriously contemplate to establish a Common BRIC Microenterprise Model incorporating principles of the 100K Enterprise Model and allowing businesses in each of the member nation to trade and invest freely with a no-frills flat tax basis of say at 10 %- using a common company mechanism. The author advocates a creation of a global microenterprise standard which BRIC nations could benefit.

At this point of writing, costly and complex processes to incorporate a company are still prevalent in all BRICS economies. From an economic standpoint, these practices are not enterprise-friendly and would cause major impediments to entice new foreign direct investments and not help the teething unemployment issues.

A multi-lateral agreement is suggested and must be enacted quickly to promote freer global movement of business activities amongst a collective population of 3 billion people. The multiplier effect from this initiative would lead to a rejuvenation of a new and vibrant economic growth engine which our world needs in exigencies today. The ultimate solution for BRIC economies is to continue to develop clearly defined numbers of world-class knowledge-based entrepreneurs in the interests to achieve more equitable wealth distribution and societal good.

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Chapter 3
The Impact of Ethnicity on Entrepreneurship: A Global Review and Lessons for Nigeria

Kabiru Isa Dandago and Yusha'u Ibrahim Ango

3.1 Introduction

Like most social science concepts, ethnicity is viewed by scholars from varied perspectives. Studies on ethnicity have been more about the negatives: ethnic conflicts, ethnic violence, ethnic riots and so on. Ethnicity, however, is a concept that is much wider than its narrow conflict related interpretation suggests. Just like ethnicity, entrepreneurship has equally proven to be an indefinable concept for scholars (Iyer and Schoar 2008). Though the concept is an old one, there appear to be no universal acceptance of all its features as scholars in the field have varied perceptions on the phenomenon. It appears as if the concept is always evolving each time scholars come close to unanimity on its meaning and context.

Despite these difficulties and sometimes, mis-conceptualisations of the concept, it is still a matter of interest to researchers to understand what determines why some people go into entrepreneurship and what predicts the success of specific approaches to entrepreneurship. Researchers have equally been interested in carrying out studies on why certain nations, regions within nations or even ethnic groups within a country differ in their entrepreneurship orientation and attitude (Bonacich 1972; Light 1973; Waldinger (1986).

The Global Entrepreneurship Monitor (GEM) also carries out annual surveys to determine levels of entrepreneurship across member countries with the aim of ranking those member countries. The GEM (2002) report, for instance, finds sharp differences in the levels of entrepreneurship among countries. The levels recorded in India and Thailand in 2002, for example, was found to be about six times higher

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than those of countries like Belgium, Japan and Russia. Dana et al. (2005) as well as Todorovic and McNaughton (2007), maintains that there are substantial dissimilarities between cultures in their inclination towards entrepreneurship.

Even within the same nations, studies have shown major differences in entrepreneurial attitudes between regions and zones. One example is in the difference between West and East Germany. Bergmann (2009) confirms this difference citing GEM country report on Germany. The report confirms differences in entrepreneurship inclination between East and West Germany more than a decade and a half after unification of the country. The East Germans were rather more restrained and more pessimistic than West Germans in choosing to go into business as they exhibit a higher level of fear for business failure.

Differences in cultural traits are usually given as explanation for disparities in entrepreneurship orientation of nations, regions or ethnics. Hence, many cultural entrepreneurship studies that seek to determine the influence of ethnicity, religion, race, etc on entrepreneurship attitude of different people have been undertaken (Bruce 2003; Hofstede 1991; Light 1972, 2000). Some of those studies tried to compare entrepreneurial attributes of ethnic groups within the same country, although majority was done from western perspective (Jung and Kau 2004). Most ethnic entrepreneurship studies in the USA, for example, compared entrepreneurship attitude of blacks and migrants like Koreans, Indians, Chinese and Cubans etc. against white Americans (Light 1972; Light and Bonacich 1988; Light and Gold 2000). In Europe and particularly in the United Kingdom, such studies compared migrants particularly Asians, Black-Caribbeans with White Caucasians (Ram 1991; Ram et al. 2000).

An example such studies conducted outside the west was the one undertaken by Iyer and Schoar (2008). It found that the Marwaris were considered the most entrepreneurial community in India. There was also the study by Mungai and Ogot (2009) on ethnicity, culture and entrepreneurship in Kenya. Even then such studies are still rare in developing countries and sub-Saharan African countries in particular. This might be because interest on impact of culture on entrepreneurship even in Europe and the West generally were intensified only as from the 1980s.

Nigeria, a country of 150 million and the largest African/black nation is among the most diverse nations globally (Ukiwo 2005). Agreeing with that assertion, Kohnert (2010) stresses that Nigerians form approximately a half of the West African population. In addition, the country is made up of over 250 ethnic groups. McClelland (1961) posits that members of each ethnic group within a modern nation state do have their unique customs, behavior and a common world view and thus do share certain cultural particularities compared to other groups within those nations.

Given such reality and the fact that the country faces challenges of economic development in a fast phased global economy; Nigeria has no alternative but to learn to be increasingly entrepreneurial. Entrepreneurship, generally, and more particularly, ethnic entrepreneurship, should be of interest to Nigerians. Nigeria would need to learn from some of the best practices globally with a view to learning from such and possibly domesticating those practices among our diverse ethnics.

Here, the argument put forward by Valdez (2002) that it is vital to realize the connection between ethnicity and enterprise can never be more apt. It is for this reason that this study is undertaken aimed at reviewing and synthesizing ethnic entrepreneurship studies globally and thereby identifying lessons for Nigeria and Nigerians.

This study is a literature survey type that seeks to identify, from literature globally, those attitudes in various cultures that bring out the best in each ethnic group's entrepreneurship. Such positive cultural attitudes from all ethnic groups would be worthy of emulation by the other ethnic groups for best practices in entrepreneurship.

3.2 Review of Literature

3.2.1 Ethnicity and Ethnic Groups

Weber (1930) sees ethnic groups as artificial and subjective social constructs. This is because such groups are formed based on what Weber considers subjective belief in shared community. In fact the belief in shared community is not responsible for the group formation; rather, it is communities that construct the belief in shared ethnicity. Barth (1969) in a seminal volume on ethnicity—Ethnic Groups and Boundaries—was even more emphatic seeing ethnicity as some form of fabrication and that it is a phenomenon that is continually changing and then changing again due to 'both external ascription and internal self-identification'. Sharing similar sentiment, Cohen (1978), an anthropologist, claims that the label "ethnic groups" is rather inaccurately used by social scientists. This is because it is chiefly imposed and may not conform to indigenous realities. In the opinion of Cohen (1978) when an ethnic group's identification is by strangers, it might not agree with identification members of a group make of themselves. Stressing that the word "ethnicity" was initially used in lieu of earlier words like "cultural" or "tribal", Cohen (1971) had earlier attributed that claims to ethnic identity was a colonialist creation and that it was used mainly in referring to colonised peoples.

These views about ethnicity are substantially Eurocentric. For a multicultural nation like Nigeria, ethnicity is more than an artificial social construct as noted by Weber (1930). Also, even though it was used especially during colonial and neo-colonial era to emphasize divisions among the people, Nigerians do not regard 'ethnicity and ethnic identity' as a subjective belief in shared community contrary to Cohen (1978).

Ukiwo (2005), define ethnicity from the context of conflict as "the employment or mobilization of ethnic identity and difference to gain advantage in situation of competition, conflict or cooperation". This definition is preferable for two reasons: first, because ethnicity does not occur accidentally or naturally but is a deliberate effort by social actors. Secondly, ethnicity is not limited to conflict situations as it

also manifest from the perspective of 'cooperation'. Ukiwo (2005) allude to the fact that ethnic conflict is displayed in many forms some of which (like in the case of voting or community service) need not always have negative consequences. Also, while obviously, agreeing to the fact that ethnic groups share some common features like sharing of a common territory, lineage, language, race or culture, his study, does not accept that this is always the case.

Bacik (2002), on the other hand, sees ethnic nationalism from the perspective of lineage thus, members of an ethnic group have common distinct features. They may bear common and distinct physical characteristics; have common ancestry, religion, race and language among others. In essence therefore, even within the same nation states, there could be different nations made up of members that are ethnologically related sharing features as outlined above. Even the Wikipedia (2011) acknowledges that members of an ethnic group identify with each other and usually share some common traits which may, but does not necessarily have to include, shared culture, common heritage, dialect or language. Ethnic groups emerge out of a process called ethnogenesis and that in some cases, the only thing members of an ethnic group have in common is the shared (ethnic) identity.

Schildkrout (1978) defines ethnicity as "-a set of conscious or unconscious beliefs or assumption about one's own or another's identity, as derived from membership in a particular type of group or category". Horowitz (1985) sees ethnicity as an umbrella concept that embraces groups separated by language, colour or religion. According to him the definition could be extended to cover "tribes", "nationalities" and "castes". To Chandra (2006), ethnic identities are a subset of identity categories in which eligibility for membership is determined by attributes associated with, or believed to be associated with descent.

This paper therefore aligns more with Schildkrout (1978), Horowitz (1985) and Bacik (2002). Their views appear to be closer to the accepted reality that the ethnic groups in Nigeria share some physical characteristics, a common language and culture and in some cases even religion. It also agrees with Ukiwo (2005), even though that is not the subject of this effort that ethnic groups attempt to attain advantageous position regardless of whether it is in a conflicting or competitive situation.

3.2.2 Entrepreneurship

Cantillon (1680–1734) was attributed to be the earliest scientist that paid considerable attention to the field of entrepreneurship. The 'entrepreneur' was said to have first been acknowledged in Cantillon's post humous publication (1755) titled 'Essai sur la Nature du Commerce en Général'. Since then, entrepreneurs have been seen as the heart of economic activity and growth. For example, in Smith's (1776), *Wealth of Nations,* the impression one gets is that the most important function of the businessman is to supply capital as an entrepreneur—one of the factors of production. In addition, as Iyer and Schoar (2008) confirms, economic theorists from

Schumpeter to Baumol have highlighted entrepreneurship as the driving force for change and innovation in a capitalist system.

Despite this belief, the real roles of entrepreneurs remain a contentious issue. For example, Kirzner (1985), Bygrave (1997), Shane and Venkataraman (2000) as well as Robbins and Coulter (1999) see entrepreneurship from the lens of opportunity recognition while Schumpeter (1934) views the entrepreneur as an innovator—a creative personality.

To Shane and Venkataraman (2000), entrepreneurship is the study of "how, by whom and with what consequences opportunities to produce future goods and services are discovered, evaluated and exploited". Bygrave (1997) see an entrepreneur as a person that is able to identify opportunities and craft the necessary organization to pursue it. To Kirzner (1985), an entrepreneur is a person that is alert and ready to cash in on overlooked opportunities. The leadership provided by the entrepreneur in identifying and taking advantage of unnoticed opportunities assist in "correcting" the market thus bringing it towards an equilibrium position.

Schumpeter (1934) rejects the equilibrium analysis and perceives the entrepreneur as a creative character and an innovator that has capacity to totally transform how things are done. Entrepreneurship is, therefore, a new combination including the exploitation of new opportunities or finding better ways of doing things that are already being done. This new combination may involve introducing new technologies, opening up new markets, a fresh source of supplies or rearranging production processes and so on. The entrepreneur is thus not an imitator but an innovator who also tends to have monopolistic tendencies. The innovator engages in 'creative destruction' thereby contributing to economic development and must necessarily be monopolistic to protect innovations.

Hisrich and Peter (2002) looks at the concept of entrepreneurship from two perspectives—economic and psychological perspectives. From the economic perspective, an entrepreneur is seen as a person that assemble other factors of production like labour and capital as well as all the required resources that would facilitate creation of fresh goods and services; or those that introduce innovations into the way things were done before. From the psychological perspective however, an entrepreneur is seen as that person with a strong desire to innovate or come up with completely novel approaches to how things should be done; as a person with strong achievement orientation or someone with a strong desire for independence

3.2.3 Ethnic Entrepreneurship

Mitchell et al. (2002) in an attempt to empirically determine whether entrepreneurship cognitions are common across cultures undertook an eleven country empirical study. In all, 990 respondents were surveyed across the eleven countries. The study finds, among others, that there are significant differences in the entrepreneurial archetypes of the eleven countries. However, in the opinion of Shariff and Saud (2009), few studies have tried to understand what determines why some

people go into entrepreneurship and what predicts the success or specific approach to entrepreneurship. In essence, studies that use personality/character, demographic and attitudinal approaches to determine potential to create aspiring entrepreneurs in various fields of endeavour appear to be few. Even fewer studies appear to have been made on the influence of culture on entrepreneurship attitude of ethnic groups. An attempt was made by Lindsay (2005) to design a model of entrepreneurship attitude by combining both Hofstede (1980a, b) dimensions and the Entrepreneurship Attitude Orientation (EAO) model. Even then, no attempt yet has been made to empirically test the model.

Two reasons could be adduced for the fewer studies done with regard to influence of culture on entrepreneurship attitude of ethnic groups. The first is the fact that much entrepreneurship research was undertaken by western scholars who appear to associate ethnicity with backward cultures (see Light and Bonacich 1988 and Waldinger et al. 1990). And where such researches are undertaken in the west, it tends to examine the entrepreneurship attitudes of immigrants compared to local populations.

Bruce (2003) surveyed 325 entrepreneurs from different ethnic backgrounds in South Africa: Indians, Europeans and Africans and finds significant differences in aspects of their entrepreneurship. The study for example, finds the Africans did not have an extensive network unlike the Indians and Europeans. There is also noticeable difference between the ethnic groups on access to and diversity of finance sources. Even the hurdles and obstacles the ethnic groups experience is different. This study suffers, obviously, from the faults of the Europe and American studies by lumping all Indians, Europeans and Africans as ethnic groups. The reality is that, while each group may share some similar cultural experiences they differ on many others.

Mungai and Ogot (2009) undertook a preliminary study that sought to investigate differences in entrepreneurial attitude of four Kenyan ethnic groups-Kikuyu, Kalenjin, Kamba and Lou. The study compared the four ethnic groups on two features closely associated with entrepreneurship attitude—locus of control and risk aversion. The study established positive correlation between the factors investigated and the perception the various communities have of entrepreneurship. It concludes that some cultures nurture entrepreneurship in their followers more than others as the four ethnic groups recorded significant difference on the factors investigated. While such a study has its uniqueness, it only used descriptive statistics; it did not use any robust methodology. It had limited scope as it studied four of Kenyan ethnic groups and was limited to the city of Nairobi. The study also limited itself to only two of the factors and made no attempt to rank the ethnic groups overall on their levels of entrepreneurship.

In another study, Aruwa (2005) found that ethnic background was a major influence in explaining entrepreneurial patterns and motivations in Kaduna followed by finance, environmental influence, and personal experience and motivations. The study also found that some ethnic groups in Kaduna dominated certain entrepreneurship ventures. While the study's objective was not to examine the

impact of culture on entrepreneurship attitudes, it has indirectly demonstrated that entrepreneurship attitudes are influenced by cultural factors.

In addition to the above, studies have been undertaken in some countries and regions that empirically suggest that differences in entrepreneurial attitude exist between countries and regions of the world. Bosma et al. (2009), for example, found that occupants of Southern Europe, Ireland and the UK exhibit comparatively higher levels of self-employment inclinations among European Union (EU) countries thus confirming that considerable variation exist within the EU. Also, Bergmann (2009) found major differences in entrepreneurship attitude between West and East Germany more than a decade and a half after German unification. The Global Entrepreneurship Monitor (GEM) report (2008) on Germany confirms that there are noticeable differences between the two regions on their entrepreneurial attitude. Unlike West Germans, for example, the study finds East Germans are somewhat more restrained in starting business as they have higher fear of failure.

In another GEM Report on New Zealand (GEM 2005), the entrepreneurship attitude of the Maori ethnic group was assessed. The aim was to measure Maori's levels of entrepreneurial activity relative to the general population in New Zealand and with other countries. The research finds the traditional Maori society to be 'tribal', in which property is communally owned and leadership is exercised by elders of high status by virtue of their lines of descent. It also holds that the Maoris have relatively higher levels of opportunity entrepreneurs with 83 % of entrepreneurs being opportunity entrepreneurs. This is respectable and compares favourably even when matched against the situation in countries like USA, Austria or Canada. With a record of 15 %, the Maoris also recorded a decent level of necessity entrepreneurs, higher than the average New Zealand level and comparing favourably with levels recorded in such countries like Austria, Singapore and Italy. In addition, wealth creation is seen as a secondary motive among the Maoris which fits the general New Zealand pattern. Equally, the study finds high rate of "seniorpreneurship" at 15 % and the Maori women ranked third globally on early stage female entrepreneurial activity, at 12.3 %. They are also half as likely to be necessity entrepreneurs as Mäori male entrepreneurs. Finally, the study also finds that compared to the general (New Zealand) population, 8.1% of whom are confident of creating 20 jobs in 5 years.

These studies are proofs that differences do exist in the entrepreneurship attitudes among communities and nations and that this was largely because of the respective cultures associated with each group or community, ethnic or otherwise.

3.2.4 Immigrant Ethnic Entrepreneurship

A greater proportion of studies comparing ethnic groups' level of entrepreneurship have focused on immigrants who are more often seen as the 'ethnics' especially in the USA and Europe. In the USA for example, studies have been undertaken to compare levels of entrepreneurship of ethnic groups such as Chinese, Indians,

Koreans, Cubans or blacks with white Caucasians (see for example, Waldinger 1986; Morris and Schindehutte 2005; Light and Bonacich 1988; Light 1972). Similar studies were conducted in the United Kingdom, that compare Caribbeans, Asians and the White Caucasians population (Ram 1991; Ram et al. 2000). This, despite the fact that more often than not as Deon et al. (1999) posits the mistake is always made whereby for example, Moroccans, Indonesians, Indians or Turkish ethnic groups residing in Europe or America are categorised as one ethnic group though in their countries of origin they might belong to different cultural backgrounds.

Despite the error of generalization as pointed out above, the studies have, almost without exception (except off-course the ones on blacks versus white Americans) found the immigrant groups to possess higher entrepreneurship traits than their hosts. Additionally, Bonacich (1973) claims that transitory migrants (sojourners) have a higher likelihood of becoming entrepreneurs than permanent migrants (settlers). This is because sojourning by its nature encourages thrift and hard work for persons whose ultimate aim is of returning to their home country. Another reason given by Bonacich (1973) is sojourners have, relatively, higher levels of internal solidarity. This gives them some advantage while competing with the rest of society.

Deon et al. (1999) undertook a study that examined the issue of ethnic entrepreneurship and migration. The study finds that migrants are motivated to go into entrepreneurial activities because of cultural hostility they face. Other factors that force migrants to consider entrepreneurship career include the fact that they tend to have limited access to finance in the face of inadequate capital; the high level of competition; existence of ethnic support networks as well as advantages the migrants might have in 'ethnic products market' where they have niche advantage. According to Light (1995) migrants face special challenges compared to residents when it comes to prospect for getting formal employment. Although jobs should, in principle, be competed for by all those that are qualified, in practice, this is not the case. Migrants, find themselves eliminated as some hidden considerations to do with ethnicity or nativity are brought in. Since their chances are limited in the formal sector, migrants have to resort to entrepreneurship careers.

Waldinger et al. (1985, 1996) identified some possible scenarios that could explain why some ethnic groups become more entrepreneurial than others. These possibilities have to do with: cultural resources of the respective ethnic groups, structure of the ethnic enclaves, and the circumstances of each ethnic group's immediate environment. A good example of ethnic cultural resources could perhaps be seen in the findings of studies undertaken by Morris and Schindehutte (2005) in the state of Hawaii which involved administering questionnaires to first generation Japanese, Filipinos, Koreans, Chinese and Vietnamese in addition to native Hawaiians. The study finds each ethnic group associating itself with certain core values usually connected with their specific ethnic circumstances. Specifically, the study finds the Korean sample generally more frugal, the Japanese exhibiting a higher level of risk aversion while native Hawaiians are generally more hospitable.

One other feature worthy of review with regards to 'ethnic'/migrant entrepreneurs is the role of the ethnic networks. This has to do with the existence of 'diasporas'—ethno-national populations spread around the world that nonetheless remained in continuous, long-term interaction with one another and with their real or putative homeland (Cohen 1997). According to Light and Gold (2000), their actual or supposed homeland constituted the hub of ethnic diasporas while the colonies scattered abroad represented the spokes. Light (2010) stress that trading diasporas were involved in shipping commodities around the diaspora network, sometimes to distant continents and that in each diaspora site, co-ethnic merchants sold imported goods to locals and purchased goods from them for export. The middleman minority's specialisation in international trade gave him many advantages.

Firstly, thanks to their hub and spoke structure, diasporas linked distant continents in such a way that ethnic minorities resident in anyone place had strong social and cultural ties with co-ethnics in many others. And through such networks, it became easy for co-ethnics to dominate certain businesses especially where they have better knowledge of the market with regards to sourcing of inputs or finding markets for particular products. Ethnic diasporas were commercially important, but they were not numerous. Diasporas were uncommon because most immigrants just assimilated into host societies within three generations (Bonacich 1973; Light and Gold 2000). As a result, unless renewed by new immigration, the spokes ceased to communicate with one another and with the hub.

Entrepreneurial ethnic communities that operated around diaspora structure earned the sobriquet "middleman minorities" in the literature of social science (Bonacich 1973; Kieval 1997). Middleman minorities were non-assimilating ethnic minorities noteworthy for their abundant and persistent entrepreneurship everywhere they lived. They highlight their characteristics to include among others the fact that they resist assimilation. In non-middleman minority groups, grandchildren are assimilated and unable to speak their grandparents' language. However, middleman minorities realizing that when immigrants or ethnic minorities assimilate, they lose their commercial advantages, successfully resisted assimilation for centuries. They become bi-cultural in mono-cultural civilizations (Light 1995). Speaking their ethnic language as well as the vernacular of their country of residence, middleman minorities could communicate across linguistic barriers thus given them advantages.

Secondly, the international social networks produced an international system of enforceable trust that subjected to sanctions any who violated the presumption of honesty. And thirdly, middleman minorities acquired advanced business skills and passed them along to younger generations even when there were no famous business schools then! While acknowledging the existence of others, Light and Gold (2000) mentioned among the prominent middleman minority communities: the Jews of Europe, the Hausa of Nigeria, the Sikhs of East Africa, the Chinese of South East Asia, the Armenians of Near East and the Parsees of India.

According to Light (2010) another phase in the evolution of immigrant entrepreneurship that followed the 'middleman–minority' phase is what Schiller et al.

(1992) referred to as transnationalism. This, they explained as a process through which immigrants (who virtually live in two countries—their country of birth and that of settlement. Effectively such migrants succeed in building social bridges between two countries. Schiller et al. (1992) refers to these immigrants as "trans-migrants" as they are usually resident in more than one country and are frequently shuttling between a minimum of two societies—their home country and another that they often travel to for business. Each of these countries could easily be called 'home'. They stay as active participants in both countries but are not fully encapsulated mono-cultural participants in either. Light (2010) argues that trans-nationalism started after 1965 the period when globalisation commenced. The transmigrants like the middleman-minorities do not assimilate with their host communities; they however acculturate—by understanding the language of host societies. Light (2010) observes that the transmigrants resemble middleman minorities in some ways. For instance, transnationals have diasporas just like middleman minorities. Gold (1997) asserts that transnationalism gave ethno-racial groups that were never middleman minorities in the past an opportunity to have diasporas. He gave the examples of Brazilians or Filipinos who now maintain diasporas, a benefit enjoyed only by middleman minorities like the Chinese, Armenians, or Jews. This, he argues is because in an era of globalisation, diasporas are logistically easier to maintain now.

Secondly, contemporary transnationals are bicultural just as are members of the classic middleman minorities. As a result, transnationals enjoy some of the same advantages for international trade that middleman minorities enjoyed in the past. The spokes of the transnationals' diaspora communicate with one another and with the diaspora's hub in the mother tongue while selling locally in the local vernacular. Another similarity highlighted by Light (2010) is that, like middleman minorities, contemporary transnationals have international social capital that provides access to enforceable trust.

There are, however, differences between middleman minorities and transna-tionalists. For example, Mahler (1998) argues that while middleman minorities originate from 'below', transnationalism originates 'from above' and 'below' as well. Mahler gave the example of countries like Canada, USA, and Australia that issue entrepreneur visas. There is also the method in which special visa are issued to skilled foreigners temporarily to access the labour market in the destination country. Such cases are referred to as coming from above. Light (2010) gave as an example in this category, Jerry Yang, co-founder of Yahoo. But in the cases when routine, non-elite immigrants opt for a transnational lifestyle, it amounts to coming from below just as was the case with middleman minorities. It's the opinion of Light (2010) that transnationalism from above introduces immigrants who arrive well-equipped with human and financial capital as well as of course with ethnic social and cultural capital. As against transnationalism from below which gives rise to entrepreneurs who have only average or even below average human, social and financial capital and who tend to open routine business firms many of which serve only their own co-ethnic community. Regardless of how transnationalism originates (from above or from below), Saxenian (2002, 2006) is of the view that transnational

entrepreneurs enhance the economic growth of both their homelands and adopted countries.

The most recent interesting development that is impacting migrant entrepreneurship is the global acceptance of English as the language of commerce. Like transnationalism, this development is also seen as part of the effect of globalisation Fishman (1998). With the dominance of English language, Lebanese, Poles or Chinese for example could have a common language of trade. This would jeopardise but does not completely exclude the earlier linguistic advantage of middleman minorities and transmigrants (Light 2010). It however has some implications for the middleman minorities and transnationalists as it would limit their advantages. For example, as illustrated by Light, Armenian middleman minorities based at Peru have some advantages in say trade for Turkish carpets. They could use their networks in Turkey who normally would speak Armenian and Turkish to import the carpets and would have no difficulty communicating with the Peruvians in their language. Now that English is growing as the language of commerce, the Peruvians could communicate directly with the Turks in English thus removing the advantage of the intermediary.

Gould (1990, 1994) sought to establish this empirically when he undertook some studies in the 1980s with regards to the effect of the use of English on immigration and foreign trade in Canada and the USA. He found that the volume and skill levels of immigrants increased the dollar volume of both American and Canadian exports to the immigrants' home countries without increasing importations from them. This was in cases where the immigrants were from non-English speaking nations. This finding was contrary to earlier held beliefs that immigrants should import more from their homelands than they export to them because of long-term cultural links to entertainment and food products of their homeland. Light (2001) and Light et al. (2002) replicated Gould's study using a different American data set and confirm the same findings as Gould that immigrants to the United States increased American exports to their home countries without increasing American imports from their home countries.

3.3 Lessons for Nigeria

As stated above, Nigeria is the most populous country in Africa with 150 million inhabitants (Kohnert 2010). Considering the fact that the country is also the 6th largest oil producing nation globally, we can say that it is well endowed in both human and natural resources. However, given the high level of poverty in the country, there is a need to give entrepreneurship development all the attention it deserves. This becomes even more critical, if the country's vision to be among the top 20 biggest economies globally, by the year 2020, is to be realized. While these lessons are obviously inexhaustible, a few of them are itemized below:

3.3.1 Comparative Studies

As studies by Mitchel et al. (2002), Bosma et al. (2009) and the various GEM annual country reports among several other studies show, entrepreneurship cognitions between countries, regions or ethnic groups within countries differ. However, comparative studies on the entrepreneurship attitudes of the Nigerian ethnic groups are rare, if available. Stakeholders (public or private), would, therefore, need to consciously sponsor studies that would seek to investigate the entrepreneurship drive of Nigeria's many ethnic groups. This way, it would be possible to understand which ethnic cultures encourage entrepreneurship more as well as the cultures that retard entrepreneurship, if any. The factors responsible for either stance can then be publicized for the benefit of all Nigerians. Since ethnic conflicts sometimes manifest in competition between ethnic groups, publicizing the outcome may encourage others to improve their entrepreneurship attitude.

3.3.2 Learning from Others

Closely related to the above, Nigerians have a lot to learn from some of the best global practices as enunciated above. For example, they need to learn the risk aversion of the Japanese, prudence of Koreans, or the penchant for opportunity recognition of the Maoris and so on. Luckily, some studies assert that the major ethnic groups possess high levels of entrepreneurship. For example, Kohnert (2010) acknowledges the fact that Nigerians and in particular the Hausa, Igbo and Yoruba have a dynamic emigration history and that they have trans-regional trading networks predating the era of colonialism in virtually all over West Africa. Citing Mahdi (1990), Aliyu (2000) confirmed that the Hausa were involved in pre-colonial migration motivated by trade (fatauci), itinerant Islamic scholarship (almajiranci) and seasonal migration (cirani). This explains the existence of the prevalence of voluntary settlements (Zango) along the trade routes. Aliyu (2000) also posits that the long-distance caravan trade route from Hausaland during the pre-colonial era extends to North Africa among other places. Also, Harris (1968), Le Vine (1966) and Lovejoy (1971) identified the Igbo as a very enterprising ethnic group. McClelland (1961) gave credit to the Yoruba and Light (2010) and Dana (2007) listed out the Hausa as one of six 'middleman-minority' ethnic groups globally.

3.3.3 Migration and Ethnic Networks

Nigerian ethnic groups would need to consider expanding their businesses and networks beyond West Africa. While it is true that the Hausa, for example, were active players in the trans-Saharan trade routes to north and central Africa, and that

the Yoruba and Igbo are increasingly becoming active transmigrants, a lot need to be done to improve the situation. Nigerian ethnic groups would need to key in to modern business practices. They cannot afford to stick to the past. The fate of the old Zangos (business hubs set up by Hausa merchants along trade routes) cannot be guaranteed under modern business realities. If the Nigerian ethnic entrepreneurs do not update trade practices, they will be easily edged out even at home by the rampaging Chinese entrepreneurs among other very aggressive ethnic entrepreneurs (see Kohnert 2010).

3.3.4 Ethical Practices

One major lesson for the Nigerian ethnic groups is that of imbibing and fully adopting globally accepted ethical standards in trade relations. With globalization, business practices and standards are expected to comply with global standards. Nigerians must therefore key into that and can use their trading networks in the diasporas to enforce compliance.

3.3.5 English as Language of Commerce

The increasing adoption of English language as the language of commerce has implications for Nigerian traders. English is officially the second and official language in Nigeria. The use of English as the language of commerce should provide opportunity to Nigerian international traders most of whom can speak the language in addition to their mother tongues. They can use their proficiency in the language to their advantage in the international trading arena.

3.4 Conclusions and Recommendations

The conclusion of this study, which are based on a synthesis of the reviewed literature is that there are differences in entrepreneurship attitudes globally. There could also be differences between nation states, between regions and ethnic groups within the same countries. These differences are conditioned substantially by the varied cultures (including ethnicity) of the people concerned.

It is also the finding of this study that Nigeria can benefit from global trade through encouraging entrepreneurship development. The country's ethnic groups could partake as middleman minorities (the Hausa are among the sixth globally accepted middleman minority groups), as transmigrants and by taking advantage of the usage of English language as the global language of commerce. There is need

for Nigerian entrepreneurs to pursue a global vision and not to limit themselves to domestic or West African Market.

This study, therefore, recommends that government should sponsor studies that would seek to determine the cultural attitude of Nigerian ethnic groups to entrepreneurship. This study would provide opportunity to identify the best practices and publicize them. It will also be to identify poor entrepreneurship attitudes with some groups and thus use the opportunity to re-orient such communities.

Closely related to the above, The paper believes that it is especially important to ensure that steps are taken by appropriate authorities in Nigeria to introduce entrepreneurship orientation and coaching, right from the beginning of a child's education. There is need to move beyond current policy of teaching entrepreneurship only at tertiary levels of education in Nigeria and many other countries of the world.

Nigerian entrepreneurs should be exposed to modern business processes and approaches of doing business. They need support from stakeholders for them to be exposed to production and marketing standards that would meet global standards. There is also the need to ensure that compliance with global ethical standards is encouraged, among entrepreneurs, by the government.

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Chapter 4
Economic Implications of Intellectual Property Rights in Evolving Markets

Rajesh Asrani

4.1 Introduction

The accelerated liberalisation of economies across the world has drawn universal attention towards the importance of intellectual property and its protection, as also its role in stimulating growth (Alikhan and Mashleshkar 2006). While there is free flow of goods, services, labour and capital across borders, multinationals promoted by developed industrial world are increasingly finding it important to use intellectual property as an integral part of the international trading system. Consequently, governments across the world and specifically developing countries need to focus on national economic development policies that include IPR in a holistic framework.

By tradition, policy choices in IPR are a matter of national discretion because intellectual property law applies solely within designated territories. Most countries have different levels of intellectual property enforcements based on their perceptions about its implications on the economic indicators of the country.

Here it becomes important to understand the interface between market structures, competition laws and intellectual property. Various economics scholars have investigated the strength of the intellectual property system prevalent in various countries and their specific indicators such as foreign direct investments, growth of gross domestic product, rise in technology transfer, trade flows and joint ventures.

This paper systematically presents such findings, with specific focus on India. The paper further discusses different exhaustion mechanisms and policies combating parallel imports. It also draws certain inferences from the primary survey conducted with 320 economists seeking their opinion about the economic implications of IPR in India.

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4.2 Literature Review

Intellectual property, being an information product, is non-rivalrous (one person's use may not affect another person's use; and, the marginal cost of producing a second unit is low or zero) as well as non-excludable (not possible to prevent its usage without authorisation). This raises important concerns for inventors to innovate. Further the strength of intellectual property protection differs on the basis of countries, market structuresand technological complexities.

The basic substitution in accepting IPR is unavoidable. On one side, the static efficiency necessitates a free right to use at a reasonably low marginal social cost, while on the other side, the dynamic efficiency advocates high incentives, returns or recognitions for the investors in innovations, with a higher social value than the cost of development. Thus both these policies may sound fair but would definitely be conflicting in nature and implementation (Maskus 2000). The onus is on the governments to strike a balance in creating an intellectual property regime strong enough to offer incentives to innovators as well as satisfy static goals. Simultaneously, it is also important to ensure that excessively strong intellectual property regimes do not create static distortion of insufficient access.

The debate on creation of intellectual property and diminishing public welfare has been on the cards since a long time. Generally, economists believe that IPR would create a monopoly situation and reduce consumer welfare in exchange of reasonable return to be provided for innovators, which would then result into future societal welfare. The basic trade-off is illustrated by Maskus (2000), in his theory on information spill over.

4.3 IPR, GDP and GNP

Rapp and Rozek (1990) evaluated the correlation of relative strength of intellectual property regimes and economic variables, which define the prosperity of the nation. Such variables included the gross domestic product, medical facilities, electricity and other related factors. There was a positive correlation between the strength of intellectual property and economic prosperity. However there was no evidence of causality.

To emphasise the causality issue, Ginarte and Park's (1997) research tried to identify the factors which suggest the relative strength of patent regime in a country. Using their own IPR score they found a strong correlation between the relative strength of intellectual property and the gross domestic product of the country (Lesser 2001).

The fact that IPR are positively correlated with real GNP per capita was first demonstrated by Keith and Penubarti (1995) using the RR index. Using the same index they also concluded a positive correlation between the strength of intellectual property and GDP and GNP.

4.4 Impact of IPR on FDI and Technology Transfer

Most developing countries seek to attract trade flows, foreign investments and direct transfer of technology, owing to inadequate infrastructure within the country to support innovation and technological developments. Currently the Asia Pacific region, including Singapore and India, is one of the most important acquirers of foreign technologies through contractual channels in the developed world (Kariyawasam 2007). Simultaneously, developing economies also consider the protection of their domestic organisations and tend to create an eco-system where local organisations have enough ground to compete with multinationals. Under these circumstances, intellectual property laws, along with FDI restrictions, are important tools to manage and balance the trade requirements of foreign organisations and interests of the domestic ones.

In a major work, Seyoum (1996) tried to find out the correlation between the strength of intellectual property and its impact on FDI. He evaluated the strength of governments to influence increase in foreign direct investments by altering the strength of intellectual property. IPR, in his view, is captivating on further importance as high technology-goods are superseding natural resources in enhancing national wealth and it is becoming easier to move production across countries.

Further there have been two major research works, wherein, Lee et al. (1996) examined FDI outward flows for US, German and Japanese firms. Apart from the Intellectual Property Score, other independent variables such as market and size of economic production (GNP), stock of FDI, degree of industrialisation and 'openness' (liberalization) were considered. The results suggested that keeping other factors constant, higher strength of IPR leads to increasing FDI in a particular country. However, there is a possibility that other factors such as industrialisation may also have a positive impact on FDI inflows.

Braga (1995) through his empirical studies as well as the review of existing work, came to a conclusion that the effect of stringent IP regime on trade flows is uncertain. He categorically suggests "If the market power (leading to higher prices) effect dominates the market expansion (or availability) effect, trade will diminish, and vice versa; so the matter is an empirical one" (Braga 1995). In a similar study, Ferrantino (1993) concluded that the strength of Intellectual property would definitely increase the trade flow.

Smarzynska (2005) conducted an econometric investigation on the role of IPR as a causal variable impacting FDI. Contrary to studies of FDI in other parts of the world, Smarzynska concluded that firms with low, research and development investments to sales ratio are more likely to invest in transition economies. The research also suggested that typical multinational corporations, having higher exposure in research and development as well as marketing communication, are keener to employ in distribution or establish a branch distribution office than to produce locally.

4.5 Technology Transfer

A literature review to understand the impact of IPR on technology transfers reveals the following information:

Some critical points need to be raised before trying to understand whether or not IPR impacts transfer of technology. First, there is evidence relatively low strength of intellectual property hampers technology transfer. Based on a study of collaboration agreements between British and Indian firms, Davies (1977) came to a conclusion that difficulties in procuring lawful rights over the revenues and surplus generated from intellectual property enhance already large barriers to knowledge based trade between developed and developing economies.

Contractor (1980) studied a sample of 102 technology licenses provided by US firms; his regression tests and their conclusions validated the hypothesis that "returns to a technology supplier increase with patent protection in the recipient nation". He also concluded that technologies transferred to transit economies were significantly inferior and outdated than those transferred to industrialised and developed economies. While these findings may be dated, they support the proposition of the patent regimes in attracting technical know-how through licensing (Maskus 2000).

4.6 Inferences from Primary Data

A questionnaire containing 80 statements highlighting the probable economic implications of IPR was constructed. The data from this questionnaire was used for evaluating the economic implications of IPR. While earlier theoretical and research works conducted by eminent academicians support a positive impact of strong intellectual property regimes over the economic strengthening as well as technology transfer from advanced and developed countries to developing and under-developed countries, there has been an absence of any validated construct for the same. Statistical analyses on economic parameters have also been largely along similar lines. Simultaneously, there are other schools of thought which suggest that a strong intellectual property system may not necessarily bring in economic prosperity. Further, even the strengthened IP system in place in India since 2005 in the form of the revamped patent system has not resulted in adequate economic parameters in the form of development or enhancement of technological innovations in the country.

Against this background, this research draws upon the standpoint of economists in the country on the economic implications of IPR systems in India.

4.6.1 Methodology

This quantitative data was collected through a survey executed on eminent academicians from the fields of economics and social sciences, economists in government departments and experts on policy making. The questionnaire comprised 80 items under various constructs that emerged from the review of literature. Statements such as 'The government should predominantly fund research and innovations through taxation policies', 'Intellectual property rights affect international trade flows when knowledge intensive goods move across national boundaries,' and 'Different levels of Intellectual property protection may affect an organization's choice of its preferred mode of serving a foreign market' were presented to the respondents. They were asked to respond to these statements on a five-point Likert scale indicating their degree of agreement with each of them (from strongly disagree to strongly agree). The interview data was then aggregated and averaged across the respondents.

As the set of variables was large, the need for data summarisation was felt in order to identify a smaller set of representative variables while retaining the nature and character of the original variables. It was also considered important to evaluate whether there was any underlining structure among the variables in the analysis.

The technique of factor analysis was adopted since it is an appropriate interdependence technique and fulfils the objectives as above.

A simple data transformation using SPSS was done as well. The five-point Likert scale scores, from 'Strongly Disagree' to 'Strongly Agree', were grouped into two categories—'Agree' and 'Do not agree' (0 for strongly agree and agree and 1 for 'Neutral', 'Disagree' and 'Strongly disagree'). A test of proportion using SPSS was applied. As SPSS uses a formula of mean to test proportions, the data was tested using one sample t-test for an average proportion of 0.5. The researcher's hypothesis were the variables/statements tested in the questionnaire. The hypotheses for each variable were set as under:

H0 $\Pi = 0.5$ (The proportion of individuals who agree to the statement is equal to 50 %)

H1 $\Pi > 0.5$ (Research hypothesis: The proportion of individuals who agree to the statement is above 50 %)

All these tests have been presented according to grouping of variables as per the factor classification for meaningful inferences. For each factor, two tables have been compiled. The first table shows the grouping of variables, loadings, communalities and Cronbach's alpha scores. The second table shows the *t* values, 1 tailed significance value, the average rankings as well as the mode (in order to understand the magnitude of agreement or disagreement). Finally a mean rank score of each factor has been calculated and presented in summated scale style.

4.6.2 Sample Size

The sample size in the current study was 320 and the STV ratio was 4:1. Both the above reasonably fulfill the requirements of meaningful Factor Analysis.

4.6.3 Further Validations

Prior to conducting the factor analysis, an exercise to reassert the key components, the linearity of the data was checked visually through a scatter diagram, and then through a correlation matrix the presence of values higher than 0.3 (which was the minimum acceptable level) at a level of significance of 0.01 was checked. It was found that out of 6,561 correlations, 2,835 were found to be significant, greater than 0.3 (43 %), which provided a sufficient basis for going ahead with an empirical examination of sufficiency of factor analysis on an overall basis as well as for each variable.

Kaiser–Meyer–Olin (KMO) and Barlett's measure of sphericity were carried out to check the sampling adequacy. The KMO result of 0.791 suggested that patterns of correlations were relatively compact, and thus, factor analysis would acquiesce different and reliable factors and with the unique contribution of a set of variables.

The Bartlett's test was highly significant ($p < 0.005$). Table 4.1 represents these figures.

4.6.4 Internal Consistency and Reliability Tests

The statistical software named SPSS was used to do an internal consistency analysis to gauge the reliability of the data. Reliability refers to questionnaire's ability to provide consistent results with repeated use (Gatewood and Field 1990). Coefficient (Cronbach's) alpha is the basic measure used for testing reliability (Green et al. 2000). The Cronbach's alpha for the entire data set of 80 variables was 0.89, which is quite acceptable. The Cronbach's alpha for each factor along with their factor loadings has been presented in a later section.

The researcher has adopted an approach outlined by Nathan Zhao (2009):

Table 4.1 Kaiser–Meyer–Olkin and Bartlett's Test

KMO and Bartlett's Test		
Kaiser–Meyer–Olkin measure of sampling adequacy		0.791
Bartlett's test of sphericity	Approximate Chi-square	649
	Degrees of freedom	319
	Significance	0

1. Check the communality of each variable. Drop the variable that has the smallest communality, until the communalities of all variables are above 0.60.
2. Ensure that the mean value of all communalities is over 0.07, and drop those with lower mean value.
3. Use Kaiser strategy to determine the number of components. Only consider those with the eigen values over 1.0.
4. Set the loading size cut-off value as 0.50, and drop the factors that have less than four variables (Hair 2009).

To carry out the analysis, the statistical software package SPSS version 17 was used. Using this approach, 13 factors with eigen value of more than one were generated. However, due to the fourth criterion cited above, seven factors were dropped and six factors were finally retained. Factor analysis was then re-executed using SPSS. The results were calculated based on this data set.

4.7 Factor Interpretations

Tables and Inferences for each factor have been presented in the following section.

4.7.1 Factor 1: Welfare Implications of IPR

Twenty one items have been grouped to formulate the first factor, which in turn explains the highest variance (22 %). The factor has a high Cronbach's alpha which confirms its consistency and reliability. Table 4.2 shows the factor loadings and communalities.

All the items above indicate the welfare implications of intellectual property. There have been long standing debates about the rationale and sanctity of IPR in the modern economic system. With conflicting literature on welfare implications, this factor provides meaningful inference in a scientific manner. While economists in the country are quite convinced that IPR provide incentives to inventors to develop new knowledge, innovation and quality products, they do not seem to agree that weak IPR will have significant adverse effect/s on economic growth and product quality (see Table 4.3 below). Further, IPR tend to improve the flow of technology and help in increasing trade flows, This is because weak intellectual property systems may not only deter foreign companies from entering the host country, but also prevent domestic players from creating technologies that would offer them localisation advantages. In order for intellectual property systems to exist in a robust manner, there has to be a committed government that develops and implements a system of protection of innovations. This creates a favourable environment for both domestic as well as foreign organisations to co-exist in a culture of innovation.

Table 4.2 Factor loadings and communalities for factor 1

Items/variables	Factor loadings	Communalities	Cronbach's alpha
Due to excessively weak property rights, the economy suffers slower growth, and inferior product quality	0.949	0.966	0.81
In a closed economy, IPR provide incentives to authors and artistes to create original content	0.932	0.774	
Strong IPR system encourages innovation in the host country and increases future trade flows	0.899	0.938	
The prime motive of an intellectual property system should be to create such incentives for innovators that maximise the discounted present value of the difference between societal inflows and outflows resulting out of intellectual asset creation	0.887	0.759	
In a closed economy, IPR provide incentives to inventors to develop new knowledge	0.875	0.650	
IPR encourage the inter-regional and international distribution and marketing that are important for achieving firm level scale economies	0.87	0.827	
Strict IP systems may not be beneficial for trade flows in the host countries	0.852	0.927	
Stronger IPR in developing economies promise long term growth	0.844	0.650	
As IPR strengthen, transfer of advanced technologies rises	0.835	0.673	
National regulations that maximise global welfare may not necessarily maximise national welfare	0.818	0.562	
A policy of national exhaustion regime of IPR indirectly becomes a non-tariff trade barrier	0.776	0.861	
Stronger IPR convey a commitment to increase transparency and professionalism in public management	0.762	0.930	
Weak IPR regime increases the chance of piracy and imitation, which erodes a firm's ownership and localisation advantages of the destination country	0.732	0.570	
Effective competition rules are imperative for fair IPR systems	−0.705	0.923	
The possibility of welfare enhancing price discrimination is possibly higher for goods covered by IPR that stimulate inventive or creative activities, as compared with other categories of IPR	0.687	0.891	
Intellectual property can be treated as a public good	0.64	0.808	
Intellectual property systems give rise to a variety of social costs	−0.63	0.770	
There is a positive link between intellectual property protection and trade flows	0.628	0.679	
IPR are positively correlated with real GNP	0.599	0.578	
IPR creates monopoly positions that trade-off between current consumer welfare and incentives to innovate	0.572	0.877	

Table 4.3 Effect of IPR on economic growth and product quality

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Mean	Mode
Due to excessively weak property rights, the economy suffers slower growth, and inferior product quality	0.335	0.369	FTR	3.17	2.000
In a closed economy, IPR provide incentives to authors and artistes to create original content	−4.004	0.000	R	3.43	4.000
Strong IPR system encourages innovation in the host country and increases future trade flows	0.558	0.288	FTR	3.18	4.000
The prime motive of an intellectual property system should be to create such incentives for innovators that maximise the discounted present value of the difference between societal inflows and outflows resulting out of intellectual asset creation	4.124	0.000	R	2.93	2.000
In a closed economy, IPR provide incentives to inventors to develop new knowledge	2.250	0.013	R	3.07	2.000
IPR encourage the inter-regional and international distribution and marketing that are important for achieving firm level scale economies	0.112	0.456	FTR	3.69	3.000
Strict IP systems may not be beneficial for trade flows in the host countries	−3.175	0.001	R	3.77	5.000
Stronger IPR in developing economies promise long term growth	−1.456	0.073	FTR	3.60	4.000
As IPR strengthen, transfer of advanced technologies rises	1.795	0.037	R	3.45	3.000
National regulations that maximise global welfare may not necessarily maximise national welfare	−7.941	0.000	R	3.53	4.000
A policy of national exhaustion regime of IPR indirectly becomes a non-tariff trade barrier	−19.87	0.000	R	4.01	4.000
Stronger IPR convey a commitment to increase transparency and professionalism in public management	2.022	0.022	R	3.51	3.000
Weak IPR regime increases the chance of piracy and imitation, which erodes a firm's ownership and localisation advantages of the destination country	−5.489	0.000	R	3.60	4.000
Effective competition rules are imperative for fair IPR systems	−19.872	0.000	R	4.01	4.000

(continued)

Table 4.3 (continued)

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Mean	Mode
The possibility of welfare enhancing price discrimination is possibly higher for goods covered by IPR that stimulate inventive or creative activities, as compared with other categories of IPR	0.558	0.288	FTR	3.22	2.000
Intellectual property can be treated as a public good	3.058	0.001	R	3.02	2.000
Intellectual property systems give rise to a variety of social costs	−0.112	0.456	FTR	3.27	4.000
There is a positive link between intellectual property protection and trade flows	−10.66	0.000	R	4.13	5.000
IPR are positively correlated with real GNP	−4.859	0.000	R	3.59	4.000
IPR creates monopoly positions that trade-off between current consumer welfare and incentives to innovate	0.000	0.500	FTR	3.44	4.000

The economists of the country do not agree that IPR can be treated as public goods. However, they second the opinion that it gives rise to various social costs and obligations which need to be separately taken care of. On the economic front, it is concluded that IPR creates monopoly positions that trade-off between current consumer welfare and incentives to innovate. There is a higher possibility of price discrimination which creates larger consumer welfare and encourages creative innovations (Table 4.3).

The composite mean of the entire factor is 3.45 out of 5, which suggests that most of the economists believe firmly that IPR have positive welfare implications on the society. The same is confirmed by a composite mode of 4 (score for 'Agree').

4.7.2 Factor 2: Implications of Relative Strength of IPR

Ten items have been grouped together to formulate the second factor, which in turn explains the variance of 12 %. The factor has a high Cronbach's alpha which confirms its consistency and reliability. Table 4.4 shows the factor loadings and communalities.

Based on the variables in the second group, the factor has been named 'Implications of relative strength of IPR.' The majority of items in the factor explain the implications of a strong versus a weak intellectual property system. While intellectual

Table 4.4 Factor loadings and communalities for factor 2

Items/variables	Factor loadings	Communalities	Cronbach's alpha
The degree of IPR protection decides not only the total economic returns from licensing but also their division	0.821	0.907	0.829
The degree of IPR protection could influence the choice a firm makes between licensing and FDI	0.776	0.770	
The level of IPR strength could persuade the choice to earn profits on a novel technology by licensing it rather than exporting it through distribution setup	0.714	0.904	
Higher levels of protection have a positive effect on bilateral manufacturing imports of developing economies	0.703	0.762	
The strength of IPR affects the sharing of rents between the licenser and licensee	0.684	0.707	
The norms of IPR exhaustion determine the extent to which firms can segment national markets	0.662	0.580	
A firm might choose to reduce the supply of its product in a foreign market if the IPR systems are stringent	0.659	0.687	
Often market forces offset the positive implications of strong intellectual property systems	0.652	0.885	
IPR tend to strengthen as economic development rises	0.614	0.828	
The effects of improved IPR systems on the sales of a foreign firm are not clear	0.608	0.522	

property systems exist in various economies, their strength is relative, in spite of required minimum TRIPS plus standards. The variation in strength of IPR is characterised by price controls, government intervention in form of compulsory licenses, length and relative difficulty in registration processes and effectiveness of arbitration mechanism. Most of the multinationals consider these measures of relative strength seriously before preferring to enter into a foreign market.

As explained in earlier chapters, the mode of entry into a foreign market can be via technology transfer either through licensing or FDI. It has been agreed upon by the economists that the level of intellectual property protection could determine the choice between licensing and FDI. This does not imply that a stronger intellectual property system would lead organisations to enter through FDI. However it has been agreed that higher levels of intellectual property may encourage organisations to license their technology, rather than export the products from their homelands. The strength of IPR may also increase the cost of licensing (This is explained in factor 4).

The strength of intellectual property can be measured in terms of the exhaustion principles that the country follows. A national exhaustion principle implies a weak

intellectual property system, which may constraint a firm to segment the markets rigidly and be cautious on inter-regional exchange of technology.

However intellectual property by itself may not be powerful enough to influence technology diffusion and expansion, as the same may be offset by market powers and policies (Table 4.5).

The composite mean of the entire factor is 3.39 out of 5, which does not give concrete evidence of substantial market implications of the relativity of IPR. However, the *t* tests, where most of the null hypotheses are rejected and the research hypotheses are accepted, confirm that the relative strength of IPR is in fact a strong consideration for technology intensive organisations. A composite mode of 4 confirms the same.

Table 4.5 Implications of relative strength of IPR

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Mean	Mode
The degree of IPR protection decides not only the total economic returns from licensing but also their division	−6.270	0.000	R	3.60	4.000
The degree of IPR protection could influence the choice a firm makes between licensing and FDI	−6.810	0.000	R	3.63	4.000
The level of IPR strength could persuade the choice to earn profits on a novel technology by licensing it rather than exporting it through distribution setup	−1.795	0.037	R	3.42	4.000
Higher levels of protection have a positive effect on bilateral manufacturing imports of developing economies	10.141	0.000	R	2.83	2.000
The strength of IPR affects the sharing of rents between the licenser and licensee	−3.646	0.000	R	3.55	4.000
The norms of IPR exhaustion determine the extent to which firms can segment national markets	−7.651	0.000	R	3.60	4.000
A firm might choose to reduce the supply of its product in a foreign market if the IPR systems are stringent	−0.612	0.478	FTR	2.98	2.000
Often market forces offset the positive implications of strong Intellectual property systems	12.758	0.000	R	3.00	3.000
IPR tend to strengthen as economic development rises	−18.136	0.000	R	3.99	4.000
The effects of improved IPR systems on the sales of a foreign firm are not clear	−0.335	0.369	FTR	3.29	4.000

4.7.3 Factor 3: Implications on FDI and High Technology Trade flows

Twelve items have been grouped to formulate the third factor which in turn explains the variance of 10.6 %. The factor has a lower Cronbach's alpha as compared to the first and second factors. However, the score of 0.76 still falls within the acceptable range, confirming its consistency and reliability. Table 4.6 displays the information on the factor loadings and their respective communalities.

Table 4.6 Factor loadings and communalities for factor 3

Items/variables	Factor loadings	Communalities	Cronbach's alpha
Foreign direct investment in complex yet easily copied technologies may increase as IPR are strengthened	−0.829	0.786	0.76
Trade flows into large developing economies with significant capabilities for replication are restricted by weak IPR	−0.779	0.677	
A week IP policy ensures inferior technology transfer in the destination country	−0.755	0.972	
The stringency of a country's intellectual property is irrelevant to the trade of high technology products	−0.709	0.631	
A strong IPR system may not have a favourable impact on FDI by making licensing a feasible option to direct investment	0.647	0.836	
Strengthening a country's patent regime would tend to increase imports	0.604	0.671	
IPR affect international trade flows when knowledge intensive goods move across national boundaries	−0.598	0.879	
Firms with easily transferrable products and technologies are more worried about the strength of the IP system in the destination country	0.59	0.695	
IPR may not be significant for high technology trade flows	0.58	0.522	
FDI and technology transfer are not related to different IP systems with old and standardised products	−0.566	0.886	
A weak IPR regime may contribute to the growth of national income by imitating foreign technologies and increasing productivity	−0.509	0.910	
The limitation of the local firms to imitate the product may create a let down for increasing market size viz a viz higher market strength due to strong patent regime	0.5	0.709	

While the earlier factor confirms that the relative strength of IPR would have a definite role to play in deciding the mode of entry into a foreign market, this factor highlights the implications of IPR systems specifically for technology transfers through FDI.

The economists strongly believe that FDI in technology intensive sectors is a function of strong IP systems. This is proved by their agreement on the first statement 'Foreign direct investment in complex yet easily copied technologies may increase as IPR are strengthened'. It has been strongly agreed through various statements (see Table 4.7) that in each product segment where imitation is easy and lucrative, FDI would not happen in a country with weak intellectual property systems. This will be coupled with reluctance of foreign organisations to trade, export or license their technology, resulting in lowering trade flows.

However, while inferring this, one should not also infer its universal implications on all sorts of FDI. The extent of FDI may be insensitive to old products, standardised processes and sectors which are not technology intensive. Thus, weak intellectual property systems would ensure that only redundant and outdated technologies to which the holder does not attach much economic value would reach such countries. These weak intellectual property systems may create opportunities for local firms to imitate, but may not ensure high productivity or income growth as a result of low quality products, lower sales and reduced trade flows.

The composite mean of the entire factor is 3.3 and the composite mode is 3, both of which do not support acceptance of the research hypothesis. However the *t* tests confirm the researcher hypothesis in each case except one—'Weak IPR regime might allow domestic firms to imitate foreign technologies and thereby contribute to economy wide productivity and income growth'—which was failed to be rejected. The statement has a strong representation with high communality. This is also in line with the acceptance of other hypotheses. Thus, it can be inferred with caution that strong intellectual property systems do influence the FDI in technology intensive sectors.

4.7.4 Factor 4: Implications of Technology Diffusion Through Licensing

Ten items have been grouped together to formulate the fourth factor which in turn explains the variance of 10 %. The factor has a high Cronbach's alpha of 0.823 which falls within the acceptable range, and confirms its consistency and reliability. Table 4.8 gives the factor loadings and communalities.

All the items in this factor suggest specific implications of IPR on the mode of entry to a foreign market through licensing. The economists agree that strengthened protection of IPR may be a prerequisite for firms to license technology to a foreign market. Thus, firms may not transfer technology by export, license or FDI in case the

Table 4.7 Implications for FDI and high technology trade flows high technology trade flows

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Mean	Mode
Foreign direct investment in complex yet easily copied technologies may increase as IPR are strengthened	19.504	0.000	R	3.00	3.000
Trade flows into large developing economies with significant capabilities for replication are restricted by weak IPR	4.735	0.000	R	3.29	3.000
A week IP policy ensures inferior technology transfer in the destination country	−19.504	0.000	R	3.87	4.000
The stringency of a country's intellectual property is irrelevant to the trade of high technology products	1.908	0.029	R	3.40	3.000
A strong IPR system may not have a favourable impact on FDI by making licensing a feasible option to direct investment	10.141	0.000	R	3.11	3.000
Strengthening a country's patent regime would tend to increase imports	10.485	0.000	R	2.93	2.000
IPR affect international trade flows when knowledge intensive goods move across national boundaries	−2.022	0.022	R	3.55	4.000
Firms with easily transferrable products and technologies are more worried about the strength of the IP system in the destination country	−11.762	0.000	R	3.85	4.000
IPR may not be significant for high technology trade flows	32.281	0.000	R	2.56	3.000
FDI and technology transfer are not related to different IP systems with old and standardised products	2.479	0.007	R	3.07	2.000
A weak IPR regime may contribute to the growth of national income by imitating foreign technologies and increasing productivity	−0.447	0.328	FTR	3.22	4.000
The limitation of the local firms to imitate the product may create a let down for increasing market size viz a viz higher market strength due to strong patent regime	−10.141	0.000	R	3.79	4.000

intellectual property systems are weak. This has been explained by factors 2 and 3. The current factor, however, explains specific licensing implications.

One of the major implications of licensing is the rent seeking proposition. When intellectual property systems are weak, the licensor may seek extremely high rents

Table 4.8 Factor loadings and communalities for factor 4

Items/variables	Factor loadings	Communalities	Cronbach's alpha
As IPR improve in the country, licensing costs should fall	0.796	0.686	0.823
IPR policies can affect both location advantages and internalisation advantages	0.698	0.805	
Stronger IPR regimes may cause high technology organizations to operate in the foreign markets through FDI, in part of trade flows	0.671	0.672	
Stronger IPR reduce licensing costs, and ensure that foreign direct investment can be avoided by efficient licensing	0.643	0.956	
An IPR holder may prefer parallel trade between different markets to avoid confrontations among their various dealers	0.641	0.472	
A weak IPR system increases the benefits of internalisation	0.603	0.671	
Licensing is considered to be insecure in the countries with weak IP systems	0.593	0.781	
Restrictions on parallel trade give IPR holders the ability to fix a profit maximising price in each national market	0.558	0.692	
IPR holders may not license to players whom they don't trust for non competing with them in the near term	0.544	0.952	
Strong IP protection may lead a firm to go ahead and license technology rather than going for creating a base for production	0.542	0.737	

for technology due to the risk of losing it through piracy. As intellectual property systems grow strong, such apprehensions are laid to rest and the licensor is assured of high sales and high royalties out of licensed technology (Table 4.9).

While the rents for licenses may reduce, strong IPR systems may also reduce the costs of licensing as separate legal expenses, probable costs of litigations due to infringements etc. Under such circumstances, the firms may decide to license rather than directly invest in a foreign market as a result of which domestic firms may benefit and various internalisation benefits may be achieved.

This is in line with agreement that licensing is still seen to be insecure as compared to direct investments, wherein the technology and secrets remain with the holder. Further a firm may not license in a foreign market until the legal, IP and competitive norms are in place. This has been explained by the statement 'IPR holders may not license to players whom they don't trust for non competing with them in the near term' (see Table 4.9).

Table 4.9 Implications of technology diffusion through licensing

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Average rankings	Mode
As IPR improve in the country, licensing costs should fall	−7.941	0.000	R	3.78	4.000
IPR policies can affect both location advantages and internalisation advantages	−9.317	0.000	R	3.74	4.000
Stronger IPR regimes may cause high technology organizations to operate in the foreign markets through FDI, in part of trade flows	−10.141	0.000	R	3.89	4.000
Stronger IPR reduce licensing costs, and ensure that foreign direct investment can be avoided by efficient licensing	16.065	0.000	R	3.11	3.000
An IPR holder may prefer parallel trade between different markets to avoid confrontations among their various dealers	−9.641	0.000	R	3.68	4.000
A weak IPR system increases the benefits of internalisation	−6.270	0.056	FTR	3.61	3.000
Licensing is considered to be insecure in the countries with weak IP systems	−5.746	0.000	R	3.59	4.000
Restrictions on parallel trade give IPR holders the ability to fix a profit maximising price in each national market	−4.983	0.000	R	3.54	4.000
IPR holders may not license to players whom they don't trust for non competing with them in the near term	−2.022	0.022	R	3.56	4.000
Strong IP protection may lead a firm to go ahead and license technology rather than going for creating a base for production	−2.825	0.003	R	3.41	2.000

The composite mean for the factor is 3.59 and the mode is 4, which give strong evidence of substantial implications of intellectual property systems on licensing technologies to a foreign market. The *t* values and significance values suggest that all but one research hypotheses are accepted.

Thus, it can be inferred that strong intellectual property systems would have a substantial implications for foreign firms while deciding to license their proprietary technologies to a host nation.

4.7.5 Factor 5: Intellectual Property Implications on Market Structure and Competition

Ten items have been grouped to formulate the fifth factor which in turn explains the variance of 10 %. The factor has a moderate Cronbach's alpha of 0.632 which falls within the acceptable range and confirms the consistency and reliability of the data. Table 4.10 shows the factor loadings and communalities.

Ten items in this factor are grouped to suggest implications of IPR on market structure and competition. The research hypotheses in various instances have been that stronger IPR do not necessarily create a monopoly situation. This is because of the assumption that weak intellectual property systems would tend to discourage external players from entering the market, which would also eventuate a few local players with dormant technologies. Thus, intellectual property systems would actually encourage more players to enter the market with parallel and compatible technologies. However, the research hypotheses 'IPR do not necessarily generate monopoly market positions,' 'IPR may encourage dynamic competition in spite of occasionally reducing the competition among existing products' and 'IPR on small

Table 4.10 Factor loadings and communalities for factor 5

Items/variables	Factor loadings	Communalities	Cronbach's alpha
Market size has no impact on IPR	0.84	0.379	0.632
The potential for anticompetitive behaviour in the presence of protected Intellectual property is likely to be high as the organizations may decide to exploit these rights of exclusivity beyond the conventional limits	0.746	0.833	
IPR do not necessarily generate monopoly market positions	0.694	0.824	
IPR may encourage dynamic competition in spite of occasionally reducing the competition among existing products	0.652	0.969	
IPR holders hardly operate as full monopolists	0.65	0.937	
Highly protective IPR could facilitate collusive behaviour that would limit competition through trade	0.637	0.969	
IPR on small inventions do not create substantial monopoly rent	0.628	0.583	
Differing levels of IPR protection may affect a firm's choice on its preferred mode of serving a foreign market	0.62	0.819	
IPR introduce a static distortion to foster the real-time benefits associated with innovations	0.591	0.505	
IPR do not materially retard competing product introduction	0.542	0.671	

inventions do not create substantial monopoly rent' had to be rejected as the null hypothesis was found valid at 0.05 level of significance. Further, the economists held the view that potential for anticompetitive behaviour in the presence of IPR would be substantial as firms would exploit exclusive rights beyond the established limits. This would be the result of IPR raising the cost of imitation and materially retarding similar product introductions.

However, the economists are also of the view that intellectual property holders may not be able to act as full monopolists. This may be attributed to strong government intervention, price controls and compulsory licensing provisions in the system. In spite of this intellectual property may encourage static distortion (selling the proprietary knowledge above the marginal costs) (Table 4.11).

Table 4.11 Intellectual property implications on market structure and competition

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Average rankings	Mode
Market size has no impact on IPR	13.839	0.000	R	2.91	3.000
The potential for anticompetitive behaviour in the presence of protected Intellectual property is likely to be high as the organizations may decide to exploit these rights of exclusivity beyond the conventional limits	−7.795	0.000	R	3.52	4.000
IPR do not necessarily generate monopoly market positions	1.231	0.110	FTR	3.30	4.000
IPR may encourage dynamic competition in spite of occasionally reducing the competition among existing products	0.894	0.186	FTR	3.09	4.000
IPR holders hardly operate as full monopolists	2.136	0.017	R	3.59	3.000
Highly protective IPR could facilitate collusive behaviour that would limit competition through trade	−9.000	0.000	R	3.94	4.000
IPR on small inventions do not create substantial monopoly rent	−0.112	0.456	FTR	3.22	4.000
Differing levels of IPR protection may affect a firm's choice on its preferred mode of serving a foreign market	−15.534	0.000	R	3.83	4.000
IPR introduce a static distortion to foster the real-time benefits associated with innovations	−8.537	0.000	R	3.61	4.000
IPR do not materially retard competing product introduction	−6.810	0.000	R	3.68	4.000

The composite mean of the factor is 3.47 and the mode is 4, which suggests apparent agreement with various statements. However, the *t* test confirms that the research hypotheses are not accepted on important grounds (the null hypothesis failed to get rejected in three cases). Thus, it can be inferred that intellectual property systems may have strong implications for creating monopoly situation by deterring competition.

4.7.6 Factor 6: IPR as a Government Policy and Regulatory Component

Nine items have been grouped together to formulate the sixth factor, which explains the variance of 8 %. The factor has a high Cronbach's alpha of 0.831 which falls within the acceptable range and confirms the consistency and reliability of data. Table 4.12 shows the factor loadings and communalities.

Eight out of the nine variables grouped above suggest the importance of IPR as a component of the regulatory system and the seriousness the government should

Table 4.12 Factor loadings and communalities for factor 6

Items/variables	Factor loadings	Communalities	Cronbach's alpha
IPR are as important a component of the general regulatory system as the investment policies	0.695	0.931	0.831
IPR are as important a component of the general regulatory system as production incentives	0.655	0.931	
A week IPR regime discourages FDI and encourages export	−0.608	0.828	
IPR are as important a component of the general regulatory system as trade policies	−0.608	0.924	
IPR are as important a component of the general regulatory system as tax regulations	0.599	0.615	
The government is generally aware of the importance of inventions for economic development	−0.586	0.683	
IPR are as important component of the general regulatory system as competition rules	0.586	0.885	
Competition for government funding could lead to familiar rent seeking problems on the part of private organisations conducting research	0.569	0.755	
The government should predominantly fund research and innovations through taxation policies	0.566	0.749	

attach it. Most of the economists believe that IPR as a component of the general regulatory system are as important as investment, tax and production regulations. While the government is serious about competition rules, IPR need to be considered while formulating and implementing these rules. These statements also attach the coexistence and concurrence of each these components.

The factor also explains the role of government and regulatory systems in encouraging innovations. Most of the economists believe that the government is aware of the importance of IPR and innovations. It should predominantly fund innovations, subject to their merit. However, if government funding is provided to private organisations, it would result in familiar rent seeking problems in research (Table 4.13).

The composite mean of this factor is 3.52 and the mode is 4, which provides enough evidence that intellectual property systems are an important part of the

Table 4.13 IPR as a government policy and regulatory component

Items/variables (research hypothesis)	*t* value	Significance (1 tailed)	Null hypothesis	Average rankings	Mode
IPR are as important a component of the general regulatory system as the investment policies	2.365	0.009	R	3.13	4.000
IPR are as important a component of the general regulatory system as production incentives	4.612	0.000	R	3.07	4.000
A week IPR regime discourages FDI and encourages export	−6.810	0.000	R	3.57	4.000
IPR are as important a component of the general regulatory system as trade policies	7.085	0.000	R	3.95	4.000
IPR are as important a component of the general regulatory system as tax regulations	20.252	0.000	R	3.52	4.000
The government is generally aware of the importance of inventions for economic development	−10.660	0.000	R	3.92	4.000
IPR are as important a component of the general regulatory system as competition rules	4.545	0.000	R	3.21	4.000
Competition for government funding could lead to familiar rent seeking problems on the part of private organisations conducting research	−2.594	0.005	R	3.43	4.000
The government should predominantly fund research and innovations through taxation policies	−7.795	0.000	R	3.55	4.000

general regulatory mechanism and the government should make due efforts for fostering innovations. This is further supported by the *t* values as all the research hypotheses have been accepted in this factor.

4.8 Concluding Remarks

Based on the literature and subsequent survey, one can conclude as under:

- It has been agreed that a strong intellectual property system will have a positive impact on the economic parameters of a country such as GDP.
- A strong IP system will encourage technology transfer. The respondents also agree that the quantum of technology transfer may not be related with the strength of IP, but the quality of technology viz. It being the latest, may definitely be affected by the strength of IP.
- Different levels of Intellectual property protection would have implications on the decision of the firms to go ahead in the destination country through direct investment, technology transfer or licensing.
- If the IP systems ensure reduced licensing costs, then the firms would prefer this mode of entry either through alliances or through franchising, rather than investing in production facilities.

Finally, it has been unanimously agreed that stronger intellectual property laws definitely create a favourable environment for technology transfers. However, apart from strong intellectual property regimes, adequate legislation and enforcement of IPR play a significant role in indicating to potential investors that the country concerned protects their rights. Thus, transfer of technology would be facilitated if the potential investors are assured that their technology will not be disclosed to competitors.

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Chapter 5
Factors Affecting Capital Structure of Indian Venture Capital-Backed Growth Firms

Swati Panda

5.1 Introduction

Entrepreneurship is considered as an engine for bringing about positive changes in the form of socioeconomic welfare (Kortum and Lerner 2000). However, it is a well-established fact that, one of the major constraints faced by entrepreneurs is access to finance. Self-financing is usually not sufficient and collateral-based debt funding is not always available. Information asymmetry prevailing between investors and entrepreneurs, uncertainty related to the future of the product and bleak exit prospects of the investor severely curtail a new venture's prospects of receiving finance (Chan 1983; Amit et al. 1990). In recent years, equity financing in terms of venture capital has emerged as one of the alternative sources of financing for new ventures. The most accepted form of definition for venture capital includes investment in young firms which are very risky but promise a great return. (Gompers et al. 1998).

Recent research in venture capital indicates a trend toward venture capitalists' preference toward late stage deals (e.g., Gompers and Lerner 2001). Since a large volume of venture capital is flowing into growth stage firms, it becomes essential to understand the various factors that venture capitalists consider before investing in a particular firm which is in its growth stage. Earlier research has focused mostly on analyzing the criteria used by venture capitalists to select a new venture based on human capital, attractiveness of markets, uniqueness of products etc.

However, this chapter seeks to identify the various financial indicators that venture capitalists consider before funding growth firms. One way to do this is to analyze the capital structure of firms which receive venture financing later. The basic objective of this chapter is to understand whether the determinants of capital structure of a firm have a major role to play in the access of venture capital later in

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its life cycle. The finance literature comprises of numerous studies that focus on the determinants of capital structure of firms. However, there do not exist many studies which talk about the determinants of capital structure of a firm which is financed by venture capital. This chapter is based on the Indian context. It uses the static trade-off theory, pecking order theory, and agency theory to explain the financial structure of firms which receive venture capital subsequently. This chapter draws from the capital structure literature to carve out the variables, i.e., tangible assets, profitability, size, volatility, growth opportunities etc. that affect the capital structure of firms which receive venture financing later. Propositions are drawn on the basis of this reasoning and a conceptual framework is put forth that tries to identify an optimal capital structure strategy for Indian growth firms that seek venture capital.

The chapter proceeds as follows: Sect. 5.2 describes the venture capital and private equity industry briefly. Section 5.3 lays the theoretical foundation of the paper. It draws from the finance literature and determines the need for screening out bad ventures from good ones. Section 5.4 includes a brief overview of the generic criteria that the venture capitalist looks at before investing. This is followed by the general financial theory that acts as the foundation for drawing out the financial factors that venture capitalists might attach importance to. After the theory has been adequately discussed, the hypotheses are developed. These hypotheses seek out the financial conditions that may attract venture capitalists to invest in a particular firm. Section 5.5 summarizes the entire discussion. It also provides a framework for entrepreneurs in their growth stage which shall act as a benchmark for them before they decide to raise venture capital. Section 5.6 concludes.

5.2 The Indian Venture Capital Scene

The Indian growth story is well documented. According to the IVCA Grand Thornton India Private Equity Report (2011), India's GDP has grown from $3.09 trillion in 2009 to $4.05 trillion in 2010. Real GDP rose to 8.3 % in 2010 from 7.4 % in 2009. The purchasing power of the Indian middle class has increased. There is a considerable increase in the disposable income among the Indian middle class, greater urbanization has seen a rise in demand for real estate, FMCG, retail etc. India managed to shield itself from the recessionary pressures that captured many economies in the recent past.

One of the major contributors to the India growth story are the private equity and venture capital players. They have played a considerable role in the development of various sectors in India (e.g., real estate, education, telecom, information technology, healthcare etc.). The investments by private equity players increased from $2 billion in 2005 to $19 billion in 2007. However, these investments dropped to $6.2 billion in 2010, primarily as after effects of the global recession. The private equity investments have accounted for a total of approximately $55 billion since 2005.

5.3 The "Lemons" Problem Revisited

This section lays the theoretical foundation of the paper. It draws out the need for screening out bad ventures from good ventures. The rationale behind the screening process is drawn from the finance literature dating back to early 1970s. The various means to resolve the screening problem have also been discussed in the subsequent subsections.

5.3.1 The Adverse Selection Problem

A venture capitalist has to face an adverse selection problem during selection of various ventures in which he eventually decides to invest. He invests in untested ideas which may or may not have a potential to earn the expected rate of return. There exists an information asymmetry between a venture capitalist and the entrepreneurs. The entrepreneurs usually have a better idea regarding the quality of the venture. The venture capitalist has to base his investment decisions on the information that the entrepreneurs provide. However, the entrepreneurs might have a vested interest in not representing the entire information about the venture. In order to separate the good entrepreneurs from the rest, the venture capitalist demands a high expected rate of return. Here, there emerges a "lemon" problem (Akerlof 1970). Those entrepreneurs, who believe that their venture is good, can achieve this high expected rate of return. However, they will not be willing to accept this high rate of return, because they will be exerting 100 % of their effort into it, with the receipt of only a fraction of the payment (Jensen and Meckling 1976). But, those entrepreneurs who know their ventures have low potential will accept this proposal. This is because they will get the money they need. Even if the venture fails, they will not be at a losing end because of their limited liability. As a result, the venture capitalist will receive proposals from "bad" entrepreneurs only. And since the venture capitalist will not find a good venture to back up, the market for venture capital will break down. This is the adverse selection problem facing the venture capitalist.

A classic example of screening is when the employer wants to hire employees for two kinds of jobs: the first one in which the employee can affect the output through his skills and the other one where the employee's skills have no effect on the project's output. The employer will obviously want to hire high skilled employees for the job in which the output can be affected by the employee's productivity. A possible way through which the employer can sort out high skilled workers from low skilled ones is by offering two types of compensation: a piece rate compensation and an hourly compensation. If these compensation types are properly implemented, then the highly skilled workers will take up the piece rate where he can improve the output through his skill sets and the unskilled ones will opt for the hourly wages where no matter what their skills utilized, they are assured

of a certain amount. This screening process is likely to curb the adverse selection process. This is because the piece rate or hourly rate in itself does not influence the worker's effort. The contract merely sorts out workers based on their private information. This sorting works in favor of the employer. If the contract terms are drawn in a manner that affects incentives as well, then moral hazard problems are also curbed (Smith and Smith 2004).

In case of screening, the actor is the investor (the party without the private information). He proposes alternatives to the entrepreneur, and arrives at a conclusion (the entrepreneur's expectations about the venture's success) based on the alternative that the entrepreneur opts for. For example, if the investor, is assured that the entrepreneur has other options to finance his venture (e.g., Personal savings), but still opts for venture financing, then the investor can draw a conclusion that the entrepreneur wishes to diversify his risk by bringing in outside financing, and is not very confident about the venture's outcome.

Screening occurs when the party without the private information (venture capitalist) offers alternatives to the other party (entrepreneur), so that the other party reveals the information by choosing (Smith and Smith 2004).

5.3.2 Signaling as a Solution to the Adverse Selection Problem

An investor is usually faced with a situation where he has to distinguish between a good venture and a "lemon." The problem here is that it is difficult and costly for the investor to verify the claims made by the entrepreneur.

One way through which an entrepreneur can convey positive private information to the investor is to simply bare all the information to the investors and let them draw their own conclusion. However, one of the problems of this option is that, there is a high probability that the idea (if good) may be appropriated by the investors without the knowledge of the entrepreneur.

Therefore, some vital questions that need to be answered include: How can an entrepreneur convey the true picture of his venture (his positive performance) without compromising on his idea? Conversely, how can a prospective investor convey the idea that he is not involved in any competitor's products and he has no mal intentions about the product?

The answer to these questions can be provided by the word "signals." Michael Spence (1973) first introduced the concept of signaling in a labor market context. In his example, each worker is aware of his own productivity, but this productivity is unobservable by prospective employers. Without this ability to distinguish between productive and unproductive workers, the employer will have to offer the same (low) wage to all. This results in an adverse selection problem. Spence shows that, under certain circumstances, workers can use educational qualification as a signal to communicate their productivity. Education attainment works as a signal because it

is observable and separates the workers according to productivity levels. Education, however, may not change the productivity of any worker. This signal is therefore used to address information problem and not incentive problem.

The idea of signaling can be extended to new venture financing as well. From an investor's point of view, the entrepreneur's claim of being motivated, honest, creative, hardworking etc. holds little value. The attributes that the investors seek from the entrepreneurs are, for most parts, unobservable. Investors would prefer entrepreneurs who realistically represent their true beliefs and provide accurate information regarding their financial projections and who have the (unobservable) managerial attributes that are needed for success.

In a startup, the entrepreneur must find a way to reveal the true value of the venture to the potential investor. Signaling theory suggests that ownership share retained by the entrepreneur helps the investors evaluate the information they receive. Leland and Pyle (1977), Prasad et al. (2000) reason that since many entrepreneurs have limited personal capital, a preferred signal of project quality is the proportion of investor's personal wealth invested in the venture. Such investments indicate both project value and the entrepreneur's commitment.

Another signal that acts as a deterrent to the selection of the business plan is the inclusion of nondisclosure agreements. Business plans accompanied by non-disclosure agreements are usually ignored by venture capitalists. This is mainly because the venture capitalists would prefer not be entangled in case of any legal proceedings due to use of proprietary information. Such potential litigations take away a lot of precious time, are costly, and damage the reputation of the venture capitalist.

The boundaries between these two methods, i.e., screening and signaling are blurred. Both of them occur in reciprocation with one another.

5.4 The Screening Process

The screening process includes separating the potentially good investments from the bad ones. The venture capitalists checks on the various indicators provided by the entrepreneur. Based on these indicators, the venture capitalist decides to invest in the venture or skip it.

The venture capital literature till date has focused on the various generic criteria that venture capitalists look at before investing in a venture. However, along with these nonfinancial aspects that venture capitalists take into consideration before proceeding to invest, there occur some financial considerations also which have not received much attention in the venture capital literature. Even though the literature talks about financial consideration as a single variable, however, they do not get into the intricacies of the financial consideration that dictate the investment decision of the venture capitalist.

The following subsection shall draw a brief overview of the generic criteria that the venture capitalist looks at before investing. This is followed by the general

financial theory that acts as the foundation for drawing out the financial factors that venture capitalists might attach importance to. After the theory has been adequately discussed, the hypotheses are developed. These hypotheses seek out the financial conditions that may attract venture capitalists to invest in a particular firm.

5.4.1 General Criteria Used by Venture Capitalists for Screening

Venture Capitalists receive multiple proposals seeking funding on a particular day. A typical venture capital firm receives more than 1,000 business plans per year, but a majority of them are not considered unless they are referred by the VC's network. The venture capitalists have a look at only about 50 of the thousands received and seriously consider only 25 of them. Out of these, the venture capitalists conduct due diligence (which involves costs in terms of finance and time) on 1 or 2 of the proposals (Sahlman 1990).

Ideally, they will have to sort out good proposals from bad. Good proposals imply proposals which have the potential to generate sustainable profits and satisfy the venture capitalists expected required rate of return. Venture capitalists usually have expertise in the sector and stage of investment. Since, most of the business proposals are by entrepreneurs who do not have a history of running a firm, VCs usually rely on other specifics such as the potential of the idea, the characteristics of the entrepreneur, the market demand etc. According to, VCs consider various internal factors and external factors during their due diligence process. Internal factors that influence the investment process mostly include the management quality, performance till date, influence of other investors, VC portfolio fit, monitoring cost and valuation. External factors include market size, growth opportunities, competition, and barriers to entry, probability of acceptance among customers, financial/economic conditions, and exit market conditions.

One of the major questions that has been well researched over in venture capital finance includes the various criteria that venture capitalists look for before selecting a particular investment (Poindexter 1976; Tyebjee and Bruno 1984; Macmillan et al. 1985, 1987; Timmons et al. 1987; Sandberg et al. 1987, 1988).

One of the earliest studies in the VC decision making process was by Tyebjee and Bruno (1981). He looked into various criteria that the venture capitalists looked into which mostly involved the investment size, the technology used in the venture, the expected growth rate of the market, the location of the entrepreneur among others.

Macmillan et al. (1985) included various criteria such as the entrepreneur's overall personality, his experience, the characteristics of the product or service, the characteristics of the market, and the expected rate of return. The entrepreneur's

characteristics and experience emerged as the prime criteria followed by the expected rate of return from the investment. The entrepreneur's prior experience in the target market, his leadership abilities, and reputation act as vital factors for evaluation. The product should be unique and the market should have a high growth rate. This criterion was cited as equally important to that of financial considerations. They identified six risk categories which include risk of losing entire investment, risk of being unable to be bailed out, risk of failure of implementation of idea, risk from competition, risk of management failure, and risk of leadership failure.

Macmillan et al. (1987) have tried to distinguish between a successful and unsuccessful venture. They have included five types of risk. Risk of failure due to incompetent team, inexperienced management, the risk of the business idea not working out, competitive risk which reduce profit margins, high lock in period of investment etc.

All the above studies have received criticism due to the methodologies that they have employed. Mostly interviews and questionnaires were used which comprised of responses that were ex-post. These studies suffered short comings in terms of rationalization of business decisions that the venture capitalist had already made. The studies mostly over emphasized on a particular criterion that was on the top of the memory of the venture capitalist. Or it was a particular criterion which the venture capitalist was biased at.

As a result of these criticisms, newer and more suitable methodologies were used to capture the decision making process. Sandberg and Hofer (1987) used a verbal protocol methodology to capture the evaluation criteria. The technique recorded the idea when the decision was actually being taken. Industry characteristics and management track record emerged as the most essential criteria for screening process.

Hall and Hofer (1993) also used a similar qualitative technique to capture the most important evaluation criteria. The most important criteria that emerged included the new venture's fit with the long-term growth and profitability prospects of the venture capital firm.

Zacharakis and Meyer (1998) used a method called social judgment theory (from the cognitive psychology stream) and used a tool called policy capturing to resolve the discrepancies between the actual criteria they use as compared to the criteria they "think" they use. They find that VCs themselves are not sure about the various criteria they employ during a particular decision making process. Amidst a lot if information and the bounded rationality constraint, the venture capitalist lose themselves. Instead of depending on hard facts to base their decisions, VCs rely on their past beliefs and experiences. Under different contexts, different criteria seem important. Sometimes the market is of importance, sometimes the entrepreneur, and sometimes the novelty of the product/service.

Other studies include Benoit (1975), Hoban (1976), Pointdexter (1976), Bruno and Tyebjee (1985), Goslin and Barge (1986), Knight (1986), Rah et al. (1994). These studies are mostly based on US VCs. Studies in Europe and Asia are quite few. Ray and Turpin (1993) look into the criteria utilized by the Japanese venture capitalists. The study compared the Japanese venture capitalists with that of

American VCs. They found that the selection criteria employed by US venture capitalists were more stringent. The Japanese venture capitalists were more flexible in their approach. The study also found that Japanese VCs were more market oriented in terms of selecting their ventures.

Chotigeat et al. (1997) looked into the criteria used by VCs in Taiwan, Thailand, and Sri Lanka. They found that financial consideration and team characteristics were given more importance by VCs in Taiwan and Sri Lanka. Thailand VCs emphasized more on the characteristics of the entrepreneur and the management team.

Pandey (1996) did a study on the criteria sought by Indian VCs before investing. It was one of the first. He identified 11 important criteria that VCs were interested in. Variables such as integrity, managerial skill, and the desire to grow were some of the important characteristics that VCs looked for in Indian entrepreneurs among others.

Other important international studies include Dixon Sweeting (1991) in UK, Ray (1991) in Singapore, Rah et al. (1994) in South Korea, Riquelme (1994) in Europe etc. All these studies found the personality of the entrepreneur and his team of prime importance.

5.4.2 Financial Criteria Used by Venture Capitalists for Screening

The costs involved in the due diligence process are quite high (cost of hiring external technical/legal/financial consultant, resources of the venture capitalists himself etc.). It is because of these costs involved, prior to the due diligence process, the venture capitalists prepare a term sheet. This term sheet outlines the general terms and conditions of the investment as anticipated by the venture capitalist based on the information that he has. Eventually, if it is discovered that certain critical aspects in the term sheet are missing due to omission of information by the entrepreneur, then the entrepreneurial firm has to bear part of the cost. This process ensures that the entrepreneur provides honest and relevant information.

5.4.2.1 Theoretical Foundation

Are there any financial indicators that the venture capitalists take into consideration before deciding to invest?

The answer to this question can be derived from the capital structure literature. The capital structure determinants may provide an indication as to what sort of firms the venture capitalists prefer to invest in. The main objective of this section is to find out about the various financial determinants of firms that aid it in receiving external financing from venture capitalists at a later stage.

The capital structure of a firm is the manner through which a firm finances its business activities. It is usually a combination of debt and equity. The decision to finance one's assets by either debt or equity depends on various factors, e.g., the firm's age, its asset characteristics, its profitability etc.

The origin of the capital structure literature can be attributed to Modigliani and Miller (1958, 1963). Many researchers have tried to solve the "capital structure puzzle" (Myers 1984) through various points of views. However, there is no universally accepted theory on capital structure (Harris and Raviv 1990).

There is the trade-off theory which is the oldest one and reasons out the existence of an optimal capital structure (Bradley et al. 1984). There is a tradeoff that occurs between the benefits of the corporate tax shield against the disadvantages of bankruptcy cost (Kraus and Litzenberger 1973) and agency cost (Jensen and Meckling 1976; Myers 1977). Another highly discussed theory is the pecking order theory which goes against the trade-off theory and states that there is no optimal capital structure (Myers 1984; Myers and Majluf 1984). There exists a hierarchy of financial instruments with increased information asymmetry via which a firm finances its business activities. Only when all the internal mode of financing are exhausted, the firm opts for external financing in terms of debt followed by equity. There are some other comparatively recent theories which have come up as an alternative/extension to the above literature. For example, the life cycle theory of firm financing and the market timing theory are the recent entrants into the capital structure literature.

A large number of empirical works has been concluded on the above theories. Some of them favor the trade-off theory (Marsh 1982; Bradley et al. 1984; Jalilvand and Harris 1984; Fischer et al. 1989; Flanery and Ragan 2006; Lopez-Gracia and Sogorb-Mira 2008 etc.). Many other empirical studies support the pecking order hypothesis (Shyam-Sunder and Myers 1999; Watson and Wilson 2002). Some studies are able to detect the applicability of both theories (Fama and French 2002; Frank and Goyal 2003 etc.).

However, most of these studies were conducted on large public firms. It is until recently that research on capital structure of small firms has emerged. This is mainly because of the importance that the entrepreneurial firms have in the economic development of nations (Kortum and Lerner 2000). Also, they make an interesting case study for the testing of these theories in an entirely different setting. For example, the new ventures typically suffer from heavy information asymmetry problems (Berger and Udell 1998). Also, there is no clear distinction between the shareholder and managers of the firm. In a majority of the case, the owner himself is the shareholder of the firm. As a result, new firms typically suffer from difficulties in accessing finance in comparison to their older counterparts. The mature public firms already have a track record and hence are able to draw finance more easily than the younger ones.

Before getting into the intricacies of the determinants of capital structure of pre-VC backed firms, there is an absolute necessity to understand about the theories that govern them.

5.4.2.2 Modigliani and Miller Irrelevance Proposition

Modigliani and Miller (1958) stated that under some key assumptions, the value of the firm is unaffected by the way it is financed. The main assumptions include that capital markets are perfect (insiders and outsiders have symmetric information), firms operate without any transaction cost, bankruptcy cost or taxes. Under these situations, it does not matter whether the firm decides to choose between debt and equity. Here, internal and external funds are perfectly substitutable.

These assumptions are, however, not practically applicable. A majority of the research in testing the trade-off theory have been devoted to circumstances where the above assumptions do not hold.

5.4.2.3 The Static Theory of Capital Structure

This theory states that, every firm has a target capital structure and it continually strives to achieve it. However a firm always has to choose between debt and equity. If it intends to finance its business activities through debt, it has to face the tradeoff between the benefit it gains through the tax deductibility on its interests against the risk of bankruptcy and agency cost of debt.

"Firms borrow up to the point where the tax benefits from an extra dollar in debt are exactly equal to the cost that comes from the increased probability of financial distress" (Ross et al. 2008).

Due to these risks, equity seems a better option. However, accessing financing via equity has its own demerits. For instance, the firm has to suffer from the agency cost of equity. Basically, the capital structure moves towards an optimal one which embodies the existing tax rates, the asset characteristics, the profitability of the firm and the cost incurred due to bankruptcy. Specifically, the firm tries to strike a balance between the costs and benefits of debt, holding its assets and investment plans constant (Myers 1984).

The optimal capital structure of various firms will differ with difference in the firm characteristics, institutional differences (e.g., different bankruptcy laws, different tax rates etc.). This theory predicts that, "less" risky firms (e.g., more tangible assets, more taxable income to shield etc.) should have a high debt ratio. Whereas, "more" risky firms (e.g., firms with more intangible assets which have negligible value in case of liquidation) will have difficulty in attracting debt (due to lack of collateral as assets are intangible) and will have to find respite through equity financing. As a result, these firms will show a low debt equity ratio. Also, the firms which are "more profitable" will have high taxable income to shield as well as more debt—payment capacity. Therefore in order to balance these two aspects, they will have to rely mostly in debt, i.e., they will have a high debt equity ratio. The opposite applies to not-so profitable ventures. As far as growth opportunities are concerned, the firms in a high growth path should ideally borrow less as otherwise the likelihood of financial distress increases.

5.4.2.4 Agency Theory

This theory states that the firm's capital structure is based on agency costs, i.e., the costs incurred due to the conflicting interest between the principal and the agent, The agency cost comprises of the agency cost of debt and equity. The agency cost of equity basically comprises of the monitoring expense incurred by the principal (investor or the venture capitalist in our case), the bonding expense incurred by the agent (the entrepreneur), and the reduced welfare due to the conflict of interest between the principal and agent (Jensen and Meckling 1976).

Borrowing implies payment of interests at continual intervals. In order to make these regular payments, the incentive of the owner manager to engage in excessively risky projects increases as these will pay a higher return. However, the risk also increases. And it is the debt holders (instead of the equity holders) who will have to bear the downside risk. Now, if the debtors anticipate this situation, they will charge a higher interest rate which in turn increases the cost of debt. Thus, the agency cost of debt includes the opportunity cost incurred due to the impact of debt on the investment decisions of the firm, the monitoring and bonding expenditures by both debtors and equity holders, and the bankruptcy and reorganization costs (Hunsaker 1999). Since both debt and equity have an agency cost associated with them, the optimal debt equity ratio shall involve a tradeoff between them.

Agency costs arise due to conflicting interest between various actors. Jensen and Meckling (1976) has offered a good description of these conflicts:

Shareholder Manager Conflicts

The origin of this conflict is the separation of ownership and control of the firm. If the firm is financed by equity, the managers do not own the entire firm. As a result, even though they exert full effort, they are not able to reap the whole benefits of their effort, as it is shared between the owners and the investors (who are part owners). These types of conflicts can emerge due to various reasons. The managers realize that they do not receive full benefits of their effort. As a result, they indulge in non-value maximization behavior which involves investing their effort in perquisites (e.g., lavish cars and office space). This sort of conflict can be mitigated by awarding managers with equity share of the firm. Another means is to increase the debt level of the firm (keeping the managers equity holding constant). This will reduce the amount of cash flow that is available with the firm as a majority of it will be invested in paying the interest. And little will be available for the manager to invest in perquisites (Jensen and Meckling 1976). Another reason of this conflict is that managers might prefer to invest in less-value maximizing short-term projects, which will result in short-term profits and immediate enhancement of reputation against investing in value maximizing long-term projects. Mangers would essentially prefer investing in less risky projects and taking up less leverage as the likelihood of bankruptcy will go down (Hunsaker 1999). Managers would generally prefer to protect their current positions. If the control of the firm changes, the probability of the manager being terminated

increases. As a result, managers generally resist takeovers or mergers (even if its value enhancing for the firm). Sometimes managers continue to run the project even when liquidation is preferable (Harris and Raviv 1990).

The overinvestment problem is another issue which occurs due to the conflict between the shareholders and managers (Jensen 1986). Managers prefer to increase the firm size (so that they can be in control) rather than working toward increasing the value of existing projects (as preferred by shareholders). During this process, the managers may accept negative NPV projects as well, thereby reducing the firm value. This situation can aggravate due to the presence of excess free cash flow and low growth opportunities. Increasing the debt would help mitigate these problems. This is because the excess free cash flows will mainly be used up in payment of regular interests and there would be little capital to invest in negative NPV project. Also, debt increases the risk of bankruptcy and prevents managers from investing in nonvalue maximizing projects (Hunsaker 1999).

Shareholder Bondholder Conflicts

In this situation, shareholders make certain decision which result in transferring the wealth from bondholders to shareholders. Since, the bondholders are aware of such a situation, they will charge a higher interest rate. In one condition, there is a direct transfer of wealth from shareholders to bondholders (Smith and Warner 1979). Shareholders increase their wealth in comparison to bondholders by increasing the dividend payment. Also, high priority debt requires payment prior to the servicing of bondholders. Another source of conflict is the asset substitution (Jensen and Meckling 1976; Smith and Warner 1979). When the debtors agree to issue debt, they charge an interest rate (risk premium) in accordance to the riskiness of the project. Shareholders would prefer to invest in risky projects because, if the project succeeds, the returns will be more. Therefore, they will get a share of all the profits and the bondholders will receive only their periodic interest payments. However, if the project fails, then it is the debtors who will have to suffer (limited liability of the shareholders). Once the debtors are aware of this, they will charge a higher interest rate, thereby increasing the cost of capital. This increased cost of debt is borne by the shareholders as they are the residual claimants. Another problem that occurs due to these conflicts is the underinvestment problem (Myers 1977). Debt overhang occurs when the earnings generated by a new project is used to pay off existing shareholders. This situation usually arises during times of financial distress. Shareholders would not want to invest in new positive NPV projects because the earnings from these projects will be used up to payback existing debtors.

Literature has suggested various ways to mitigate these problems. This theory proposes that firms which are in a high growth path should have lower short-term debt and higher long-term debt in comparison to mature firms. Adding an upper limit to dividend payment (Smith and Warner 1979), collateralization of tangible assets (Stulz and Johnson 1985), issue of convertible debts (Jensen and Meckling 1976) can lead to lower agency costs.

Information Asymmetry Problems

Usually, the firms' insiders (managers) are more aware of the status of the firm as compared to outsiders. The capital structure in this situation therefore reflects the firm's needs to mitigate the information asymmetry problems (Myers and Majluf 1984). This capital structure is sometimes even used as a signal to external investors about the insider information that mangers possess (Ross 1977).

Usually, when a new firm issues equity, the existing shareholders consider it as negative information about the firm. And they are willing to pay less than the value of the share. As a result, the equities are underpriced. If the existing shares are underpriced, then there is a high probability that the new shares which will be used in case of a new project will also be underpriced. These studies are done under the assumption that managers work on behalf of the interests of the existing shareholders. The managers may therefore forego a positive NPV project if it requires the issuing of debt as this will result in a transfer of wealth to new shareholders in comparison to existing shareholders (Myers and Majluf 1984). Use of debt usually results in mitigation of such problems.

Myers (1984) proposed a theory of pecking order which is based on this concept of asymmetric information. Firms, while financing their projects, prefer to use their internal funds first, before issuing debt and afterwards, equity. Internal financing (retained earnings) requires no public disclosure of information or incur no flotation cost, they are mostly preferred. Once these internal funds are exhausted, the firm would prefer the use of external financial resources in the order of debt, convertible securities, preferred stock, and common stock. This is because firms tend to finance their investments through less risky financial instruments, i.e., debt rather than equity. Issuing equity will always result in a tradeoff between issuing them at lower than the market price or passing up of positive NPV projects.

There are certain implications of the pecking order theory. Under this theory, there is no optimal capital structure. Instead, the capital structure is designed by the firm's need for external financing. This determines the amount of debt the firm will have. Another implication is that profitable firms will usually have less debt. This is mainly because, these firms will have high retained earnings to finance their future projects. For example, in mid-2006, Google had an asset of $14.4 billion out of which $10 billion were in cash or marketable securities. Due to the reasons discussed above, a firm will try to increase its retained earnings (financial slack). This is mainly done to save cash to invest in future projects immediately. This tactic also avoids resorting to external means of financing (Ross et al. 2008).

There is a continuous debate on whether the static trade-off theory or the pecking order theory is more correct. According to Ross et al. (2008), the trade-off theory's prescriptions is mostly about long-term financial decisions (tax shields, financial distress etc.) in comparison to pecking order theory, which is mostly concerned with tactical issues of raising external finance. Therefore, both these theories have merit. In the words of Ross et al. (2008).

"It is probably the case that firms have long run, target capital structures, but it is also probably true that they will deviate from those long run targets as needed to avoid issuing new equity."

5.4.3 Financial Indicators that Attract Venture Capitalists

Based on the above theories, Harris and Raviv (1990) find that the tangibility of assets, default probability of the firm, volatility of earnings, growth opportunities, tax effects, marketing expenditures, expenditures in research and development, product specificity, etc., decide the level of debt that a firm might issue. In their own words:

"Leverage increases with fixed assets, non-debt tax shields,[1] investment opportunities and firm size and decreases with volatility of earnings, advertising expenditures, the probability of bankruptcy, profitability and uniqueness of products."

However, the results vary in accordance to sectors, stages of firm, different institutional settings, and country settings. Taking a cue from the above information, some propositions are developed that will reason out the attraction of venture capitalists for some of the above mentioned financial indicators.

In this section, we are talking about firms that are in their growth stage, i.e., firms that have grown from being an idea to having a tangible product/service. They have started earning revenues and are probably within the age range of 2–5 years. Growth firms can be further subdivided into early and late stage growth firms. Those firms which have a running prototype and have managed one or two clients can be considered to be in the category of early stage growth firms. They may or may not be earning revenues at this stage. Those firms, which are having a product/service ready and have to some extent an established client base, can be considered to be in the late stage growth firms. They might have earned some revenue and would be on their way to break even or would have already shown some profits.

5.4.3.1 Asset Tangibility

Presence of tangible assets indicates the presence of more debt. This is mainly because these tangible assets can act as collateral. Hence, the cost of debt will be low. Presence of large amount of tangible assets reduces the agency cost of debt and deters the firm from indulging in asset substitution (Jensen and Meckling 1976; Stulz and Johnson 1985). Also, during the occasion of liquidation of the firm, the tangible assets have more liquidation value (Wald 1999). Therefore, if a firm has more tangible assets, then the level of debt would be more, i.e., there is a positive relationship between the tangibility of assets and the level of debt (Titman and Wessels 1988;

[1] E.g., depreciation and depletion.

Mackie-Mason 1990; Prowse 1990; Jensen et al. 1992; Smith and Watts 1992; Grier and Zychowicz 1994; Hovaikimian et al. 2001; Frank and Goyal 2003).

According to Pecking Order Theory, when a firm seeks external equity funding, all his internal sources of financing and debt capacity must have been over. It is only after the firm has exhausted all possibilities of internal financing (including loans from friends, family etc.) and loans from financial institutions, that the firm seeks external financing in terms of venture capital. This situation occurs in a later stage of the firm, when it is looking to expand. The access of debt by the firm sends the venture capitalist a positive signal that the firm is worth investing. This is because other financial institution like banks etc. have done their due diligence and checked their creditworthiness before sanctioning the debt. Also, at this expansion stage, the amount of investment required per deal will be relatively high as compared to early stage firms. Hence, venture capital firms with large ticket size that are focused in late stage and expansion funding will be able to harbor these investments.

If a firm has intangible assets (e.g., hi-tech ventures), then the likelihood that it receives debt financing is less. This is mainly because it does not have enough collateral to secure loans and its liquidation value is very less. However, if the entrepreneur has a brilliant idea, then the venture capitalist will not want to let go of it. But the idea in itself may not be sufficient in securing venture capital. The entrepreneur should have a prototype ready. Also, in case of services firm, it would be advantageous on the part of the entrepreneur to have a first customer. However, only those types of venture capitalists will invest which have an expertise in that particular area. The venture capital firm should also have experience in developing start up firms from scratch to market ready. This skill set on the side of the venture capitalist is a prerequisite as this will help to reduce the information asymmetry between the entrepreneurial firm and the venture capitalist. Also, venture capital firms which invest in early stage will generally have a small ticket size as compared to their counter parts which are investing in late stage firms. This is mainly because the capital requirement of startups is comparatively low.

Proposition 1 *The likelihood that a venture capitalist will finance a growth firm which has high tangible assets is more as compared to a growth firm with high intangible assets.*

Tangibility, in the financial literature has been measured by fixed assets (which includes plant, property, and equipment).

5.4.3.2 Firm Size

As the size of the firm increases, the probability of default decreases (Titman and Wessels 1988; Rajan and Zingales 1995; Fama and French 2002; Frank and Goyal 2003). This is mainly because they are in general, better diversified and have a less

volatile cash flow and profits. As a result they can benefit more from interest tax shields. Also, the larger firms can have access to cheaper debts because of their bargaining power. Therefore, the cost of capital is less (Michaelas et al. 1999). Also, large sized growth firms are considered to have low information asymmetry in comparison to their smaller counterparts. This is because they offer more information to the venture capitalist. This might be another reason why large firms can have access to cheaper debts (Rajan and Zingales 1995; Cassar 2004). On the basis of this discussion, it can be said that late stage growth firms (that are considerably larger) have a better likelihood of accessing venture capital as compared to early stage growth firms (that are considerably smaller).

However, there are contrary evidences as well. Firms which are in a high growth trajectory, in anticipation of their financing needs in the future, try to establish relationship with bankers etc. As a result, the information asymmetry between the investors and investees declines. And not so large firms might also be able to access debt at a reasonable rate (Cassar 2004).

Now, according to the pecking order theory, the late stage growth firm will seek equity financing only when it has exhausted both its internal finance and external sources of debt. Even if a firm has enough debt capacity, it will not use it entirely as it will also have to take into consideration the bankruptcy costs and agency cost of debt (according to Static Trade-off Theory). On the other hand, the early stage growth firm might also seek venture capital financing (because of its unique nature to invest in risky firms), because it will not receive debt (due to lack of collateral and high information asymmetry) and it has exhausted its own personal mode of financing.

Proposition 2 *A venture capitalist would prefer to finance a late stage growth firm which is larger in size as compared to an early stage growth firm which is smaller in size.*

This is mainly because, everything else remaining the same, the venture capitalist will prefer a less risky venture (late stage growth firm) to a more risky one (early stage growth firm). A late stage growth firm signals the venture capitalist about its potential through the debt that it was able to receive (a signal of creditworthiness). It is also able to resolve some of the information asymmetries by furnishing the venture capitalist with some prior track record and its financial statements. However, a relatively newer venture will have nothing much to show other than an idea and a future plan (which may not be enough sometimes). Size, in the financial literature has been mostly measured by natural logarithm of total sales.

5.4.3.3 Profitability of Firm

The relationship between the profitability of a firm and its capital structure is not very explicit. If a firm is more profitable, it has more cash flows. As a result, it can

gain tax advantages due to the interest tax shield (Modigliani and Miller 1963). This is in accordance to the trade-off theory. According to the agency theory framework, debt acts as a disciplining instrument. The money that managers would have squandered off in unnecessary empire building is utilized to pay off the debtors (Jensen 1986). Also, debt acts as a signal about the profitability of the firm. Therefore, a profitable firm should have more debt. Another steam of reasoning favors the pecking order theory. Now, a profitable firm has a good amount of free cash flow to sustain its future growth and expansion plans. As a result, it need not seek external financing. So, this statement establishes the fact that, a profitable firm should have low debt (Myers 1984; Myers and Majluf 1984). Many empirical studies also find evidence about the negative relationship between debt and size (Titman and Wessels 1988; Wald 1999; Rajan and Zingales 1995).

But, the story is different for growth firms. A profitable growth firm whether in the late stage or early stage, would need substantial amount of capital for expansion. Since these firms are in a high growth path, the profits may not be sufficient to finance its expansion plans. They will have to seek external finance. If debt is available, then it is good. However, there might emerge situations where the need for external equity finance is acute. High growth firms which have mostly human capital or intangibles to show will need equity financing. Also, sometimes the need for finance may be immediate. At this juncture, raising equity finance is a last resort. This profitability acts as a good signal for venture capitalists. A venture capitalist would be more than willing to finance a profitable growth firm. This venture capital would aid in the expansion of the venture and would lead to further capital gains which can be then shared between the entrepreneur and the venture capitalist.

Proposition 3 *Already profitable late stage and early* stage growth firms *have a better likelihood of receiving venture capital finance as compared to nonprofitable ones.*

In finance literature, profitability is usually measured by the ratio of earnings before interest and tax (EBIT) to total assets of the firm.

5.4.3.4 Earnings Volatility

Firms with high volatility in earnings generally raise less debt. If the earnings are volatile, the risk the firm will not be able to honor its debt commitments is high. As a result, the firm might be forced to borrow at a higher rate in order to serve its existing debts. In case, it is not able to do so, it might even have to file for bankruptcy. Sometimes, earning volatility is taken as a proxy for financial distress.

However, this situation does not arise if the firm is financed by equity. During periods of financial difficulties, the firm can stop paying dividends or it can defer it.

Generally, new, entrepreneurial firms face such situation. As a result its better for them to access equity finance instead of debt. However, these firms might not receive the external equity capital that they are seeking. A venture capitalist needs

to have some indication about the potential of a venture before deciding to invest in it. A high volatility in earnings sends a wrong signal to the venture capitalist. Volatility in earnings indicates that the firm is in financial distress and is seeking venture capital as a last resort to save its firm from going down. The venture capitalist might not be interested in acting as a savior for the turbulent firm.

Proposition 4 *The likelihood of a venture capitalist financing a growth firm with high volatility is low as compared to a growth firm with low volatility.*

In financial literature, volatility in earnings is measured by standard deviation in return on assets (ROA) (Booth et al. 2001).

5.4.3.5 Growth Opportunities

Growth opportunities are depicted by those assets which add value to the firm but cannot be used as collateral and do not generate profits for the firm (Titman and Wessels 1988). Due to this lack of collateral, the firm will have difficulty in accessing debt. Also, mere growth opportunities without any tangible assets (e.g., software startups) will not contribute to the profitability of the firm. This may be another deterrent in the firm's quest for external finance. As a result, most of the theoretical models have predicted that there is a negative relationship between leverage and growth opportunities.

In an underinvestment situation, firms which have good growth opportunities might give up positive NPV projects because the earnings from those projects will go into the servicing of existing debts (Myers 1977). In an overinvestment situation, where there is not much opportunity for growth, firms will go for debt as it will help reduce the agency problem of debt.

New ventures usually have difficulty in access of debt due to lack of collateral. However, they might have very good potential of growth in the future. Once they have exhausted all possibility of internal finance, and they cannot access debt, new ventures will seek venture capital finance. Due to their high growth opportunities, and specialized skills to resolve uncertainties, venture capitalists will invest in these ventures.

Proposition 5 *The likelihood of a venture capitalist financing a firm with high growth opportunities are more as compared to a firm with low growth opportunities.*

Financial literature measures growth opportunities through a ratio of market value to book value (Rajan and Zingales 1995). He cites two main reasons for this. The probability of financial distress is more for firms that have high market to book value. Also, firms would prefer to issue stock when they are overvalued.

5.5 Framework for Growth Firms Seeking Venture Capital

We have categorized growth firms into two sub categories, i.e., early stage growth firms and late stage growth firms. Those firms which have a running prototype and have managed one or two clients can be considered to be in the category of early stage growth firms. They may or may not be earning revenues at this stage. Those firms, which are having a product/service ready and have to some extent an established client base, can be considered to be in the late stage growth firms. They might have earned some revenue and would be on their way to break even or would have already shown some profits.

According to the discussion, high tangibility indicates a higher debt equity ratio. The asset heavy growth firms have a higher likelihood of securing venture capital. This is mainly because firms with some amount of tangible assets would have already secured some amount of debt because of their tangibles which acts as collateral. Also their liquidity price is high. This debt level of the growth firms would send a signal to the venture capitalist about the credibility of the firm. Growth firms which have low tangibility would not mange much debt because of their lack of collateral. As a result, they will have to send a signal about their abilities through things like a working prototype, some clients, their own personal investment etc. If they succeed, then their likelihood of securing venture capital might increase.

Bigger size implies a higher debt equity ratio. Growth firms in their late stage and in the early stage have equal likelihood of seeking venture capital. This is because the late stage growth firm might have exhausted its debt capacity and could seek venture capital. The early stage growth firm might not receive debt and seek venture capital financing as a last resort. Given this option of selecting between the late stage growth firm (larger size) and the early stage growth firm (smaller size), the venture capitalist would finance the late stage growth firm which is larger in size. This is mainly because the late stage growth firm would be able to provide more and better information about its ability (its prior track record, its established client base, its prior debt history etc.) than the early stage growth firm. This helps in reducing the information asymmetry between the entrepreneur and the venture capitalist to a great extent.

There are no clear-cut relationships between profitability and debt equity ratio. Profitable growth firms (whether in the late stage or early stage) have a greater likelihood of securing venture capital finance. Their profitability acts as a signal regarding the quality of the firm. The venture capitalist would invest in them. The capital gains that would be made in the future will then be subsequently shared between the entrepreneur and the venture capitalist.

A high volatility in earnings indicates a low debt equity ratio. Fluctuations in earnings may indicate that the firm is in financial distress. As a result the probability of the firm receiving debt capital is low. The probability of receiving equity capital also reduces because the venture capitalist would not like to bet on a sinking ship, because the probability of failure is high.

There is a negative relationship between firms with high growth opportunities and debt equity ratio. Growth firms which are either in their early stage or late stage with good growth opportunities will not be able to secure debt finance due to their lack of collateral. However, these growth opportunities indicate an increasing chance of success for these firms. The venture capitalist would like to capitalize on this opportunity by providing finance to these firms.

All the propositions that are drawn above are depicted here once again for a quick review:

Proposition 1 *The likelihood that a venture capitalist will finance a growth firm which has high tangible assets is more as compared to a growth firm with high intangible assets.*

Proposition 2 *A venture capitalist would prefer to finance a late stage growth firm which is larger in size as compared to an early stage growth firm which is smaller in size.*

Proposition 3 *Already profitable late stage and early stage growth firms have a better likelihood of receiving venture capital finance as compared to nonprofitable ones.*

Proposition 4 *The likelihood of a venture capitalist financing a growth firm with high volatility is low as compared to a growth firm with low volatility.*

Proposition 5 *The likelihood of a venture capitalist financing a firm with high growth opportunities is more as compared to a firm with low growth opportunities.*

The following table provides a complete framework of financial determinants for growth firms that can act as a benchmark, before they seek out venture capital financing (Table 5.1).

The framework indicates that late stage growth firms that are bigger in size, have tangible assets, are profitable and have high growth opportunities have a greater likelihood of receiving venture capital. Early stage growth firms that have high tangible assets, are highly profitable and more growth opportunities have a high likelihood of receiving venture capital. Therefore, a growth firm which intends to

Table 5.1 Framework of financial indicators for growth firms seeking venture capital

Criteria	Debt/equity ratio	P (accessing venture capital in late stage growth firm)	P (accessing venture capital in early stage growth firm)
High tangibility	High	High	High
Bigger size	High	High	Low
High profitability	Mixed	High	High
High volatility	Low	Low	Low
More growth opportunities	Low	High	High

seek venture capital in the near future must keep in mind these financial considerations. Other than the generic criteria such as the quality of the entrepreneur, the management team, the external competitive environment etc., these financial criteria would go a long way in securing venture capital. These financial criteria shall act as positive signal to the venture capitalists indicating the robustness of the firm. These signals, therefore, enhance the possibility of the growth firm in securing venture capital.

5.6 Conclusion

This chapter draws out various criteria that an entrepreneur running a firm in the growth stage should keep in mind before securing venture capital. Along with various generic criteria such as good management team, able entrepreneur, good economic and market conditions, and financial considerations such presence of tangible assets, prior profitability, high growth opportunities, and bigger size shall provide positive signals regarding the credibility of the firm. The probability of the growth firm securing venture capital funding will therefore increase.

However, one thing that emerges from this discussion is that venture capitalists are not exactly the risk takers that they are assumed to be in the academic literature. Their financial criteria for selection are not very different as compared to the criteria adopted by banks and other financial institutions. They too need some amount of risk mitigating methods to limit their downside risk. Once proven, this academic work shall be a breakthrough in deconstructing a major assumption of venture capitalist as risk takers. Their role then will be basically confined as another source of finance for entrepreneurial firms that are seeking finance rather than the change makers that they are touted in a majority of venture capital finance literature.

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Chapter 6
Bridging the Cross Cultural Transformational Li (Distance Measure) at Huawei Technology India Pvt Ltd

Bidipta Das, Menaka Rao and Vasanthi Srinivasan

When Arun Prasad, the HR Head at Huawei's research and development center in Bangalore was tossed into implementing the new strategy of retaining only self-sustaining and revenue generating business units and aligning the subsidiary's structure to that of the parent company in China, he was in an awkward position. Undertaking such changes had been unprecedented so far where three non revenue generating business units out of the existing five were to be dissolved and the personnel relocated to other departments. Moreover, all three SBU heads were close friends of his and he was not sure how to break this news to them. Of more immediate concern for Arun was what impact this would have on the subsidiary.

6.1 Founding Huawei

In 1988, Ren Zhengfei, formerly with the People's Liberation Army in China, founded Huawei in a shabby, one-room workshop in Shenzhen, China. The Chinese word, 华为 translates to the English word, Huawei. The company's name was particularly chosen as the character, 华 means Chinese (the first part) and can also be used as an adjective to mean splendid or magnificent. The character 为 means action or achievement (the second part). Five years after establishment, Huawei achieved its first breakthrough when it launched a digital telephone Private Branch Exchange (PBX) switch which was in high demand in China as the communication industry was rapidly expanding at the time and dominated by foreign companies like Siemens and Alcatel. In China Huawei soon became the largest PBX equity

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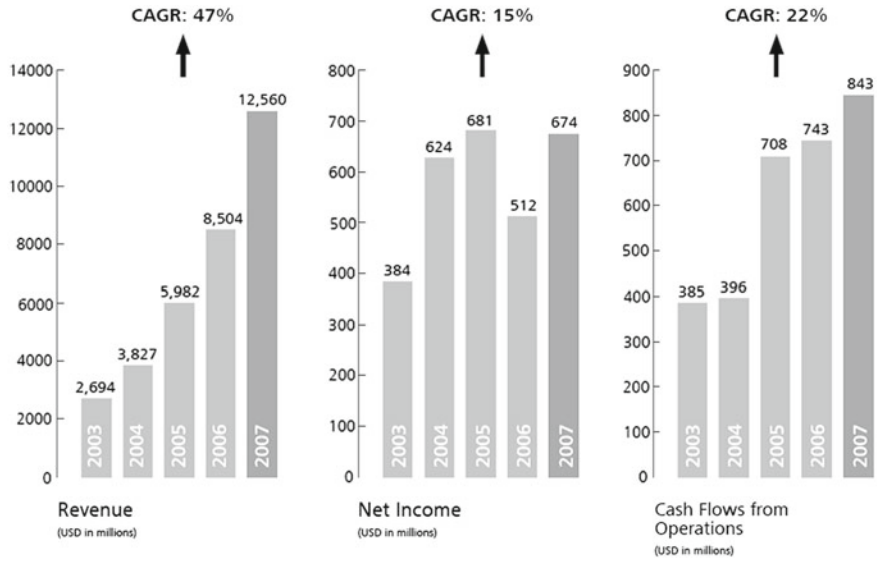
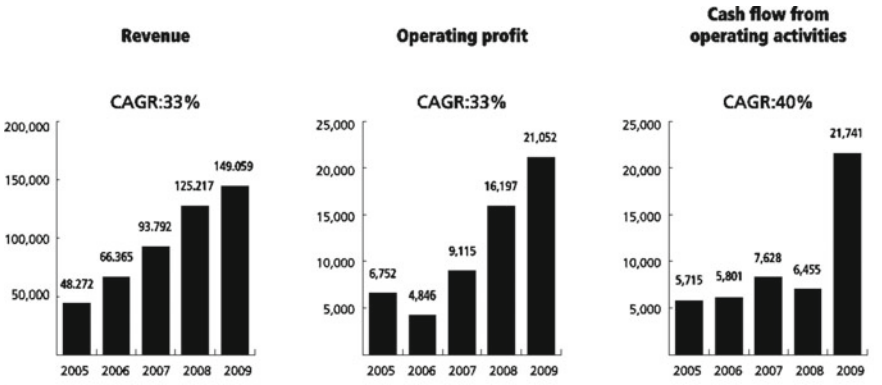
DOI 10.1007/978-81-322-2086-2_6

Exhibit 6.1 Fast growth of Huawei. *Source* company website



agent and 20 years later achieved second position (after Ericsson) as a global OEM. With a taste of success in the homeland, and after winning the first overseas contract in 1996 with Hong Kong's Hutchison-Whampoa, Huawei began expanding to markets outside China. Initially the company was dismissed as an upstart with few sustainable prospects, but at the turn of the century Huawei defied predictions and grew from a minnow to a mammoth global company in telecommunications, with a fast growth track record between 2003 and 2007 (Exhibit 6.1). Globally, Huawei invested more than 10 % of its revenues in R&D, and more than 10 % on pre-R&D stages of development. So much so, that in 2007, Huawei became the fourth-largest patent applicant in the world with 1,365 applications. The company was also placed as being the fifth-largest telecommunication company surpassing Nortel Networks in sales worldwide in the same year. Huawei was also included in the World's Most Respected 200 Companies list compiled by Forbes magazine in May 2007. Huawei's global R&D centers were located in Bangalore (India); Moscow (Russia); Stockholm, (Sweden); the Silicon Valley, California (USA); and Dallas, Texas (USA), in addition to those in Beijing, Shanghai, Nanjing, Shenzhen, Hangzhou and Chengdu in China. In 2008, 75 % of Huawei sales came from the overseas market with total revenue of $17 billion and contract sales of $23.3 billion. Ren had led the company as it jumped from a local player to a global competitor serving 31 of the world's top 50 carriers and over one billion users

Exhibit 6.2 Sales and growth in 2009. *Source* company annual report, 2009. 1 USD = 6.8 CNY (apprx)



CNY Million	2009	2008	2007	2006	2005
Revenue	149,059	125,217	93,792	66,365	48,272
Operating profit	21,052	16,197	9,115	4,846	6,752
Operating margin	14.1%	12.9%	9.7%	7.3%	14.0%
Net profit	18,274	7,848	7,558	3,999	5,519

worldwide. In 2009 Huawei's annual sales revenue touched RMB 149 billion[1] ($22 billion), with a year-on-year increase of 20 % and a net profit of RMB 18 billion ($2.7 billion) with profit margins of 14 % (Exhibit 6.2).

6.2 Huawei's Cultural Ethos

To understand Huawei one needs to take into account the genesis of its distinctive corporate culture. Ren was a follower of Mao and had drawn inspiration from him, in building his company. Initially he developed cooperatives in China's interior regions using the PLA's military strategy. He adopted the same strategy for business. The corporate culture he built around his company was reflected in the rigidly hierarchical organization, he created. Emphasis was laid on hierarchical management rather than on individual employees who were viewed as replaceable foot soldiers. According to Ren in Huawei, everyone stood on the same starting line and obtained opportunities by personal practices.[2] Responsibility and efficiency were

[1] Company Annual report, 2009, "Letter from CEO".

[2] Huawei People.

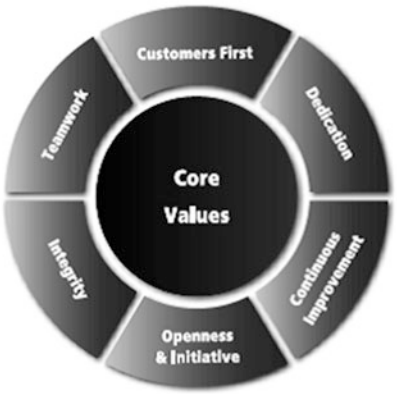
Exhibit 6.3 Huawei's vision mission and core values. *Source* company annual report, 2009

Vision, Mission and Core Values

Vision
To enrich life through communication.

Mission
To focus on our customers' market challenges and needs by providing excellent communications network solutions and services in order to consistently create maximum value for customers.

Core Values
Our core values are deeply rooted in every aspect of our business. They are the internal driving force for the Company and are our commitments to the ecosystem. These values enable us to provide effective services to our customers and to achieve our vision of "enriching people's lives through communication".



Customers First
Huawei exists to serve customers, whose demand is the driving force behind our development. We continuously create long-term value for customers by being responsive to their needs and requirements. We measure our work against how much value we bring to customers, because we can only succeed through our customers' success.

Dedication
We win customers' respect and trust primarily through dedication. It includes every effort we make to create value for customers and to improve our capabilities. We value employees' contributions and reward them accordingly.

Continuous Improvement
Continuous improvement is required for us to become better partners for our customers, improve our company and grow as individuals. This process requires that we actively listen and learn in order to improve.

Openness & Initiative
Driven by customer needs, we passionately pursue customer-centric innovations in an open manner. We believe that business success is the ultimate measure of the value of any technology, product, solution or process improvement.

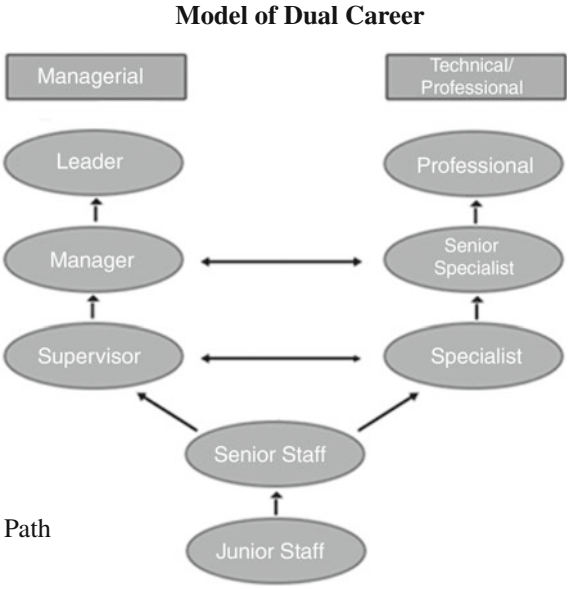
Integrity
Integrity is our most valuable asset. It drives us to behave honestly and keep our promises, and, thus, win our customers' trust and respect.

Teamwork
We can only succeed through teamwork. By working closely in both good times and bad, we lay the foundation for successful cross-cultural collaboration, streamlined inter-departmental cooperation and efficient processes.

considered to be the greatest wealth of the employees and the measurement of outstanding capabilities and contributions was the criteria for promotions. The influence of social psychology was built into the matrix of Huawei's culture.

Huawei's work culture revolved around four major assets of human behavior—sense of responsibility, team work, dedication and a spirit of innovation. Additionally, every employee was expected to obey regulations, work hard, be selfless and disciplined, be skillful and remain devoted to the core values and the vision and mission of the company (Exhibit 6.3). There was a strong focus on work timings (the number of hours an employee devoted in office). Employees with qualities of hard work, discipline, personal sacrifice and organization devotion were deemed professional and those who followed it were considered apostles of success.

Exhibit 6.4 Model of dual career path. *Source* compiled by the authors



6.3 Working Style

Despite Huawei's strong identity, the company adopted several western work strategies. For instance, Ren began the dual career path (Exhibit 6.4) in Huawei in 2005 where employees could choose a path by understanding the cross level positions available and holding two portfolio's at the same time. He believed that employees needed to be technically competent and at the same time continuous in learning new management styles. Utilizing western ideas was also to be imbibed by employees as Ren hired IBM for management consulting services with the intention of modeling Huawei on the lines of the American company. "If we were going to innovate and survive, we would have to learn the successful management structures of western countries. Our management style was immature, while IBM had been a successful model for 30 years"— said Ren[3].

Ren outlined nine major points he wanted his management team to adopt:

- Balanced development with focus on research and development
- Responsibility and accountability
- Self-criticism
- Incentive mechanism to facilitate the company's core competitive strategy

[3] Xiao, Zhixing *"Ren Zheng Fei's Way is Huawei Participating in the World."* 2006. http://www.cbfeature.com/index.php?categoryid=Vm0xMFUxSXhTbkpQVm1SU1lrVndVbFpyVWtKUFVUMDkrQg==&p2_articleid=Vm10YWEyUXlSbkpOVnpWUlZrUkJPUT09K1M.

Exhibit 6.5 Performance and reward model. *Source* compiled by the authors

- Not be blind to innovation
- Reduce the organization to key essential organs
- Face change while balancing competitiveness and enhancing growth
- Genuine sense of concern for employees at all levels
- Prepare for impending crisis with an open mind

Huawei's global market was divided into eight different zones that reported directly to a Marketing Management Committee. A Huawei vice president headed each of Huawei's eight regional headquarters. The regional offices were organized by different product lines and had a technical support department, and two departments in charge of client relations and business development. In China, every recruit underwent a mandatory cadet training soon after joining. In addition the performance and reward system was unique to the company (Exhibit 6.5).

6.4 Growing HTIPL

India was projected to become the second largest telecom market globally and was among one of the few countries where both GSM and CDMA were operational. Unable to ignore this potential, Huawei's entry into India was to take advantage of the rapidly growing market and its vast pool of engineers. Huawei's strategy was to combine the strengths of Indian engineers (known for their management and software skills) and Chinese skills of manufacturing, hardware design and integration to reduce time-to-market and cater to customer needs by developing cutting-edge telecom software solutions for global markets. With this in mind, Bangalore the Silicon Valley of India with its prominent position as India's technology capital, was selected to house Huawei's overseas Research and Development center (HTIPL) in 1999. In the initial months of its inception a modest 100 Indian staff and an equal number of Chinese colleagues supported the new venture. HTIPL began its

operations by combining the Chinese skills of discipline, competence and diligence with the Indian talent of creativity, articulation and perseverance and infused its culture as the underlying stream at work. George Chen, the COO of Huawei's R&D center in Bangalore remarked "In terms of market, India has the biggest potential in telecom and we want India to become our biggest market outside of China in the future. We want our India R&D center to support our global operations, leveraging India's English language skills and software expertise to our advantage globally."

Several employees were known to say: "… We are not brainwashed. We really share Huawei's culture and values. When we as job seekers sat for the written examination and attended the interviews or when we work as a member of the company, it's a process of mutual selection. I fit the organization culture and was selected and put into today's position". "Huawei's values fit my own and I have chosen to remain in Huawei and be one of Huawei wholeheartedly… ." remarked an Indian employee at HTIPL. Another employee remarked: "…. we were having dinner together when all of a sudden someone's cell phone began to ring. Then they all went back to the company, leaving me alone with a table of dishes. Or someone promised to go shopping with me at six but at seven, he told me that he was still working and asked me to wait for some more time. At one time, after working for hours, I finally finished my news report at two in the morning. On a sudden impulse, I telephoned to harass a friend at Huawei, anticipating he would murmur complaints dreamily. Unexpectedly, I found on the other end of the line, people were heatedly discussing problems concerning setting up a base station… "

Over time HTIPL grew significantly, to become Huawei's largest R&D center outside China. An investment of $200 million had been made from inception and the head count had grown to about 3,200 Indians across various operations in the country. The Indian workforce grew gradually to represent approximately 85 % of localization among the total workforce in India.

6.5 Building the Business Model

Over the years of HTIPL's existence in India, it underwent transformations in its business model, from being development driven to end-to-end focused. To employees it meant that they needed to achieve final results rather than merely be satisfied with procedural results. The company encouraged employees to take ownership for the parts or components during the entire lifecycle, including development, test, and deployment to customers (internal and external), post-release support, new feature enhancement, and continuous optimization.

HTIPL's mandate was to continuously maintain and improve subsystems/components by collecting defect information and feedback, and understanding new requirements from customers and to eventually make perfect deliveries.

According to an internally circulated corporate magazine called *Huawei People* "Huawei possesses a unique culture which is more customer driven−as the customer is the main reason for Huawei's existence. Huawei has achieved remarkable growth

globally by being customer focused, and every member of the organization should imbibe that culture of being customer focused, whether they are serving the internal or external customers. That's the only way forward…. HTIPL will continue to grow rapidly along with Huawei's momentum globally, and increase its contribution towards Huawei's forays into more developed markets around the world." [4]

The same vision was echoed when an employee shared his impression on HTIPL. "Coming from a traditional Indian service company, I was quite intrigued with the experiences of Day 1 at Huawei. It was a bright sunny Thursday morning in March 2001. A pleasant Chinese face, my first Project Leader, greeted me in OMC Business Unit and explained the project and technical details to me painstakingly in English. Let me admit that I could not grasp most of what he said. But the enthusiasm and the challenge that he wanted to pass on did reach me quite well."

During organization building, HTIPL morphed several times to accommodate widening product ranges, manpower, infrastructure, etc.

6.6 Unique HR Practices at HTIPL

A striking practice at HTIPL was that the organization consciously focused on quality control and adherence to well-defined processes right from its inception days. This early orientation to process compliance brought a lot of internal discipline to teams and helped streamline business strategies across the entire organization making several tasks a part of the daily routine work life. Some of these were internal audits across Business Units, Root Cause Analysis (RCA) for defects leaks, metrics variance, attrition, and customer satisfaction. The old adage of 'think global and act local' fitted the HR practices followed at HTIPL, the essence of which was 'ideas implemented through involvement with the inclusion of stakeholders'.

6.6.1 Mentoring

The mentoring program was instituted for new recruits immediately after joining and the completion of an induction. The program ran typically for 2–3 months and was intended to help the recruits align themselves to the organizations' objectives. The reporting manager of the recruit would identify focus areas to be covered like familiarization of the structure of the organization, developing expertise of system design, prototyping, etc., along with managerial skills. Program evaluations on the efficacy of the program were done on a regular basis. An important facet of mentoring was to ensure that new recruits were groomed to undertake responsibility independently.

[4] Issue #181.

6.6.2 Training Programs

Training programs covered areas of technical, behavioral, and nontechnical needs of employees. The needs were prioritized at HTIPL, immediately at the time of joining for a recruit. Some programs like the 'The New Leaders Induction Program', and 'End–to-End' were designed and developed as in-house delivery packages. These were programs apart from the usual induction and process training programs that new recruits underwent. The organization also encouraged employees to play the role of internal trainers who would then be rewarded for their efforts with a training incentive.

6.6.3 Career Growth

The organization stressed on performance-driven career growth. HTIPL introduced the 'fast track career growth' where employees with excellent track records and the potential to handle more responsibility were elevated to the next higher level with additional responsibilities. They would then be observed for a period of time before being promoted.

6.6.4 Communication

People-related policies and procedures were accessible to the staff of HTIPL through the intranet known as Process Asset Library (PAL). Employees were encouraged to give feedback as well as suggestions through 'improvement proposals' which were discussed by the 'improvement focus group'.

When a team was formed at HTIPL each member of the team was inducted with an introduction which covered sharing past experiences, hobbies, interests, health, etc., to propagate an open culture and constant interaction among team members.

6.7 The Transformation

In 2008–2009 several transformations were brought about by the management at China for HTIPL. Organization changes were introduced and new complex challenges that required an increased amount of transparency and organizational procedural justice were introduced. Significant changes in organization design,

promotion procedures, and policies related to international travels were addressed. The change impacted all HTIPL employees including its senior and middle management staff.

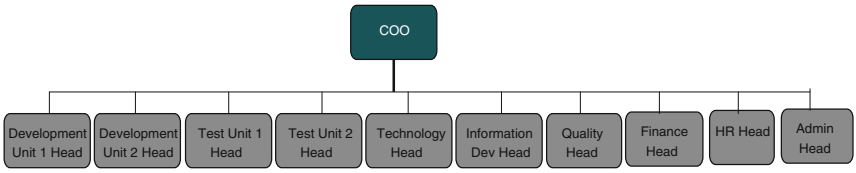
6.7.1 Organization Redesign

The corporate office and the development centers at China had restructured to "self sustaining revenue generating business units" in 2007. The India R&D center was to follow suit and align its structure with that of the global R&D organization's design as quickly as possible. This meant reshuffling the entire organization from a predominantly functional model to a hybrid matrix (Exhibit 6.6). The change was daunting as three independent non revenue generating units were to be reorganized and reallocated with bigger business departments.

Arun was conscious that the exercise being sensitive could take close to a year to conceptualize, formalize, and implement. He had seen that any change management introduced in China was accepted unquestioned; but in India he was quite sure that the same sort of compliance would never work. He was under tremendous stress to think hard and fast and find a via media. After mulling over the issue for several days he drafted his proposal.

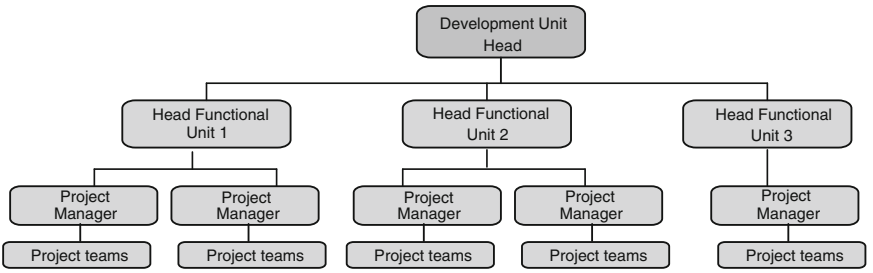
As he drafted his proposal he kept in mind several issues to help maintain harmony in the organization during the transition. Business heads that previously functioned as department heads would now change to being resource heads with the additional responsibility of being mentors or coaches (Exhibit 6.7). To help mitigate risk Arun proposed that the displaced heads could opt for their new supervisors rather than be thrust with a supervisor at random. With no plan to introduce change agents, Arun planned to identify a few select HR personnel who could be involved in the transition by playing the role of collaborators during the process. His draft ended with proposed modifications in the existing R&R system, changing the decision making processes existing in the organization and revamping appraisals system (Exhibit 6.8).

Exhibit 6.6 HTIPL's existing functional operations model (A). *Source* compiled by the authors



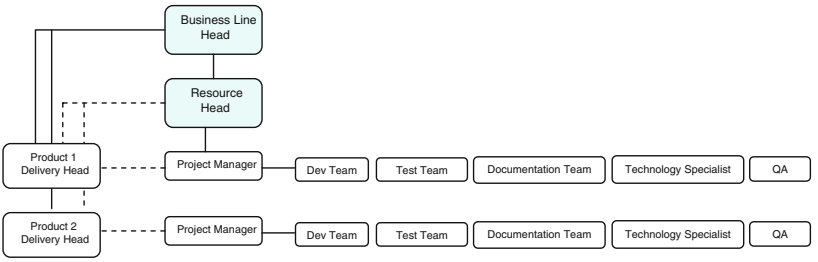
The organization structure of HTIPL was predominantly a functional one with Development, Test, Technology, Information Development and Quality as core departments. Support divisions included Finance, Admin and the HR department

Exhibit 6.7 HTIPL's existing changed operations model (B). *Source* compiled by the authors



Development Head used to have internal Functional Unit Heads comprised of senior managers

Exhibit 6.8 HTIPL's new organization structure. *Source* compiled by the authors

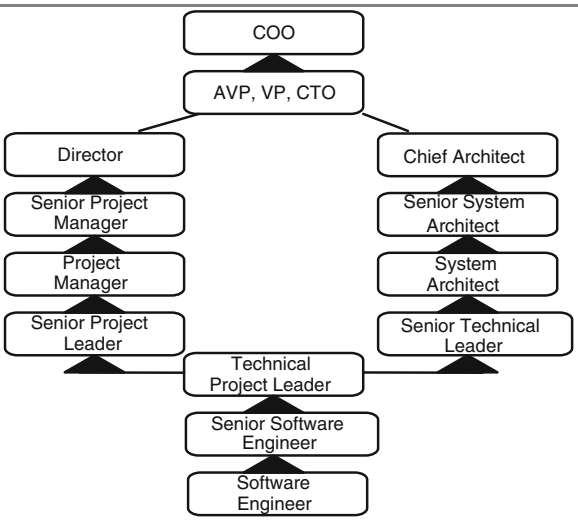


The Technology, Test, Documentation and Quality Dept become a part of the Business Unit with Product Delivery Head with responsibilities of running the show and taking ownership. Delivery head also had a dotted relationship with Resource head. HTIPL has multiple such business units.

6.7.2 Changing Promotion Procedures

As revenue from India increased, Huawei's operations in India grew concurrently. Weeks before HTIPL's bi-annual appraisals and promotions announcements one would feel the prevailing tensions in the environment. Initially HTIPL followed the traditional policy of promotion where based on the organizational structure (Exhibit 6.9) supervisors would nominate candidates for promotion based on their perceptions of the candidate. This however to Arun's mind was prone to biased outcomes and to overcome this issue and make the system more transparent, participative, and objective, the 360° feedback system was introduced. The feedback was triggered by business development heads and structured as a questionnaire circulated to peers, subordinates and supervisors. The responses to the questionnaire were later shared and discussed over a formal meeting with the SBU head and

Exhibit 6.9 Organizational structure at HTIPL. *Source* compiled by the authors



the person being appraised. However even this did not satisfy Arun. It was further modified and led to introducing the *Independent Promotion Evaluation Panel.* The panel consisted of senior managers responsible to assess and evaluate promotion nominations (Exhibits 6.10 and 6.11). The panel members were given defined procedures and asked to assess candidates for promotion based on presentations made by candidates on their contribution and achievements. The panel would judge the candidate on both quantitative and subjective qualities before arriving at a decision. Post presentation the candidate would be appraised of individual strengths and weaknesses as perceived independently by the panel as well as the collective opinions from the questionnaire. Arun intentionally dropped the clause of giving the liberty of 'dropping out' for nominated candidates as was the practice in the parent organization. Arun however was concerned that when his proposal was finally approved and rolled out, handling the paradigm shift in employee behavior that was bound to follow would be catastrophic if not handled properly.

Exhibit 6.10 The 5-point promotion scale

Promotion Scales	Meaning	Percentage of employees (%)
1	Poor performance	10
2	Sometimes meets expectation	20
3	Meets expectation	40[a]
4	Sometimes exceed expectations	20
5	Always exceed expectations	10[b]

Source compiled by the authors
Typically, employees having ratings 4 or 5 are nominated for promotion
[a] Varies from 40 to 45 %
[b] Varies from 5 to 10 %

Exhibit 6.11 Promotion evaluation process through independent promotion evaluation panel (sample)

	Respective business unit rating	Overall panel rating (after aggregating data from all panel members)	HR remarks
Business unit X			
Employee A	1	1	Preferred
Employee B	2	6	Not preferred
Employee C	3	2	Preferred
Business unit Y			
Employee D	1	5	Not preferred
Employee E	2	3	Preferred
Employee F	3	4	Preferred

Source compiled by the authors

Preferred tag does not ensure promotion. In fact, it just qualifies a candidate to move to next round where based on the number of opportunities available in the organization, a candidate is promoted. The actual business unit details have been masked

6.7.3 International Travel Policy

During HTIPL's initial days, employees would travel to various development centers across China and other countries for business development and joint project work. Indian employees were paid a per diem of $40 daily in addition to free lodging and food facilities, without disturbing their Indian salary. Down the line a few years later Huawei's corporate office introduced an integrated global travel policy where all cities across the globe were divided into categories with specific travel allowances based on zone classifications (Exhibit 6.12). As evident, in many cases, there were cuts in per diem amount. Arun feared that this new policy could to some extent give rise to employees refusing business trips to China as travelling to China on a business trip meant saving an extra buck which went a long way in their savings. However since only 10 % of the employees regularly travelled, he felt that it was a better way of controlling costs at HTIPL rather than downsizing on employee strength or initiating salary cuts. He also realized that the new travel policy could add additional anxiety to project and delivery managers who would now put in extra efforts to keep their team members motivated to travel to China.

Arun was well aware of the psychology and dynamics prevailing in HTIPL yet he had only few options in hand. HTIPL had evolved to a formidable development center and expectations from the parent company's corporate center had also increased manifold over the years. HTIPL still had a long way to go and still look inwards at the long-term big picture. Arun not only needed compliance from HTIPL employees when his proposal was rolled out but he also needed to simultaneously ensure that operational expenditures were optimized and side-by-side improve the work culture. And yet he was still not sure whether the organization was ready at this moment to handle such a big leap. Though his proposal was ready he still needed to find a convincing communication channel to tell all the employees. He glanced at the

Exhibit 6.12 Travel allowance classification based on categorization of cities (sample)

Category of the originating city	Category of the destination city	Cities	Allowance
Group 1	Group 5	City 1	$60[a]
		City 2	
		City 3	
		City 4	
	Group 4	City 5	$50[a]
		City 6	
		City 7	
	Group 3	City 8	$40[a]
		City 9	
	Group 2	City 10	$30[a]
	Group 1	City 11	$0
		City 12	

Source compiled by the authors

[a] The values are only indicative, not actual

For example, an employee, working in a Group 1 city and travelling to cities of the same category is not eligible for any allowance. However, when travelling from a Group 1 city to a Group 4 city, eligible for an allowance of $50. There can be additional hardship allowances, based on the location of a city.

latest edition of *Huawei People* magazine still open on his desk. The magazine was open at a page which covered an article stating that Huawei was aspiring before the end of the decade to take the pole position globally.

6.8 Part B

It has been a busy week for Arun Prasad. The appraisal process was finally complete and he had to concentrate on the employee promotions. The last few weeks were gruelling as Arun initiated several organization-wide changes.

Unprecedented in the history of HTIPL, with changes chalked out Arun knew that the company was slated to grow even bigger with its more than thousand employees and three prominent locations in Bangalore. Sitting in his cabin, Arun was wondering if the change he had undertaken in the last 1 year had brought about the desired impact in the organization.

6.8.1 Organization Redesign

As Arun had predicted the change took close to a year with several rounds of modifications. Keeping in mind the "unfreeze-change-refreeze" state that change brought about; the SBU heads were reallocated. To facilitate the change, the

management of HTIPL took permission from corporate headquarters for a deviation from its Chinese work philosophy and gave an option to the displaced SBU heads to find a suitable supervisor internally. Considering that the displaced SBU heads were allowed to choose their supervisors they looked at their new job responsibilities as a challenge and proactively provided mentoring during the transition while HR played the role of a collaborator. Additionally, the organization did take care of modifying the existing R&R system, decision making and appraisal system to reinforce the change process.

6.8.2 Changing the Promotion Procedures

Post reorganization, once Independent Promotion Evaluation Panels were introduced in HTIPL, at the end of first annual cycle, Arun made a few observations. First, despite well-defined guidelines few panel members gave ratings which were beyond the acceptable deviation from the group average (15 %). On hindsight, Arun felt that the overall process could have been better if a formal frame of reference for training was conducted prior to implementation for the panel members. Second, the ratings from the panel, for few employees, seemed to differ widely from the recommendation of the manager. For example, the rating from the business unit was high but the panel rating was poor. The HR department needed to probe the issue to understand the cause of the anomaly. Finally, for employees that had a "reject" in their appraisals lost their confidence and claimed they had become apprehensive and would hesitate to apply again in the following appraisal cycle. Many rejected candidates felt that the entire system was a mockery similar to failure in an exam and had to reappear to score a pass mark next time! This Arun felt added a new worrisome problem as it meant that the line manager had to keep such candidates not only motivated but also make them try harder next time and not just give up. But from the organization front, a clear message was the outcome of the exercise—while personal bias was avoided and a common benchmark was created more importantly candidates needed to prove their mettle. Meanwhile, HR also extended the process by shuffling the panel before each annual appraisal exercise. Additionally, information on "excellent performers" was widely circulated across the organization. Arun in the long run also contemplated to move one step ahead by permitting all nominated members to sit through the entire evaluation session and listen to the credentials of other candidates which would serve two purposes. First, it would trigger self-evaluation and second, it would help identify potential gaps and add more transparency to the overall promotion evaluation process.

6.8.3 International Travel Policy

The change triggered a lot of discussion in the organization and hence took several weeks before it was rolled out formally. However the top management persisted that it was better to cut travel cost overheads rather than downsize employee strength or initiate salary cuts. Arun felt considering that at that point in time since most multinational companies in India had started laying off people, the company's decision would eventually be appreciated by his colleagues.

Part III
Social Networks for Entrepreneurship

Chapter 7
How Do Entrepreneurs Benefit from Their Informal Networks?

B. Sharada and Parameshwar P. Iyer

7.1 Introduction

Entrepreneurship has been defined as the process by which new organizations come into existence (Vesper 1982; Gartner 1988). Entrepreneurship is the process of assimilating various resources for creating a product or a service that can serve the need of the customer. Entrepreneurship or firm building encompasses various activities, such as opportunity recognition, building a business plan around that opportunity, and putting together the various factors of production.

Several studies have tried to understand the various factors that lead to success in entrepreneurship. One of the factors studied is the Social Capital and the Social Network of the entrepreneur. Social networks of entrepreneurs help them lower the cost of access to resources (Cromie et al. 1994). They also act as a channel for the flow of various resources. Since no single individual has all the resources that are required to build a firm, the success of a new venture also depends on the social networks of the entrepreneur and his core team (Premaratne 2001). It has been seen that selective and strategic networking helps entrepreneurs overcome resource constraints more effectively (Joyce et al. 1995). The relationships of the founder entrepreneur with his family, friends, relatives, and acquaintances would matter in the various stages of the firm growth. We would like to study if the entrepreneur's

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link with entrepreneurial networks, alumni networks, and ex-colleague networks help him derive benefits. The benefits that have been considered in this study to assess the usefulness of the networks are mentoring, information, visibility, contacts, technical help, and reputational endorsements.

7.2 Literature Review

7.2.1 Social Capital and Social Networks

Several studies have tried to study the elements of the entrepreneur's personality. Many studies have also delved into understanding the actions, behaviors, and assets that contribute to success in entrepreneurship. One of the factors that have been studied is the Social Capital and the Social Network of the entrepreneurs. Social capital is the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit (Nahapiet and Ghoshal 1998). Social capital thus comprises of both the network and the assets that may be mobilized through that network (Nahapiet and Ghoshal 1998). It also consists of friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital (Burt 1992). It is a resource that actors derive from specific social structures and then use it to pursue their interests. Social capital has also been defined as the sum of the resources, actual or virtual that accrues to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition (Bourdieu and Wacquant 1992). It is the ability of actors to secure benefits by virtue of memberships in social networks or other social structures (Portes 1998).

The concept of weak ties and strong ties, bridging and bonding ties, arms length ties and embedded ties, structural holes and network closure are important for the study of Social Capital. Weak ties are primarily ties with acquaintances while strong ties are ties with family, close friends, etc., with whom we share a closer bond. Having more weak ties can be more beneficial when seeking diverse and new information. People with more weak ties in comparison to strong ties found jobs more easily (Granovetter 1973). Bridging ties are those that actors make with other actors who are not similar to the focal actor, while bonding ties are those that an actor makes with other actors similar to him in a lot of respects. Bridging ties promote diversity while bonding ties help in having close and secure ties (Putnam 1995). Arms length ties are relationships that are cool, impersonal, and motivated by profit seeking while embedded ties embed their commercial transactions in social attachments (Uzzi and Lancaster 2003). Structural holes are brokerage opportunities that can help in controlling the flow of information between two groups. Structural holes create a competitive advantage for the individual whose network spans the holes (Burt 1992). Structural holes separate nonredundant

sources of information i.e. they are more additive than overlapping (Burt 2001). According to Coleman (1988), network closure within the group or density within the group is required because it enhances trust, norms, authority, and sanctions that enable social capital to deliver its advantages. Network closure creates advantage by lowering the risk of co-operation while brokerage creates advantage by increasing the value of co-operation.

7.2.2 Benefits from Social Capital/Social Networks

In this study we analyze the benefits that could accrue from informal networks of an entrepreneur from the perspective of 'Social capital theory'. Social networks play an important role in reducing the cost of access (Cromie et al. 1994) to resources necessary for entrepreneurial activity. Birley (1985) showed that entrepreneurs' personal networks have positive performance effects.

A key benefit is that social capital provides networks that help in the discovery of opportunities (Birley 1985; Greene and Brown 1997; Uzzi 1999). Study by Birley (1985) showed that the main sources of help in assembling the resources of raw materials, supplies, equipment, space, employees, and orders were the informal contacts of family, friends, and colleagues. Individual social capital also has an effect on entrepreneurial discovery (Davidsson and Honig 2003). In an empirical study of 1,700 entrepreneurs; it was found that high network support increases the probability of survival and sales growth (Bruderl and Preisendorfer 1998). Network structure, network content, and the network governance are the three dimensions used by Hoang and Antoncic (2003). The network content dimension focuses on the resources that can be mobilized though relationships in any network. The resources could be financial resources or other intangible resources like emotional support, advice, reputational endorsements, legitimacy, etc. It has also been found that bridging ties are opportunities for acquiring diverse and nonredundant information. Nonredundancy in the firm's advice network has been found to positively influence its acquisition of competitive capabilities (McEvily and Zaheer 1999)

Social networks are effective resources for sourcing scientific knowledge (Liebeskind et al. 1996). Uzzi and Lancaster (2003) have found that "embedded ties" create behavioral expectations that make way for the transfer of private knowledge. "Arms length ties" between banks and firms promoted flow of public information (Uzzi 1999). Arms length ties are relationships that are cool, impersonal and motivated by profit seeking while embedded ties embed their commercial transactions in social attachments. Structural holes benefit firms that operate in environments rich in opportunities as they facilitate opportunity recognition. (Bhagavatula et al. 2010). It has been seen that entrepreneurial teams spanning many structural holes in their external advice network are associated with high growth (Vissa and Chacar 2009).

7.3 Theoretical Model

In this study, we would like to investigate whether professional relationships outside of the family and relatives circle can be a source of assistance in firm building. Of such relationships that exist outside of the family and relatives circle, we identify three different categories of professional relationships. They are

1. Associates in entrepreneurial networks
2. Associates in alumni networks (college and school)
3. Ex-colleague networks.

We would like to compare the nature of the benefits obtained from these entrepreneurial, alumni, and ex-colleague networks by undertaking an exploratory study.

7.3.1 Entrepreneurial Networks

Entrepreneurial networks have been an area of interest for researchers of social capital and entrepreneurship. It is observed that being a member of a business network has a significant effect on opportunity exploitation (Davidsson and Honig 2003). Being a member of a business network has a strong positive relationship with profitability of a firm and achieving a first sale (Davidsson and Honig 2003). Contact with other entrepreneurs in networks, such as rotary clubs, also has a positive effect on employment generated by the firm (Bosma et al. 2004). In a study of 100 manufacturing firms in Thailand that tried to link the personal and business networks (as sources of information and the performance of firms through entrepreneurial action), it was seen that though entrepreneurs did value the information they received through their network, entrepreneurial actions based on this information did not necessarily link to high performance (Butler et al. 2003). A report by Kauffman Foundation shows that 73 % of the entrepreneurs feel that professional networks were important to the success of their businesses (Wadhwa et al. 2009).

For the purposes of this study we define 'Entrepreneurial Networks' as the professional networks a business owner or entrepreneur would interact in. Through these networks an entrepreneur can immerse himself in the business environment and seek to exchange certain tangible and intangible benefits. These are fundamentally interest groups. The interests could be

1. Of lobbying
2. Addressing common entrepreneurial challenges faced by many businesses
3. Grooming entrepreneurs to face challenges
4. Interest groups around specific technologies

7.3.2 Alumni Networks

An alumni association is an association of former students of a school, college or university. These associations generally maintain a database of the alumni members, organize social events, publish newsletters, etc. These associations help fellow members network among themselves and form new friendships and renew old friendships. Such alumni networks can be a source of social capital for entrepreneurs. We would like to see if the alumni networks from an entrepreneur's alma mater aid/support him in his firm building process. Alumni networks and their benefits have been studied in various contexts. Employees recruited from "old boys' networks" have been seen to get higher salaries and success on the job (Simon and Warner 1992). It has also been seen that entrepreneurs with greater number of links and higher between-ness in their online networks of university alumni are more successful (Nann et al. 2009). A report by Kauffman Foundation shows that 19 % of the entrepreneurs believed that university or alumni networks were important while 29 % of the entrepreneurs who were also Ivy-League graduates perceived university or alumni networks as important (Wadhwa et al. 2009).

7.3.3 Ex-colleague Networks

Many entrepreneurs have past work experience in various capacities in companies where they gain knowledge and build various capabilities. While education gives them an opportunity to systematically internalize explicit knowledge, work experience helps them gain tacit knowledge. In that process they also would have interacted and worked with a many colleagues. Such colleagues constitute the 'Ex-colleague networks' of an individual. Past research has suggested that contact with ex-colleagues could benefit entrepreneurial outcomes (Salaff et al. 2006). It has also be noted that some consulting firms have established corporate alumni networks of former consultants in order to increase the firm level social capital as these former employees can be important sources of referrals to attract appropriate talent to the firm (Tymon and Stumpf 2003). In this study, we would like to investigate if relationships of the entrepreneurs with their ex-colleagues could be a source of similar benefits.

7.3.4 Nature of Benefits Derived

The benefits considered in this study are mentoring, information, visibility, technical help, contacts, and reputational endorsements.

Mentoring can take the form of advice, counseling or consultancy (Deakins et al. 1998). A mentor can suggest new ways to tackle problems faced by entrepreneurs

and therefore act as a sounding board to entrepreneurs. In the early stages of the firm building the presence of a mentor is beneficial (Deakins et al. 1998). Increase in management knowledge and skills, clarity in business vision, aid in new opportunity identification are some of the benefits experienced by novice entrepreneurs who engage in mentoring relationships (St-Jean and Audet 2009). We would like to study if entrepreneurial networks, alumni networks and ex-colleague networks can be sources of mentoring for entrepreneurs.

New firms are generally faced with the issue of 'liability of newness' and therefore face more risks of failure than old ones (Stinchcombe 1965). In the early stages it is very hard for the firm to gain legitimacy (Elfring and Hulsink 2003). Under such circumstances, firms promoted by entrepreneurs with good reputation will be at a greater advantage. It is therefore very useful for the founders of the firm to seek reputational endorsements from people who know them. Hoang and Antoncic (2003) also propose that social networks of an entrepreneur can help him gain reputational endorsements. We would like to see if entrepreneurial networks, alumni networks, and ex-colleague networks can be channels of reputational endorsements.

Firms seek visibility in order to build a brand image. The primary benefit of increased visibility is the gain in attention which can create believers, customers and thereby helps generate opportunity (Rein et al. 1997). In the early stages, firms are generally resource constrained and hence cannot afford to spend too much financial resources on brand building and corporate communication activities. Social Networks of an entrepreneur can aid in the brand building process by being a channel of communication. We would like to see if entrepreneurial networks, alumni networks and ex-colleague networks aid entrepreneurs in building visibility for themselves and their firm.

Information benefits arising from social capital are due to the volume, diversity, and richness of information (Koka and Prescott 2002). Social networks of an entrepreneur provide nonmaterial support and information (Premaratne 2001). People with more weak ties found jobs more easily (Granovetter 1973) as ties lead to formation of bridges between distinct groups that enable the flows of information (Brown and Reingen 1987; Jenssen and Koenig 2002) and referrals.

Technical help is rich context specific specialized information. Social networks can also facilitate the flow of rich technical information (Barr 2000). We would like to see if entrepreneurial networks, alumni networks and ex-colleague networks aid entrepreneurs in acquiring information, contacts/referrals, and technical help.

7.4 Method

A sample of entrepreneurs in the software product and services sector was chosen for this study. This exploratory study is a part of a larger study undertaken to understand entrepreneurial social capital. The researcher visited various forums and collated a list of 140 firms. Convenience sampling method was used. The data

collection was carried out during November 2009–January 2010. A mail requesting for an appointment to meet the founder/CEO was sent to all firms. A total of 36 replies were received. Of the 36 appointments only 30 founders were able to keep the appointments and provide data. Data was collected through a face-to-face questionnaire survey.

The primary criteria for the firm to be included in this study was as follows.

- The age of the firm had to be between 1 and 6 years

In this study we consider only firms aged less than 6 years as new ventures, since in general, after 6 years the firm is stabilized in operation. This age criteria is consistent with other studies in the area (Vissa and Chacar 2009).

The entrepreneurs were asked to rate the benefits they received from the entrepreneurial networks, alumni networks, and ex-colleague networks based on the benefit rating scale shown in Table 7.1.

The different benefits considered were

1. Mentoring
2. Information
3. Visibility
4. Technical help
5. Contacts
6. Reputational endorsements

Other demographic information was also collected.

7.5 Results

7.5.1 Sample Demographics

- The average age of the entrepreneurs in the sample was 36 years.
- 29 of the 30 entrepreneurs had a Bachelors degree while one had a Diploma in Computer Science.
- 70 % entrepreneurs had a Bachelor's degree in Engineering.
- More than 70 % of the entrepreneurs had a Masters degree while 40 % of them had a Master's degree in Management.
- All the respondents had work experience. The minimum work experience of the entrepreneurs in the sample was 1.5 years while the maximum was 21 years. The average work experience was 11 years.

Table 7.1 Benefit rating scale

1	2	3	4	5
Not at all beneficial	Beneficial rarely	Beneficial sometimes	Beneficial often	Extremely beneficial

- More than 70 % entrepreneurs had at least 5 years work experience in the same industry as that of the firm while 50 % of the entrepreneurs in the sample had at least 10 years experience in the same industry as that of the new venture.
- All the respondents belonged to at least one alumni network.
- All the respondents belonged to at least one of the entrepreneurial networks from among Open Coffee Club, Headstart, NEN (National Entrepreneurship Network), Silicon India Startup City, NASSCOM, TIE (The Indus Entrepreneurs), and BNI, Bangalore. Refer to Appendix for more details regarding the entrepreneurial networks.

7.5.2 Analysis

It has been suggested that the median is the preferred measure to use when the measurement is carried out using an ordinal scale. The median values of the various benefits derived from the different networks are presented in tabular form in Table 7.2 and in a radar graph in Fig. 7.1. The benefit rating scale is presented in Table 7.3.

7.5.3 Statistical Tests

The median values of the benefits derived from the various networks show that some networks are more beneficial than the others depending on the nature of benefits considered. But we test if these differences in the benefits derived are statistically significant using the Friedman Test and then conduct post hoc analysis using the Wilcoxon Signed Rank Test with Bonferroni correction. The Friedman Test is the nonparametric alternative to the one-way ANOVA with repeated measures while the Wilcoxon Signed Rank Test is a nonparametric alternative to Paired samples T test. The Friedman Test is used to test for differences between groups when the dependent variable being measured is ordinal. The Wilcoxon Signed Rank Test is a nonparametric test used to test the median difference in paired data.

Table 7.2 Median values of the benefits derived from the networks

Median	Mentoring	Information	Visibility	Technical help	Contacts	Reputational endorsements
Entrepreneurial network	2.00	3.50	4.00	2.00	3.50	2.50
Alumni network	2.00	2.00	2.00	2.00	2.50	2.00
Ex-colleague network	3.50	4.00	3.00	4.00	4.00	4.00

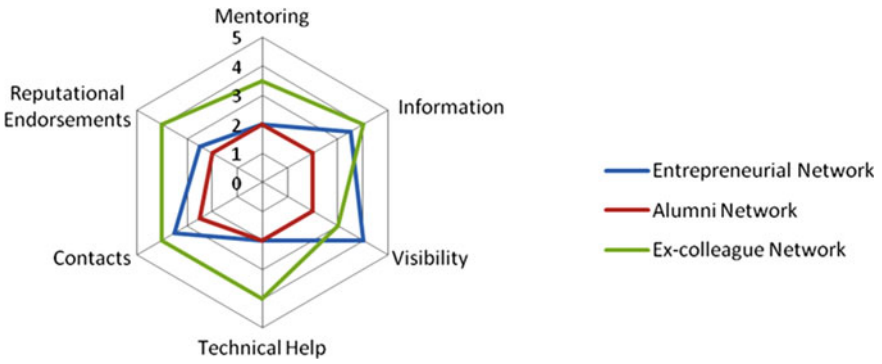

Fig. 7.1 Radar graph depicting the difference in median values of the benefits

Table 7.3 Benefit rating scale

1	2	3	4	5
Not at all beneficial	Beneficial rarely	Beneficial sometimes	beneficial often	Extremely beneficial

7.5.3.1 Mentoring Benefits

A Friedman test was conducted to evaluate differences in medians among the mentoring benefits obtained from entrepreneurial networks (Median = 2.00), alumni networks (Median = 2.00), and ex-colleague networks (Median = 3.50). The test was significant χ^2 (2, N = 30) = 13.75, p = 0.001 and indicated fairly strong differences among the mentoring benefits obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between mentoring benefits obtained from the alumni networks and the entrepreneurial networks (Z = −0.808, P = 0.419). However, there were statistically significant differences between mentoring benefits obtained from ex-colleague networks and entrepreneurial networks (Z = −2.839, P = 0.005) and ex-colleague networks and alumni networks (Z = −3.146, P = 0.002). The mentoring benefits obtained from ex-colleague networks were significantly greater than the mentoring benefits obtained from entrepreneurial networks and alumni networks.

7.5.3.2 Information Benefits

A Friedman test was conducted to evaluate differences in medians among the information benefits obtained from entrepreneurial networks (Median = 3.5), alumni networks (Median = 2.00), and ex-colleague networks (Median = 4.00).

The test was significant χ^2 (2, N = 30) = 16.22, p = 0.000, and indicated fairly strong differences among the information benefits obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between information benefits obtained from the ex-colleague networks and the entrepreneurial networks (Z = −1.167, P = 0.243). However, there were statistically significant differences between information benefits obtained from ex-colleague networks and alumni networks (Z = −3.467, P = 0.001), alumni networks and entrepreneurial networks (Z = −3.001, P = 0.003). The information benefits obtained from ex-colleague networks and entrepreneurial networks were significantly greater than the information benefits obtained from alumni networks.

7.5.3.3 Visibility

A Friedman test was conducted to evaluate differences in medians among the benefits in the form of visibility obtained from entrepreneurial networks (Median = 4.00), alumni networks (Median = 2.00), and ex-colleague networks (Median = 3.00). The test was significant χ^2 (2, N = 30) = 21.25, p = 0.000, and indicated fairly strong differences among benefits in the form of visibility obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between benefits in the form of visibility obtained from the ex-colleague networks and the entrepreneurial networks (Z = −0.624, P = 0.533). However, there were statistically significant differences between benefits in the form of visibility obtained from ex-colleague networks and alumni networks (Z = −3.252, P = 0.001), alumni networks and entrepreneurial networks (Z = −3.740, P = 0.000). The benefits in the form of visibility obtained from ex-colleague networks and entrepreneurial networks were significantly greater than the benefits in the form of visibility obtained from alumni networks.

7.5.3.4 Technical Help

A Friedman test was conducted to evaluate differences in medians among the benefits in the form of technical help obtained from entrepreneurial networks (Median = 2.00), alumni networks (Median = 2.00), and ex-colleague networks (Median = 4.00). The test was significant χ^2 (2, N = 30) = 21.67, p = 0.000, and indicated fairly strong differences among benefits in the form of technical help obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between benefits in the form of technical help

obtained from the alumni networks and the entrepreneurial networks ($Z = -0.656$, $P = 0.512$). However, there were statistically significant differences between benefits in the form of technical help obtained from ex-colleague networks and entrepreneurial networks ($Z = -3.185$, $P = 0.001$), ex-colleague networks, and alumni networks ($Z = -3.626$, $P = 0.000$). The benefits in the form of technical help obtained from ex-colleague networks was significantly greater than the benefits in the form of technical help obtained from alumni networks and entrepreneurial networks.

7.5.3.5 Contacts

A Friedman test was conducted to evaluate differences in medians among the benefits in the form of contacts obtained from entrepreneurial networks (Median = 3.5), alumni networks (Median = 2.5), and ex-colleague networks (Median = 4.00). The test was significant χ^2 (2, $N = 30$) = 15.09, $p = 0.001$, and indicated fairly strong differences among benefits in the form of contacts obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between benefits in the form of contacts obtained from the alumni networks and the entrepreneurial networks ($Z = -2.299$, $P = 0.021$), ex-colleague networks and entrepreneurial networks ($Z = -1.910$, $P = 0.056$). However, there were statistically significant differences between benefits in the form of contacts obtained from ex-colleague networks and alumni networks ($Z = -3.885$, $P = 0.000$). The benefits in the form of contacts obtained from ex-colleague networks was significantly greater than the benefits obtained from alumni networks.

7.5.3.6 Reputational Endorsements

A Friedman test was conducted to evaluate differences in medians among the benefits in the form of reputational endorsements obtained from entrepreneurial networks (Median = 2.5), alumni networks (Median = 2.00), and ex-colleague networks (Median = 4.00). The test was significant χ^2 (2, $N = 30$) = 16.11, $p = 0.001$, and indicated fairly strong differences among benefits in the form of reputational endorsements obtained from the three networks.

Post hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. There were no significant differences between benefits in the form of reputational endorsements obtained from the alumni networks and the entrepreneurial networks ($Z = -0.413$, $P = 0.680$). However, there were statistically significant differences between benefits in the form of reputational endorsements obtained from ex-colleague networks and alumni networks ($Z = -3.153$, $P = 0.002$), ex-colleague

networks, and entrepreneurial networks ($Z = -2.979$, $P = 0.003$). The benefits in the form of reputational endorsements obtained from ex-colleague networks was significantly greater than the benefits obtained from alumni networks and entrepreneurial networks.

7.6 Discussion

The results show that the entrepreneurial, alumni, and ex-colleague networks are beneficial to entrepreneurs in different ways. The results show that entrepreneurs derive maximum benefits from their ex-colleague networks and this is one of the highlights of this study. Ex-colleague networks have generally not been studied distinctly in entrepreneurship research. This study is one attempt distinguish the nature of the benefits derived from the different networks.

Entrepreneurial networks are particularly useful channels for the flow of benefits in the form of information and visibility. Entrepreneurial networks organize networking meets, knowledge sessions, seminars, conferences, etc. Such events facilitate networking but the resultant relationships that are built are generally in the form of weak ties or acquaintances. Some of the entrepreneurial networks have meets where each entrepreneur can pitch his idea and invite feedback. The entrepreneur can therefore make himself and his products/services visible to the world through such events. Nonprivate information can also flow through such weak ties. Some entrepreneurial networks also provide mentoring opportunities for entrepreneurs, but matching mentors and mentees is the main challenge. Successful mentoring also requires that mentees trust their mentors competence and advice. Such relationship can only be built over time and with regular contact with the same mentor. Flow of benefits such as mentoring, reputational endorsements and contacts generally require strong ties to be built. Such strong ties generally cannot be built through entrepreneurial networks unless the entrepreneur takes active interest in maintaining a mutually beneficial relationship with fellow entrepreneurs.

We do not have evidence to show that alumni networks are beneficial to entrepreneurs. Networking with alumni happens though alumni associations that are generally organized and coordinated by the respective academic institutions. It is the sense of pride and nostalgia that binds an individual to their respective alumni networks. It has also been noticed that the alumni networks association of old and elite institutions like the IITs (Indian Institute of Technology), IIMs (Indian Institute of Management) etc., are more active than their younger counterparts. We do not have data about the networking intensity of an entrepreneur in their alumni networks. It is possible that the entrepreneurs do not engage actively in their alumni networks and therefore may not derive benefits. Alumni associations could increase their frequency of meets and create alumni directories listing their alumni with their contact details. The alumni associations can also consider using the various Internet-based social media technologies to help build and maintain alumni networks. This could help entrepreneurs enhance their alumni networks.

The results of this study show that the ex-colleague networks of an entrepreneur are the most useful when it comes to the flow of benefits such as mentoring, information, technical help, contacts and reputational endorsements. The sample for this study was entrepreneurs in the software product and services sector. 70 % of the 30 entrepreneurs had at least 5 years work experience in the same industry as that of the firm while 50 % of the entrepreneurs in the sample had at least 10 years experience in the same industry as that of the firm. Since most software firms work in a project mode, any individual in this industry will work with a large number of colleagues. Also working with colleagues toward common project goals can help individuals build strong friendships and relationships based on mutual trust. It therefore helps in the formation of strong ties. Such work environments also help in building weak ties based on mutual acknowledgement and recognition. The advent of social media technologies like 'Linked In' and 'Facebook' also help entrepreneurs keep in touch with their ex-colleagues. This enables an entrepreneur to find a mentor from among his more experience ex-colleagues as well as seek reputational endorsements based on his past achievements. Information, technical help and contacts can also flow through the ex-colleague networks of an entrepreneur. Ex-colleague network is a personal network that can be built and fostered only by the individual himself. It is therefore important for entrepreneur to actively build and maintain his ex-colleague network.

This study was conducted using a modest sample size of 30 entrepreneurs. Future studies could work with larger samples. We do not have information regarding the networking intensity of the entrepreneurs. This could be a factor that influences the benefits derived. Future studies could study the relationship of the entrepreneurs networking intensity in the various networks and the benefits derived from them.

Appendix

Entrepreneurial Ecosystem of Bangalore

A brief description of the main entrepreneurial networks, forums, and conferences that contribute to the entrepreneurial ecosystem of Bangalore is given below. The information below has been compiled from various sources on the Internet.

Open Coffee Club

Open Coffee Club (OCC) is an open forum for Entrepreneurs, aspiring Entrepreneurs and Investors, to come together and connect with each other at the grass root level. The group holds its meetings every alternate Sunday. OCC Bangalore is one of the oldest entrepreneurship un-conference styled communities in India. OCC Bangalore is a place to meet and share with your peers; mutually solve problems

and share joy; learn from those you look up to (and with others in the ecosystem); especially with whom you are not able to reach and connect for whatever reasons such as lack of access, time, awareness, etc. OCC is the community to meet, find and discover your potential co-founder, mentor, investor, employee, service provider, customers/early adopters, and sensible critics. OCC Bangalore is also the forum where successful entrepreneurs and such others want to give back to the start-up ecosystem and nurture the aspiring entrepreneurs of tomorrow.

Source: Adapted from http://bangaloreocc.blogspot.com/ and http://occbangalore.org/ (accessed on 15 Oct 2011).

Startup Saturday

Startup Saturday is an initiative by Headstart to provide entrepreneurs in each city with a monthly community driven forum that is structured in agenda but open in discussions. A Startup Saturday provides a forum for entrepreneurs to discuss, present, network, and learn from peers, prospective customers, adopters, partners, and investors. The fundamental idea is to have all parts of the innovation ecosystem interact with each other with high frequency and through rich conversation.

Source: Reproduced from http://www.mybangalore.com/article/0609/startup-saturday-bangalore-online-market-e-commerce.html and http://startupsaturday.headstart.in/ (accessed on 15 Oct 2011).

NEN (National Entrepreneurship Network)

The nonprofit National Entrepreneurship Network was established in 2003 with a mission to create and support high-growth entrepreneurs, driving job-creation, and economic growth in India. NEN represents India's largest and most dynamic community of new and future high growth entrepreneurs, with over 70,000 members in 30 cities. It provides critical support to start-ups and early-stage entrepreneurs through high-impact entrepreneurship education; access to mentors and experts; fast-track access to incubation and funding; and learning tools and materials. It partners with over 470 top-tier academic institutes in India to help them develop vibrant entrepreneurship ecosystems on campus, which develop and support new and future entrepreneurs.

Source: Reproduced from http://www.nenonline.org/aboutnen/about_nen (accessed 15 Oct 2011)

Silicon India Startup City

Silicon India Startup City is a technology showcase event wherein entrepreneurs can demonstrate the USP's of their enterprises. It is conducted by a technology portal called 'Silicon India' which covers business, technology, and entrepreneurship.

Source: Adapted from http://www.siliconindia.com/events-overview/Startup-city-Bangalore-StartupcityBlore2011.html (accessed on 15 Oct 2011)

NASSCOM Product Conclave

NASSCOM is the premier trade body and the chamber of commerce of the IT-BPO industries in India. NASSCOM is a global trade body with more than 1,200 members, which include both Indian and multinational companies that have a presence in India. NASSCOM's member and associate member companies are broadly in the business of software development, software services, software products, consulting services, BPO services, e-commerce and web services, engineering services off-shoring, and animation and gaming. They organize the event NASSCOM Product Conclave every year. This gathering of the software product ecosystem—both from India and abroad—comprises a carefully selected team of speakers who have decades of cumulative experience in nurturing, running, and growing software product businesses.

Source: Reproduced from http://www.nasscom.in/overview and http://nasscom-emerge.groupsite.com/group/npc (accessed on 15 oct 2011)

TiE (The Indus Entrepreneurs)

TiE is a global network of entrepreneurs and professionals dedicated to the advancement of entrepreneurship. The Indus Entrepreneurs (TiE) is a global not-for-profit organization focused on promoting entrepreneurship. TiE helps budding entrepreneurs through advice, guidance, and assistance from successful and experienced entrepreneurs and professionals.

Source: Adapted from http://bangalore.tie.org/chapterHome/about_tie/viewInnerPagePT (accessed on 15 oct 2011)

BNI Bangalore

BNI Bangalore is a local outfit for BNI—an international organization present in over 37 countries with 100,000+ members and about 5,000 chapters. BNI

Addvantage is agency which supports all chapters in Bangalore. Members of this consists mainly business owners and professionals. Only one person per professional category is allowed. It provides a unique platform for its members to generate new businesses through referrals. BNI offers a unique platform for its members to generate new business through a structured system of referrals, week after week through a paid membership service. It also provides extensive training services to its members to enhance their various skill levels that would attract more business toward them.

Source:Adapted from http://bni-india.com/bni-india/ (accessed on 15 Oct 2011)

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Chapter 8
Conceptualizing the Process of Opportunity Identification in International Entrepreneurship Research

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8.1 Introduction

"Without opportunity there is no entrepreneurship" (Short et al. 2010, p. 40). Opportunity identification in entrepreneurship research has taken the long held focus away from venture creation to enterprising individuals and valuable opportunities (Eckhardt and Shane 2003; Shane and Venkataraman 2000). However, for International Entrepreneurship (IE) scholars this is still an emerging concept (Chandra et al. 2009). IE theory is moving away from understanding 'how' firms internationalize to 'why' firms internationalize. In this drift of changing views, the concept of international opportunity development has grown in importance amongst IE scholars. There have been repeated calls to integrate entrepreneurship research with IE in order to develop a broader theoretical discussion about international opportunities (Chandra et al. 2009; Jones and Coviello 2005; Madsen and Servais 1997; Mainela et al. 2013). Yet a robust theoretical framework for understanding international opportunity development has not been introduced to-date. Our paper addresses this fundamental issue relating to the concept of international opportunity development.

According to Zahra and George (2002), it was Morrow (1998) who came up with the term 'international entrepreneurship'. The first empirical efforts in the area of IE came from McDougall (1989), who found significant differences between new venture firms competing domestically and new ventures also choosing to enter

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international markets. The concept of opportunity discovery and exploitation entered the IE field through the work of Zahra and George (2002) who viewed IE as a process of creatively discovering and exploiting opportunities which lie outside a firm's domestic market. The rapid growth of IE literature over the past two decades has added an impressive volume of research on international entrepreneurial ventures using different but overlapping concepts (Peiris et al. 2012). We use the definition suggested by Styles and Seymour (2006), who view IE as "behavioral processes associated with the creation and exchange of value through the identification and exploitation of opportunities that cross national borders." (p. 134). This definition focuses on three critical components which this paper is based on and IE theory in general: the impact of individual behaviour; the creation and exchange of value; and the identification and exploitation of international opportunities.

Over the last decade, substantial knowledge had been added by entrepreneurship scholars to IE by introducing conceptual models of opportunity identification processes (Ardichvili et al. 2003; Baron 2004; Gaglio and Katz 2001; Lumpkin et al. 2004). By far, the model developed by Ardichvili et al. (2003) provides a more promising approach and extends the opportunity development dialogue to a level that is relevant to IE domain. Our work expands on this model to arrive at an advanced integrative framework of international opportunity identification.

We intend to achieve three objectives; (1) define international opportunity identification, (2) identify the factors that influence opportunity identification, and (3) to provide propositions and future directions for the advancement of IE research.

This paper has three sections. The first section looks at the conceptual background and past literature pertaining to opportunity identification (OI). The next section looks at the main antecedents of OI and provides indicative propositions. Lastly, section three suggests future directions.

8.2 Conceptual Background

The initial conceptualization of entrepreneurship as a scholarly field that focused on opportunity identification emerged in the work of Venkataraman (1997). He suggested that opportunities exist in objective form and it is the ability of the individual to discover it, since these opportunities rarely present themselves in neat packages (Shane and Venkataraman 2000; Venkataraman 1997).

8.2.1 Are Opportunities Discovered or Created?

The discovery theory of opportunity stems from the realist assumption, that opportunities are objective phenomena that exists independent of the actions or perceptions of the entrepreneurs (Alvarez and Barney 2007). These opportunities according to Shane (2003), fall into the Kirzner (1973) opportunities, where the

nature of these opportunities, which do not require new information (only need access to information), are less innovative, common and limited to discovery.

8.2.2 Discovery of Opportunity

The discovery perspective emphasizes, that prior experience and knowledge enables an individual to combine information in new ways to discover new opportunities that could not have been discovered without this prior knowledge (Alvarez and Barney 2007). An opportunity discovery can be attributed to two main modes that facilitate this discovery. One is conducting a deliberate search for an opportunity using search tactics and efforts, and the other is through serendipitous discoveries that have an element of surprise (Shane 2000). Kirzner (1973, 1997) distinguishes discovery that involves an element of surprise from that which involves a deliberate search. He asserts that when an individual becomes surprised, they realise that they have overlooked (due to ignorance) something that was readily available and failed to produce knowledge in a deliberate sense. Kirzner (1997) believes that novel opportunities are discovered without a deliberate search and that these opportunities as valuable when encountered because the discoverer possess a unique preparedness to recognize them and act.

In relation to IE research, and in contrast to the above views, Chandra et al. (2009) found that initial international market entry is largely dependent on opportunity discovery rather than deliberate search when little or no prior international knowledge or experience is present. Similarly, IE scholars have found international entry to be driven by opportunities with a high degree of serendipity (Crick and Spence 2005; Meyer and Skak 2002). Accelerated internationalization is still influenced by serendipitous opportunities rather than proactive entrepreneurial mind-set (Freeman and Cavusgil 2007) and international market selection has been identified as unsystematic and originating from unsolicited orders, prior contact and serendipitous events (Dimitratos et al. 2010).

8.2.3 Creation of Opportunity

Creation theory closely resembles the work of Schumpeter (1934) who gave prominence to entrepreneurial actions in creating opportunities. Here the opportunities are created endogenously by the entrepreneur through their actions, combinative capabilities (Kogut and Zander 1992), improvisation (Baker and Nelson 2005) and effectuation (Sarasvathy 2001) without much involvement of a 'search' process. That is, the opportunity is created as a seed without necessarily having prior knowledge of industries or markets (Alvarez and Barney 2007).

According to Shane (2003), these Schumpeterian opportunities emerge as a response to environmental (technological, political and regulatory, social and

demographic) changes. The creation of opportunities is a path dependent process and it emphasizes the importance of knowledge and information generated in the process of enacting opportunity (Alvarez and Barney 2007).

In regards to IE theory, opportunity creation is yet to attract attention of IE scholars. However, it can be inferred that a more comprehensive approach would be to consider that some opportunities can be discovered and others created by the same individual (Short et al. 2010). Rather than focusing on the discovery and creation of opportunity, it is far more important to understand how opportunities develop through time. This is a perspective that could explain why different types of internationalizing firms such as *Born-Global* (BG) (Knight and Cavusgil 1996; Madsen and Servais 1997; Rennie 1993), *International New Ventures* (INV) (Oviatt and McDougall 1994), *Instant Exporters* (McAuley 1999), *Born again global* (Bell et al. 2001) exist in the first place.

8.2.4 Defining International Entrepreneurial Opportunities

According to Morris (1998) opportunities represent potential: potential customers, potential users, potential revenue, and potential cost savings. Before it becomes a potential, an opportunity in its elementary form only represents a vague representation of imprecisely defined market need, economic benefit, under-utilized resources or a competitive advantage (Kirzner 1997; Morris 1998). As such "entrepreneurial opportunities do not simply jump out in a final, ready-made form but emerge in an iterative process of shaping and development" (Dimov 2007, p. 561).

IE scholars consider internationalization as a process of identification and exploitation of entrepreneurial opportunities that leads to international market entry (Chandra et al. 2009; Oviatt and McDougall 2005a). We use a popular cultural summation in criminal law to draw attention to three aspects that are relevant to understanding the internationalization process: motives, opportunity and means. In this paper we focus on opportunity and means. Based on our review and by grounded in the work of Eckhardt and Shane (2003) and Ardichvili et al. (2003) we define international entrepreneurial opportunity as:

A situation in which new goods and services are introduced across national borders through formation of means—ends relationships that delivers superior value.

This definition emphasizes the process perspective and the entrepreneurial activities and relationships which are the main themes of this research. This definition is consistent with the Schumpeter (1934) view that involves creation and the Kirzner (1973) view that reinforces established ways of doing things and an incremental innovation.

We introduce an integrative framework of opportunity identification and make a broader assumption about *entrepreneurial alertness* (Kirzner 1973, 1997) and *intention* (Ajzen 1985, 1991). Entrepreneurial alertness is the ability to notice "what

might be around the corner" (Kirzner 2008, p. 151). Hence it is unequivocally an essential ability of an entrepreneur. Similarly, "opportunity identification is clearly an intentional process" (Krueger et al. 2000, p. 411), and intentions are needed to implement entrepreneurial ideas (Bird 1988) and actions (Ajzen 1985, 1987, 1988, 1991). Therefore we argue that 'motive' is the origin of opportunity identification and entrepreneurial actions are preceded by motives or intentions. As such, a motive gives direction, makes the entrepreneur alert to new opportunities and guides resource allocation and combination process to reach intended goals.

Several IE researchers have developed theoretical models to understand the new venture internationalization process. These models consider: the factors influencing BG propensity such as founder, organization and environment (Madsen and Servais 1997), traditional, BG and born again global path ways based on external and internal environmental (Bell et al. 2003), antecedents (entrepreneur, firm, fingerprint patterns and profiles) of international performance (Jones and Coviello 2005), internationalization speed (Oviatt and McDougall 2005b), survival and growth (Sapienza et al. 2006), and BG nature and performance (Rialp and Rialp 2007).

Collectively these models have contributed immensely to the development of IE research expanding its scope, breadth and complexity. However, none of the models has individually captured the dynamics of internationalization from an integrative and a holistic perspective. Other than for Oviatt and McDougall (2005a) none of the models has considered entrepreneurial opportunity as the primary initiating factor of the internationalization process.

Using multiple theoretical lenses we propose a conceptual model (Fig. 8.1) that goes a step further than what is currently available. We suggest that individual, firm and network level factors provide impetus to the emergence of the opportunity development process that leads to internationalization of firms. Our suggested model acknowledges that the entrepreneurial internationalization process is a path dependent gradual and a process that consists of a multitude of co-evolving factors.

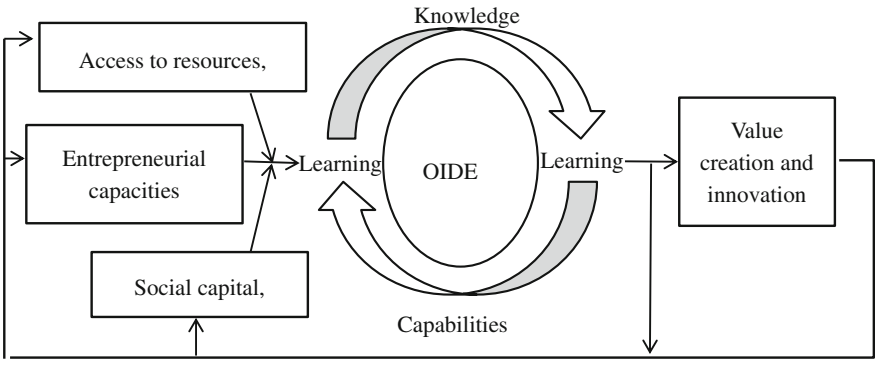

Fig. 8.1 An integrative framework of opportunity identification development and exploitation (OIDE)

We argue that this model supports any form of internationalization path, such as BG, traditional or born again global. This is because the model focuses on why firms internationalize (i.e. opportunity and value innovation propensity) rather than what type of firms or how firms internationalize.

The following section draws on entrepreneurship and IE literature to look at the means of opportunity identification.

8.3 Factors that Influence Opportunity Identification and Development

Past research has identified various types of antecedents of OI. However the majority of these antecedents are related to individual differences such as alertness, prior knowledge, creativity, self-efficacy and human capital. Table 8.1 summarizes various factors identified in the entrepreneurship and IE literature that lead to opportunity identification. It highlights that only a few variables have been subjected to empirical validation in relation to opportunity identification.

We base our theoretical argument using Ardichvili et al. (2003) work. They highlight that the process of opportunity identification and development is influenced by five key factors: entrepreneurial alertness; priorknowledge; discovery versus purposeful search; personality traits (self-efficacy, risk taking, creativity); and social networks.

Following the lead of Ardichvili et al. (2003), we focus on three antecedents to opportunity identification under the headings; *entrepreneurial capacity* (consisting of prior knowledge, creativity, self-efficacy and perseverance), *social capital* and *access to resources.*

8.4 Entrepreneurial Capacity

We conceptualize four cognitive and personal traits: prior knowledge, creativity, self-efficacy and perseverance, under the common theme of entrepreneurial capacity. These variables consist of potential capacities to learn, acquire knowledge and the capabilities required to identify opportunities and engage in value creation and innovation.

8.4.1 Prior Knowledge

Although, entrepreneurship scholars consider prior knowledge as a key variable in opportunity identification (Grégoire et al. 2011; Shane 2000; Shepherd and DeTienne 2005). The concept has entered the IE domain as a recent phenomenon (Chandra et al.

Table 8.1 Factors that influence opportunity identification and development

Variable	Main contribution	Type[a]	Author/s
Alertness	Entrepreneurial alertness refers to an attitude of receptiveness to available (but hitherto overlooked) opportunities. Entrepreneurial individuals always engage in scanning the horizon for new opportunities without deliberate search technique	C	Kirzner (1973, 1997, 1999, 2008)
	Entrepreneurs have a higher alertness, search for information that leads to opportunity discovery	E (USA)	Kaish and Gilad (1991)
	Entrepreneurial alertness directs the attention towards novel, unusual and unexpected events	C	Gaglio (2004), Gaglio and Katz (2001)
	An opportunity development process, initiated when the entrepreneur has an above threshold level of entrepreneurial alertness	C	Ardichvili et al. (2003)
Personal and environmental circumstances	Life incidents prompt the entrepreneur to search for new opportunities, and then aligns his/her knowledge, experience and skills to identify these opportunities a pursuit of personal interest resulted in a serendipitous business opportunity identification	E (USA)	Bhave (1994)
	Life experiences and social ties provide access to new information that helps people discover new opportunities	C	Shane (2003)
Prior knowledge	Idiosyncratic prior knowledge makes people better able to discover certain opportunities than others	C	Shane (2000), Shane and Venkataraman (2000)
	Prior knowledge provides an absorptive capacity that facilitates the acquisition of information, recognize the value of new information, assimilate it to formulate new means-ends framework	C	Shane (2003)
	Prior knowledge about markets, customers and ways to serve the markets increase the likelihood of identifying successful entrepreneurial	C	Ardichvili et al. (2003)

(continued)

Table 8.1 (continued)

Variable	Main contribution	Type[a]	Author/s
	The level of an individual's prior knowledge positively related to the number of opportunities identified and the innovativeness of those opportunities	E (USA)	Shepherd and DeTienne (2005)
	Prior experience (combination of specific and general knowledge) of the individual act as an antecedent, to initiate a systematic search process using a consideration set (promising group of information channels)	C	Fiet (2007)
	Firms endowed with idiosyncratic prior knowledge, especially the technical knowledge, take deliberate efforts in searching opportunities	E (Australia)	Chandra et al. (2009)
Creativity	Creativity of the entrepreneur is positively related to alertness, leading to the identification of opportunities. Also, creativity facilitates identifying, defining and structuring novel solutions to open ended problems	C	Ardichvili et al. (2003), Butler et al. (2010), Shane (2003)
	Drawing on the psychological theory of creativity, this study conceptualizes five stage process of opportunity development. They are, *Preparation* (developing conscious interest in a particular field and sensitivity to the issues and problems within it); *incubation* (subconsciously and intuitively considering options); *insight* (conscious awareness of the new concept); *evaluation* (analysing viability of insights and their value for launching a venture); and *elaboration* (actualising the creative insight)	C	Lumpkin et al. (2004), Lumpkin and Lichtenstein (2005)
Self-efficacy	Self-efficacy of the entrepreneur is positively related to alertness, leading to the identification of opportunities	C	Ardichvili et al. (2003)
	The success in an international opportunity identification will be directly correlated with the level of entrepreneurial self-efficacy pertaining to this task	C	Muzychenko (2008)

(continued)

Table 8.1 (continued)

Variable	Main contribution	Type[a]	Author/s
Social networks	Diverse social networks provide the entrepreneur with valuable information for successful opportunity identification	C	Ardichvili et al. (2003), Shane (2003)
	Networks function as sources of ideas, information, and new knowledge, leading to opportunity recognition in international markets	E (Australia/ Spain)	Chandra et al. (2009), del Fuentes et al. (2010)
Entrepreneurial competence	Conceptual (innovating, assessing risks, thinking intuitively and creatively interpreting the external environment) and relationship competencies (building, using, and maintaining networks and relationships) support opportunity identification process	C	Muzychenko (2008)
Cognitive processes	Active search, alertness and prior knowledge of an industry and market play an important role in entrepreneurs "connect the dots" between diverse and unrelated changes and trends	C	Baron (2004b, 2006), Baron and Ensley (2006)
	Heuristics such as mental simulations and counterfactual thinking (thinking in a way that is contrary to existing facts) drives the opportunity identification process	C	Gaglio (2004)
Experiential learning	By bringing a learning perspective to the process of opportunity identification and exploitation, article demonstrates the likelihood that differences in learning matter! They matter with respect to an individual's ability to initially identify opportunities and they matter with respect to an entrepreneur ability to adapt and learn as he or she progresses through the process of entrepreneurship	C	Corbett (2005)
Human capital	Entrepreneur's knowledge and skills influence the opportunity identification and exploitation process	E (UK)	Ucbasaran et al. (2008), Ucbasaran et al. (2009)

Type[a] : *C* Conceptual, *E* Empirical

2009). International business literature focuses on experiential knowledge gained in the process of internationalization and considers market specific experiential knowledge as a central element in this process (Bilkey and Tesar 1977; Cavusgil 1980; Czinkota 1982; Johanson and Vahlne 1977; Kogut and Zander 1993). Johanson and Vahlne (1977) have pointed out the importance of foreign market knowledge but concluded that it is gained incrementally through experiential learning in foreign markets after the firm has started its operation. Oviatt and McDougall (1994) challenged this view and highlighted that BGs' seek international markets from inception. The latter also posited that BGs have little or no prior knowledge about their respective markets and knowledge is acquired only after internationalization has occurred.

Madsen and Servais (1997) contend that in order to understand the IE phenomenon one needs to examine the founder's previous work and life experiences. This view has been re-iterated by subsequent studies, which consider that prior experience as one of the main elements in understanding early and rapid internationalization (McDougall et al. 2003; Oviatt and McDougall 1997), higher degree of internationalization (Reuber and Fischer 1997), initiation of foreign operations (Chetty and Cambell-Hunt 2004; Kuemmerle 2002; Zucchella et al. 2007), increased international commitment (Papadopoulos and Martín Martín 2010), international competitiveness (Evers 2011), higher probability of survival (Mudambi and Zahra 2007), marketing and branding achievements (Gabrielsson 2005) and learning capabilities (Weerawardena et al. 2007).

In spite of these developments only a limited number of studies have considered prior knowledge from the aspect of international opportunity identification. Mathews and Zander (2007), highlighting this void in the international business literature, call for more theoretical and empirical work in understanding the links between prior experience and discovering opportunities, which is now considered as the primary factor in understanding the internationalization process of the firm (Dimitratos and Jones 2005; Johanson and Vahlne 2009; Styles and Seymour 2006). Based on these arguments we propose the following:

Proposition 1a *Higher levels of diversity (length and multiplicity) of an entrepreneur's prior knowledge and experience aids interpretation, acquisition and assimilation of new information through enhanced learning capabilities.*

8.4.2 Creativity

The importance of creativity and innovation within the context of market dynamics was first highlighted by Schumpeter (1934) who identified the value of innovative, rare and disequilibrating activities of entrepreneurs and their contribution to change the economic structure. Creativity, change and innovation are considered integral parts of the entrepreneurship domain (Brazeal and Herbert 1999) and an important element in the entrepreneurial decision making process leading to opportunity

identification (Gaglio and Katz 2001; Shane 2003). Hence, creativity is considered as the process through which innovation occurs in an individual and organizational context (Amabile et al. 1996; Brazeal and Herbert 1999; Kropp et al. 2006).

Amabile et al. (1997) define creativity as "the production of novel and useful ideas in any domain" (p. 1155). Creativity not only brings about new things to the world but also provides better solutions to existing problems and facilitates competitive advantage (Fillis and McAuley 2000; Hirst et al. 2009).

IE scholars are yet to see the important role of creativity in understanding the internationalization process. Fillis (2001) suggests that SME behaviour in the internationalization process could be better understood by looking at their marketing skills, resource availability, creativity and identification of opportunities. Fillis (2001) focused on UK and Ireland craft exporters, and found creativity to be a main driver of competitive advantage. Looking at the future of IE studies, Styles and Seymour (2006) recommend incorporating new theoretical perspectives using exchange and creativity to understand the IE process in a holistic way. Thus, we propose the following:

Proposition 1b *Entrepreneurs who are passionate about their business and with diverse exposure to different markets, products, and processes exhibit higher levels of creativity. This promotes generation of novel ideas leading to development and exploitation of entrepreneurial opportunities, through an iterative process of learning and knowledge development.*

8.4.3 Self-efficacy

The term self-efficacy has been derived from Bandura's (1977) work in the area of social learning theory (Boyd and Vozikis 1994). Self-efficacy plays an important and influential role in shaping one's level of effort, resilience to adversity and perseverance (Bandura 1997; Chen et al. 2004). Individuals may be endowed with knowledge and skills but these factors are insufficient for overall performance due to the self-referent thought process that mediates the relationship between knowledge and action (Bandura 1982).

Self-efficacy leads to higher level of entrepreneurial alertness and is considered positively related to opportunity identification and venture growth (Ardichvili et al. 2003; Baum and Locke 2004; Baum et al. 2001), entrepreneurial drive (Forbes 2005) and new venture development (Boyd and Vozikis 1994). Research also suggests that entrepreneurs exhibit higher levels of self-efficacy than managers (Forbes 2005) and highlights the importance of self-efficacy as a robust measure of entrepreneurial actions (Markman et al. 2002, 2005; Shane et al. 2003). From the IE perspective, Schweizer et al. (2010) found that self-efficacy playing an important role in an international market opportunity identification and continuing international operations amidst business failure. Thus, we propose the following:

Proposition 1c *Higher levels of self-efficacy aid faster interpretation, acquisition and assimilation of new information through enhanced learning capabilities. This leads to new knowledge generation and fosters venture survival.*

8.4.4 Perseverance

Research on entrepreneurship has increasingly looked at risk taking, innovativeness and proactive (Covin and Slevin 1991; Lumpkin and Dess 1996) aspects of entrepreneurs and firms. However, our understanding as to why entrepreneurs take risks and what makes them pursue their goals under challenging situations is still an under researched area both within IE and the entrepreneurship domains. In answering these questions, perseverance stands out as a main element in differentiating people who achieve what most others fail (Ma and Tan 2006; Stoltz 1997) to do so.

According to Stoltz (1997) perseverance is viewed as the perceived ability to overcome adverse circumstances. An individual's perseverance to some extent is determined by their beliefs about their capabilities (self-efficacy). The stronger the belief the greater and more persistence are their efforts (Wood and Bandura 1989). Entrepreneurial pursuits are risky and people with high perseverance pursue entrepreneurial opportunities in spite of adverse conditions and amidst financial poverty and setbacks (Kuratko et al. 1997; Markman et al. 2005). Doing business across borders involves higher uncertainties and risks than that within local markets. In such situations our understanding about the ability of the entrepreneurs/teams to face risky situations will undoubtedly provide rich insights regarding growth and survival of international ventures. Building on these we propose the following:

Proposition 1d *Higher perseverance levels make entrepreneurs resilient to hardships and adversities. This leads to enhanced learning capabilities, self-efficacy and survival of the firm, which supports new opportunity identification and exploitation.*

8.5 Access to Tangible and Intangible Resources

Entrepreneurial capacity has the capability to assist the entrepreneur in identifying new opportunities by developing endogenous intangible resources idiosyncratic to a particular individual. However, unless the entrepreneur is endowed with inherited wealth at the initiation of a new venture, inadequate access to tangible resources such as capital and human resources can cause a major constraint to the venture start-up and development (Casson 2003; Penrose 1966). Hence, exploitation of entrepreneurial opportunities require acquisition and recombination of resources

and these need to be financed either through external means or internally by the entrepreneur (Shane 2003). Similarly, Chrisman et al. (1998) argue that even though one has identified a good opportunity, it needs access to resources to exploit the opportunity. Small firms that suffer from resource limitations or have fewer means of accessing them have limited capacity to grow due to limited opportunities (Gilbert et al. 2006; Thakur 1999). As a result, access to resources is central to the success of a new venture.

Penrose (1966) reiterates that small firms succeed in getting adequate financial resources using special entrepreneurial ability, i.e. by building confidence. Also, she states that "resources consist of bundle of potential services" (p. 25); and it is up to the entrepreneurs to combine and construct value adding services through the resources at hand (Baker and Nelson 2005), and methods and means (Schumpeter 1934). In a similar vein, Rasmussen et al. (2011) argue that entrepreneurial teams which have the ability to recombine tangible and intangible resources are capable of overcoming resource constraints and gain credibility. In that way, entrepreneurial actions create new resources or combine existing resources in new ways leading to wealth creation (Ireland et al. 2001). Therefore, entrepreneurial actions shed light on how valuable, rare and inimitable resources come into existence, addressing the central theme of unique, valuable and inimitable resource availability of resource based theory (Alvarez and Barney 2002; Barney 1991; Barney et al. 2011).

The possibility of opportunities being identified for venture creation and growth is dependent on the amount of resources that an entrepreneur has access to (Gilbert et al. 2006; Thakur 1999). Similarly, at the operational stage, not only is access to resources that are, valuable, rare, or difficult to imitate necessary to achieve sustainable competitive advantage and promote survivability of the firm but also to create room for new opportunities, faster internationalization, and innovation (Rialp and Rialp 2007). Building on these arguments we propose the following:

Proposition 2 *Entrepreneurs' access to financial, physical, human and organizational resources moderates the opportunity development process either by constraining or enhancing the extent of new resource combinations.*

8.6 Social Capital

The source of social capital (SC) lies in the social structure in which an individual is located. As such it "is the resources available to actors as a function of their location in the structure of their social relations" (Adler and Kwon 2002, p. 18). Burt (1992, 1997) suggests that whilst human capital is about individual ability SC refers to opportunity. An opportunity is created because of an individual's particular location or their position in the social structure. Burt (1992) uses the concept of 'structural hole' (can be generalized as weak ties where bridging happens with two earlier unconnected nodes) to argue that SC acts as a function of brokerage opportunities in a network. Burt (1997) suggests that such networks offer valuable information,

provided such information is available at the right time (before information becomes available to other people without such contacts). This is an interesting argument, as it provides an answer to the question why some entrepreneurs identify more opportunities than others.

The central proposition of SC theory is that networks of relationships constitute a valuable resource to conduct social affairs where people gain privileged access to information and opportunities (Nahapiet and Ghoshal 1998). SC is the link that connects external resources embedded in the networks to firm level resources especially the intangible resource 'knowledge'. Accordingly, SC offers an impetus to opportunity identification by way of providing access to privileged knowledge.

The importance of networks has been studied extensively since Johanson and Mattsson's (1988) network model of internationalization (Prashantham 2008). SC's role as a value adding resource in the IE domain was first highlighted in the seminal work of Yli-Renko et al. (2002). They found SC had a positive impact on developing foreign market knowledge. Chetty and Agndal's (2007) empirical study, involving companies in New Zealand and Sweden, found SC supported new opportunity identification in international markets and played a role in creating serendipitous opportunities. Scholars provide further support on SC's ability in facilitating opportunity identification by providing exclusive access to resources, information and valuable exchange of opportunities in international markets (Ellis 2011; Manolova et al. 2010). However, the important role played by SC in relation to the opportunity identification process is still an under researched area in both entrepreneurship and IE literature.

Based on these arguments we suggest the following:

Proposition 3 *High level of perceived resource embeddedness in an internal (partners, employees) and external (customers, suppliers, weak and strong ties) relationships moderates the OIDE process.*

Our discussion so far has centred on the antecedents of opportunity identification. The following section focuses on the core elements that embrace opportunity itself.

8.7 Unravelling the Entrepreneurial Black Box—Knowledge, Capabilities and Learning

8.7.1 Entrepreneurial Knowledge

Knowledge is the only meaningful resource (Drucker 1993) and an important source of a firm's sustainable competitive advantage (Grant 1996; Kogut and Zander 1992; Nonaka 1994; Spender 1996). Knowledge is also a key resource in international growth and opportunity identification (Autio et al. 2000; Yli-Renko et al. 2002).

Knowledge based view (KBV) of the firm considers that organizations are social communities in which individual and social expertise is transformed into economically useful products and services by applying higher order organizing principles (Kogut and Zander 1992, 1993; Nonaka 1994). The most common classification of knowledge is based on its tacitness (implicit) and codifiability (explicit) (Kogut and Zander 1992; Nonaka 1994; Penrose 1966; Polanyi 1966). Explicit knowledge can be codified and transferred easily and is free of context; tacit knowledge is difficult to communicate, articulate and share with others (Polanyi 1966). Tacit knowledge is accumulated through experience and practical skills, i.e. 'learning-by-doing' (Lam 2000). However, objective knowledge which is explicit and can be formally taught, standardized and available in written form (Penrose 1966) also plays an important role in knowledge construct.

IE scholars have given almost exclusive attention to this tacit dimension of knowledge (see Table 8.2). Experiential knowledge is unspecified and unstated, takes time to accumulate, promotes new thinking, is costly, idiosyncratic, valuable than 'objective knowledge' (Autio et al. 2000; Eriksson et al. 1997; Hadley and Wilson 2003; Johanson and Vahlne 1977; Markman 2006; Zahra et al. 2000).

However, IE theory falls short in explaining how this knowledge and capabilities contribute to opportunity identification and subsequent behaviour of the firm. As depicted in Table 8.2, IE scholars have attempted to understand various types of knowledge instead of their effect on international market operations and product development rather than opportunity identification per se.

Entrepreneurship scholars perceive knowledge as a competency that is important in three ways: (1) any discovery of opportunity is knowledge, (2) knowledge assists in making additional discoveries, (3) knowledge support the development of capabilities that supports exploitation of opportunities (Markman 2006).

Alvarez and Busenitz (2001) define entrepreneurial knowledge as "the ability to take conceptual, abstract information of where and how to obtain undervalued resources, explicit and tacit, and how to deploy and exploit these resources" (p. 762). Based on the seminal work of Katz (1974), the current study proposes three types of existing knowledge domains of entrepreneurial individuals.

Technical knowledge Expert knowledge in a specific activity, product, process, techniques and procedures. *Conceptual knowledge* Knowledge about markets, industries, consumers, political and economic forces, and general management activities of the organization. *Networking knowledge* Knowledge pertaining to resources embedded in individuals, networks and institutions.

Knowledge, however unique and advantageous has no economic impact unless entrepreneurs have the skills and abilities to use it to create new wealth (Markman 2006). Knowledge becomes an entrepreneurial capability, when it allows creation of resources that are rare, valuable, and difficult to imitate (Markman 2006). Past research acknowledges that knowledge and capabilities are co-evolving and organizational capabilities enable firms to create and leverage knowledge (Eisenhardt

Table 8.2 Types of knowledge used in IE research

Authors	Types of knowledge	Knowledge about
Johanson and Vahlne (1977)	General knowledge	Marketing methods, customers, production process
	Market specific knowledge	Specific national markets, business climate, cultural patterns, market structure and individual customer firms and their personnel
Eriksson et al. (1997)	Internationalization knowledge	Firm's capability and resources to engage in international operations
	Experiential market knowledge	Business (clients, the market, and competitors) and institutional (government, institutional framework, rules, norms, and values)
Autio et al. (2000)	Foreign market knowledge	International markets and operations
Yli-Renko et al. (2002)	Foreign market knowledge	Non experiential foreign markets (customers, partners, distributions channels) (found a positive relationship with international sales growth)
	Experiential market knowledge	Geographic diversity of foreign markets and entry modes (results indicated that both were not related to international sales growth)
Blomstermo et al. (2004)	Network experiential knowledge	Perceived useful ness of having previous experience with customers' customers, supplementary suppliers, and competing suppliers
	Internationalization experiential knowledge	Development and adaptation of products, doing business in new markets, and cooperation with other firms
Rasmussan et al. (2001), Dib et al. (2010)	Technical knowledge	Product development and innovation, production process
Mejri and Umemoto (2010)	Market knowledge	Foreign markets, market size, the competitors, the regulations
	Experiential knowledge	experiential knowledge includes *network knowledge* (social and business network; knowledge as the network itself), *cultural knowledge* (knowledge of language, habits, norms, laws, behaviour…), and the *entrepreneurial knowledge* (knowledge of the existence of opportunities and exploiting them)

and Martin 2000; Johanson and Vahlne 2003). As such, creation of new knowledge by individuals leads to the development of organizational capabilities (Knight and Cavusgil 2004; Nelson and Winter 1982). Based on these arguments, we propose the following:

P5a *Entrepreneur's explicit and implicit technical, conceptual and networking knowledge facilitates new opportunity identification and development. This knowledge contributes to develop the entrepreneurial dynamic capabilities.*

8.7.2 Entrepreneurial Dynamic Capabilities

The dynamic capabilities (DC) approach (Teece and Pisano 1994; Teece et al. 1997) focuses on the development of management capabilities and difficult to imitate combinations of organizational, functional and technological resources (Eisenhardt and Martin 2000). DC perspective considers the organizational capacity to *sense* and *shape* opportunities and threats, to *seize* opportunities (Teece 2007, 2009). This is more in-line with entrepreneurial dimensions that focuses on identification and exploitation of opportunities (Shane 2003; Shane and Venkataraman 2000).

Zahra et al. (2006), looking at DC from an entrepreneurial perspective, defines DC as 'as the abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)' (p. 918). They emphasize that the motivation, skills and experience of the entrepreneur or the entrepreneurial team contributes to productivity, change existing routines or resource configurations and the ability to implement these changes.

Though inspiring, IE literature and organizational capabilities literature remain largely silent when it comes to the study of capability emergence in entrepreneurial firms (Autio et al. 2011). We do not know what type of capabilities influence internationalization (Keupp and Gassmann 2009). Further, we have limited knowledge as to how a firm's resource base and access to resource influence development of DC (McKelvie and Davidsson 2009). What we do know is that the dynamism of the capabilities depends on the rate of learning, flexibility and adaptability to internal and external changes (Prange and Verdier 2011).

Barreto (2010) views DC as a multidimensional construct formed by four distinct but related facets: (1) propensity to sense opportunities and threats, (2) to make timely decisions, (3) to make market-oriented decisions, and (2) to change the firm's resource base. The propensity to sense opportunity is a fundamental element in entrepreneurship research. Hence, an entrepreneur's ability to take decisions faster at the right time gives him/her a significant competitive advantage over their counterparts. Therefore, timing is of utmost value in seizing the right opportunity to take advantage of a given situation or mitigate the threat of competition. Taken together, the aforementioned four facets of DC provide higher order constructs to understand the significance of an entrepreneurs technical, conceptual and networking competencies and their capability to seize these opportunities at the right time.

This leads to the following:

Proposition 5b *Entrepreneurial dynamic capabilities consist of enabling capacity to integrate, build and reconfigure tangible and intangible resources to exploit opportunities by taking timely and market oriented decisions to create value in international markets.*

8.7.3 Learning and Opportunity Identification

The existing literature supports that creativity, prior knowledge and optimistic behaviour is correlated with opportunity identification (Ardichvili et al. 2003; Butler et al. 2010; Lumpkin et al. 2004; Shane and Venkataraman 2000; Zahra et al. 2005). However, current research on opportunity identification does not specifically look at the role of learning (Corbett 2005). We argue that this is an important element that connects entrepreneurial capacities, knowledge and capabilities. IE literature offers little explanation as to how individuals acquire and transform this information, thereby questioning the pivotal role of learning in the opportunity identification process.

Knowledge is referred to as what is known (either explicitly or tacitly) and learning refers to the process by which knowledge is generated (Harrison and Leitch 2005). Individual differences in knowledge influence the opportunities people discover and their ability to exploit them (Venkataraman 1997). The concept of experiential learning takes a prominent role in entrepreneurial context; particularly in understanding "entrepreneurial learning" (the process by which people acquire, assimilate and organize newly formed knowledge with pre-existing structures Holcomb et al. 2009, p. 168) (Harrison and Leitch 2005; Minniti and Bygrave 2001; Politis 2005). Kolb's (1984) influential work on experiential learning identifies four distinctive learning abilities; experiencing, reflecting, thinking and acting, where entrepreneurs build knowledge through their experiences. Experiential learning involves use of prior knowledge and the process of acquiring, assimilating, and organizing new knowledge (Holcomb et al. 2009). Further, when it comes to thinking under uncertainty, it is widely recognized that entrepreneurs are capable of breaking down complex judgmental tasks to relatively simple cognitive operations (Tversky and Kahneman 1974) by using heuristics and biases to make decisions 0 (Baron 1998; Busenitz and Barney 1997; Gaglio 2004).

We see learning as the link that connects knowledge creation with knowledge application. As such, learning facilitates new knowledge creation which leads to new opportunity identification. It is also important to note that learning can be a benefit or limit the effectiveness of entrepreneurial capability to exploit opportunities.

These unique learning experiences of entrepreneurs lead to distinctive knowledge stocks, which later contribute to identification of new exploitable entrepreneurial

opportunities. As such, not only learning generates new knowledge, it also serves to reduce uncertainty and develop entrepreneurial knowledge that leads to recognizing and acting on entrepreneurial opportunities.

Drawing on case findings and the work of entrepreneurship scholars (Corbett 2005; Holcomb et al. 2009; Minniti and Bygrave 2001; Politis 2005) new propositions on entrepreneurial learning are proposed:

Proposition 6 *An entrepreneur's distinctive experiential learning, observational learning, and learning through explicit sources leads to a combination of exiting concepts and information, which creates idiosyncratic new knowledge bases comprising of technical, conceptual and social knowledge of the entrepreneur.*

In relation to IE research, these three components: Learning, knowledge and capabilities, have the capacity to explain why some companies exploit international opportunities successfully while others fail to do so given that both are in the same situation.

8.8 Theoretical Implications and Future Directions

This study broadly contributes to the advancement of existing theoretical underpinnings of the internationalization and IE literature. Our model highlights the integrative and co-evolving nature of the entrepreneur, firm and network specific capacities and resources and their effect on the process of international opportunity development. The existing theoretical models developed in IE literature have inadequately looked at integrating these factors in relation to opportunity development processes.

Over two decades of scholarly contribution in the IE field has helped position it as a distinct field of study in the mainstream international business literature (Coviello et al. 2011). We believe that this study will lay the foundation for future scholars to firmly ground their research on a robust foundation of opportunity identification and value creation and better explain the internationalization process of both gradual and born global firms. Similarly, our model will pave the way in resolving some important caveats in the IE research highlighted by previous scholars, such as the use of multi-theory perspectives (Coviello and McAuley 1999; Jones and Coviello 2005) value creation in international markets (Styles and Seymour 2006) and arriving at a unifying approach with clear methodological directions (Keupp and Gassmann 2009). Future research could expand this entrepreneur focus model to incorporate firm level variables such as structure, strategy and environmental factors to further advance this conceptualization. Also, IE scholars could further refine the model constructs to empirically validate the findings across multiple research contexts using quantitative methods.

8.9 Conclusion

This paper extends the current notions of opportunity identification and exploitation with the integration of individual, firm and network level factors. The OIDE process highlights that it is a path dependent and individual centred process that is positioned on learning, knowledge and capabilities of the decision makers. The proposed model offers a broad conceptualization and integration of critical components related to opportunity identification and exploitation. As such, we have attempted to define the entrepreneurial opportunities and clarify and expand the existing knowledge base pertaining to opportunity identification using multiple theoretical perspectives. Finally, we have also provided propositions and future directions for future development of IE field.

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Chapter 9
Symbiotic Venture and Social Capital: The Effects of Market Orientation on Small Entrepreneur Firms in China

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9.1 Introduction

International ventures often adopt the strategies of joint venture or symbiotic alliance (see Varadarajan and Rajaratnam 1986 for a detailed review of the relevant literature). These strategies allow firms to deal with their resource constraints or to reduce the uncertainties in their interdependence (Gulati 1995; Pfeffer and Nowak 1976; Kauser and Shaw 2004; Rowley et al. 2005; Mitsuhashi and Greve 2009). Prior research has identified a number of forms of symbiotic ventures, including strategic groups (Gulati 1995; Murray et al. 2005), supply chain and logistic alliances (Balabanis 1998; Kiessling et al. 2004; Azuma 2005), buyer–supplier relationships (Dyer and Chu 2000; Uzzi 1997), relations with government (Hitt et al. 2006; Rao et al. 2005), supply alliance with co-branding possibilities (Rabino et al. 2008), and symbiotic small–large alliances (Varadarajan and Rajaratnam 1986).

In this study, we focus on a subset of symbiotic ventures, i.e., the small–large firm symbiotic ventures. When a small supplier and a large firm in a given value chain, such as a car parts producer and a large car manufacturer in the automotive industry, establish such a supply–demand joint venture, it is said that they

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are responding to their symbiotic interdependence (Pfeffer and Nowak 1976; Varadarajan and Rajaratnam 1986). Here, we analyze a subset of this type of symbiotic ventures: symbiotic dyads involving a large buyer and a small supplier.

Despite the advances made in the research of symbiotic ventures, the factors that may affect the stability of these symbiotic ventures have not been sufficiently tested. One of such factors is firms' marketing orientation. Research has shown that firms' market orientation is an important factor being able to influence the success of marketing (e.g., Kohli and Jaworski 1990; Narver and Slater 1990; Noble et al. 2002). However, it remains unclear how this factor may influence the stability of symbiotic ventures. Drawing on the literature of social capital theory, we test the effect of marketing orientation of symbiotic ventures.

We believe these tests to be of significance. Theoretically, the results of this study are expected to contribute to the theory of international symbiotic ventures. Prior research has suggested that these symbiotic ventures can often be helpful for market success (e.g., Almeida and Phene 2004; Yamin and Otto 2004), although, as noted, the effect of market orientation on the stability of the symbiotic ventures remains unclear. The results of our current study will contribute to the marketing literature by testing simultaneously the effects of market orientation, social capital, and resource sharing. In other words, the results from this study should help enhancing our knowledge about market orientation and its effect on symbiotic ventures.

Moreover, this study can help to further develop social capital theory. Prior research suggests that some important elements of social capital, such as trust, is important for the stability of symbiotic ventures (Almeida and Phene 2004; Yamin and Otto 2004). However, as discussed above, it remains unclear whether this element of social capital refers to one-sided or mutual trust among the partners, or how the trust can be capitalized upon to strengthen the stability of symbiotic ventures. By filling these research gaps, our current study should contribute to the literature by showing the effects of social capital and identifying the mediator between it and the stability of symbiotic ventures.

Practically, we believe the results of this study will help practitioners to better understand how symbiotic ventures partnership can be maintained and be successful. Some authors, such as Lovett et al. (1999), have suggested that most emerging economies currently conduct business on the basis of a symbiotic relationship (such as a *guanxi*-type system). We consider this suggestion particularly true for small international firms that seek to establish alliances with large firms in emerging economies. Take a major emerging market, i.e., China, as an example. Boisot and Child (1996) predicted that the Chinese economy is moving toward "relationship-based" network capitalism. More specifically, Chinese business, compared with business in the West, is characterized by trust in family-like relationships, where reliance on another partner depends greatly on its embeddedness within a network (Chua et al. 2009). However, such relationship-based networks may be of little use to foreign firms that attempt to enter a market without access to those networks (Svejenova 2006), a situation often faced by small overseas firms considering a partnership with one of China's large state-owned enterprises.

Accordingly, it would be helpful if practitioners understand better how the variables tested in our current paper, such as market orientation, can improve the performance of symbiotic ventures.

Take the Chinese car market as an example, and this market has become the largest one in the world today (Wall Street Journal 2010). Given its potential for further growth, many small auto parts producers from overseas are trying to enter the country. However, because of their resource limitations, these small firms may experience great difficulties in trying to compete with China's large local firms or multinational enterprises. To overcome these difficulties, one option is for small firms to establish and maintain symbiotic venture alliances with large firms already operating in the country. One practical objective of this study was to help such firms to understand how they can do so more effectively.

The remainder of the paper is organized as follows. We first review relevant aspects of the prior research on symbiotic ventures. Based on this literature review, we then propose a model and relevant hypotheses for empirical testing. Following empirical analysis based on data drawn from China's auto industry, we then report our findings and conclude with a discussion of their implications for academic researchers and practitioners.

9.2 Theoretical Background and Hypotheses

Researchers have been studying symbiotic interdependence for decades. Hawley (1950, p. 36), for instance, defines it as "a mutual dependence between unlike organizations." This mutual dependence is often associated with mutual trust. By establishing symbiosis with such social capital as mutual trust, organizations may enhance their ability to obtain resources and hence improve performance (see Varadarajan and Rajaratnam 1986 for a detailed discussion of the advantages of business symbioses). Relationships between independent entities participating in symbiotic ventures, such as dealers, suppliers, and distributors, can also be considered a form of "relationship marketing" in which attempts are made to establish win-win relationships (see, e.g., Copulsky and Wolf 1990; Mitchell et al. 1992). Some authors also point out that the central construct in relationship marketing is the trust among all partners involved (Katsikeas et al. 2009).

Research suggests that the nature and scope of symbiotic ventures can be understood along six dimensions: time frame (short, medium, or long term), proximity (arms-length or close working), number (one or a simultaneous multiple), level (organizational or functional), focus (product offerings of one or both symbiotic partners), and scope at the functional level (joint formulation of overall strategy or limited to specific projects or programs) (Varadarajan and Rajaratnam 1986, p. 8).

Based on this body of research, this paper defines symbiotic ventures as strategic alliances based on symbiotic interdependence. These can also be considered as a form of strategic cooperation or connection between two independent firms or

organizations. This definition is consistent with previous research on the constructs of business symbiosis and symbiotic interdependence (see, e.g., Adler 1966; Pfeffer 1976; Pfeffer and Nowak 1976; Varadarajan and Rajaratnam 1986; Reuer and Ragozzino 2006). All cases of symbiotic interdependence have a common characteristic, namely that none of the parties involved in the symbiosis are competing head-to-head for the same resources, and they more or less depend on each other for some important resources to survive, operate, and grow in the industry (Pfeffer and Nowak 1976).

In addition, using the six dimensions identified by Varadarajan and Rajaratnam (1986), we further define a subset of symbiotic ventures, namely the small–large symbiotic dyads that we focus on in this study. The dyads we consider are partnerships in Chinese auto industry in which a small supplier sells a certain product to a large carmaker. Specifically, in terms of time frame, we study a form of medium- or long-term alliance. In terms of proximity or interlocking ownership, we study only alliances in which each symbiotic partner maintains independent ownership. In terms of number, we focus on symbiotic ventures comprising only two firms and at the organizational level. Finally, in terms of focus and scope, we consider only the product that a small supplier produces for a large partner, namely the carmaker.

Past research also indicates that mutual trust is a very important issue to a given strategic alliance, including a symbiotic venture alliance (see, e.g., Dyer and Chu 2000; Madhok 2006). In other words, the trust among partners can influence stability (see, e.g., Gulati and Singh 1998; Koza and Lewin 1998; Li and Rowley 2002). In this context, trust can be defined as the degree to which a trustor believes in the goodwill and reliability of the trustee in a risky exchange situation (Das and Teng 1998), which is a determinant of relationship quality (Moorman et al. 1992). Some authors show that trust influences the formation of strategic alliances or ventures (Gulati and Westphal 1999; Parkhe 1993), while others argue that it should function as a major positive force in partner cooperation by reducing uncertainty and risk in symbiotic relations (Li et al. 2010). Trust can also help to create competitive advantages for partners because it lowers transaction costs and leads to better information-sharing routines (Das and Teng 1998; Fukuyama 1995; Kanter 1994; Kumar 1996; Lane and Bachmann 1996; Ring and Van de Ven 1992). Moreover, it provides a basis for expanded moral relations in business (Brenkert 1998).

In spite of the studies, as mentioned above, the effects of some variables, such as market orientation, on the stability of symbiotic ventures remain unclear. For managements of small entrepreneur firms that are targeting global market, it would be of interests to study the effects. Moreover, as we have also mentioned above, most of the extant literature on market orientation and symbiotic ventures were conducted among firms in developed countries, such as the USA or Japan (e.g., Choi et al. 1999; Dyer and Chu 2000; Johnson et al. 1996). On the other hand, some emerging markets, such as the Chinese market, are becoming more and more important. To address this research gap, it would be helpful to conduct more empirical studies in emerging economies.

Based on research on social capital theory, our study proposes a new theoretical model to address the issues above. Before discussing this model, we first provide a brief review of that theory.

9.3 Social Capital Theory and Market

According to research (see, e.g., Nahapiet and Ghoshal 1998), social capital can be defined as the goodwill or trust available to individuals or groups. In other words, goodwill or trust that others have toward us is the substance of social capital. Its effects flow from the information, influence, and solidarity, and it makes available to the actor (Adler and Kwon 2002, p. 23). Social capital can also be considered as "a resource that inheres in the social network tying a focal actor to other actors, and this concept reflects the primordial feature of social life" (Adler and Kwon 2002, pp. 17–19). As Adler and Kwon (2002, p. 18) have pointed out, "the core intuition guiding social capital research is that the goodwill that others have towards us is a valuable resource." We believe that this goodwill mainly includes the trust that others show toward us. Thus, when partners in a dyad of symbiotic venture alliance have goodwill toward each other, the symbiotic venture can be considered to have a high level of goodwill, including mutual trust.

Research also suggests that social capital may be culturally specific. In other words, it is more likely to exist or function in cultures that treasure social ties (Putnam 2000). Accordingly, in those countries or cultures where social networks are important, such as China, Italy, and Israel, social capital may be more relevant or significant in terms of its effects on organizational behaviors and outcomes.

From the perspective of social capital theory, it is arguable that mutual trust among partners can be considered as an important piece of social capital or intangible resource within a strategic alliance, which helps maintain its stability and reduces the transaction costs among partners (Gooderham et al. 2011). Mutual trust differs from one-sided trust, which emanates from only one party, along several dimensions. Table 9.1 provides a summary of these differences.

Firstly, social capital is located not in a given actor but in its relations with other actors (see, e.g., Adler and Kwon 2002). According to this argument, mutual trust is a piece of social capital while one-sided trust is not. One-sided trust can exist independently from that of other actors because it may represent a single actor's wishful thinking or personal preferences. In other words, one-sided trust can be located in one actor only. On the other hand, mutual trust can never be independent from others. Taking the case of partners in a strategic alliance as an example, if one fails to maintain its trust in others, mutual trust will decrease or even disappear. This may happen even if other partners maintain their trust in that partner. In other situations, the one-sided trust of a given partner in terms of other members of the symbiotic venture may remain unchanged, but others may no longer trust it, which should still have a negative effect on mutual trust in the symbiotic venture overall.

Table 9.1 Contrasting one-sided trust and mutual trust

As a piece of social capital	One-sided trust	Mutual trust
Location	Can be located in one actor or one party only	Should be located among all actors and partners in a given strategic alliance
Dependency on other actors	Can be independent from other actors and partners	Can never be independent from other actors and partners
Requirement of resource investment	May not need such resource investment and can be derived from a partner's personal believe and wishful thinking only	Need investing significant resources by both/all of the partners involved
Maintenance and renew	Can be maintained for a long time without being renewed or confirmed by all parties involved	Have to be periodically renewed and reconfirmed by all parties involved, or it may disappear
Social structure	Can exist independently without any specific social structure	Must exist with one, two, or all of the social structures: • Market relations • Hierarchical relations • Social relations

Source By the authors

Secondly, the development of social capital requires firms to make significant efforts or to commit a large amount of tangible, intangible, and human resources. In other words, its development or accumulation represents a very significant investment (Nahapiet and Ghoshal 1998, p. 260). According to the character of this development process, mutual trust can be considered as a piece of social capital, while one-sided trust cannot. The reason for this is that one-sided trust may be derived simply from a partner's personal preference, subjective opinions, and/or wishful thinking, while mutual trust cannot. Without significant resources being invested by all of the partners involved, there can never be a high level of mutual trust in a given strategic alliance.

Thirdly, social capital has to be periodically renewed and reconfirmed, or it loses its efficacy and disappears (see, e.g., Adler and Kwon 2002). According to this characterization, mutual trust is a piece of social capital, while one-sided trust is not. As mentioned above, the development of one-sided trust may not be contingent on a significant investment of resources and may remain unchanged for a long time even without any effort to renew or reconfirm. On the other hand, mutual trust should be periodically renewed and reconfirmed by all partners or parties in a given alliance, or it will lose its efficacy or function.

Finally, according to Adler and Kwon (2002, pp. 18–22), a precondition for social capital is the satisfaction of the three dimensions of social structure: (1) market relations, in which products and services are exchanged for money or bartered; (2) hierarchical relations, in which obedience to authority is exchanged for material and other resources; and (3) social relations, in which favors and gifts are exchanged.

Considering these three dimensions, one can again see that mutual trust is a piece of social capital, while one-sided trust is not. The former cannot exist without the social structure of three exchanges, while the latter may be derived independently from it. For example, a clan may have trust in a certain God, who is neither a business partner nor a hierarchical authority, but this one-sided trust can exist in a given party for a long time.

Research also suggests that firms' market orientation may help increase their social capital. Market orientation can be defined as the degree to which the supplier understands the needs of the buyer and reacts quickly to any changes in demand from its customers (cf., Zhou et al. 2008; Azuma 2005). According to the literature of market orientation, if a supplier has a high level of market orientation, it should become more flexible to the change of market and more sensitive to the needs of customers, which in turn should help obtain a piece of important social capital—the trust of customers or buyers (e.g., Johnson et al. 1996). In other words, with a high level of market orientation, a supplier is more likely to serve its buyer better in a given value chain. This better service, in turn, is more likely to increase the mutual trust between this supplier and its customers (e.g., Zhou et al. 2008), which can be considered a piece of social capital for the firm. Research has provided empirical evidence supporting this evidence (e.g., Johnson et al. 1996). Firms with naturally trust are also more willing to pursue alliances if their partners can facilitate access to the resources they need (Gimeno 2004; Gimeno et al. 2005; Luo 2005; Mitsuhashi and Greve 2009).

In emerging economies, we believe the effect of market orientation can be even more significant because of the poorer institutions for market transaction. In other words, the law system has yet been fully developed in emerging markets. As a result, in these markets, a given supplier in a symbiotic venture alliance may have to obtain its trust or social capital through doing a good job in meeting the demands of its partners or customers. Accordingly, we make the following hypothesis.

> H1: In an emerging economy such as China, market orientation of a given firm has a significant and positive relationship with the amount of its social capital in symbiotic venture alliance.

On the other hand, based on the perspective of social capital theory, it is arguable that strategic alliances, including symbiotic ventures, should perform better and last longer if they can call upon mutual trust or other social capital. This should be especially true in emerging markets where a legal system for market economy has yet to be fully developed (e.g., Gulati and Westphal 1999; Geletkanycz and Hambrick 1997; Luo 2001; Currall and Inkpen 2002). The importance of mutual trust among partners in symbiotic ventures can be supported by research evidence (Levinthal and Fichman 1988; Luo 2005; Seabright et al. 1992; Chen et al. 2004). For example, in pursuing R&D innovation, managers are more likely to choose alliance partners from among their friends that they trust than from among strangers (Li et al. 2008). Consistent with this argument, we predict that mutual trust, considered in our current study as a piece of social capital, may have a positive direct effect on the stability of a symbiotic alliance. At the same time, it may also

have an indirect effect on such stability through the sharing of organizational resources. Below, we provide a detailed discussion of these two predictions based on research.

9.3.1 Mutual Trust as Social Capital and the Stability of Symbiotic Ventures

Symbiotic ventures that are imbued with mutual trust can provide all partners with channels to information, knowledge, and resources that they might not otherwise be able to access (McDermott and Corredoira 2010; Jandik and Kali 2009). Mutual trust, as a piece of social capital, has also been shown to encourage interorganizational collaboration (Dwyer et al. 1987). All these propositions should also be true for firms in auto industry, especially for those operating in societies such as China, where the relationship network is important (see, e.g., Wasti and Wasti 2008). Based on past studies in emerging markets, we predict that, when the symbiotic ventures partners in emerging markets have mutual trust, i.e., a piece of valuable social capital, there is more likely to be stability in the symbiotic ventures alliance.

> H2: In an emerging economy such as China, social capital has a significant and positive relationship with the stability of symbiotic venture alliances.

Consistent with the two hypotheses above, we predict that social capital may mediate the relationship between market orientation and the stability of the symbiotic ventures. In other words, we predict that market orientation may improve a firm's social capital, which in turn should strengthen the stability of symbiotic ventures.

> H3: In an emerging economy such as China, social capital mediates the relationship between market orientation and the stability of symbiotic venture alliance.

In addition, we predict that social capital should also be capitalized by sharing resources among the partners in a symbiotic alliance, which in turn should increase its stability. Here, one should observe two relevant processes. On the one hand, the increase in social capital leads to better sharing of resources among the partners in a given alliance. This prediction is consistent with research evidence. For instance, in symbiotic ventures, mutual trust in each others' reliability and integrity, when verified and reinforced over time, has been shown to increase the sharing of resources (Dwyer et al. 1987). It is also suggested that such social capital as mutual trust can reduce transactional costs and suppresses opportunistic behaviors (Doney and Cannon 1997), which should also have a positive effect on resource sharing among partners. One main reason for this might be that according to the transaction cost perspective, this benefit should also enable the partners involved to effectively lower their information search costs (Williamson 1975), which, again, should be especially true in emerging markets. With low-cost and reliable information as well

as a high level of mutual trust, partners in a symbiotic alliance should be more willing to share resources, such as information on new products and technology in a given industry. Also, because mutual trust helps to reduce transaction costs, resources can also be shared more efficiently. Several recent studies, including those conducted in emerging economies, have provided evidence supporting this argument (see, e.g., Gooderham et al. 2011). According to these studies, we propose the following hypothesis for an emerging market such as China:

> H4: In an emerging economy such as China, social capital has a significant and positive relationship with resource sharing among the partners involved in the venture alliance.

Finally, the sharing of resources should also have a positive relationship with the stability of a symbiotic alliance, and this should be especially true in an emerging economy. Research suggests that among interconnected firms, including symbiotic ventures, the relational rent, including stability, can be extracted only from the shared resources of the partners involved (Lavie 2006, p. 644). The reason is that, as Dyer and Singh (1998) point out, this type of rent cannot be generated individually by a single partner in the symbiotic venture. It can only be developed through the processes of combining, exchanging, sharing, and co-developing of resources. Hence, we predict the following hypothesis:

> H5: In an emerging economy such as China, there should be a positive relationship between the sharing of resources and the stability of symbiotic venture alliance.

In the hypotheses above, we actually predict another mediating effect, i.e., that of resource sharing. Specifically, we predict a positive mediating effect of this variable on the relationship between mutual trust and the stability of the symbiotic ventures.

Figure 9.1 shows a model summarizing the hypotheses that we have proposed above. In this model, we predict that market orientation has a positive relationship with the amount of social capital (H1). The social capital, in turn, should have both direct and indirect effects on the stability of the symbiotic ventures (H3). On the one

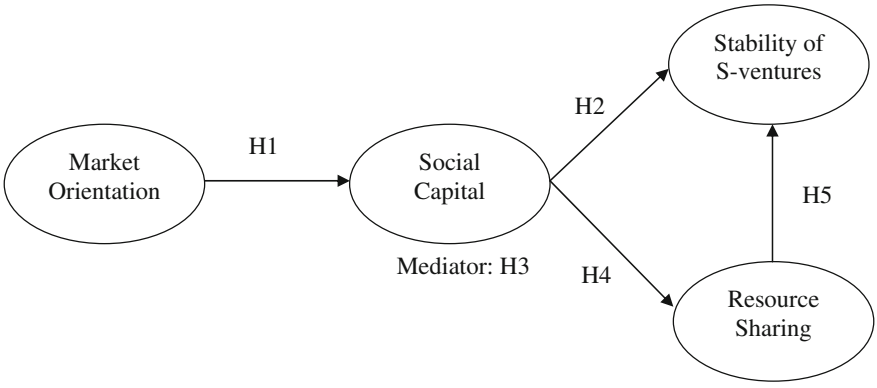

Fig. 9.1 A conceptual model about the effects of social capital

hand, the social capital has a direct and positive effect on the stability (H2). On the other hand, the social capital has a direct and positive effect on resource sharing (H4), which in turn influences the stability of the symbiotic ventures positively (H5).

9.4 Methods

9.4.1 Setting, Sampling, and Data

To test our hypotheses, we collected data from members of symbiotic ventures operating in China's auto industry. The main reason for selecting this sample was that Chinese culture emphasizes the importance of social ties, making it more likely that we can observe the effects of social capital on symbiotic ventures, including symbiotic ventures (Putnam 2000). Moreover, China has become one of the fastest-growing markets for the auto industry, yet little empirical research has been conducted on these issues. Therefore, exploring the extent and function of mutual trust in Chinese society can enhance our understanding of its effect. Moreover, this industry is characterized by a great number of small–large dyads or symbiotic ventures than many other industries, which makes it easier for data collection. Finally, relatively few studies on the topic of symbiotic ventures or marketing have been conducted in China, so choosing this research context adds to the empirical evidence available.

We first obtained approval to conduct the study from the top management of one of China's largest car producers, which has more than 100,000 employees. Using a name list and relevant data from this company, we then randomly contacted 100 of its auto parts suppliers in 2009, 89 of which expressed willingness to allow us to conduct interviews in their firms and to respond to our questionnaires. The largest of these supply firms had 6,202 employees, and the smallest just 22 (mean = 632 employees). In terms of ownership, 31 had overseas ownership, and 58 were owned by the Chinese governments. The data collected from these 89 firms and their common larger partner, i.e., the aforementioned carmaker, gave us a total of 89 symbiotic dyads on which to test our hypotheses.

To avoid common method biases, we collected data from three sources: (1) the questionnaire data collected from each supplier, whose CEOs responded to the questions; (2) the questionnaire data gathered from the carmaker, whose senior manager in charge of outsourcing provided the responses; and (3) documentary data obtained from the carmaker's archives, including its records and statistics on suppliers. These records covered the tenure of the symbiotic alliance with a given small supplier, its size, and its ownership structure. The methods of data collection from all three sources are discussed in the following section.

9.4.2 Measurements

All of the questionnaire items employed in this study were measured on a seven-point Likert scale in which the responses ranged from 1 ("strongly disagree") to 7 ("strongly agree"). The items, which were originally in English, were adapted from publications in top-tier academic journals. We adopted the technique of translation and back translation to develop a Chinese version of the measurement instruments and then conducted pretests of their reliability among a group of MBA students in China.

9.4.2.1 Independent Variables

(a) Questionnaire measures

Trust of a given partner (one-sided trust) was measured using a five-item instrument adapted from Kale et al. (2000) for studying trust in symbiotic ventures: (1) "there is a good understanding among the partners"; (2) "the strategic alliance is characterized by mutual respect among the partners"; (3) "the strategic alliance is characterized by mutual trust among the partners"; (4) "the strategic alliance is characterized by personal friendship among the partners' managers; and (5) "the strategic alliance is characterized by a cooperative attitude among the partners." Our pretest produced a reliability alpha of 0.83. As previously noted, managers from both the suppliers and the car manufacturer responded to this set of questions.

Social capital was measured based on the measures discussed above. Specifically, to operationalize this construct, we first defined it as the sum of the trusts among all partners toward each other in a given alliance after taking into account the difference between the partners in their levels of trust for each other. Based on this definition, we developed the following formula for the dyads in this study:

$$\text{Social capital} = (\text{trust of suppliers} + \text{trust of buyer}) - |\text{trust of buyer} - \text{trust of suppliers}|.$$

In this formula, we actually take into account two issues according to our definition of social capital. First, we consider the sum of the total trust among partners. The reason is that social capital would not exist without mutual trust between a given partner and other partners in the same alliance. Second, we consider the difference in the level of trusting other partners in the symbiotic venture, which is consistent with the basic assumption of social capital theory. For instance, the sum of trust could be also high even though one actor has a low level of trust, while other actor has a high level of trust. Our formula helps reduce the effects of this trust differential. Other conditions being equal, the higher the value based on this formula, the higher the social capital.

Motivation to maintain symbiotic relationship (symbiosis motivation) was measured by three items adapted from McFarland et al. (2008): (1) "we expect the relationship with this company to continue for a long time"; (2) "renewing the

relationship with this company is virtually automatic"; and (3) "in the next two years, we are likely to terminate this relationship" (reverse-coded). Our pretest showed this instrument to have a reliability alpha of 0.782. The supplier in each symbiotic alliance responded to this set of questions.

Market orientation on the part of a given supplier was measured by four items adapted from Zhou et al. (2008): (1) "we are quick to detect changes in our customers' product preferences"; (2) "we are quick to detect fundamental shifts in our industry"; (3) "customer suggestions and comments are disseminated at all levels of the organization on a regular basis"; and (4) "we pay close attention to changes in our customers' needs." A pretest showed this instrument to have a reliability alpha of 0.845. The suppliers in the symbiotic ventures responded to this set of questions.

(b) Archival data measure

Location proximity was measured by a dummy variable indicating whether the supplier was located in an inland province of China. Because most domestic carmakers are located in these provinces, those that were coded as one (i.e., proximate), and those located elsewhere were coded as zero (i.e., not proximate).

Some of the other information in the archival dataset was also coded, including **government or state ownership** and supplier **size**. All of these data items were used as control variables in our regression analyses.

9.4.2.2 Dependent Variable

Stability of symbiotic venture (S-venture) was a measure concerning whether a carmaker is willing to continue its relationship of symbiotic venture with its supplier partner. Because the source of this dependent variable was different from those of the independent variables, the threats of common method biases and study tautology were avoided. More specifically, assuming that the willingness of the carmaker to continue using a given supplier is the most important factor influencing the stability of the symbiotic venture between the two, we measured alliance stability with a set of questionnaire items adapted from McFarland et al. (2008): (1) "Even if we could, we would not drop this supplier because we like being associated with it"; (2) "we want to continue as a customer of this firm, because we genuinely enjoy our relationship with it"; and (3) "our positive feelings toward this company are a major reason we continue to work with it." Our assumption was that if the large and more powerful carmaker in the small–large symbiotic dyad was unwilling to continue the symbiotic alliance, then the symbiotic venture was more likely to be terminated soon. The carmaker could either find another supplier or internalize production of the auto part in question, depending on which was more likely to reduce transaction costs. Our pretest showed this instrument to have a reliability alpha of 0.811.

9.4.2.3 Control Variables

As previously noted, we controlled for the effects of several factors, including **firm size, state ownership, symbiotic alliance tenure,** and **perceived resource complementarity among the partners**. **Firm size** was measured by the log of the total number of employees working for a given firm. **State ownership** was measured by dummies coded one for yes and zero for no. **Symbiotic alliance tenure** was measured by the number of years the supplier had supplied parts to the carmaker. Finally, **resource complementarity** in the symbiotic venture, the degree to which partners' resources are bound together through collaboration (Luo et al. 2008), was measured on a scale ranging from 1 to 100 %. The managers of each supplier responded to this question by selecting a number on the scale, such as 20 or 40 %.

9.5 Data Analysis and Results

Table 9.2 presents the descriptive statistics for our data. Some interesting correlation can be observed here. For instance, state ownership among suppliers was significantly and negatively correlated with location proximity to the buyer. This finding suggests that the majority of suppliers located near the allied carmaker are not state-owned. After checking the data further, we found that the majority of Chinese suppliers in close physical proximity to their alliance partners are private firms.

To test the hypotheses proposed above, we adopted the approach of hierarchical linear regression. Specifically, to test hypothesis 1, we first entered social capital as a dependent variable. Subsequently, we entered several control variables—**firm size**, **state ownership**, **tenure of alliance**, **location proximity, and resource complementarity** (Model 1)—followed by the independent variable, i.e., market orientation (Model 2).

Table 9.3 shows the results of the analyses. The numbers suggest that there is a significant and positive effect of **market orientation** on **social capital** (standardized beta = 0.41; $p \leq 0.001$). This result supports hypothesis 1.

With similar approaches of regression, we further tested the effects of **social capital** on the **stability of S-venture** (H3) and **resource sharing** (H4). Table 9.4 shows the results of the analyses. Below, we discuss the results briefly.

9.5.1 The Effect of Social Capital on Resource Sharing

The last three columns of Table 9.4 present the relevant results. First, the number in Model 1 shows a significant and positive effect of resources complementarity (standardized beta = 0.42, $p \leq 0.01$) on resource sharing (see Model 1). In addition, the overall model F values in Model 1 suggests that the explanatory power of the

Table 9.2 Descriptive statistics

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1 State ownership	0.65	0.48									
2. Resource complementarity	0.57	0.25	−0.26*								
3 Social capital	11.23	3.35	−0.14	0.14							
4 Size	5.64	1.14	−0.22*	0.31**	0.11						
5 Tenure of alliance	12.1	7.74	−0.1	−0.08	0.02	0.28**					
6 Location proximity	0.22	0.42	−0.33**	−0.1	0.09	0.16	0.13				
7 Resource sharing	2.5	1.14	0.18	0.09	0.38**	0.17	0.11	0.13			
8 One-sided trust of a suppliers	4.4	0.66	−0.12	−0.03	−0.03	−0.16	−0.25*	−0.39**	0.12		
9 One-sided trust of its buyers	3.25	1.86	0.08	0.47**	0.17*	0.18	0	−0.03	−0.1	−0.09	
10 Stability of S-venture	3.5	0.65	0.03	0.35**	0.41**	0.11	0.07	0.41**	0.39**	0.15	0.48***

Note * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$ (two-tailed)

Table 9.3 The effects of market orientation on social capital (H1)

	M1	M2
Control variables		
State ownership	−0.19	−0.08
Resource complementarity	0.04	0.32**
Size	0.08	0.07
Tenure of alliance	−0.16	−0.09
Location proximity	0.02	0.01
Motivation to symbiosis	0.04	0.03
Trust of the supplier	−0.13	−0.12
Independent variable		
Market orientation		0.41***
Overall model		
R^2	0.20	0.39
ΔR^2	0.20	0.17
F	5.16***	6.99***
ΔF	4.57***	19.53***

Note *$p \leq 0.05$ (two-tailed); **$p \leq 0.01$; ***$p \leq 0.001$

regression equation is significant ($F = 5.77$, $p \leq 0.001$). With the entry of **market orientation** in Model 2, the overall model F value was significantly improved ($F = 7.87$, $p \leq 0.001$), and the effects of the independent variables were significant. Finally, after we entered **social capital**, the model was further improved ($F = 9.21$, $p \leq 0.001$), and we found a significant and positive effect of **social capital** on resource sharing (standardized beta = 0.25; $p \leq 0.01$). This result supports hypothesis 4, which also suggests that social capital can be considered a mediator on the relationship between **market orientation** and **resource sharing**.

9.5.2 The Effect of Social Capital on the Stability of Symbiotic Venture

The first three columns of Table 9.4 show the effects of social capital on stability of the symbiotic ventures. First, the numbers in Model 1 show the effects of the control variables, and none of them is statistically significant. With the entry of **market orientation** in Model 2, the overall model F value was significantly improved ($F = 4.55$, $p \leq 0.001$), and the effect of the independent variable was significant. Finally, after we entered **social capital**, the model was further improved ($F = 7.73$, $p \leq 0.001$), and we found a significant and positive effect of **social capital** on the stability of S-venture (standardized beta = 0.40; $p \leq 0.01$). This result supports hypothesis 2, which predicts both a significant and positive direct effect of social capital on the stability of the symbiotic ventures. Moreover, the results also suggest that social capital can be considered a mediator on the relationship between **market orientation** and S-venture stability, which supports hypothesis 3.

Table 9.4 The effects of social capital on the stability of symbiotic venture and resource sharing

	Stability of S-venture (H3)			Resource sharing (H4)		
	M1	M2	M3	M1	M2	M3
Control variables						
State ownership	−0.19	−0.20	−0.10	0.21	0.21	0.20
Resource complementarity	0.04	0.07	0.05	0.40***	0.39***	0.38***
Size	0.08	0.11	0.21**	0.16	0.09	0.11
Tenure of alliance	−0.16	−0.14	−0.07	0.06	0.03	−0.01
Location proximity	0.02	−0.04	−0.11	0.10	0.10	0.11
Motivation to symbiosis	0.04	−0.05	−0.12	0.09	−0.07	−0.09
Trust of the supplier	−0.13	−0.10	0.46***	−0.10	−0.10	0.25**
Independent variables						
Market orientation		0.28**	0.20**		0.25**	0.24**
Social capital			0.40***			0.25**
Overall model						
R^2	0.2	0.19	0.39	0.25	0.35	0.41
ΔR^2	0.2	0.03	0.17	0.25	0.11	0.07
F	4.83***	4.55***	7.73***	5.77***	7.87***	9.21***
ΔF	4.83***	2.97	19.85***	5.72***	13.9***	8.17***

Note *$p \leq 0.05$ (two-tailed); **$p \leq 0.01$; ***$p \leq 0.001$

Finally, to test hypothesis 5, we adopted the same approach of regression. Specifically, we first entered the **stability of symbiotic venture** as a dependent variable. After that, we entered the control variables—**firm size, state ownership, tenure of alliance**, **location proximity**, **and resource complementarity** (Model 1)—followed by **social capital** (Model 2). Finally, we entered the mediator—resource sharing.

Table 9.5 shows the results of the analyses. While most of the results in this table are consistent with those in Table 9.4, one can see that, with the entry of **sharing resources** in Model 3, the explanatory power of the regression equation is increased further ($\Delta F = 16.77$, $p \leq 0.001$), and there is a significant and positive effect of **sharing resource** on the dependent variable (standardized beta = 0.63; $p \leq 0.001$). Moreover, there is still a significant and positive effect of **social capital** on the dependent variable (standardized beta = 0.36; $p \leq 0.01$). All these results suggest that **sharing resources** partially mediates the relationship between **social capital** and the dependent variable, i.e., the **stability of symbiotic venture**. In other words, the resources of social capital can be capitalized through sharing of resources to improve the stability of the symbiotic ventures, and the same resource can also have a direct and positive effect on the stability of the symbiotic ventures.

Table 9.5 Mediating effect of sharing resources (H5)

	M1	M2	M3
Control variables			
State ownership	−0.19	−0.10	−0.18
Resource complementarity	0.04	0.05	0.13
Size	0.08	0.21**	0.11
Tenure of alliance	−0.16	−0.07	0.00
Location proximity	0.02	−0.11	0.38***
Motivation to symbiosis	0.04	−0.12	−0.11
Trust of the supplier	−0.13	0.46***	0.33**
State ownership	−0.19	−0.10	−0.10
Independent variables			
Social capital		0.41***	0.36**
Mediator			
Resource sharing			0.63***
Overall model			
R^2	0.21	0.38	0.62
ΔR^2	0.21	0.15	0.39
F	4.56***	7.39***	16.77***
ΔF	4.56***	20.23***	41.89***

Note *$p \leq 0.05$ (two-tailed); **$p \leq 0.01$; ***$p \leq 0.001$

9.6 Discussion and Conclusion

Using data from China's auto industry, this study shows empirical evidence for the effect market orientation on social capital, which in turn influences the stability of symbiotic ventures positively. Drawing on the perspective of social capital theory, this study also compares the construct of one-sided trust with that of mutual trust and identifies key differences. Based on this comparison, a measurement of social capital was developed and applied to the study of symbiotic ventures in the current study. Showing how market orientation may lead to the increase in social capital, the resource sharing, and the stability of symbiotic ventures, this paper makes contribution to the relevant literature.

This study contributes to social capital theory by providing new evidence for the positive effect of a seldom-tested variable—the mutual trust among symbiotic partners. No previous study has tested this element of social capital although several authors have suggested it may have important effects on the development and stability of symbiotic ventures. By testing the effect of this element of social capital empirically, we show that the level of social capital has a significant effect on the stability of a symbiotic venture alliance.

Moreover, the findings from this study increase our knowledge about the relationships among market orientation, social capital, resource sharing, and the stability of symbiotic ventures alliances. Specifically, by testing the mediating effect of social capital, we show how social capital can have both direct and indirect effects on the stability of symbiotic ventures alliances. While social capital may influence stability directly, it can also influence the sharing of important resources among the partners and thus exhibit an indirect influence as well.

In addition, the data from this study show that the one-sided trust of small partners or suppliers has no effects or may even has a negative effect on the stability of the symbiotic ventures alliances. The negative effect here may be caused by the overrating of the trust by the suppliers. Believing that they enjoy a higher level of trust in S-venture, these firms may actually perform poorer as suppliers. On the other hand, those that do not have much confidence in the trust may actually be more careful and more willing to provide better products to their customers. Hence, there is a negative relationship between the one-sided trust and the stability of S-venture. By showing the evidence that one-sided trust, especially the one-sided trust of small and less powerful partners, may not really predict the stability of their symbiotic ventures, our current study can help improve the quality of future research on trust and its consequences.

Finally, although our study was conducted in China, we believe that the findings should have sufficient external validity. The reason is that none of the findings are really culturally specific, and the results are consistent with those obtained from other societies or economies. Moreover, no research has suggested the effects of market orientation and social capital should be moderated by the level of economic development.

9.6.1 Implications

In terms of academic research, our results show that more comprehensive investigations are required in future to test the factors or variables that may influence the performance or stability of symbiotic ventures alliances. For instance, previous research of symbiotic ventures has paid insufficient attention to the effects of market orientation and social capital, and our current study suggests that these variables can be critical to understanding the explanatory power of the regression equations. Without taking into account the effect of social capital, for instance, the effects of many other relevant factors may not be significant. Accordingly, future research in this area should give more consideration to the effects of market orientation and social capital.

Moreover, our findings also suggest a need to improve the methodology used for studying the relationship between trust and symbiotic ventures, including those located in the auto industry. Such investigations need to collect data from all partners involved in S-venture and not just one. As our results show, if a researcher collects only questionnaire data from one partner or symbiont only, as has

commonly been the case, that data may not be sufficient in itself to predict the performance or stability of a given symbiotic ventures alliance. This is especially likely to be the case when the data are collected by self-reporting only, thus risking common source bias.

Our results also have useful implications for managements, especially those in small- and medium-sized firms that want to enter the fast-growing market in China by establishing symbiotic ventures. For instance, our data suggest that firms with market orientation are more likely to accumulate social capital, which in turn should improve the stability of symbiotic ventures.

Finally, these findings also suggest that state ownership is no longer effective in maintaining the stability of symbiotic ventures in today's China. After more than 30 years of opening up and economic reform, managerial value and other institutions, including those relating to symbiotic ventures, are moving closer to their international equivalents. State ownership may therefore not have any significantly positive effect on the stability of symbiotic ventures.

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Chapter 10
Social Fluidity Mapping System—A Way to Reduce Social Stigma in Business Failures

P. Baba Gnanakumar

10.1 Introduction and Aim

Structural relationship network of entrepreneurship evolved in the US has been quite successful and has considerable applicability in other countries. Entrepreneurial behaviour traits produce counter productive effects due to stigma of failure (Landier 2006). The social status of an entrepreneur predicts high degree on interest in avoiding business failure (Begley and Tan 2001). The degree of business failure does not occur due to experience but due to lack of supportive attitudes (Jason et al. 2004). The entrepreneurs possessing high self-efficacy and social capital are able to recover from grief over project failure (Shepherd et al. 2009). An entrepreneur devotes more time to develop entrepreneurial intelligence for his own enterprise than their functional activities. Only by that time, the entrepreneurs map the resource availability with the social currency. By that time, the business failure happens due to social stigma. To get rid of such catastrophe, there is a need for Social fluidity mapping system.

Entrepreneurs are driven not only by the business values but also by the social values James Austin (2006). The businessmen believe that they are defending free enterprise when they declaim that business is not concerned "merely" with profit but also with promoting desirable "social" ends (Friedman 1970). The, environmental spirit can have important moderating influence on this relationship between culture, stigma and entrepreneurial risk taking Damaraju et al. (2010). If an entrepreneur fails in this innovation process, the firm remains on the market, but

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bears a stigma of failure Crifo and Sami (2008). The corporate social responsibility is an imperfect substitute for business failures (Baron 2007). However, its purpose is to reduce the risk associated with the business failure (Milton 2000). Past researchers proved that the corporate social responsibility had positive correlations with social currency and it decreases the business failure. The findings of Melé (2011) suggest that it is necessary to develop a new theory on the business and society relationship. Hence, the present study aims to conceptualize the value of corporate social responsibility with the social fluidity mapping.

The primary objective of the research is to determine the basic values of social fluidity system. The facilitating objective is to explore SFMS effect in getting rid of stigma of failure associated with entrepreneurial activity.

10.2 Methodology

Primary data were collected from 312 entrepreneurs having least 10 years experience, possessed at least two sales outlets and must have engaged in social responsibility programmes. Snow ball sampling method was used to identify the entrepreneurs. The entrepreneurs located in five western districts, in the state of Tamil Nadu (in India) are selected. There are 9,000 entrepreneurs in the western part of Tamil Nadu. Out of that only 3,256 entrepreneurs are registered in the traders associations. Only 934 entrepreneurs are organizing their own social affinity programmes under corporate social responsibility. Hence the sample size constitute about one third of the size of the population. The affinity created by the entrepreneurs with the society under the corporate social responsibility programme is well thought-out as the social fluidity for the purpose of this research. Twenty nine social fluidity variables (Annexure 1) were identified from the past researches. The perceptions towards such variables are measured with five-point rating scale. Gravity index is defined as the location coordinates of the sales outlets of the entrepreneurs. It is measured in terms of percentage. If the gravity index is 100, it means that the location of the sales out let is exactly at the same place of the desired location i.e., nearer to the sock keeping units. Escape velocity is the ratio of success over the failures in the business. Analysis of variance is used to find out the variations between the social fluidity variables with gravity index and escape velocity.

10.3 Social Fluidity Variables

Factor component analysis was done to find out the social fluidity factors that are practiced by the successful entrepreneurs. Through interview schedule, 312 entrepreneurs were surveyed and they were asked to evaluate 29 questions about their perception towards the social fluidity variables on five point scale (1 = completely disagree; 5 = completely agree). The data collected were coded to perform factor

analysis using SPSS. The null hypothesis, that the population correlation matrix is an identity matrix, was rejected by the Bartlett's test of sphericity. The value of Kaiser-Meyer-Olkin statistics (0.656) is also greater than 0.5. The chi-square statistics value is 678.56 and it is significant at 95 % level of confidence at degrees of freedom 105. Hence principal component analysis is appropriate for 00 analyzing the correlation matrix of the twenty nine variables. The variables having factor loading less than 0.5 were filtered out of the analysis. The number factors were selected based on the eigenvalue. Four factors having eigenvalue greater than one was selected. All the four factors are accounted for cumulative variance of 64 % (Table 10.1).

Fourteen variables having factor loading less than 0.5 are filtered out. The variables 'societal interaction', 'community affiliation', 'social stratification', 'social assimilation', and 'social media' are highly correlated and contribute to a single factor which can be named as 'social networking'.

The variables 'risk sharing', 'franchising', 'business integration' and 'power of prophecy' are highly correlated and contribute to a single factor which can be named as 'alliance strategy'.

The variables 'social ventures', 'societal cartels' and 'social unification' are highly correlated and contribute to a single factor which can be named as 'social cohesion'.

The variables 'working capital bailout ', cohesion is indicated by the number of mutual dyadic 'crowded funding' and 'survival startup' are highly correlated and contribute to a single factor which can be named as 'community funding'.

Table 10.1 Factor component matrix of social fluidity variables

Variables	Factor loading component			
	Factor 1	Factor 2	Factor 3	Factor 4
Societal interaction	0.770	−0.294	0.033	0.324
Community affiliation	0.658	−0.151	−0.125	0.030
Social stratification	0.652	−0.132	0.384	−0.027
Social assimilation	0.587	−0.063	−0.139	0.195
Social media	0.521	−0.095	−0.098	−0.118
Risk sharing	0.344	0.792	−0.309	0.064
Franchising	−0.129	0.686	0.014	−0.313
Business integration	−0.027	−0.683	−0.220	0.243
Power of prophecy	0.083	0.576	0.387	0.248
Social ventures	−0.146	−0.108	0.702	−0.166
Societal cartels	0.335	0.134	0.646	0.133
Social unification	0.022	0.130	−0.530	−0.207
Working capital bailout	0.389	−0.132	0.082	−0.623
Crowded funding	−0.494	−0.174	0.069	0.607
Survival startup	0.170	0.473	−0.052	0.579

Source based on the primary data

Based on these findings, we can define the functions of social fluidity mapping as follows:

> Under Social Fluidity Mapping System, the entrepreneur recognised the social cohesion theories to build enterprise image, leverage the social networks to develop business rapport, form alliance strategy to mitigate risk and build community funding system to reduce the financial turbulence.

10.4 Justification for Social Fluidity Mapping

The business development plans of the entrepreneurs depend on building a strong relationship among the society. The empirical research conducted among the successful entrepreneurs proved that social networking, social cohesion, alliance strategy and community funding are the key elements of social fluidity. The success of the social fluidity mapping depends on how these variables are integrated.

10.4.1 Social Networking

The benefits of social networking for entrepreneurs are usually more strategic and can be more transparent so customers can get ideas from others that might improve their success Vernon (2009). Firms that rely heavily on external social networks scored 24 % higher on a measure of radical transformation than companies that do not have such network (John and Pamela 2008). Social networking websites are worth huge premiums because of their game-changing nature and huge potential. Building rapport among the stake holders is an essential element for the business.

Case Example: Elumalai Sarathbabu's venture "food king" was established with a small capital. First he created a network for his own employees and then for customers. After that, he entered into social networking web sites and placed his ideas. He started free coaching classes for meritorious poor children in Tamil Nadu under the brand 'Golden-10'. He initiated a project for road-side vendors to help them upgrade and organise their micro businesses. He initiated a social movement to achieve "Hunger Free India". Even though, his mission is not to earn big profits, his turnover reached Rs. 7.5-crore within 5 years. The social networking strategy enables him to increase the numbers outlets to six in India (Sarathbabu 2011).

10.4.2 Social Cohesion

The degree of attitudinal consensus or behavioral uniformity in a group has been employed by scholars as measures of group cohesion. Thus, several investigators have emphasized the degree of positive interpersonal ties among persons as a basis

of social cohesion (Cartwright 1968, Gross 1952, Lott 1965). Moreno (1937) argued that social cohesion is indicated by the number of mutual dyadic ties within the group. The cohesion has been understood by the business entrepreneurs as "the resistance of a group to disruptive forces" (Gross 1952). The social cohesion will build values of mutual-positive attitudes among the members in the group (Lott 1961). The establishment of such cohesion groups among the society enables the entrepreneurs to create business segments.

Case Example: Rajashekar Reddy Seelam launched Sresta Natural Bio-products firm that markets more than 200 food commodities cultivated without using chemicals or pesticides (Sreekala 2011). The venture was financed by the South-India based Murugappa Group in 2004 with an initial capital of Rs. 1 crore. The social cohesion model of the Sresta was based on three distinct groups. In the supply side, Sresta group entered an agreement with 10,000 farmers who follow organic certification procedures for cultivating various crops. In retailing side, Sresta group clinched deals with leading retailers such as Future Group, Food World, Heritage, Spar, Spencers and Godrej Natures Basket. It operates through shop-in-shop business model. In customer segmentation, they saw a substantial opportunity in tying up with IT companies and opened organic stores on their campuses. Its first in-house store was opened in Infosys campus at Hyderabad. The establishment of these three distinctive cohesion groups in the business society enables Sresta to cultivate more than 6,000 tones of food products in a year. Sresta is also exporting 65 % of its agricultural commodities to US, Western Europe and Japan.

10.4.3 Alliance Strategy

Alliance strategy created by entrepreneurs can benefit them from various business aspects such as economies of scale, shared technology, risk sharing and access to untapped market. It also decreases the operational costs. Strategic alliances not only drive the entrepreneurs to share profits, but also to share the risk of loss. Entrepreneurs follow five management structures as proclaimed by Cullen (1999) such as dominant parent, shared management structure, split-control management structure, independent management structure and rotating management.

Case Example: Ashvin Gami uncovered that there was no typical ERP software solution available for the real estate business. He established Aakash Strategic Software firm, with a twenty-people (Babar 2011). The team then coded software that helps real estate firms to assess their businesses through Web-based applications. Its alliance strategy with their clients like Armstrong Group, Usha Breco Reality, Namdivardhan Group and Gannon Dunkerley enables them to develop their business into London and New York. The alliance strategy also initiates them to compete with the big daddies in the business such as Oracle and SAP.

10.4.4 Community Funding

The community funding is in the two diluted forms. First form is based on the capital infusion from the customer community. Second form is based on the contribution made to others under corporate social responsibility.

Case Example: The business model of Lebara set an example for capital infusion through its own customer's community. Ratheesan of Madurai (located in the state of Tamil Nadu in India) who worked in a telecom company, launched his own London-based telecom company, Lebara, in 2001 with a start up capital of €55,000 in credit for 14 days (Ram 2011). It started selling international telephone calling cards. Leara customers are the immigrants in London who used to call to their families at cheap rates. The retained cash from the immigrants were used for buying cards from other companies. Lebara got discount from their suppliers for making prepayments. After that, Lebara had infused the revenues earned from the immigrants and did not borrow any loans. Lebara focused at the immigrant community in Europe and Australia and earned £650 million. Lebara has struck agreements with several network providers across Europe. The top 10 destinations for repatriating the money from Europe and top 10 destinations of its mobile customers are from similar locations. Lebara as a part of community funding to others, set up a charity to provide care services for children in Tamil Nadu with £10 million. This goodwill gestures enable them to develop their business to France, Netherlands, Germany, UK, Australia, Switzerland, Denmark and Spain. Lebara takes advantage of the patronage of 3 million customers and more than 1,000 employees in 10 countries.

The entrepreneurs who earned by way of social currency (goodwill) are funding the under privileged society as a part of corporate social responsibility. The concept of 'crowd-funding' and crowd sourcing through venture capital firms are also often used by the first generation entrepreneurs for capital infusion. In case of Jignesh Shah's establishment of Multi Commodity Exchange, the venture was financed by twenty venture capital firms.

10.5 Gravity Index

Entrepreneurs choose the location of their business in proximity to the customers place. The location model depends on the spatial competition, demand and supply. The entrepreneurs expand their business in different locations after creating social networks. To find out whether the social fluidity variable depends upon the location factors, gravity index was constructed. The data regarding the number of sales outlets for each business unit, the number of round trips per month from the stock keeping units and two-dimensional coordinates (among the sales outlets) were collected. The center of gravity location model (Martinich 2008) is used to find out

the two coordinates 'x' and 'y'. The optimal location is derived based on the following equation.

$$\text{Minimize } z = \sum_{i=1}^{n} w_i \left[(x_i - x)^2 + (y_i - y)^2 \right]$$

where as (x, y) are the two dimensional coordinates; 'n' is the number of sales outlets; 'i' is the sales outlets and 'w_i' is the number of round trips from the stock keeping unit to sales outlets per month.

Gravity index $= [(a/b)/(x/y)]100$; where as (a, b) are the actual co-ordinates.

Hence if, 'x' and 'y' coordinates are equal, the sales out let is located at the exact place. Otherwise, there is fluidity in location of the sales outlets. The frequencies of the calculated values are mentioned in Table 10.2.

The result reveals that around 65 % of the entrepreneurs' (in the sample) sales outlets are not located proximity to stock keeping units.

Analysis of variance is used to find out whether the social fluidity variables such as 'social cohesion', 'social networking', 'alliance strategy' and 'community funding' differ in terms of gravity index. The null hypothesis that 'the social fluidity variables have no significant variation among the means of the gravity index' was constructed. The results are portrayed in Table 10.3.

Table 10.2 Gravity index

Sl. No.	Gravity index—range	Frequency	Percentage
1	Less than 25	91	29
2	Greater than 25 but less than 50	112	36
3	Greater than 50 but less than 75	88	28
4	Greater than 75	21	7
Total		312	100

Table 10.3 ANOVA—social fluidity versus gravity index

Variables		Sum of squares	d*f*	Mean square	*F*	Sig.
Social networking	Between groups	9.009	3	3.003	3.063	0.028
	Within groups	301.991	308	0.980		
	Total	311.000	311			
Alliance strategy	Between groups	23.562	3	7.854	8.416	0.000
	Within groups	287.438	308	0.933		
	Total	311.000	311			
Social cohesion	Between groups	78.813	3	26.271	34.849	0.000
	Within groups	232.187	308	0.754		
	Total	311.000	311			
Community funding	Between groups	8.624	3	2.874	3.34	0.024
	Within groups	302.376	308	0.858		
	Total	311.000	311			

The results indicate that there is a significant variation among the means of gravity index with the social cohesion variable and alliance strategy. The null hypotheses have been rejected in these cases. However for the remaining social fluidity variables, the null hypothesis has been accepted. Hence it may be concluded that the social cohesion attitudes and alliance strategy of the entrepreneurs depends on the location of the sales outlets. The entrepreneurs build a brand image in the location of the sales outlets by using social cohesion models and alliance networking. This leads to establishing the business unit in a concentrated market place. This attracts concentration of customers in a location and distracts spatial competition.

10.6 Escape Velocity

Entrepreneurs come across financial and operating risk. To find out whether the risks are substantiated with up-turns in the business, escape velocity is calculated. The escape velocity is measured based on the following equation.

$$\text{Escape Velocity} = (\text{Number of up-turns}/\text{Number of down-turns during the course of business}) \times 100$$

The down-turns were measured with the events related to negative publicity, lack of financial intermediation, disgrace among the stake-holders and lack of social immunity. The up-turns were measured based on the positive events related to additional capital infusion, expansion to other location, increase in social currency (Goodwill), sponsoring social welfare programmes and creating strategic network. All the events values are converted into quantitative value by giving equal weights. If the downturn exceeds the up-turn, the social stigma related to business failure will be high. The frequencies of the calculated values are grouped in Table 10.4.

The result shows that around 66 % of the entrepreneurs' escape velocity is greater than 100. This implies that the stigma associated with the failures is offset with the upturn in their business. Analysis of variance is used to find out whether the social fluidity variables such as 'social cohesion', 'social networking', 'alliance strategy' and 'community funding' differ in terms of escape velocity. The null hypothesis that the mean factor scoring of social fluidity variable has no significant variations among the means of escape velocity has been established. The results are portrayed in Table 10.5.

Table 10.4 Escape velocity

Sl. No.	Escape velocity—range	Frequency	Percentage
1	Less than 50	54	17
2	Greater than 50 but less than 100	52	17
3	Greater than 100 but less than 150	153	48
4	Greater than 150 but less than 200	42	14
5	Greater than 200	11	4
Total		312	100

Table 10.5 ANOVA—social fluidity versus escape velocity

Variables		Sum of squares	d*f*	Mean square	*F*	Sig.
Social networking	Between groups	20.172	4	5.043	5.323	0.000
	Within groups	290.828	307	0.947		
	Total	311.000	311			
Alliance strategy	Between groups	20.814	4	5.204	5.505	0.000
	Within groups	290.186	307	0.945		
	Total	311.000	311			
Social cohesion	Between groups	21.479	4	5.370	5.670	0.000
	Within groups	289.521	307	0.943		
	Total	311.000	311			
Community funding	Between groups	22.034	4	5.509	5.852	0.000
	Within groups	288.966	307	0.941		
	Total	311.000	311			

The results indicate that there is a significant variation among the means of the escape velocity with the social fluidity variables. The null hypothesis was rejected in these cases. Hence it may be concluded that the social fluidity mapping influences the escape velocity. It decreases the social stigma related to business failures.

Conjoint analysis was carried out to determine the relative importance of social fluidity variables compared with the escape velocity. The reliability of using conjoint analysis was measured by R-square. Since R-square was 0.734, conjoint analysis was appropriate one. Table 10.6 shows the relative importance among the social fluidity variables as compared with escape velocity.

Table 10.6 Social fluidity mapping—relative importance

Attribute	Relative importance (%)	Attribute values	Utility
Social networking	15.6556	Societal interaction	0.17807
		Community affiliation	0.04364
		Social stratification	0.09800
		Social assimilation	−0.09206
		Social media	−0.13667
Alliance strategy	27.5303	Risk sharing	0.23922
		Franchising	−0.31425
		Business integration	−0.24675
		Power of prophecy	0.14502
Social cohesion	23.9839	Social ventures	−0.17337
		Societal cartels	0.26871
		Social unification	0.25081
Community funding	32.8303	Working capital bailout	−0.31478
		Crowded funding	−0.19551
		Survival startup	0.34525

The successful entrepreneurs give more weight to community funding system than the other variables. The 'community funding' and 'alliance strategy' accounts for 60 % relative importance. However, to develop a strong community funding system, social networking, social cohesion and alliance strategy are essential. The transition pattern changes the socioeconomic situation of the entrepreneurs.

10.7 Case of M. Krishnan

M. Krishnan along with his brother converted a single retailing unit into a multiple unit using social fluidity mapping strategy Krishnan (2011). The social affinity created by him leads to prolonged survival in the business and even without borrowing loan capital. NK Mahadeva Iyer set up Sri Krishna Sweets in 1948 at Coimbatore. After him, it is being managed by M. Krishnan and his brother Murali. From a single retail out let, it has been moved to sixty two units in a period of 20 years. In the year 1991, it opened its branches in Coimbatore. It established its own corporate social responsibility department in 1992. During that period, it organised social welfare programmes in Coimbatore along with social entrepreneurs. In 1996, it opened its branch in Chennai. By the year 2011, there are fifty two outlets in the country located at Tamil Nadu, Bangalore, Hyderabad and Mumbai. It has offshore retail outlets are at US, UK, Singapore, Malaysia and Dubai. The sweet outlet has centralised kitchens spread over 100,000 ft^2. These are located in Coimbatore, Chennai, Bangalore and Mumbai in India. The recipe and the ingredients are dispatched from Coimbatore to other locations for the purpose of maintaining uniform quality. There is an advanced laboratory with experienced food-technologists to ensure the quality standards of both input and output. Its quality control lab is certified by the government. It uses bio-degradable and environment-friendly materials for packing. In addition, it uses the colours and natural savor as allowed as per government norms. Sri Krishna Sweets has employed over 1,000 people at all outlets. It also provides indirect employment to over 400 people. Sri Krishna Sweets is organizing a variety of corporate social responsibility programmes for the plural sections of the society and their overall growth needs. Few popular programmes are listed as follows.

- 'Attrai Thingal' (Tamil language Literary Series): In this programme, eminent Tamil scholars talk about classical Tamil concepts on third Sundays of every month.
- 'Chef Amuthapadai' (Divine feast): It is a programme that has been arranged to provide meals once in a month to children living in orphanage.
- 'Chennai 365' (Vision for Madras): It is a remarkable social responsibility programme that targeted at the urban society with the aim of creating neighborhood community.
- 'Chinanchiru Kuyilgal' (Lovely kids): It is a course organised for the children on classical music. It is conducted on first Sundays of every month.

- 'Desathin Kural' (Voice of Nation): Under this programme, inspiring speeches of leaders and spiritual heads will be broadcasted in All India Radio.
- 'English speaking course': It is a course conducted to develop the spoken English for rural children.
- 'Eppa Varuvaro' (Arrival Phase): It is a spiritual talk series conducted annually during the first 2 weeks of January.
- 'Eppadi Padinaro' (Philosophical Composer): It is a programme designed for musical admirers, which was conducted on fourth Sundays of every month.
- 'Ilaya Bharathathinai Vaa Vaa' (Call for young people of India): It is a patriotic talk series given by eminent personalities.
- International Spiritual Tourism promotion programme: This programme aimed to develop pilgrimage to divine places in the world.
- 'Kanmaniyae Kathai Kelu' (Story telling programme): It is an exclusive story narration programme for kids and conducted on first Sundays of every month.
- 'Kuraiyondrumillai' (Plethora thoughts): It is a programme organized for elders about the divine thoughts and conducted on first Sundays of every month.
- 'Life guards at Elliot's beach': It is a unique programme designed for depressed youth. During a period of 10 years, 69 persons, who ventured into the sea, were saved.
- 'Poorna Vidya' (Holistic Educatio): It is a heritage programme organized exclusively for under privileged children in the society.
- 'Sangamam' (Cultural Feast): It is a cultural programme conducted for urban people.
- 'Sangeetha Muthukkal' (Musical Pearls): It is a classical music concert organized with the help of stalwarts in the field of 'carnatic' (Classical) music. It is broadcasted through All India Radio.
- 'Silambam' (Martial Art): It is a classical martial art training programme for students studying in colleges.
- 'Sukanya' (Women Empowerment): It is a guidance programme conducted for the young girls that aimed to improve the social well being.
- 'Vallamai Tharayo' (Brave Thoughts): It is a programme for dynamic youth that aimed to improve their self confidence.

In addition to the above, Sri Krishna sweets, in association with Exonora International, is engaging in restoration of water bodies and addressing environmental issues. All these programmes are uniquely designed to achieve the objectives of social networking and social cohesion. This enables to have alliance strategy with different groups in the form of franchising, collaboration and harmonization. The firm has tied up with Big Bazaar in Bangalore, Hyderabad and Mumbai. The business unit is not borrowing from anybody for working capital and capital requirements. The have generated their own funds from its own business community in the form of revenue itself. All the dealings are only in cash. They are contributing in the form of community funding for weaker section in the society. Figure 10.1 shows the SFMS followed by the Sri Krishna sweets.

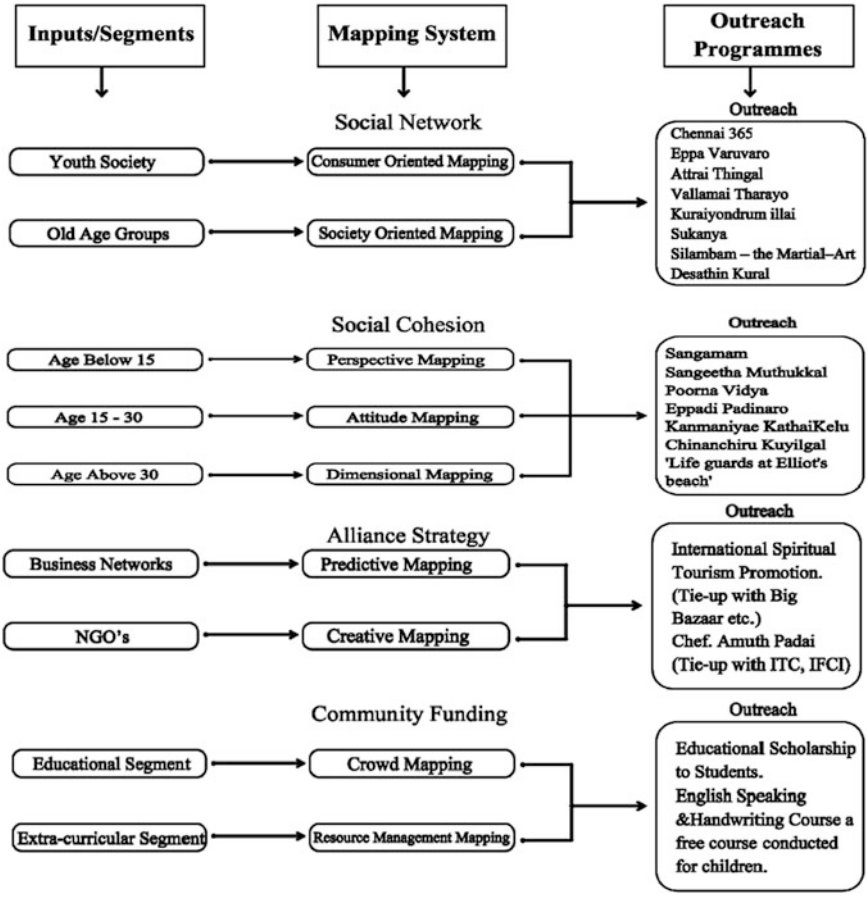

Fig. 10.1 Social fluidity mapping in Sri Krishna Sweets

The social networking of the organization is based on the consumer oriented mapping (stratification of consumers) and society oriented mapping (stratification of non-consumers under societal values) strategies. The social cohesion strategies are segmented based on the age groups. The outreach programmes such as 'Kanmaniyae Kathai Kelu', 'Porna vidya' and 'Chinanchiru Kuyilgal' are designed to fit the needs of age groups less than 15. 'Sangeetha Muthukkal' and 'Life guards' are uniquely designed and targeted for age groups between 15 and 30. The out reach programmes such as 'Sangamam', 'Kuraiyondrumillai' and 'Epadi padinaro' are designed for the age group more than 30. The alliance strategy depends upon the predictive mapping and creative mapping. The organization has tie-up with Bigbazaar (a chain retail outlet in India) with the aim of creating business network. To introduce innovative ideas and to new product marketing, the firm is doing outreach programme such as 'Chef Amudupadi'. The community funding strategies of the

firm is based on crowd mapping, through which they are also one of the sponsors for providing scholarship to under privileged students. Through resource mapping, they are organizing their own welfare programmes in schools and undertaking the renovation of water tanks in Coimbatore. The returns from organizing corporate responsibility programmes enable them to create value for the firm's 'social currency' (goodwill). In the long term, this social currency gets translated to provide monetary benefits.

10.8 Empirical Findings and Implications

Past researches contended that goodwill creation (Social Currency), supplier and customer relationship, risk mitigation and sourcing of funds are the main factors essential to get rid of the social stigma. The present research contented there is a need for social fluidity mapping to earn social currency. There is a strong association among the social cohesion and alliance strategy with gravity index. There is a strong association between the social fluidity variables and escape velocity ratio. High escape-velocity leads to reduce the social stigma. The success of social fluidity mapping depends upon the leveraging the social network that creates entrepreneurial structural relationship among the stake holders. The returns on social affinity reduce the business failure (Fig. 10.2).

The results contented that the success of social fluidity mapping depends on the integration of social networking, social cohesion, alliance strategy and community funding. Creation of social cohesion and alliance strategy depends upon the location of the sales outlets. The equilibrium level of maintaining the social fluidity mapping decreases the risk associated with the entrepreneurship. This has been proved with the variation between the escape velocity and social fluidity variables. The hierarchy of the social fluidity mapping is in the order of achieving social networking strategy, social cohesion strategy, alliance strategy and community

Fig. 10.2 Social fluidity pyramid

funding. The achievement of corporate responsibility values through social networking and social cohesion depends on the internal factors of the entrepreneur. However, the external factors such as alliance strategy and community funding depend on the value of the social currency created by the first two variables. The results were derived from the opinions of the well established experienced entrepreneurs and those who have successfully implementing corporate social responsibility programmes. Hence the 'startup entrepreneurs' would not focus on social fluidity variables. A social entrepreneur who created a social fluidity mapping can easily transform his social entrepreneurship into a business entrepreneurship. The entrepreneurs find easy to sustain, after establishing SFMS. During the start-up period, entrepreneurs created a matrix type of business model with social entrepreneurs to reduce the risk. SFMS provides not only the decision to establish corporate social responsibility, but also the choice of revenue models and the decision to change location. In order to reduce the stigma of failures, entrepreneurs need to create good relationship, reward the right cohesion group and create right working culture. A business unit that wants to be prospers in a time frame of rapid change has to build SFMS in its own system.

10.9 Conclusion

Entrepreneurs are relationship-driven people. They always aim to create social currency through corporate social responsibility programmes. The corporate social responsibility programmes are based on the SFMS. The success of social fluidity mapping not only creates value to business but also to society. If 'startup entrepreneurs' finds it difficult to penetrate into social fluidity mapping, they can arm up with social entrepreneurs and increases the value of social currency. The customer reliability is no longer a key competitive advantage. Instead, trust among the society is a competitive advantage for an entrepreneur to reduce the social stigma related with business failures. The social commitment is the absolute aim of SFMS fluidity mapping system.

Annexure I

Social fluidity Variables

Sl. No.	Variables	References
1	Business integration	Ahlfors (2005)
2	Community affiliation	Tribhuvananda and Nandeshwar (2011)
3	Conservative equilibrium	Landier (2005)
4	Crowded funding	Agarwal et al. (2010)
5	Distribution networks	Hitt et al. (2001)

(continued)

(continued)

Sl. No.	Variables	References
6	Execution complexity	Yixin and Bhattacharya (2008)
7	Franchising	Tracey and Jarvis (2007)
8	Integrity	Eijaz et al. (2005)
9	Passion	Peredo and Mclean (2006)
10	Power of prophecy	Wootton and Horne (2010)
11	Religious affiliation	Sherkat (2001)
12	Research capabilities	Audretsch (2006)
13	Responsibility	Eijaz et al. (2005)
14	Risk toleration	Peredo and Mclean (2006)
15	Service	Seelosa and Mair (2005)
16	Social acculturation	Vastag and Montabon (2002)
17	Social assimilation	De Palo et al. (2006)
18	Social dimension	Galliano (2002)
19	Social integration	Eijaz et al. (2005)
20	Social media	Zarrella (2009)
21	Social simulation	Smeds (1994)
22	Social stratification	Bian (2002)
23	Social unification	Madsen and Naerssen (2003)
24	Social ventures	Tracey and Jarvis (2007)
25	Societal cartels	Granovetter (2005)
26	Societal interaction	Foley (2008)
27	Survival start up	Nancy et al. (2000)
28	Teamwork	Zahra and Nielsen (1999)
29	Working capital bailout	Gries and Naude (2010)

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Part IV
Sustainable Entrepreneurship

Chapter 11
Green Entrepreneurship in India: Global Evaluation, Needs Analysis, and Drivers for Growth

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11.1 Introduction and Literature Review

Eco-preneurship or green entrepreneurship is a new term for academic research, although some work began in 1970s, but the topic received a little attention in 1980s and 1990s. The issues like the links between sustainability and innovation, the importance of sustainability in strategic business development are receiving greater recognition and this lays the foundation stone for the creation and growth of viable, commercially successful business ventures (Schaper 2010).

Green entrepreneurship is an eco-innovation to build a low-carbon economy. It promotes the use of green power such as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources

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(Ghosh 2011). The competition among industries is soaring because of strict environmental conventions like—Montreal Convention, Kyoto Protocol, restriction of the use of certain hazardous substances in EEE (RoHS), and waste electronics and electrical equipment (WEEE), etc. (Chen 2011).

Companies started to publish their social report in 1990 because of the pressure of various stakeholders but it was not the only reason. A lot of them realized that publishing their social contribution is beneficial for them in numerous ways as it creates goodwill and a positive brand image in costumer's minds (Gao 2011).

Atakan and Eker (2007) analyzes CSR as a part of corporate identity creation. Austin and Reficco (2009) describes "Corporate Social Entrepreneurship" (CSE) and other factors like value creation etc. that emerged recently. According to IAEA Report (2005), strategic policy planning and judicious use of resources/technology is important for sustainable economic development.

Dees (2007) emphasizes the role of the government and private–public partnership as a nurturing ground. Drucker (1985) recognizes entrepreneurship education as a discipline which prepares people, especially youth, to be responsible, enterprising individuals. Gibb and Davies (1991), promotes practical approach in pedagogy of entrepreneurship education. Hisrich and Peters (1998) suggests that entrepreneurship students should focus on identifying strengths/weaknesses of different types of enterprises and self-assessment.

Rae (1997) emphasizes the need for development of entrepreneurial skills like leadership, communication, assessment, time management skills etc. in students. Mets (2009) states that the role of entrepreneurship cannot be ignored by the universities anymore; he further states it as catalyze for efficient technology transfer. Maritz et al (2011) promotes application of blended learning along with other pedagogical initiatives.

Vincett and Farlow (2008) corroborate possibility of successfully grafting a highly experiential entrepreneurship course in curriculum of business schools. Sabbaghi (2011) throws some light on the importance of green returns, green volatility factor, green stock returns, and ethical investment. Gertner (2011) emphasis on microdimensions of knowledge transfer partnerships and importance of collaborations of university and industry. Branstad (2011) explores the role of manager role of organizational knowledge mode in hybrid corporate incubator.

Johnston (2011) recognizes seven emerging themes which are important to HEI-industry relationships namely the importance of network intermediaries; flexibility, openness, and connectivity of network structures; encouraging network participation; building trust in relationships through mutual understanding; active network learning; strengthening cooperation through capacity building; and culture change. Al-Mabrouk and Soar (2009), analyzes the ten major issues for successful IT transfer in Arab countries.

McAdam and Marlow (2008) describes role of the university context in networking activities, and in particular, the development of particular types of networks. Tan (2008) explores new types of knowledge precincts as the spatial core of knowledge-based urban development. Andrew (2006) identifies seven incubation strategies for development of rural enterprise. Sharma (2008) identifies facts of effective positioning

mechanism for Indian market. Harrison and Seiler (2011) examines mentoring relationships and career transition from being a corporate employee to becoming an entrepreneur. Terjesen (2011) studies what motivation of eco-preneurs to start businesses.

11.2 Research Methodology

Six structured questionnaires framed on a five-point Likert scale were circulated in addition to extra feedback of respondents on the issues. The following table summarizes the methodology (Table 11.1):

Table 11.1 Methodology details: description of sample selection and survey

Category	Description and sub-categorization	Numbers
Green entrepreneurs	The respondents were selected keeping into mind various kinds of ventures they have created or are into; the present location was also a criterion so that we attain a homogeneous data across the region	34: In person visits
		13: Through phone and internet
		45 finalized at end
Corporate managers	Three different sectors, i.e., multinational corporations (MNCs), large/medium and small were surveyed, i.e., 15 each	35: In person visits
		14: Through phone and internet
		45 finalized at end
Educational entrepreneurship (students views)	Final year students from three management and three engineering institutes of different rankings were surveyed	15 × 3 = 45 (Engg.)
		15 × 3 = 45 (MBA) (in person visits)
Educational entrepreneurship (faculty views)	Responses were taken from three management and three engineering college faculties	3 × 5 = 15 (Engg.)
		3 × 5 = 15 (MBA) (in person visits)
Incubation and technology transfer	It was found that a lot of institutes were writing down entrepreneurship cells run by students as technology business incubation units. So, actual number of incubation centers was too less	Total universe: 8–10
		Surveyed: 5 (in person visits)
Bankers	To study the accessibility of funds views of bankers were indispensable. Personnel from different banks were interviewed	5 (in person/internet)
Eminent personalities	Government officials, prominent academicians and practitioners engaged in the field were interviewed	5 responses (in person visits)
Overall 225 surveys were taken with effective response rate greater than 90 %		

The present study is an attempt to view a holistic picture, i.e., the complete framework. So each possible dimension broadly has been included and then researched in-depth to bring out the results. A pilot study was carried out for each questionnaire so as to improve its correctness, effectiveness and relevance, before it was circulated.

11.3 Data, Interpretations, Analysis, and Recommendations

11.3.1 Dimension One: Green Entrepreneur's

The following tables summarize the findings and analysis of questionnaire responses followed by key findings and their appropriate interpretations (Table 11.2).

11.3.1.1 Findings and Interpretations

1. Most of them said that Government Grants were not at all motivating for them. They seem to be slightly more inclined toward CSR practices of companies (a younger minority).
2. Those entrepreneurs belonging to technological aspects like ICT, Green Technologies were among supporters of business model as the driving factor.
3. Overall mean and high mode indicates that these parameters were critical at their times of resorting to such ventures (Table 11.3).

11.3.1.2 Findings and Interpretations

1. It would not be an exaggeration to say that almost 100 % of the green entrepreneurs agreed that the biggest challenge they faced and still face is fund raising. There is an acute lack of volunteers and staff, which is available and committed for achieving the objectives.

Table 11.2 Criticality of factors for resorting to green entrepreneurship

Parameter	Weight	Group statistical parameters	
Inner conscious	200	Kurtosis	−0.91192
Good business model	160	Skewness	−0.02359
Grants (Govt./private)	125	Mean	3.021739
Tapping the CSR	131	Mode	3
Other Parameters Std. dev. 1.218960059, Variance 1.485863626, Count 184, Total 616			

Table 11.3 Hurdles in running a green enterprise

Parameter	Weight	Group statistical parameters	
Fund raising problems	200	Kurtosis	−0.8854
Lack of staff/volunteers	163	Skewness	−0.06964
Lack of suitable premises	135	Mean	3.321256
Technical and IT barriers	153	Total	1375
Managerial and training barriers	141	Mode	4
Lack of legal knowledge	124	Std. dev.	1.076125
Lack of specialist advice/support	151	Variance	1.158046
Franchising issues	137	Count	414
Tie ups and promotions	171	Standard error	0.052889

2. Green Entrepreneurs face a major problem in setting up their ventures/camps/offices at the real sites of operation. However, many of them have support of local people in case the demand for setup of such a venture is really pressing. For example, local bodies do support camps etc. for rural health ventures.
3. Technical and Information Technology barriers are encountered at several steps. Entrepreneurs are not able to avail basic information and hence lack resource mapping due to lack of expertise and awareness about Information and Communication Technology (ICT) techniques.
4. Further, there are managerial and training barriers of the volunteers and staff. Major chunk of the entrepreneurs are unaware about management techniques like management by objectives, human resource management, creative problem solving, and other tactics which are highly critical for success of any organization.
5. Though many of the entrepreneurs said that they acquired knowledge through advisors/lawyers about the legal aspects of the green enterprises. But there was another half who said that they lack access to informational resources.
6. Entrepreneurs agreed that specialist advice is required in several issues, viz. there is need of advice on green technologies, legal advice on matters of campaigning, camps; advice on rural health strategies, vaccination etc.
7. Little bigger enterprises again find a problem of franchising as there is a lack of common platform, wherein they may find partners. Also, they face problem in accreditation on certain matters, further they lack strategy and manpower both for promotions (Table 11.4).

11.3.1.3 Findings and Interpretations

1. Exceptionally high weight of need of public–private partnership for fund raising indicates the extent of problems they are facing for it. They strongly urge that government and big corporate houses must come forward to help the budding ones.

Table 11.4 Need assessment of public private partnership: tackling the hurdles

Parameter	Weight	Group statistical parameters	
Fund raising problems	208	Kurtosis	−0.83724
Lack of staff/volunteers	168	Skewness	−0.16444
Lack of suitable premises	148	Mean	3.550725
Technical and IT barriers	161	Total	1470
Managerial and training barriers	153	Mode	4
Lack of legal knowledge	148	Std. dev.	1.025622
Lack of specialist advice/support	151	Variance	1.0519
Franchising issues	154	Count	414
Tie ups and promotions	179	Standard error	0.050407

2. Entrepreneurs have agreed that forming a public partnership will help them in finding correct resource people, technical expertise, training support, and importantly tieups and promotions.
3. Entrepreneurs have rated the need of tieups for specialist or legal advice reasonably well (Table 11.5).

11.3.1.4 Findings and Interpretations

1. Clearly one can visualize the dissatisfaction of green entrepreneurs with current registration paradigm and financing schemes run by the government.
2. Low mean, mode, and total indicates discontent, lack of awareness, and extent to which the barriers are posed by policy framework.
3. High standard deviation and very high variance is due to class divide between those aware and those who are totally unaware.
4. Again the table speaks out loudly the need for change in paradigm of registration and grants sanction and the extent of discontent in practitioners on existing practices.

It was also observed that various entrepreneurs were reluctant enough to not focus on government policies in the general impression that no such framework has been prepared for them separately.

Table 11.5 Government policies for green ventures: ease of access

Parameter	Weight	Group statistical parameters	
Registration of green enterprise	83	Kurtosis	−0.68151
Grants under NGO financing	76	Skewness	0.099479
Tax laws and funding information	82	Mean	1.972826
Public interest litigation	122	Mode	2
Other parameters Std. dev. 1.273659438, Variance 1.622208363, Count 184, Total 363			

11.3.2 Green Entrepreneurs Framework: Recommendations and Solutions

1. There is a strong need of public–private partnership model to be developed for help of green entrepreneurs. The ways may be informal or formalize through formation of some body that governs and monitors such relation and provide an opportunity for the two to interact.
2. There is a major need of change in grants and registration paradigm. There is a need of web-based automation up to an extent so that at least basic processes can be completed online by the entrepreneur.
3. Awareness has to be brought about provisions for green entrepreneurs through mass media as well as specific targeting so that they may avail or at least become aware of the provisions.

11.3.3 Dimension Two: Corporate and Their Responsibility

Corporate can largely affect the green entrepreneurship scenario through the part they can play as their green responsibility by either directly serving green causes or contributing to sustainable development (Table 11.6).

11.3.3.1 Findings and Interpretations

1. Clearly the picture of reasons of companies resorting to CSR practices is brought out here:
    i. Managers agree that the societal responsibility of company is important, as total represents a very adequate weight age to the same.

Table 11.6 Corporate green responsibility: parameters for resorting

Parameter	Sum	Statistical parameters (overall)	
Societal responsibility	159	Kurtosis	0.508112
Sustainable development	134	Skewness	−0.98759
Brand image creation and improvement	172	Mean	3.258537
Improvement in sales	133	Std. dev.	1.326246
Tax and other subsidies	137	Mode	4
Other parameter Variance 1.758928571, Count 225, Standard error 0.088416403, Total 735			

ii. However, the managers show least concern about sustainable development aspect of CSR, through interviews and interaction the picture becomes clearer. Actually, the companies and managers are not aware of what sustainable development actually means.
iii. Most of the management agrees that resorting to CSR is instrumental in their brand creation. CSR is able to get them the required connect with the society.
iv. The government tax concessions and subsidies is a factor feasible enough to drive some companies to CSR practices.

2. The mode for the overall observations is 4; this indicates that these factors are important considerations that run into the think tank of company management when they explore corporate green responsibility aspects.
3. Skewness and Kurtosis indicate orientation to right and thinner tails indicating coherence in opinions of the various respondents (Table 11.7).

11.3.3.2 Findings and Interpretations

1. The corporate have shown high concern toward nature conservation practices and also they feel that green technologies need to be promoted for sustainable development.
2. However, it seems that they are not much ready for CSR in recycling initiatives. They say these initiatives to be less productive as compared to others.
3. Some companies are more interested in societal issues like child, old and women welfare, i.e., they are more interested in green entrepreneurship rather than sustainable development.
4. Some corporate people strongly believe that rural job creation is too important for sustainable development and they further have advocated that CSR would find its real meaning when it further creates source of livelihood (Table 11.8).

Table 11.7 Corporate green responsibility: need of inclusion for sustainability

Parameter	Sum	Statistical parameters (overall)	
Recycling operations	139	Kurtosis	0.198559
Green technologies	156	Skewness	−0.96457
Nature conservation	163	Mean	3.390244
Other parameters Mode 5, Std. dev. 1.5165, Variance 2.299944721, Count 135, Total 458			

Table 11.8 Corporate green responsibility: hurdles and distractions

Parameter	Sum	Statistical parameters (overall)	
Financial crunch	117	Mean	−0.599
Lack of vision (perceived benefits)	134	Mode	−0.42603
Other parameters Mean 2.743902439, Mode 4, Variance 1.80886392, Count 90, Total 251			

11.3.3.3 Findings and Interpretations

1. The corporate say that they already face financial crunch so it becomes difficult to allocate separate funds each time for CSR.
2. However they also agreed that there is a lack of awareness in top management about long term benefits of CSR. It is still believed to be a liability not a responsibility.
3. Negative values of kurtosis can be interpreted as the middle management agrees that companies have funds but the top management just does not want to spend anything for the society. It is an indicator of self nourishing tendency of the corporate.

11.3.4 Corporate and Their Responsibility: Recommendations and Solutions

1. Still the major chunk of corporate considers CSR as liability not responsibility, the thinking can again be changed gradually only by showing them the perceived benefits of the same.
2. The green entrepreneurs should ensure that if corporate is coming out and extending help, they must help in image improvement exercise of the same in turn, though this matter is again subjected to critical thinking and analysis.
3. There is an increased need of support by corporate for Sustainable R&D. Ventures may be funded by them provided it does the real environmental good making some monetary profit at the same time.
4. Again the rural empowerment seems to be an area of interest, so there lies an opportunity for ventures to take their support and help in rural job creation which in turn may support the corporate production paradigm
5. There is need that Government plays its part by offering some benefits to corporate for their Corporate Green Ventures. The support is required at least in promotion and policies if it could not be money or financial leverage.

11.3.5 Dimension Three: Entrepreneurship Education

11.3.5.1 Students Perspectives

The following section presents the interests, needs, and beliefs of budding entrepreneurs. The survey includes equalized number of Master of Business Administration (MBA) and Bachelor of Technology (B.Tech) students (Table 11.9).

11.3.5.2 Findings and Interpretations

There exists an interesting contrast between the opinions of graduation (B.Tech) and postgraduation students on certain issues, while on some they have a similar consensus.

1. Business students seem interested and have better understanding of tapping the CSR opportunities for green entrepreneurship.
2. Also business students rate green entrepreneurship can be a good business model or career path.
3. Business students have shown more concern toward globalization and resource depletion again reflecting the positive change pattern.
4. High mean, mode, and total indicate that youth is coming out of traditional thinking about the green entrepreneurship and is developing a hybrid thinking wherein both service and business models are in the mind of an individual.
5. The statistical parameters when analyzed for the whole group seems to be much more coherent and concentrated, thus it helps to summarize the thinking of youth into similar categories. Low variance about mean as well as low standard deviation about mean indicates the presence of coherence and central tendency in the nature of thinking of the two. Also the values tend to fall toward right of the mean (Table 11.10).

Table 11.9 Criticality of factors for green entrepreneurship: students assessment

Parameter	Weight		Combined analysis of statistical parameters	
	MBA	B.Tech		
Concern about depletion	172	160	Kurtosis	−0.12419
Rural scenario assessment	170	167	Skewness	−0.41328
Meeting globalization	170	161	Mean	3.594444
Good business model	167	152	Variance	0.969876
Grants (Govt./private)	149	154	Mode	0.946778
Tapping the CSR	168	151	Std. dev.	0.059025

Table 11.10 Focusing societal issues in educational paradigm: need assessment

Parameter	Weight		Combined analysis of statistical parameters	
	MBA	B.Tech		
Concern about depletion	178	178	Mode	−0.34625
Rural scenario assessment	173	182	Std. dev.	−0.43956
Meeting globalization	174	172	Variance	3.7
Good business model	154	153	Count	1.021535
Grants (Govt./private)	163	159	Standard error	1.044885
Tapping the CSR	170	142	Total	0.062169

11.3.5.3 Findings and Interpretations

Again the contrast between the opinions of graduation and post graduation students is visible:

1. The result interprets that the post graduation as well as graduation students demand the current scenario paradigm to be included in the curriculum. They are concerned about resource depletion as well as rural empowerment.
2. MBA students strongly lay importance of inculcating the inner consciousness aspect as well as defining the CSR perspective in the curriculum.
3. An overall good weight age of each parameter indicates that students show a good concern and express need for inculcating the above parameters so that it develops a holistic mind set of youth for resorting to green entrepreneurship as a career option.
4. A high mean, mode, and even a very high total clearly advocate the change demanded by the youth demography in their educational paradigm so that they may know the real societal scenario and may make their careers in an area wherein they also contribute to sustainable development.
5. Group statistics again indicate the central tendency though (Table 11.11).

Table 11.11 Entrepreneurship education instruments: importance assigned youth

Parameter	Weight		Group statistical parameters	
	MBA	B.Tech		
Sustainable and societal case studies	161	145	Kurtosis	−0.34625
Knowledge about national policies	169	154	Skewness	−0.43956
Knowledge about green venture fund raising	164	159	Mean	3.7
Incubation and technology transfer	178	150	Mode	1.021535
NGO academia partnership	149	153	Std. dev.	1.044885
Visioning, creativity and opportunity identification	182	167	Variance	0.062169

11.3.5.4 Findings and Interpretations

1. The data analysis clearly reveals that management students assign a high importance to case study methods, incubation knowledge, policy and fund raising knowledge, and opportunity identification tactics as a key input to development of entrepreneurial spirit in the youth.
2. The graduation students though seem to be less aware and concerned relatively have marked these factors too as very important
3. NGO academia partnership has been rated good but still lowest among the factors. Those who marked it high said the need of developing a training partnership paradigm (Table 11.12).
4. A high mean, mode, and total again speak out the importance of these factors with respect to thinking of youth about developing and encouraging green entrepreneurship.
5. Kurtosis is positive indicating that the tails are "heavier" than for a normal distribution.

It is to be noticed here that teaching pedagogy are different in undergraduate and postgraduate studies. So, definitely the postgraduation candidates have an upper hand in understanding and interpreting the aspects of green entrepreneurship paradigm.

11.3.5.5 Findings and Interpretations

1. The result interprets that the post graduation students lay high stress on the case study method to have a better understanding of the scenario. Further they want to get enriched with the actual knowledge of being sustainable and doing actual

Table 11.12 Entrepreneurship education instruments: need for change

Parameter	Weight		Group statistical parameters	
	MBA	B. Tech		
Sustainable and societal case studies	172	144	Kurtosis	−0.44549
Knowledge about national policies	174	163	Skewness	−0.26959
Knowledge about green venture fund raising	163	156	Mean	3.575926
Incubation and technology transfer	179	145	Mode	0.933492
NGO academia partnership	151	150	Std. dev.	0.887491
Visioning, creativity and opportunity identification	158	160	Variance	0.05681

Table 11.13 Entrepreneurship education paradigm: importance assessment

Parameter	Weight		Group statistical parameters	
	MBA	B.Tech		
Government efforts	158	144	Kurtosis	0.057067
Promotional societies	173	163	Skewness	−0.36971
Need as separate discipline	179	156	Mean	3.546296
Need of specialized faculty	158	145	Mode	0.926363
E-governance and IT facilitation	166	150	Std. dev.	0.862984

green entrepreneurship. The low interest of graduate students may be attributed to lack of awareness and concern about the issue in comparison to MBA students.

2. MBA students again strongly lay importance on inclusion of national policies and fund raising knowledge more strongly. However, techno graduates do acknowledge the importance of the inclusion of the same in the curriculum (Table 11.13).
3. An important difference again is noticeable on the issue of incubation and technology transfer. The issue critically deals with sustainable development in future. There is both a lack of knowledge and awareness in graduation students about incubation and technology transfer concepts and importance. Even many of them were even not aware about the same.
4. MBA students have again laid stress on learning from critical incident methods by discussion in the class room environment about critical day to day incidents.
5. A high mean, mode, and even a very high total clearly advocate the change demanded by the youth demography in their educational paradigm so that they may know the real societal scenario and may make their careers in an area wherein they also contribute to sustainable development.
6. Both have laid similar stress on NGO Academia partnership and developing the spirit of opportunity identification through the curriculum.

11.3.5.6 Findings and Interpretations

1. Most of the students in graduation do not know about the government efforts to promote green entrepreneurship. Also they are unaware about promotional societies working at national level. Still management students have rated the importance of both of them quite high. According to them both of them are very essential for outreach awareness and actually bring the change.
2. Management students have rated importance of developing green entrepreneurship as a separate discipline high. However, technical students were quite varying on their perception but overall total stands good.

Table 11.14 Entrepreneurship education: need for change in current paradigm

Parameter	Weight		Group statistical parameters	
	MBA	B.Tech		
Government efforts	161	154	Kurtosis	−0.81089
Promotional societies	146	106	Skewness	−0.38413
Need as separate discipline	140	126	Mean	3.26
Need of specialized faculty	166	147	Mode	1.303321
E-governance and IT facilitation	177	152	Std. dev.	1.842321

3. Each of them indicates that having a specialized faculty for teaching green entrepreneurship that can share with them actual real-life experiences and different cases through class room teaching is vital toward developing the spirit.
4. Both the categories of students rate importance of IT and e-governance promotion very high to develop, nurture, and implant the spirit. Though many were not aware about it, still the overall total stands apart (Table 11.14).

11.3.5.7 Findings and Interpretations

1. Need of reframing paradigm to have increased government and promotional societies impact on the green entrepreneurship aspects has been encrusted by all, whether aware or not.
2. Management students have indicated high inclination toward developing green entrepreneurship as a separate discipline. Technical students too have indicated similar interest; many said that it could be an optional subject.
3. High need of specialized faculty and IT facilitation is indicated by the results here.
4. A negative value of Kurtosis indicates that data is not tethered in one direction.
5. High values of standard deviation and variance indicate that data not only deviates from the mean but also from each other. This parameter indicates that there is a drastic difference between opinions of students.
6. The reason for such uncertainty in results is due to lack of awareness among various clusters of students from different colleges of different tiers.

11.3.5.8 Faculty Perspectives

The comprehensive analysis of discussions with 30 faculties has been summarized here. Faculties have shown a concern about depleting resources as one of the factors. MBA faculty also seems to be more persuasive on showing the business aspects of the green entrepreneurship to students. They advocate that the same will remove the insecurity about a safe career option from youth. Further, lack of

awareness about concepts of CSR etc., attribute to the lower overall concern about the related business aspects. The incubation and technology transfer concepts have been stressed upon by technology faculty. They state high need of NGO academia partnership also. NGO academia partnership model needs to be worked upon before implementation, as many of them said, so the overall rating is comparatively low. Both rated e-governance and IT promotion as important factors for green entrepreneurship development. They also stated that the role of promotional societies is important for making the students aware about green entrepreneurship paradigm and career pathway B.Tech faculty state the need of separate faculty as important. As they mostly deal with technical subjects and are not able to handle the managerial concepts that well. Most of the MBA faculty said that one of the faculties can handle the subject quite well.

11.3.6 Entrepreneurship Education: Recommendations and Solutions

1. Students want to know about green aspects of their life, how the inner conscious drives one; they are concerned about environment and globalization scenario also they want to know the business aspects of it. Keeping in view the recommendations of faculty about the same a deep knowledge of the life cycle of green enterprise, critical factors of society, need for green entrepreneurship, environmental needs, and controlled business aspects be shown to the students through the curriculum.
2. There is a demand for knowledge about national policies, incubation, and technology transfer and sustainability aspects; the same needs to be imparted through the case teaching methods wherein students can actually visualize the situation and try to find out solutions.
3. There is an increased need of popularity of government efforts to support promotional activities of green entrepreneurship. Also, the societies need to reach far flung colleges so that the students become aware what actually green entrepreneurship is and why it is required to be sustainable.
4. There is demand for green entrepreneurship as a separate discipline. If it is not possible than at least some basic part be included in regular curriculum and also it may be an optional subject too. There is need of concept inculcation at primary and UG level.
5. There needs to be more focus on green and sustainable technology development in engineering and on green supply chain practices in management curriculum.
6. Either a new faculty is to be recruited or the existing faculty is encouraged to gain expertise. Higher institutions of learning can conduct societal development programs(SDPs) like the way they do it in management and faculty development programs wherein they train mixed batches of practitioners, academia, and corporate.

Table 11.15 Support through incubation in current context

Parameter	Sum	Statistical parameters (overall)	
Business creation and survival	19	Mean	3.7
Registration and other legal issues	19	Mode	4
Innovations commercialized	18	Kurtosis	0.056051
Investment by venture capitalists	19	Skewness	−0.14084
Knowledge of intellectual property rights	17	Std. dev.	0.702213
Research and development	19	Variance	0.493103
Other parameters Count 30 Total 111 Standard error 0.128206			

7. There is a moderately high demand of NGO academia partnership so that students gain knowledge of actual societal problem and the challenge to handle them.

The entrepreneurship education needs to be powerful enough to provide a vision and opportunity identification technique to the budding entrepreneurs in colleges.

11.3.7 Dimension Four: Incubation Centers and Technology Transfer

This section describes how the university incubation and technology transfer centers have been functioning and working to improve the sustainability paradigm. These may be very critical for sustainable development in future (Table 11.15).

11.3.7.1 Findings and Interpretations

1. Incubation centers help in business creation/survival, registration issues, arranging the venture capitalists, and importantly R&D.
2. However, they are less helpful in providing IPR knowledge and getting the innovations patented and commercialized (Table 11.16).

Table 11.16 Support through incubation: change required in Indian context

Parameter	Sum	Statistical parameters (overall)	
Business creation and survival	19	Mean	3.7
Registration and other legal issues	20	Mode	4
Innovations commercialized	22	Kurtosis	0.056051
Investment by venture capitalists	20	Skewness	−0.14084
Knowledge of intellectual property rights	17	Std. dev.	0.702213
Research and development	21	Variance	0.493103
Other parameter Count 30 Total 111 Standard error 0.128206			

11.3.7.2 Findings and Interpretations

1. Incubation centers suggest need of improvement providing IPR knowledge and getting the innovations commercialized.
2. There is further need of strengthening R&D efforts and legal issues.
3. Positive kurtosis indicates the noncentrality of the response distribution (Table 11.17).

11.3.7.3 Findings and Interpretations

1. Incubation Centers are able to solve fund raising/Technical/Premises Problem to a greater extent for the sustainable start ups.
2. They have raised the issues of lack of managerial expertise/franchising issues as well as promotional issues.
3. As per the comments of incubation center personnels and companies, the incubations are far from developing green ventures; however, they are slightly working on sustainable development aspects related to technology.
4. Negative kurtosis and skewness describe nondispersion and values on right of mean (Table 11.18).

11.3.7.4 Findings and Interpretations

1. They advocate need of improving fund raising tie ups, removing managerial barriers that will strengthen franchising issues and legal knowledge.
2. Most of them told that they are able to solve the issues of lack of volunteers, premises-related problems for supporting the green venture.

Table 11.17 Possibility of support by incubation center

Parameter	Sum	Statistical parameters (overall)	
Fund raising problems	20	Mode	4
Lack of staff/volunteers	18	Kurtosis	−0.62261
Lack of suitable premises	19	Skewness	−0.48574
Technical and IT barriers	20	Std. dev.	0.927857
Managerial and training barriers	16	Mean	3.966667
Lack of legal knowledge	18	Variance	0.86092
Lack of specialist advice/support	19	Standard error	0.169403
Franchising issues	11	Total	119
Tie ups and promotion	14	Count	30

Table 11.18 Need of strengthening up tieups for support improvement

Parameter	Sum	Statistical parameters (overall)	
Fund raising problems	19	Mode	4
Lack of staff/volunteers	13	Kurtosis	−0.62261
Lack of suitable premises	15	Skewness	−0.48574
Technical and IT barriers	18	Std. dev.	0.927857
Managerial and training barriers	17	Mean	3.966667
Lack of legal knowledge	18	Variance	0.86092
Lack of specialist advice/support	16	Standard error	0.169403
Franchising issues	17	Total	119
Tie ups and promotion	16	Count	30

3. Negative kurtosis indicate central tendency and high mode indicates willingness.
4. High mean indicates that the above parameters are well acknowledged by the respondents as in relation to the subject (Table 11.19).

11.3.7.5 Findings and Interpretations

1. The incubation is highly low in the field of environmental concerns. Hardly one or two companies are incubated that too are working on reducing carbon chains.
2. However, the scenario is quite better in case of green technology and rural development.
3. Regional inclusion has been a part of strategy of some of the incubation centers.
4. However, still health care, manufacturing, and biotechnology aspects that can affect sustainability are hardly practiced there.
5. A good amount of potential exists in ICT development (Table 11.20).

Table 11.19 Dimensions: possibility of support through incubation

Parameter	Sum	Statistical parameters (overall)	
Tracing environmental footprint	9	Kurtosis	−1.09769
Information technology	16	Skewness	−0.20156
Green technologies	17	Mean	2.76
Rural employment technologies	17	Total	138
Agricultural innovations	15	Mode	4
Regional regeneration and social inclusion	16	Std. dev.	1.134973
Biotechnologies development	12	Variance	1.288163
Resource conservation technologies	14	Count	50
Healthcare innovations	11	Standard error	0.160509
Sustainable manufacturing	11	Range	1–5

Table 11.20 Need for knowledge sharing and improvement

Parameter	Sum	Statistical parameters (overall)	
Tracing environmental footprint	22	Kurtosis	−0.26538
Information technology	15	Skewness	0.010295
Green technologies	19	Mean	3.58
Rural employment technologies	18	Total	179
Agricultural innovations	17	Mode	4
Regional regeneration and social inclusion	18	Std. dev.	0.758355
Biotechnologies development	14	Variance	0.575102
Resource conservation technologies	22	Count	50
Healthcare innovations	16	Standard error	0.107248
Sustainable manufacturing	18	Range	1–5

11.3.7.6 Findings and Interpretations

1. Incubation centers express need of a major re-engineering on dealing with environmental and resource conservation technologies.
2. Further regeneration has been demanded in fields like regional regeneration to actually affect the prosperity of people in the area or the population to which the center can cater to.
3. Still low totals on biotechnology, health care indicate the perspectives in these areas not to be very good.
4. Sustainable manufacturing has been suggested as important by major engineering incubation centers, but they also said that it is not really easy because manufacturing engineers have to be trained to what sustainability is ad what are the measures for the same.

11.3.8 Incubation Center and Technology Transfer: Recommendations and Solutions

1. Still major incubation centers accept that they are not functioning up to that mark where they can actually affect the societal paradigm of the region, thus there seems to be a major need of awareness of the concept through education.
2. There seems to be an acute need of strengthening networks and more need of government and university efforts to give extra leverage and facilities to social and sustainable ventures.
3. There is a major need to focus on the health care, rural, green, and environmental technology again for that government funds will be required for these specific areas. Angel funders and Investors need to be collaborated too.

4. Actual meaning of technology transfer need to be made understandable to youth as well as the incubate so that it can find its true meaning and incubation centers are utilized for what they are meant apart from profit venturing, i.e., the societal good and sustainable development.

11.3.9 Dimension Five: Banking Support to Green Ventures

Based on comprehensive and strategic discussion with the bankers from five different banks including public sector banks, following is summary of discussion. The numeric details of the survey results are skipped to make the chapter in the provided word limit. The various parameters covered were namely, inability to offer collateral, potential success, lack of knowledge, and credit history. Microfinancing gets difficult as banks are not able to visualize the success of enterprise and thus the safety of their money. Even after overlooking credit history/collateral details, lack of knowledge and paper work stands as major barrier. Bankers have indicated high need of enhancing cash flows from commercial banking to such institutions so that both are benefitted. It has been agreeably true to ask microfinancing institutions to access main stream capital markets for fund raising through venture capitalist, angel funders etc. A major problem lies with the success forecast of microsocial enterprise. Creation of intermediaries may be a solution for such problems. These bodies will have local reach and would be able to sense and understand better the situation of enterprise and will be beneficial to banks too. However, there has to be a check on the operational paradigm of the same if created.

11.3.10 Dimension Six: Viewpoints of Eminent Personalities

This section includes the summary of talks with people of recommendable positions of academia like VCs, of government like Joint Secretary and policy formers, and some other socially known names from corporate and social fields. The key points may be enlisted as:

1. It is not easy to identify the real intentions of a person/corporate behind social efforts. Sometimes it is just an abstraction of malpractice so government cannot always ease out processes.
2. People lack awareness about existing paradigm for them, there are gaps on promotional part; but the reluctance of middle bureaucracy is the cause of problem.
3. It is good to highlight green entrepreneurship and sustainability as a discipline so that youth is connected to it; they should be shown ethical dimensions from school To find the real purpose of sustainability through incubation is not possible without academia–corporate partnership and mentoring but, the later

shows lesser interest. Academia will have to come out with solutions to tackle this problem.
4. A mass awareness has to be brought about than only the objective of prosperity may be met. Education and government support is the success solution possible.
5. Public–Private Partnership is good for such a cause; however, corporate will need to have a sense of responsibility to do the same; it is a moral binding, no rocket science should make it a compulsion.

11.4 Limitation and Road Ahead for the Research Work

The present study could have gone deeper indicating sub classifications, dimensions age, gender-based variance analysis, and using techniques like ANOVA (Analysis of Variance) etc. to a deeper sense to bring out more interpretations. The sample size could have even been larger, but since the chapter aims to bring out an overall framework, so that was limited considering the time and funding factors. However, the work has progresses much which could not be included in the paper to maintain the homogeneity. We aim to do the same and include more precise results on an increased collection of data so that results get more refined till the time of camera-ready submission.

11.5 Conclusion

The popularity of green entrepreneurship and sustainable development as a concept is growing at a moderately good pace in India despite the fact that the current economic scenario does not seem to be a nurturing ground and post recession ripples are still to be won over. In the last 3 years, more and more citizens and specially the youth are developing interest in this field including those who have just completed their education from prestigious Stanford, MIT, and Oxford. This new evolving field has also got early venture capitalist interested in funding with many seeking out such enterprises that hold out huge potential. However, as the green sector has been coming in touch with the private sector, the initiatives that the government is taking —though still not that much adequate, the scenario has begun to change for sure, a realization has also been formed that a single-minded approach of either being pure philanthropic or a pure capitalist is insufficient to serve the purpose of the society. Along with this many other major and minor changes in educational setup, administration, e-governance, funding, awareness programs needs to be taken care off. We agree that these changes are being taken care off but the pace of the change is far too slow to meet the requirements. We strongly recommend the findings to be applied in the respective fields so that the society as a whole moves together toward a better life, a sustainable environment, and a better tomorrow.

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Chapter 12
Green Awareness by Corporates and Entrepreneurs in India: A Case Study of Pune City in Maharashtra State

Pradnya Chitrao and Asha Nagendra

12.1 Introduction

The Times of India 3rd October 2011 edition (p. 13) reported that the "Europeans will not agree to a second phase of Kyoto Protocol unless emerging economies, such as India, give a date by which they will take on legally binding targets to cut emissions under an international deal." More and more developed countries are putting the pressure on emerging economies like India to accept legally binding targets of environmentally friendly business practices, and thereby own responsibility towards the creation and maintenance of a green environment (Economist 2008). While CSR is already well established in developed-country firms, it is also becoming important for firms in the developing countries. Extensive research has so far been conducted on CSR in the developed countries; but much less is known about it in the developing countries (Poillon 2000). So far two points about CSR in the developing countries emerge: firstly, firms in developing countries adopt less CSR than their counterparts in the developed world (Welford 2004), and secondly, the main reason for this is their low economic development levels (Baughn et al. 2007). This limited understanding of CSR in the developing economies is a major challenge for both the international community and academics.

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12.2 Literature Review

The rationale behind Corporate Social Responsibility is that since a business derives several benefits from society, it must also in turn return those benefits to society as well. In 1970s there was only one social responsibility of business—to use its resources and engage in activities designed to increase its profits (Baskin 2006). According to Howard Bowen (1953), social institutions shaped economic outcomes; and since business firms are economic outcomes of societal interests, they should also consider the social impact of their activities. According to Bowen, "CSR refers to the obligations of businessmen to pursue those policies to make those decisions or to follow those lines of relations which are desirable in terms of the objectives and values of our society" Howard Bowen (1953). Recently, there has been a drastic increase in health and product safety issues associated with products manufactured in emerging economies, such as the milk and toy scandals in China (Bogdanich 2008). This has not only caused concern worldwide, but has also tarnished the image of the country of origin and the corporate reputation of the firms operating there. Consequently, the international business community needs to understand better the importance of CSR and what affects CSR in the emerging countries (Lal and Jha 1999). It is therefore imperative to know what factors influence firms in the emerging economies to behave in a socially responsible way (Pandve 2007). The internationalization of BRIC firms has led to greater awareness of concerned governments, groups and individuals about issues like pollution, product quality and safety affecting the world at large (Global Information, Inc. 2006; Bogdanich 2008).

Today, CSR is now viewed as a comprehensive business strategy, because of performance considerations and stakeholder pressure (Melnyk et al. 2003). Business houses rightly regard the impact of their business on society as significant issues. More companies today see CSR as a critical strategy issue, and therefore are adopting CSR programmes (Rhee and Lee 2003). CSR is basically viewed as a citizenship function with moral, ethical and social obligations that are mutually beneficial to both the organisation as well as society. It is a way of sustaining business as well as protecting the environment through cooperation between businesses and consumers (Sawhney 2004). Among CSR practices, Green Practices (GP) involve developing a production process that conserves energy and other natural resources (Porter and Kramer 2002), creating advertisements and other promotional messages that accurately communicate a company's commitment to the environment (Kangun et al. 1991), setting prices for Green products that consumers will pay in the interests of environmental safety (Granzin and Olsen 1991), and ensuring a more environment-friendly transportation of products to market (Bohlen et al. 1993). On account of public policy and consumer demand on GP, many restaurateurs have banned smoking in restaurants, introduced recycling practices; they are now offering healthy menu choices, labelling menu items more accurately, adopting energy conservation practices and reducing pollutants (Wilson 2009).

12.3 Research Methodology

In India, there was initially little or no documentation of CSR and GP. In the recent past, there has been a growing realisation on the part of business houses and entrepreneurs of the need for CSR and GP for improving and conserving the environment. They have started realising that the public also favours companies that show genuine socially responsible behaviour, and prefer their goods and services (Lord et al. 2004). Impetus for the "greening" of organisations is increased consumer awareness, as reflected through the environmentally conscious marketplace size (Menon and Menon 1997). Today more and more consumers value how organisations manage their processes irrespective of the quality or performance of products and services sold (Orsato 2006). Although all companies are expected to become "better citizens" by their stakeholders, only some convert environmental investments into sources of competitive advantage (Kathuria and Gundimeda 2002). This is evident from various newspaper reports of fish dying in rivers and busy roads getting water logged due to clogging of gutters by plastic bags.

So on the one hand, multinational companies are implementing a lot of environmentally friendly corporate responsibility practices while, on the other hand, small businesses don't even know the Green Business practices that are to be necessarily adopted as per the law. Companies view Corporate Environmentalism (CE) as either a cost or an investment, depending on whether they take an either proactive or reactive approach. Environment-sensitive organisations view CE as an investment that will yield future returns. But reactive organisations, who are not sensitive to environment, typically implement environment-friendly practices only for compliance reasons; these companies perceive CE as a cost (Coglianese and Nash 2001). Some companies having medium environment sensitivity focus their resources in a narrow decision area. Opportunistic organisations adopt environmental strategy in all areas but which are not advanced.

The authors therefore wished to study the kind of green measures that corporate and entrepreneurs in Pune follow. They wanted to know how aware they are of the need for eco-friendly entrepreneurial systems for maintaining a more sustained environment. The authors administered a structured questionnaire to owners of small businesses in the main busy areas of Pune to find out whether they are aware of global warming and whether they are following green business practices. Both primary and secondary resources were used to learn whether entrepreneurs and business houses are adopting environment-friendly practices.

12.4 Findings

12.4.1 Secondary Sources

The research showed that many corporate houses in India are involved in unethical dealings that grossly attack human rights; the livelihoods of tribals and their right to

decent living by dispossessing them of their lands in the name of mining and other development activities has been done many a times by industrial giants and multinationals. For, e.g. the Vedanta Group was involved the Forest Conservation Act and Environment Protection Act in Orissa in their haste to set up bauxite mines and expand their refineries (Hindustan Times 2010).

At the same time, India has a history of corporate philanthropy, and industrial welfare has been practised since late 1800s. Companies have realised that their activities have an impact on the natural world surrounding them. For example, consumer demand for green or organic goods rose from 2006 to 2008 by 24 % (Mann 2006), and companies are responding to this by both creating environmentally friendly products and also by advertising and marketing both their products and their sustainability practices (Sewell 2010). Some organisations have implemented sustainability practices by employing green information technology (IT). Green IT reviews an organisation's IT policies and finds ways to reduce consumption; the latter can be achieved by changing the organisational culture and behaviour and, by upgrading servers, networks and other IT components to energy-efficient models whilst attempting to recycle the older components (Mukhopadhyay 2002). These IT green initiatives include efforts to make the design, packaging, operation and disposal of IT assets less harmful to the environment through all dimensions like achieving energy efficiency, opting for less use of toxic materials and packaging and easier reuse and recycling of equipment at the end of its useful life. Ideas like alternate and renewable sources of energy, recycling, e-waste management, green architecture, green computing and adoption of eco-friendly solutions are also becoming part of 'Go Green' initiative and gaining priority on corporate agendas. Leaders of business and government organisations around the world have committed themselves to initiatives that address a wide range of green issues. Today, IT used in implementing green initiatives as it saves money and is more environmentally friendly (Smith 2003).

A survey was conducted by students of Symbiosis Institute of Management Studies, Batch of 2011–2013 to find out the extent to which IT companies have adopted the 'going green' policies by increasing the awareness level of the employees and taking green initiatives like taking double-sided printouts (Fig. 12.1).

They also found that many people (88 %) are aware of the current developments taking place in the green IT field. Few of them (12 %) have neutral view of the recent trends (Kumar et al. 2011). This result is in spite of the fact that majority (97 %) have never attended any training/Seminars/Courses (Fig. 12.2).

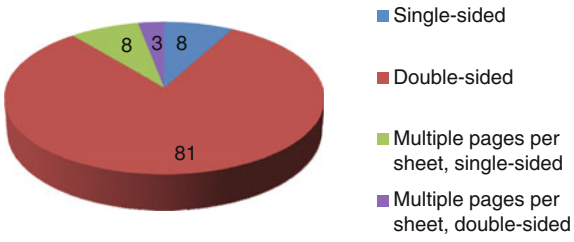

Fig. 12.1 Printing format preferred

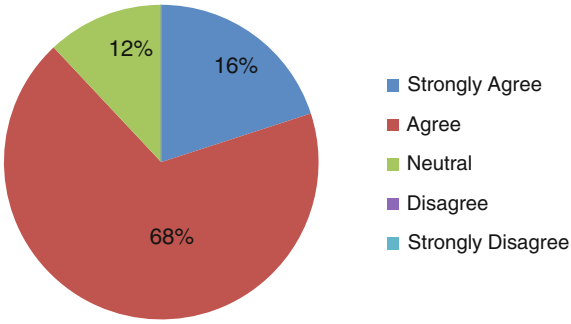

Fig. 12.2 Awareness about the green IT

This clearly indicates an increasing awareness amongst software professionals regarding the adoption of 'green' IT practices. Many of the software companies like Cognizant, TCS, Infosys, I-Gate, Wipro, etc. are using different green practices (GP) like virtualization, cloud computing, replacement of AC with DC, reducing printing of documents, waste management, rain water harvesting, power-efficient server and storage solutions, reduced plastic usage, mass transport, planting of saplings around campuses, use of LED lighting instead of fluorescent lighting, disposal of e-waste through authorised processor E-Parisara (certified from Pollution Control Board—Form 1), using treated water for landscaping instead of potable water, no smoking zones across campuses thereby reducing pollution and many others. Infosys is set to become carbon neutral by 2012. Many of the companies have gone for Certifications, i.e. LEED (Leadership in Energy and Environment Design).

A study conducted by another group of student managers from Symbiosis Institute of Management Studies, Pune (Batch of 2011–2013) in Atos Origin, Pune showed that all the employees were aware of the current environmental issues around the globe. The survey also showed that people want to be environment friendly but did not know how to go about it (Tiwari et al. 2011). 27 % of them did not know the ideal processes for the same. 23 % opined that wrote "recycled product and efficient use of resources" as the ideal process but none of the respondents could come up with any innovative or enthusiastic responses (Fig. 12.3).

In the field of automobile manufacturing, the first name that comes to one's mind is that of Tata Motors, Pune. In the year 2009–2010, Tata Motors relooked at their

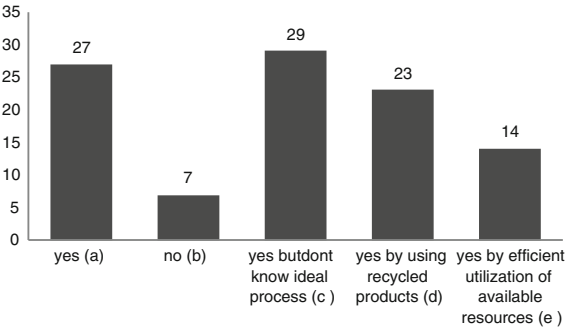

Fig. 12.3 Environmental preservation issues

sustainability priorities and identified key areas namely Energy and Climate Change, Material and Waste Management, Health and Safety, Sustainable Innovation, and Social Responsibility. In terms of Energy and Climate Change, Tata Motors has initiated development of environment-friendly vehicles. They are focussing on harnessing hydrogen as a source of energy. The company reduced its material intensity by recycling scrap metal generated from operations through cooperative society measures. Last year, the company recycled more than 17,500 MT of metal scrap generated thereby reducing equivalent use of virgin material. The company actively seeks to diversify their energy mix, and its current renewable energy amounts to 4.38 % of its total energy consumption. The company addresses health- and safety-related issues at operations as well as the products levels. It endeavours to ensure safe conditions for all. The company was also the first to develop and introduce airbags in cars. It is the only manufacturer in India to have a crash test facility. A lot of innovation is encouraged to save energy, costs and to improve efficiency. As per the Human Rights Charter, Bharat Nirman Programme and Millennium Development Goals, the company has focussed on health, education, employability and environment. As Mr P.M. Telang mentions in the Tata Motors' Corporate Sustainability Report 2009–2010, "Sustainability is everyday business at Tata Motors, and we are cognizant of the fact that we cannot succeed if we do not incorporate this concept in our decision-making."

Another major player in the manufacturing industry is Mahindra. The company has committed itself to reducing its energy and resource consumption as also its GHG/CO_2 by 5 % by 2014. It has also set itself a 100 % target of spreading sustainability awareness to its stake holders in the same time frame. The company recognises the significance of Climate Change and its ensuing challenges namely, poverty and natural resource constraints. In a world where standard, legacy approaches, are fast leading to economic, social and environmental dead ends, at Mahindra, Alternative Thinking is driving sustainability to the heart of every business decision. It is not only helping them cater to the exponentially rising societal and environmental demands, but also equipping them to harness emerging economic opportunities. For this, the company has set up a new technologically updated manufacturing plant at Chakan, and a research facility at Chennai, South India. The company's 100 million USD investment in the "Mahindra Research Valley" (MRV) which is a fully integrated R&D facility, will focus on constant upgrading of fuel efficiency and alternative fuel technologies in all its future offerings. Scorpio received the Best off-road Vehicle for the Year 2009 and Mahindra received the Environment Initiative of the Year for its unique start-stop technology in 2009. Mahindra bagged the 'Excellence in Sourcing' (Corporate Award) 2009 for its exemplary sourcing initiatives, leading to cost reductions and mitigation of supply risks from the Indian Institute of Materials Management. FES, Nagpur plant received the CII National Award for 'Excellence in Water Management' in 2009. As a progressive company in step with changing times, Mahindra is strategically integrating sustainability in all businesses and making it intrinsic to its decision-making process.

12.4.2 Primary Sources

The authors, as mentioned earlier, also conducted a survey of small businesses and entrepreneurs. The survey showed that many of the small businesses and establishments did not know of many of the green business and production practices that are in vogue and are practised by companies. For, e.g. check of vehicle emissions was found to be one of the most popular Green Practice followed by conservation of energy/electricity and then by planting of trees. It was also interesting to note that two small business establishments, providing components to major companies in Pune that are well known for their sustainability measures also mentioned planting of trees on their business campuses as the only green measure adopted by them (Fig. 12.4).

For many business establishments including doctors, chemists, etc., the garbage was kept out to be collected by the PMC van. Very few of them segregated their garbage into dry and wet, and a still smaller percentage burnt it on accumulation (Fig. 12.5).

A majority of them travel to their place of business by personal vehicle. The concept of carpooling is not popular, the most common reason being given that it is not convenient (Fig. 12.6).

Respondents also opined that the reason for entrepreneurs and small business establishments not implementing Green Practices is basically cost factor followed by lack of knowledge. In fact many of the respondents were hesitant to respond, and a lot more flatly refused to answer the questionnaire though it was a very short, one-worded in very simple language and the authors were willing to translate and explain the questions to them (Fig. 12.7).

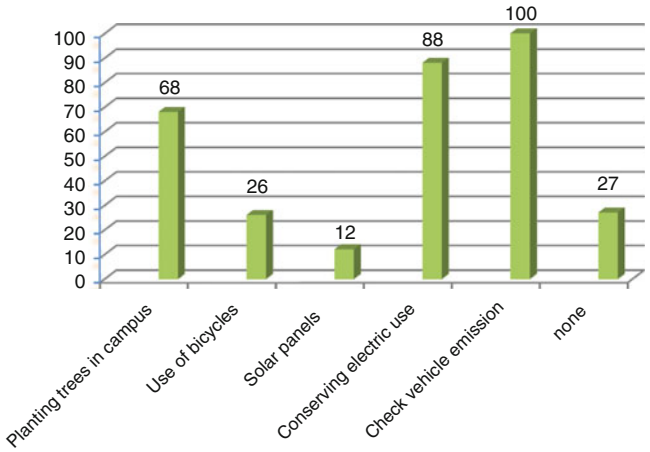

Fig. 12.4 Some green measures adopted

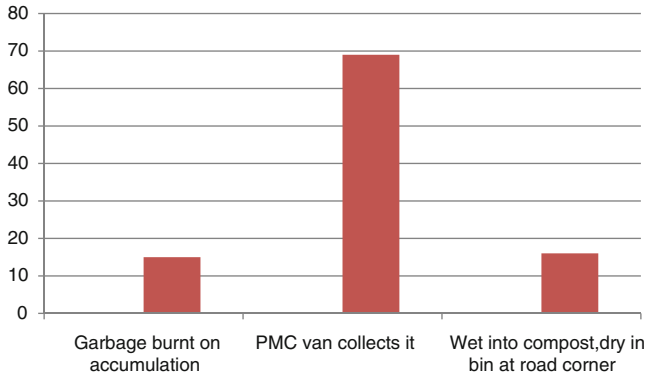

Fig. 12.5 Segregation of waste

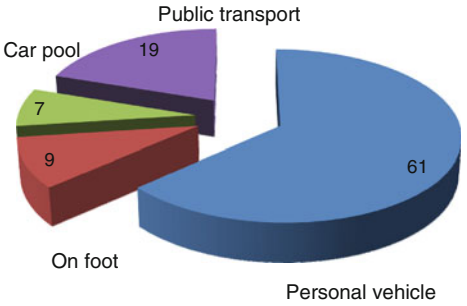

Fig. 12.6 Mode of travel to work

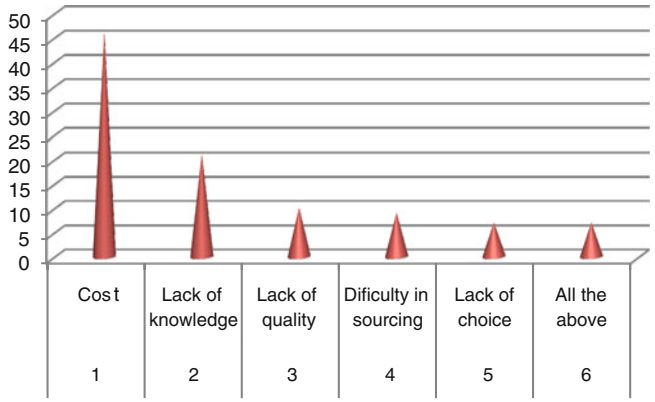

Fig. 12.7 Factors preventing use of environmental friendly products

12.5 Conclusions

It is clear from our secondary and primary research that while the major companies in Pune are adopting various Green Practices and sustainability measures, the small-time entrepreneurs and businesses (chemists, doctors, laboratories, small component manufacturing units, small restaurants, Udipi joints, Xerox shops, etc.) are not very clear about the various ways in which they can be environment friendly. Many of them were under the impression that environment-friendly measures are required and can be practised by big business establishments as they may be more prone to creating waste of various kinds and also because they had both the money to spend as also the fact that they earned big profit margins.

The findings are in a way linked to the findings of the research conducted by the SIMS student managers at Atos Origin wherein they found that while the company itself had implemented many sustainable and green practices, the employees themselves were not very clear as to how they themselves can be environmentally friendly in their individual capacity. The group also found that while the IT companies were environmentally conscious and had implemented green policies to curb the environmental degradation, there were no innovative techniques adopted to increase environmental sensitivity.

The findings thus are an indication of why we get from time to time newspaper reports of river pollutions and flooding of streets due to gutters choked with plastic. It is clear that since most of the businesses are small enterprises, the government and NGOs need to direct their energies to educating and incentivising and to some extent even pressuring this segment of business establishments. Only then can we hope for a more sustainable environment in the near future.

12.5.1 Limitations of the Research

There was first of all a great reluctance on the part of entrepreneurs and small business owners to answer the questionnaire. Establishments like Chitale refused to fill up the questionnaire. Many of them turned away the researchers on grounds of lack of time. Some of them simply avoided returning the questionnaires duly filled in. Some of them had to be explained in Hindi or Marathi the meaning of the questions and their responses had then to be filled in by the researchers themselves in English after getting their replies. Doctors, chemists and owners of small manufacturing units filled in the questionnaire after learning that the data would be presented at the BRIC nations' conference being hosted by IIM (B).

12.5.2 Future Scope of Study

Government agencies/NGOs/researchers can find out the number of small and medium business establishments of different kinds, and how they can be made open to knowing and implementing sustainable and environment-friendly business practices. The ratio of such small enterprises will give a correct estimate of the need to educate this segment of business setups about sustainability and to ensure that they also start implementing Green Practices.

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Chapter 13
Social Entrepreneurship—Building Sustainability Through Business Models and Measurement of Social Impact

Shinu Abhi, Vasanti Venugopal and Sandeep Shastri

13.1 Introduction

"Social ventures" typically led by inspired individuals—so-called "social entrepreneurs"—have attracted increasing attention recently as the most viable answer to a plethora of social problems faced by countries. Social entrepreneurs realise the opportunity in addressing the social problems, as there is a shift away from the public sector—governments and non-governmental organisations—to the private sector—businesses and individuals. The entrepreneur is incentivized to generate more profits and as more profit is made, the more the social problem is alleviated (Thompson and MacMillan 2010). The phenomenon of social entrepreneurship is now studied thoroughly both by academia and industry, so that successful models can be learned and replicated for greater good.

The significance of this study is that social entrepreneurship as a model for creating social and economic value, according to literature, is both underestimated and misunderstood (Harding 2004). Rigorous research, focused on supporting and strengthening the processes and techniques used by social entrepreneurs, is suggested. So far, a few operating methods, business models, and best practices have been identified (Roberts and Woods 2005). There is a need to investigate the structures created by social entrepreneurship, the co-operations and partnerships they engage in and the way they shape the value chains in the different sectors

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Table 13.1 Showing the sample case studies of social entrepreneurs

The name of the venture and location	Nature	Social entrepreneur interviewed	Description of venture
EnAble India, Bangalore	Not-for-Profit Ventures	Shanti Raghavan, CEO and Founder	Train and employ persons with disabilities(PWDs)
Dream A Dream, Bangalore		Vishal Talreja, Co-Founder and Executive Director	Impart life skills to children from vulnerable backgrounds
Vaatsalya Health care Bangalore	For Profit Social Ventures	Ashwin Naik, Co-Founder and CEO	Low-cost high-quality health care to semi-urban and rural India
Jayashree industries, Coimbatore		A. Muruganantham, Founder	Low-cost sanitary napkin making machine

(Seelos and Mair 2005). This study is to explore the different business models of both for-profit and not-for-profit social enterprises and examine the suitability to their ventures. The researchers have chosen four Social Enterprises, of which two are not-for-profit organisations and other two are for-profit ventures. Three of the founders, Shanti Raghavan, Vishal Talreja and Ashwin Nayak are Ashoka India[1] fellows and A. Muruganantham is a National award winning social entrepreneur (Table 13.1).

The structure of the paper is as follows:

- Part I—Understanding the related concepts and the research methodology.
- Part II—Description of the four organisations, their inception, value proposition, target customers and their business models.
- Part III—Examine the social impact of their enterprises and evaluate the pros and cons of adopting certain practices.

13.2 Conceptual Background

Social entrepreneurship means different things to different people with numerous definitions depending on the context in which the phenomenon takes shape. There are many terms interchangeably used in the research associated with social entrepreneurship like social change agents, community entrepreneurship, corporates social responsibility, social activists, social entrepreneurs, non-profit organisations, etc. Thus, the concept of social entrepreneurship is still poorly defined and its boundaries to other fields of study remain fuzzy (Mair and Marti 2006).

[1] Ashoka India Foundation (AIF) is a leading international development organisation with the mission of accelerating social and economic change in India (Website: www.ashoka.org).

Late Professor Greg Dees[2] of Duke University, says social entrepreneurship is the pursuit of "Mission-related impact" (Dees 1998). The definition of social entrepreneurship combines value creation with innovation and change (Schumpeter 1951), pursuit of opportunity (Drucker 1985), and resourcefulness (Stevenson 1983).

The closer a person gets to stratify all these conditions, the more that person fits the model of social entrepreneur. As a result, social entrepreneurship has become so inclusive that it covers all socially beneficial activities. Most of the definitions seem to confirm that social entrepreneurs bring about transformation and acts as the catalysts behind social progress, while working hard to replace short-term charity with sustainable solutions (Braunerhjelm and Stuart Hamilton 2012).

For the purpose of this study, social entrepreneurship is defined as follows:

'Social enterprises are businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximise profit for shareholders and owners'. According to Department of Trade and Industry, UK they tackle a wide range of social and environmental issues and operate in all parts of the economy, and use business solutions to achieve public good (Department of Trade and Industry 2012).

13.2.1 Business Models in Social Entrepreneurship

The term "business model" is sometimes a sketchy term. According Zott et al. "though academics around the world have moved towards simplification of a business model, the term often used out of context has led to it becoming often confused as a concept. At a general level the business model has been referred to as a statement (Stewart and Zhao 2000), a description (Weill and Vitale 2002), a representation (Morris et al. 2005), architecture (Osterwalder et al. 2005), a conceptual tool or model (Osterwalder and Pigneur 2010) etc. This term was defined and used differently, to encompass anything from structural elements to agent interaction (Zott and Amit 2007) or knowledge leverage (Shane and Venkataraman 2000; Zott and Amit 2010)".

More evolved and sustainable business models is now a prerequisite or necessity, if a social entrepreneur would want to expand its scale, raise venture capital funding, or reach more beneficiaries. Based on the literature review the researchers have narrowed down two seminal works on Business Models, Alex Osterwalder's Business Modelling of nine building blocks (Osterwalder and Pigneur 2010) and Four Lenses Strategic Framework's Business Models for Social Entrepreneurs (Alter 2010). This study is based on the models described in these articles.

[2] Widely regarded as "Father of Social Entrepreneurship".

13.3 Problem Statement

From an extensive literature review the researchers narrowed down two critical problems as described below as areas for this study.

In order to create a successful and sustainable social enterprise, the social entrepreneurs need to fine-tune their business models and successful social entrepreneurs are constantly seeking novel and unique business models, so that they can increase their social impact.

13.3.1 Research Objectives

This study explore the different business models of social enterprises and examine the suitability to their ventures. In-depth examinations of their business models reveal that based on the type of social venture, they require appropriate business models and may not have a standard format. A study of this nature would throw light on the strategies on viable business model/revenue model which are imperative for successful social entrepreneurship. The major objectives of the study are,

1. To explore the business models adopted by social ventures (for-profit and not-for profit),
2. To understand the measurement of social impact of the venture,
3. To develop a conceptual model of sustainable business model.

13.3.2 Research Methodology

The methodology undertaken in this study consisted of a combination of desk-based research, and a series of personal interviews. Various research journals on entrepreneurship, social entrepreneurship and general management are reviewed to understand the various conflicting concepts associated with social entrepreneurship. "Multiple case study method is used to understand complex social phenomena and is applicable when a contemporary phenomenon is being investigated within its real-life context, when the boundaries of the phenomenon and the context are not clearly evident, and when multiple sources of evidence are being used. Critics typically state that single cases offer a poor basis for generalizing. However, such critics are implicitly contrasting the situation to survey research, in which a sample is intended to generalize to a larger universe. This analogy to samples and universes is incorrect when dealing with case studies. Survey research relies on statistical generalisation, whereas case studies (as with experiments) rely on analytic generalisation. In analytical generalisation, the investigator is striving to generalise a particular set of results to some broader theory (Yin 2014)".

The four social entrepreneurs discussed in this study were suggested by a social venture capitalist. Expert opinion is one of the preferred methods (Mair and Marti 2006) to identify the samples in a multi-case study method. These four organisations represent various sectors like health, education, livelihood etc. They also are of varied scale, target groups and customer segments. The four case studies have been analysed based on Osterwalder's Business Model's major three building blocks which are:

- Value Proposition, which include products and services,
- Customers who consist of target group, distribution channels and customer relationship,
- Infrastructure, which include core capabilities and partners network,
- Cost and revenue model.

Apart from these key parameters which help to measure the effectiveness of Business Model, to have a comprehensive understanding, the following details are also described:

- Entrepreneurial story and motives,
- Vision and mission of the social enterprise,
- Social impact or outcome created,
- Issues and challenges of the enterprise etc.

13.3.3 Limitations

Since the sample size is limited to four social entrepreneurs, the study may not represent the general characteristics of social entrepreneurs. Most of the information collected for this study is based on personal interviews with the founders and secondary data available in their websites. Interviewers' and founders' bias and limitations of capturing the dynamics of a social enterprise through a limited number of questions might have crept in.

13.4 Case Studies of Not-for-Profit Ventures

13.4.1 Case Study 1: EnAble India

Founders: Shanti Raghavan and Dipesh Sutariya
(Website: www.enable-india.org)

13.4.1.1 Entrepreneurial Story

Shanti Raghavan, founder and Managing Trustee of EnAble India, narrates how she helped to cope up her brother who lost his eyesight at a very young age and realised how many such persons with physical disabilities (PWD) are ignored by our society. This motivated Shanti to give up her plum job in an IT company and founded EnAble India as an NGO. Since its inception, the vision of EnAble India has been to strive for the economic independence and dignity of those with disabilities.

Initially EnAble India had a single room and a few computers donated by her friends and acquaintances for their operations. The activities included computer training for the blind, parents' workshops and transcription services, etc. The focus was on people with vision impairment and to place some visually impaired candidates in jobs, but soon she found it impossible to provide them full-time jobs. This lead them to create a model that is unique to EnAble India where the focus is not only in enabling persons with disability by giving them training and employment but also sensitizing employers to the business case of employing them.

13.4.1.2 Mission and Vision

Mission: EnAble India's mission is to empower persons with disability. The mission is founded on the firm belief that the disabled do not need sympathy—they need a supportive environment to grow and fulfil their needs, potential and dreams. EnAble India's core activities are employment of people with disabilities, pre-employment services, supplemental education, counselling and support services, consultancy and training for other institutions and NGOs and technology services. EnAble India trains and counsels persons with disability and prepares them to join the mainstream workforce as confident individuals (www.enable-india.org).

13.4.1.3 The Value Proposition

The initial training programs developed by EnAble India focused mainly on developing computer-based skills with the help of self-paced exercises and tactile diagrams. From 2005 to 2007, the operations expanded significantly with employability training, computer training and placements across multiple cities including Delhi, Mumbai, Hyderabad, Kolkata and Pune. EnAble India is now operating from one administrative office and three training centers. This has given the much-needed momentum and scale required for expanding activities in the form of Training, Employment Guidance and Placement (EGP). EnAble India recently released an "Automation Tool 1.0 version which enables the trainee to learn the Computer Basics, MS word, Excel, and Internet concepts on their own, without trainers' intervention (www.enable-india.org). EnAble India is now working as a placement cum training agency for the Government of Karnataka and its working is

recognised on multiple central Government platforms involved in technological research in disability space. The organisation has developed a model in respect of inclusion of existing employees at State Bank of India. It has also started a programme for training persons in Autism spectrum and out of a batch of 10 such candidates 6 have already found employment with SAP Labs.

13.4.1.4 Target Market

EnAble India has a set of multiple stakeholders to address which include,

- Persons with Disabilities
- The Companies which recruit them and,
- Funding organisations

The PWDs, who register with EnAble India are enrolled in an 8-month training programme that teaches them computers, life and soft skills and a walk-by of different industries. When a suitable vacancy shows up, the candidate is offered a more specific orientation of his new job. While some of the companies like IBM act on their existent diversity policies (encouraging a more heterogeneous workplace), for others it is part of in-house Corporate Social Responsibility, while the remaining recruitments are motivated by goodwill.

13.4.1.5 Infrastructure and Partner Network

EnAble India works with a complex list of stakeholders and partners network. From funding agencies, Government departments, organisations' CSRs, volunteers, parents of PWDs, and the companies where the PWDs are placed, the list is endless. In the past 10 years, EnAble India has placed about 1,200 individuals in companies like Accenture, IBM, Shell, Goldman Sachs, Big Bazaar and others, from housekeepers to brew masters, software engineers and quality analysts. Currently EnAble India has directly placed 1,250 plus persons with Visual Impairment, Hearing Impairment, Physical Disability, Muscular Dystrophy, Cerebral Palsy, Development Delays and Mental Illness. They also work with various NGOs to source these students. The core focus of EnAble India is to open up companies and jobs. This benefits not only candidates to get jobs on their own or through referrals but enables companies to hire persons with disability and also other NGO's to enable their beneficiaries. The solutions oriented approach of EnAble India has opened up jobs for candidates with profound disability and newer opportunities and roles for others. 93 % of companies who have hired their candidates have said there has been a high impact by hiring persons with disability.

13.4.1.6 Finance: Revenue Model and Cost Structure

EnAble India has multiple revenue streams which are,

- Donations from individuals and Institutions,
- Professional charges,
- Recruitment income and
- Training and seminar fees.

Individual Donors: EnAble India has always relied more on donations due to word of mouth of the work. Hence individual donors play a very big part in giving the support. They even get donations from their own candidates and students which is a validation of their work.

Institution Donors—Major Ones

- Axis Bank Foundation
- Sir Dorabji Tata Trust
- Tech Mahindra Foundation for the E-Vidya project, to make the employability training to every individual candidate with disability across India.
- Sir Dhun Pestonji Parakh Discretionary Trust funds the Children Services and Early Intervention programme for Visually Impaired Infants and Children.
- Charities Aid Foundation (Accenture and Microsoft)
- American Aid Foundation
- State Bank of India
- Department-Empowerment of Differently Abled & Senior Citizens- Karnataka Govt.

They also have many eminent partners with whom they collaborate to create curriculum, material support, profiling candidates, imparting training etc.

13.4.1.7 Social Impact

See Table 13.2.

Table 13.2 Social impact of EnAble India (Extracted from annual reports)

Growth Indicators	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014
No. of PWD's registrations	694	725	849	662	1558
No. of PWDs trained directly	420	402	508	299	900
No. of volunteers	180	283	260	312	172
No. of companies recruiting	149	69	57	44	68
Total no. of placements	176	208	291	132	384
No. of workplace solutions created	49	73	69	199	130
No. of states covered	13	14	19	12	14

13.4.1.8 Sustainability and Business Model

Major source of funding for EnAble India are individual and institutional donors. With the help of Sattva, a social enterprises consulting firm from Bangalore, the couple is establishing another entity named, EnAble India Solution Private Limited, a for-profit arm of the trust, which is on the lookout of multiple revenue sources, by encashing the existing competencies of EnAble India.

13.4.1.9 Challenges and Future Plans

According to National Centre for Promotion for Employment for Disabled, (NCPEDP) in India there are 70 million people with disability. But the companies in private sector hardly hire them. A corporate survey conducted by NCPEDP in 2000 showed that the cumulative average of disabled recruitments in 70 companies was 0.4 %. It also showed that the average employment rate of disabled people in the private sector was only 0.28 percent. The public sector showed an employment rate of 0.54 percent and in multinational companies it was a mere 0.05 percent.

Sensitising the companies towards employing PWDs would have to be taken at a bigger scale as the number of trained PWDs increases year after year. Both Shanti and Dipesh are confident in changing the current charity model to a profit based business model through their new entity which can help the foundation to provide better services to the trainees like hostel accommodation, (which is currently not offered) better training facilities, conducting more outreach programmes etc and scaling their operations across India.

13.4.2 Case Study: Dream A Dream

Founder: Vishal Talreja
(Website: www.dreamadream.org)

13.4.2.1 Entrepreneurial Story

Vishal Talreja, an academic topper and an active student leader both in his university and also with an international association of students in economics and management, spent three years in the corporate sector with Xerox and Technology Holdings after graduation. It was during this time that he visited Finland on an exchange programme and met several students from different parts of the world. He noticed how these countries unlike India, have a strong social welfare system and the people took a pride in who they are and what they did. This was a totally new experience for him and shaped his life choices thereon.

He remembers that during his childhood he was not allowed to play with children in his neighborhood who came from poor families. He realised this came from the generations of prejudice and preconceived mind-sets and must be changed first. Talking to several friends and colleagues on this need for social change created a "powerful desire to make a difference in their communities", Vishal co-founded "Dream A Dream" in 1999 along with eleven other co-dreamers. Although the co-dreamers were a hearty mix interesting individuals from different backgrounds viz., contemporary dancers, photographers, management graduates, software engineers, counselors, chartered accountants, future business tycoons and ad professionals, the common dream that held them together being "wanting to give back to the community." Having brought up in a conventional family where academics are given utmost importance, for Vishal, education for children was a natural choice to do something for the society. "To change the future of the country, you need to work with children!" he said.

13.4.2.2 Vision and Mission

According to UNICEF 2005 report, India is a country with 35 million orphaned children of which 18 million are street children. Dream A Dream noticed a critical missing link of meeting the developmental needs of this large group of vulnerable children in India. This need is fulfilled through a dual approach, "to empower children from vulnerable backgrounds by developing life skills and at the same time sensitizing the community through active volunteering leading to a non-discriminatory society where unique differences are appreciated".

13.4.2.3 The Value Proposition

Dream A Dream "improves the quality of lives of children from vulnerable backgrounds through non-traditional education to allow them to explore, innovate and build important life skills" (www.dreamadream.org). They give access to art, music, theatre and sports to not only build critical life skills to these children but also to provide an avenue for a professional career in any of these areas.

The value proposition of Dream A Dream are a set of programmes that allow children to develop:

- "Interpersonal skills including teamwork, communications, negotiation and coping skills.
- Cognitive skills such as decision-making, problem-solving and critical thinking.
- Creativity, confidence, self-awareness and a passion for learning".[3]

This would require constant innovation to find and develop new and effective approaches to provide this values to children.

[3] www.dreamadream.org.

13.4.2.4 Target Group and Partner Network

Dream A Dream from the beginning recognised that developing life skills of children from vulnerable backgrounds and inclusive communities is very critical. These children are from migrant families, daily wage labourers living in urban slum communities or orphaned, abandoned or runaway from home. They achieve this through strong long-term partnerships with multiple organisations and institutions that are interested in children's issues.

The four key programmes offered by Dream A Dream are:

1. Dream Life Skills Programme for 8-14 year olds

a. Through Sports, using football as a medium to develop abilities for positively dealing with life's challenges.
b. Through Arts for interactive sessions where young people use art and craft to express and engage effectively.
c. Dream Outdoor Experiential Camps, where outdoor camps build self-esteem and team work in participants.
d. "Dream Fundays" Dream Fundays, where young adults learn through interactive engagement programmes with volunteers.

The Dream Life Skills Programme currently engages with 5,500 young people in 8–14 year age group in partnership with 29 NGOs. They have 170 batches running across the city of Bangalore. Each batch has 25–30 young people and each batch receives 2-hours of intervention once a week. The programme is delivered as an after-school intervention between 2:30–6 pm. Both boys and girls participate in the programme with 43 % girls participation.

2. The Dream Connect Programme is designed for 14–19 year olds for career development. It offers the tools and foundational life skills that help transform ability to capability through short-term modules in spoken English, communication skills, money management skills, career guidance and access to internships/scholarships/job programmes. Additionally, if provides linkages and placements with the Industry with partnerships with vocational and job training programmes. It currently engages over 3,000 young people a year.
3. Teacher Development Programme aimed at empowering adults that work with young people in both formal and non-formal spaces with life skills. The training is focused on the teacher/facilitator/instructor/trainer and developing their capability and ability to engage with young people effectively. It covers core elements of building personal connections, developing ability for deep listening, building safe learning environments and consistently reflecting on one's own actions and behaviours that are shaping the behaviours of young people. Currently, over 1,000 teachers/youth workers are trained and impacting nearly 50,000 young people.
4. "Dream Mentoring Programme", where a caring adult volunteer mentor encourages young adults to find answers to the challenges of growing up

through a one-on-one relationship. The Dream Mentoring Programme engages over 100 young people a year through an intensive 6-month to 1-year mentoring relationship with a volunteer.

These programmes are delivered with an active and commitment engagement from local volunteers and corporate support. Over 2,000 volunteers engage with Dream A Dream every year clocking over 25,000 hours thus helping to deepen the impact and also build a more aware and sensitive community.

There is a clearly defined memorandum of understanding to define the roles of each partner. Their partner networks are,

NGO Run Schools: Since 1999, about 30,000 children from twenty nine NGOs that Dream A Dream have partnered with, have been impacted through the life skills programme. They partner with orphanages, residential institutions, community centres and other regular schools that cater to needs of these children.

Curriculum partners: Dream A Dream has worked with PYE Global[4] and Grassroot Soccer[5] to develop Life Skills Curriculum and worked with Dr. Dave Pearson and Dr. Fiona Kennedy to develop a Dream Life Skills Assessment Scale (DLSAS) which has been published at http://sbp-journal.com/index.php/sbp/article/view/3518.

Community volunteers: Volunteer involvement is undisputedly directly proportional to the growth. Dream A Dream now has over 2,000 active trained volunteers contributing over 2,500 hours. These volunteers are trained through activities discussions and workshops.

13.4.2.5 Finance: Revenue Model and Cost Structure

In the initial years the founding members raised money from both social and corporate networking. Today, financial support comes in the form of donations, their fundraising events and programme grants.

13.4.2.6 Social Impact

Their impact assessment is primarily related to their mission and to measure the effectiveness of their programmes. Since 2007, Dream A Dream devised its own *Life Skills Assessment Scale.* This scale is used to track the development of life skills in all Dream A Dream programmes. A child's progress can be measured in five categories, interactions with others, overcoming difficulties and solving problems/age appropriate independence, taking initiative, managing conflict and understanding/following instructions. In early 2014, this scale was published in Social Behavior and Personality, an International Journal and has been recognized as a standardized scale to measure Life Skills.

[4] " http://www.pyeglobal.org" www.pyeglobal.org

[5] http://www.grassrootsoccer.org/

Table 13.3 Social impact of Dream A Dream

The growth indicators	2009–2010	2010–2011	2011–2012	2012–2013
Funds raised(INR)	12.9 millions	12.5 millions	22.3 million	23.7 million
No. of volunteers and hours clocked	1,244 with 11,903 h	670 with 14,213 h	1,543 with 18,116 h	1,389 with 19,874 h
Full-time employees	24	24	26	50
Number of NGO participants	9	12	18	18
Awards received	3	1	2	0
No. of children reached through the programmes	2,178	3,123	16,083	31,050

By 2013–2014, Dream A Dream:

1. Impacted 5,500 children through its After School life skills programmes.
2. Trained 510 teachers/educators in the Life Skill Model of Learning impacting 50,000 young people through partners.
3. Over 2,000 volunteers have clocked 25,000 hours of active volunteering (Table 13.3).

13.4.2.7 Revenue Model and Sustainability

The growth of the organisation to bring transformative effect to over 2,000 children rests on the design of the approach that Vishal adopted. His first initiative is to encourage well-trained and committed volunteers to initiate and implement effective projects. The second initiative is to build strong partnerships to develop programmes in life skills. Thirdly, his revenue generation is through several sources including a substantial amount raised from individuals and businesses in the community. Dream A Dream also believes in building working relationships with all stakeholders that is sustainable; finding lasting and mutual solutions to share risks and responsibilities. There are also efforts being made towards good governance and to build robust systems and processes to manage finance, Human relations, volunteers and fundraising.

13.4.2.8 The Challenges and the Future

Dream A Dream is preparing for scaling its programmes to reach out to 2,40,000 children by 2015. Currently they focus on curriculum development, training module development and prototype the scale model. Vishal has a national vision for Dream A Dream. Vishal and team are now working towards building a committed and dynamic organisation capability to expand to other cities, towns and villages.

13.5 Case Studies of For-Profit Social Ventures

13.5.1 Case Study 3: Vaatsalya Hospitals

Founders: Ashwin Naik and Veerendra Hiremath
(Website: www.vaatsalya.com)

13.5.1.1 Entrepreneurial Story

After earning a Master's Degree from the University of Houston, Dr. Ashwin Naik joined Triestaa Sciences, a clinical research organisation that conducts advanced research in Genomics in the field of Oncology. He then scrapped the idea of joining Sloan School of Business, when travelled around rural and semi-urban areas in India to collect data for Triestaa and visited some doctor friends. During this time he noticed that these hospitals lacked the basic standards and the seeds for Vaatsalya (Maternal Love) were sown. His college friend Dr. Veerendra Hiremath partnered in this venture. With his medical background, experience of living in US for 6 years, working on large projects, it was easy for Ashwin to identify the gap in the health care that was available to the Urban and rural India. Initially, the funding of $150,000 for this venture came from the NRI friends and relatives of the founders, many of who had roots from small towns and villages and Vaatsalya was set up as a private limited company in November 2004 and the first of the Vaatsalya hospitals was opened in Hubli in 2005.

13.5.1.2 Vision and Mission

The goal is to spread the network of hospitals across the country, focused exclusively on India's rural and Semi-urban towns and revolutionise health care in India to provide primary and secondary care at very nominal cost to the middle and low income families. With a service motto—"The new FACE of health care, with emphasis on friendly service, affordability, cleanliness and efficiency", Vaatsalya remains committed to business integrity, quality and sensitive to the needs and expectation of Doctors, customer, investors and community. The mission is to earn trust, every way, from customers and their families. By doing this well, Vaatsalya intends to build the foundation for long-term, sustainable growth.

13.5.1.3 The Value Proposition

Vaatsalya hospitals are 50–70 beds in size, with Neonatal Intensive Care facilities, Operation theatres, Maternity Room, Intensive care facilities, a mix of general rooms (dormitory style), and private/semi-private rooms. In addition there is a

24/7 pharmacy, basic laboratory and diagnostics facilities Specialties include, Obstetrics & Gynaecology, Paediatrics, General Medicine, General Surgery, Nephrology and Diabetology. (source: www.vaatsalya.com). Vaatsalya has created India's first network of a chain of low-cost, no-frills hospitals by providing low-cost but high-quality,

- Primary health care providing basic health facilities for common and minor ailments, that may be attended by a multi-competent physician and,
- Secondary health care services for conditions requiring constant attention including short period of hospitalisation.

These two set-ups are complemented by a set of spokes focused on day care and prevention. The main differentiating factor of Vaatsalya as against the existing hospitals was the caring nature of doctors and nurses and the comfort level they brought to the patients.

13.5.1.4 Target Market

According to the founders, "In India, 80 % of health-care facilities is located in urban areas even though close to 70 % of the total population resides in villages and small towns." Vaatsalya bridges this gap and focuses on the semi-urban and rural population that has limited access to good quality healthcare services. The idea was to make health care accessible and affordable to families who typically earn between Rs.6,000 and Rs.20,000 a month in the rural and semi urban areas. Vaatsalya provide affordable health care services to thousands of families across Karnataka and Andhra Pradesh through their hospitals in Hubli, Gadag, Bijapur, Mandya, Hassan, Mysore, Gulbarga, Shimoga, Tarikere, Malur, Chikmagalaur, Vizianagaram, Narasannapetta, Ongole, Anantapur, Hanamkonda and Proddatur.

The initial entry to this sector was challenging as the patients were reluctant to get treatment from hospitals as they perceived it as expensive and thought that they may not get personal attention from the doctors, and were unwilling to forgo the relationship with the local doctors. One of the important dimensions of Vaatsalya's operations is the long-term relationships that its doctors develop with the patients. Therefore, Vaatsalya had to break that myth and work towards building trust and confidence of the local community.

13.5.1.5 Infrastructure and Partner Network

Apart from getting into partnership with local medical practitioners, to achieve its vision and create a positive social impact; Vaatsalya's also had to satisfy their investors' requirements of good return on investment. Investment from Venture capitalist is not so common for social ventures, but Vaatsalya has shown that profits can be generated with relatively low investment, with innovation in the form of low-cost operating model along with enormous market potential to grow.

Some of Vaatsalya's funding partners apart from family and friends who were angel investors in the initial stages are Aavishkaar fund, Seedfund, Oasis Fund (Bamboo finance) and Aquarius India Fund. Vaatsalya has raised a cumulative amount of $17.5 million through private equity capital since its inception in 2004.[6]

13.5.1.6 Finance: Cost Structure and Revenue Model

The success of Vaatsalya's business model is due to two reasons—one keeping costs low and generating revenue. After experimenting with three models of different capacity size and three different locations, they came to the conclusion that, to keep costs low, they need to maintain 50 beds per hospital (in the categories of general, private and critical care beds), which are leased instead of buying. Locating them in semi-urban and rural areas gave the advantage of lower rentals and hiring support staff locally were other ways of lowering costs further. The only expense that they did not compromise was the salary of the doctors. According to Naik, they required about INR 10–20 million to set up the hospital and about INR 1.5 million per month as running expenses, break-even to be achieved in 2 years. The set-up costs are reasonable as they own very less equipment like X-Ray machines, ultrasound and ventilators. They do not offer any complementary facilities such as a cafeteria. All its procurements are in bulk as it is centralised and results in better bargaining power with savings of more than 20 % of the cost.

A nominal fee is charged for all general consultations. Maternity, surgeries, physiotherapy, laboratory and diagnostics and childcare services are also charged at an affordable rate. The bed charges are kept very nominal. Each hospital has its own management team and is responsible for generating revenue like a profit centre. Apart from consultation and surgeries, another source of revenue is from Arogya a health plan for employees of small businesses in the locality. The members of "arogya plan" can avail free consultation and discounts on medicines and special services. Vaatsalya anticipates more revenues from preventive health plans in the future.

13.5.1.7 Social Impact

With a very humble beginning of one hospital in 2005 with 20 beds, today Vaatsalya has 17 Multi-specialty Hospitals spread across Karnataka and Andhra Pradesh. Total bed strength today is around 1,200 plus, including 100 bedded MICU, 120 NICU beds, and 90 SICU beds with 1,500 plus well-trained and motivated employees. They serve around 1,30,000 patients/month on OPD basis and 5,000 patients/month on IPD basis.

[6] Economic Times June 13, 2011.

The trust that the local population have in Vaatsalya has increased the repeat rate of the clientele for other health programmes. The medical cost to the patients has reduced to a very large extent as their travel cost to far off places where such medical treatment was earlier available and due to early intervention and preventive care. The most significant contribution of Vaatsalya has been in the treatment and counselling of 300 children with cerebral palsy. So far no such was treatment was available to these children.

'Arogya' programme that is offered as employee health plans to small business with less than 20 employees, has not only gained popularity in the local areas in reducing the cost of medical expenses but has generated good revenue to Vaatsalya. The firm expects to generate revenues of around INR 350 million by the end of this year and currently employs 1,200 people.

13.5.1.8 Sustainability and Business Model

Vaatsalya has been able to scale quickly since its inception and there is still a large untapped market. The entire business model is built on low-cost and no-frills hospital in the suburbs, the location of the hospitals close to medical colleges where there is availability of support services like diagnostic lab, blood bank, etc. are major determining factor. More often even availability of good medical practitioners and their willing to relocate is also significant factors. Different strategies are adopted to engage local medical practitioners, some of them provide the first level of contact for the patients who then refer the patients to the nearest Vaatsalya hospitals for further treatment; some good local practitioners also offer part-time consultations for specialisations.

Building the hospital from scratch, acquiring an existing hospital, or even tying up with government hospitals are the ways to expand and reach out to more beneficiaries. The cost of operation is kept as low as possible. To extend its benefits to below poverty line citizens Vaatsalya is considering partnering with microhealth insurance organisations, influencing with the government for the implementation of national health insurance schemes.

13.5.1.9 Challenges and Future Plans

Vaatsalya, over the years have been able to reduce the price of its services significantly due to deploying resources optimally and by reducing their operational and capital expenses. However, the basic challenge remains the same. Its prices are still unaffordable to poorest of poor. They are also not able to penetrate to remote villages as the number of people residing in these locations is very small making it unviable for sustained operations. Vaatsalya hospitals are currently located in areas with at least 100,000 population as they also depend on other services like blood banks and diagnostic centres. Another key challenge is availability of qualified doctors in these locations which act as a major hindrance to their growth.

They have an ambitious goal of bringing health care benefits to 2.5 million direct beneficiaries and another 10 million indirect beneficiaries through a network of 100 hospitals. They face three challenges to reach this goal: extending their portfolio of services, going to interior villages and reaching out to the bottom 30 % of the poor. Vaatsalya is now expanding its network into Maharashtra and Tamil Nadu. Regarding Vaatsalya's potential, Ashwin states that "from our analysis, there is an opportunity for about 500 Vaatsalya hospitals India-wide".

While expanding the number of services in their portfolio, they have to make sure that such services are affordable to the poor patients. For example, Vaatsalya team has realised that many of their patients travel kilometres twice a month for dialysis, and hence they set-up facilities for this service in a few of their hospitals.

"Dialyses equipments are expensive to set up. A reverse osmosis plant for four dialysis beds costs INR 6,00,000. Vaatsalya charges INR 900 per dialysis of which INR 450 is spent on reagents and equipment allocation costs, while INR 450 accounts for operational costs. Sometimes Vaatsalya needs to buy water worth INR 5,000 per day because they operate in some of the very arid zones of Karnataka where water supply is scarce" Says Ashwin Naik.

Vaatsalya also launched programmes on preventive health care for economically poor who cannot afford their services. They are also on the way to raise more funds from charitable trusts and raise additional revenues by renting out space for brands to advertise.

13.5.2 Case Study: 4 Jayashree Industries

Founder: A Muruganantham

(Website: www.newinventions.in)

13.5.2.1 Entrepreneurial Story

Muruganantham Arunachalam, founder of Jayashree Industries, hails from a poor rural family is a high school dropout and worked as a helper in a welding workshop. He set out with very clear vision to find a solution to get rural women access to health and hygiene during their menstrual periods. He found that his wife, just like many other women in rural areas was still using cloth during their menstrual periods which is highly unhygienic. He also understood that the branded sanitary napkins were prohibitively expensive and kept the rural women away from using them and a solution for this had to be found!

It took him four years of painful and embarrassing study to design a sanitary napkin making machine which can produce napkins at low cost. The cost of the machines used by the MNCs for the production of sanitary napkins is for INR 35 million; the cost of the automatic machine innovated by Muruganantham costs just about INR 75,000. He and his wife relentlessly made all efforts to get the local

women to buy the napkins which were produced using low-cost indigenous method. The initial response to his product was very poor; but in a period of 3 years, he was able to sell more than 250 units of sanitary napkin making machine in 18 states.

13.5.2.2 Vision and Mission of the Social Venture

Jayashree industries aim to improve the living standards of rural women through innovation; alleviate problem of livelihoods for most vulnerable sections of society and achieve the goal of promoting health of rural and poor women (Maternal health).

13.5.2.3 Value Proposition

Muruganantham with his limited knowledge but unlimited passion invented an indigenous and low-cost sanitary napkin making machine that operates on a small scale. In this machine, wood fibre (raw material) is defibrated, which forms the core and it is sealed with soft touch sensitive heat control, giving the final shape of the napkins. The machine requires single-phase electricity and 1HP drive can be accommodated in a space of 3.5 m × 3.5 m and will produce 2 napkins/min. It requires four persons to produce two pads per minute. The cost per sanitary pad produced by this machine is approximately INR1 to INR 1.50.

The semi-automatic mini sanitary napkin making assembly deploys four stages to produce the finished sanitary napkins. The main raw materials used for making sanitary napkin in this machine include wood fibre; thermo bonded non-woven, polyethylene—barrier film, release paper, super bond paste and LLDPE 50 GSM—packing cover.

13.5.2.4 Target Market

A large number of women, though they are aware, are not using sanitary napkins due to affordability.[7] Muruganantham sells his machine through Women Self-Help Groups (SHGs), who in turn manufacture the napkins using the machine and market the napkins to reach out to these underprivileged women, in the respective local areas. This according to him was the best way to reach quality sanitary napkins at affordable price among rural and lower middle class women who can switchover to more hygienic ways during their menstrual periods. For the SHGs, running a successful business like this is suitable, as the investment is nominal, the consumer market is growing and the price is affordable.

[7] Currently the size of the Indian Sanitary Napkins market is 2,000 Crores it is growing 16 % annually.

13.5.2.5 Infrastructure and Partner Network

This social entrepreneur has created a product that can be easily and efficiently run by the stakeholders at the grassroots (women from low income group and rural area) to earn a livelihood for themselves and produce and deliver sanitary napkin to poor women at affordable rates. This is done by low-cost production method, without compromising on the raw material used, and by reducing the people in the supply chain, right from its inception to reaching to the consumer. All the machines are operated only by the poorest women in the villages ensuring optimal use of the microcredit generated by a community.

13.5.2.6 Revenue Model and Cost Structure

Muruganantham supplies these machines only to poor women or a self-help group or to women in rural areas. He also supplies the raw materials for these machines and trains them to operate the machine.

When he initially started selling the machines it was sold as low as INR 47,000 but with inflation and increase in cost of raw materials, the price has gone up to INR 80,000, including 12.5 % tax. The machine cost along with raw material would cost INR 1,50,000. From each machine, one can make 1,000 pieces a day and a minimum of 25,000 pieces a month. In most places, the SHGs arrange for bank loans.

13.5.2.7 Social Impact of the Venture

Jayashree Industries has supplied more than 2,000 machines till the end of 2014, spread across 887 taluks in India and also 14 countries including Nepal, Bangladesh, Myanmar, Sri Lanka, Philippines, Mauritius, South Africa, Zambia, Ghana, Nigeria, Kenya, Malawi, Somalia and USA. Every unit creates direct livelihood for 10 to 14 women. The marketing activities further creates indirect livelihood for the "Resident dealer" who generally are elderly women in villages and slums. The production on an average is about 1,000 units of pads per day. More than 867 local brands of sanitary pads are manufactured by these 2,000 units, generating a cumulative business volume of USD 100 million. Further, Over 9 million women are first time user of hygienic product during menstruation (Table 13.4).

Table 13.4 Tangible results achieved over the period of past 3 years

Beneficiaries	2008–2009	2009–2010	2010–2011	2011–2012
No. of primary/direct beneficiaries	155	875	1,200	5,000
No. of secondary/indirect beneficiaries	45,000	150,000	280,000	10 Lakhs
Total no. of municipalities marketed	7	16	25	35

13.5.2.8 Sustainability and Business Model

With innovation, and its dissemination through SHGs, rural women have been provided with direct and indirect employment and health consciousness. The total unit costs INR 80,000 and the cost of the final product works out to be INR 1/pad. NIF had supported the innovation with its Micro Venture Innovation Fund.

It has created viable employment opportunities by establishing production unit in villages including tribal women in remote places like Navapara village, Pali, where women had no access to health centres and had never used a napkin in their life.

13.5.2.9 The Challenges and the Future

While the enterprise has done fairly well in partnering with existing local women's networks, the key challenge for Muruganantham is to identify the right partner in the ecosystem to replicate/scale this initiative globally. Mobilising resources through government subsidy or microfinance or bank loan for women to bear installation cost is yet another challenge apart from training local group in spreading awareness of health and hygiene along with training to operate this low-cost technology innovation. This will not only enable poor women to get access to affordable hygienic sanitary pads, but generate income for a sustainable livelihood by participating in the entire lifecycle as manufacturers, marketers and users of the product.

13.6 Comparative Study of Multiple Cases of Social Entrepreneurs

It is evident that each of the four social entrepreneurs are successful in impacting many underprivileged lives and work relentlessly to bring positive changes in their lives. EnAble India and Dream A dream are registered as trust, while Vaatsalya is a private limited company and Jayashree Industries is a sole proprietorship venture. Vaatsalya has been able to raise several rounds of venture funding; while Enable India and Dream A Dream depend on grants, donations and event sponsorship; Muruganantham of Jayashree Industries relies solely on revenue earned from sale of his machines. Jayashree industries and Vaatsalya Hospitals, both working in health sector are able to reach lakhs of people through their products are services indirectly.

13.6.1 Business Models—An Analysis—Based on Osterwalder' Improvement Process

By comparing these four social entrepreneurs through a common set of business model parameters using Osterwalder's improvement process, we attempt to throw deeper insights on identifying the gaps and loopholes in their existing models,

which in turn can help them to create successful, profitable and sustainable social enterprises (Tables 13.5, 13.6, 13.7, 13.8 and 13.9).

Major building blocks of social ventures' business models irrespective of whether they are for profit or not for profit are,

- **Value proposition**: Of the case studies discussed here, two of them are in the health sector and the other two are in empowerment through education and training. Vaatsalya operates low-cost hospitals in the rural and semi-rural areas, whereas Jayashree Industries concentrates on women health and hygiene, by

Table 13.5 Comparison of four social enterprises

Parameters	Not-For-Profit		For-Profit	
	EnAble India	Dream A Dream	Vaatsalya	Jayashree Industries
State	Bangalore	Bangalore	Bangalore	Coimbatore
Year of foundation	1999	1999	2004	2001
No. of employees	40	50	592	3
No. of states	14	3	17 hospitals in two states	14
No. of volunteers	172	1,389	None	510 SHGs
Target market	Persons with disabilities and companies which employ them	Vulnerable children from partnered NGOs	Patients from semi- urban and rural	Rural/Poor women
No. of direct beneficiaries	2529	31,050	30,000	20,000
No. of indirect beneficiaries	Not available	Not available	3,00,000	10 Lakh women
Business model	Employment model, corporate partnership and NGOs	Integrated community model	Low-income clients, venture capital funded	Cooperative model with low income clients
Revenue model	Double (donations and paid services)	Multiple-corporate and individual donors, fundraising events, programme grants	Double (subsidised consultation fee and venture funding)	Single
Ownership pattern	Charitable trust and currently incorporating private limited company	Trust (Foundation)	Private limited company	Proprietorship
Current status	Sustainable model	Sustainable Model	Break-even	Sustainable model

Table 13.6 EnAble India (Not-for-Profit)

Building blocks	Description	Assessment	Innovation
Value proposition	Training PWDs (8 months training programme) and employing them to mainstream companies	Development of PWDs requires high involvement and commitment and goes beyond set processes and time limit	Teaching methods and contents are currently standardised to save time and money which is critical
Target market	PWDs (do not pay for the training), Companies who employ them and funding organisations	Companies recruit mainly because of goodwill. There are no legal mandate to employ PWDs	Work with policy makers to bring in legal reservation for employment for PWDs
Infrastructure and partnership	NGOs, who work with PWDs, parents of PWDs, company recruitment team, CSRs, Funding organisations etc	Works around the funders and therefore the reach is limited. Quite averse to publicity	Liaisoning with government officials will make wider employment opportunities
Finance—cost and revenue	Currently run though charity from individual donors and institutional donors	Setting up of the business arm to develop services which are priced to bring in revenue	Aggressive marketing efforts are required to reach bigger social impact

manufacturing indigenous napkin making machines. EnAble India works in empowering the disabled by creating training contents and creating employment opportunities for them; Dream A Dream provides life skilled based education for vulnerable children. Each one of these social entrepreneurs is successful in creating a social value. They are passionate and clear about the value propositions and highly sensitive towards bringing in positive changes in the lives of their target audience.

- **Target market**: The ecosystem in which these social entrepreneurs work is highly integrated and complex. On one hand they have the beneficiaries for whom social values are being created and on the other hand they have to raise funds for reaching out to the beneficiaries. This is very typical for most of the social enterprises. Enable India and Dream A Dream fall in this category and serve primarily PWDs and underprivileged children respectively. Both of them are being funded by individuals and corporate donors. Getting direct beneficiaries for their programmes is done efficiently by Dream A Dream, as they partner with NGOs which house these children or have access to these children. EnAble India have a much higher task of convincing unwilling parent of the disabled individuals.
  Jayashree Industries sell the sanitary napkin making machines to SHGs that would directly benefit from manufacturing and selling the sanitary napkin to rural women, thereby creating micro entrepreneurs. Vaatsalya Hospitals reach out to rural and semi-urban Indians for primary and secondary health care.

Table 13.7 Dream A Dream (Not-for-Profit)

Building blocks	Description	Assessment	Innovation
Value proposition	It provides life skills to children from vulnerable backgrounds by including art, sports, fun and adventure in the curriculum for life skill development	Requires constant innovation to find and develop new and effective approaches to provide this value to children	Combination of several co-curricular activities for life skill development
Target market	Children from the NGO partners who do not pay. Raise money from individuals and corporates for grants for the programmes	Targeting the NGOs that work for the benefit of these children, is a good strategy	To build a long-term relationship with all stakeholders; finding mutual and permanent solutions by sharing risks and responsibilities
Infrastructure and partnership	Long-term partnerships are built those organisations and institutions that are interested in children's issues	A written agreement to spell out the roles and responsibilities of the partner organisations. Maintains extensive volunteer performance records	Identify key partners and markets to develop better marketing strategies for the members
Finance—cost and revenue	Most of the cost is towards the programme development and execution	Adequate revenue to cover cost, hence sustainable	Keeping the programme cost low and getting funders for them is the innovation. Using the volunteers rather than using the employees again is cost effective

Funding partners are enthusiastic of investing in this venture due to its low-cost operating model.

- **Infrastructure and partnership**: For successful operations, these social entrepreneurs currently work with a complex set of independent stakeholders like NGOs, corporates, individual volunteers, donors, venture capitalists, angel investors, service partners and many more. Dream A Dream signed MoUs with a few service partners in the field of sports and arts and NGOs to source the children. EnAble India also have tied up with NGOs which work with disabled persons. Vaatsalya needs high-quality doctors to relocate to tier 2 and tier 3 cities and initial capital to build the required hospital infrastructure. They also partner with small businesses to provide employee health plans. Muruganantham of Jayashree Industries avail manufacturing facilities from local factories and employs temporary labourers and pay them on piece rate basis. The social enterprises like Vaatsalya who shy away from Government subsidies may look again at them to bring in greater profitability.
- **Finance—Cost and revenue models**: Social enterprises need to make profit to bring in greater social impact. This can be achieved only though professionally

Table 13.8 Vaatsalya Hospitals (For Profit)

Building Blocks	Description	Assessment	Innovation
Value proposition	A chain of no-frills hospitals in semi-urban and rural India	Challenge is to develop good quality hospitals with highly qualified doctors in smaller towns	Hub and spoke models are bringing in optimum usage of best doctors
Target market	Women, children mainly in primary, secondary and tertiary care and chronic care	Developing trust and long-term relationship with patients are important	Making the treatments and medicines affordable would bring the next 30 % of BOP patients
Infrastructure and partnership	Complex ecosystem with local practitioners, doctors, medical equipment companies, funding partners, staff and local patients	Each of the partners is critical to bring in cost effectiveness to make the treatment affordable	Developing a system based approach to bring in the right stakeholders will help in the long run
Finance—Cost and revenue	Major cost in doctor's payments and revenue from patients	After 7 years of operations still working to create a profitable revenue model	Must explore government subsidies and identify a set of qualified selfless doctors are critical to make profits

Table 13.9 Jayashree Industries (For Profit)

Building blocks	Description	Assessment	Innovation
Value proposition	Low-cost Sanitary napkin making machines and raw materials	IPR, The cost of production and installation of the machine is critical for the venture	The cost of the machine has to be subsidised through government subsides
Target market	Self-Help Groups/poor rural women	Product, both machine and napkins are still unaffordable for most rural women which limits the reach	Scaling up through exports to third world countries, partnering with governments etc
Infrastructure and partnership	Existing systems of SHGs	The reluctance of the entrepreneur to sell the machines to government agencies may prove costly	Key drivers of growth are identifying the right partners who can subsidise the machines to help to reach more beneficiaries
Finance—Cost and revenue	700 machines are sold currently	Entrepreneurial growth intentions are low which limits the distribution	Revenue models to be revisited in case the target group cannot afford to buy the machines

managing and reducing the costs involved in developing the products and services on one hand and on the other, exploring multiple revenue models as done by Vaatsalya. Of the four cases, Dream A Dream is highly successful in creating surplus. They have excelled in creating the trust of donors to get funding on a recurring basis. They are also able to inspire students and young volunteers to help in running programmes which keeps the costs at bay. EnAble India too is successful in attracting donations from the same donors for the last 5 years. Vaatsalya has a high investment model to set up hospitals and pay the doctors attractive salary. Each of the hospitals, break-even in 24 months' time frame. Nominal revenue is generated from consultations, surgeries and diagnostics and a membership fee is charged from local small businesses to provide employee health plans. Jayashree Industries work on a low-cost manufacturing model and sell the machines at very low margins.

13.7 Social Impact Measurement of the Ventures

An attempt is made to explore various growth indicators for each of these four ventures. Social impact is measured in both qualitative and quantitative terms. The qualitative growth indicators are directed towards the improvements of living conditions and basic amenities of underprivileged rural poor, many anecdotes and individual testimonials are proof of this which are not covered in this study. The focus here is to measure the quantitative impact of these ventures over a specific time period (Mostly last 3 years).

Some of these parameters are:

1. Increase in number of direct and indirect beneficiaries
2. Increase in number of units sold
3. Increase in number of villages/towns covered
4. Increase in the number of volunteers and employees
5. Increase in the number of partners and collaborators
6. Increase in the amount of funds raised
7. Increase in the surplus created etc.

All the four social ventures have done significantly well on the basis of the above assessments. EnAble India, Dream A Dream and Jayashree industries have recorded an increase in the number of direct and indirect beneficiaries. Vaatsalya, in a span of 6 years has grown to 17 hospitals. Dream A Dream have doubled their volunteers in the last three years. (From 700 to 1,400). They also have successfully raised 23.7 million INR in 2012–2013 from 4.4 million in 2008. Vaatsalya has three venture funds invested in them.

Although the numbers look very encouraging, these social entrepreneurs nurture ambitious growth plans. EnAble India wants to train at least 2,000 PWDs per year and employ them in major companies. They also want to work with Government to

bring in policy changes for employing the disabled. Vaatsalya wants their services to penetrate to lowest 30 % of population at the BOP and expand their network in the next 3 years to bring direct health care benefits to 2.5 million direct beneficiaries through 100 hospitals. Dream A Dream is preparing to scale up the programme to reach out to 2,40,000 children in 2015. Muruganantham wishes to supply 20,000 machines and create employment for one million women.

13.8 Conceptual Model of Social Enterprises

This study points to key sustainable elements in a business model for a social enterprise, like that of a commercial venture (Fig. 13.1).

What these case studies and many other social entrepreneurial initiatives all over the globe have in common is that they challenge the status quo and our

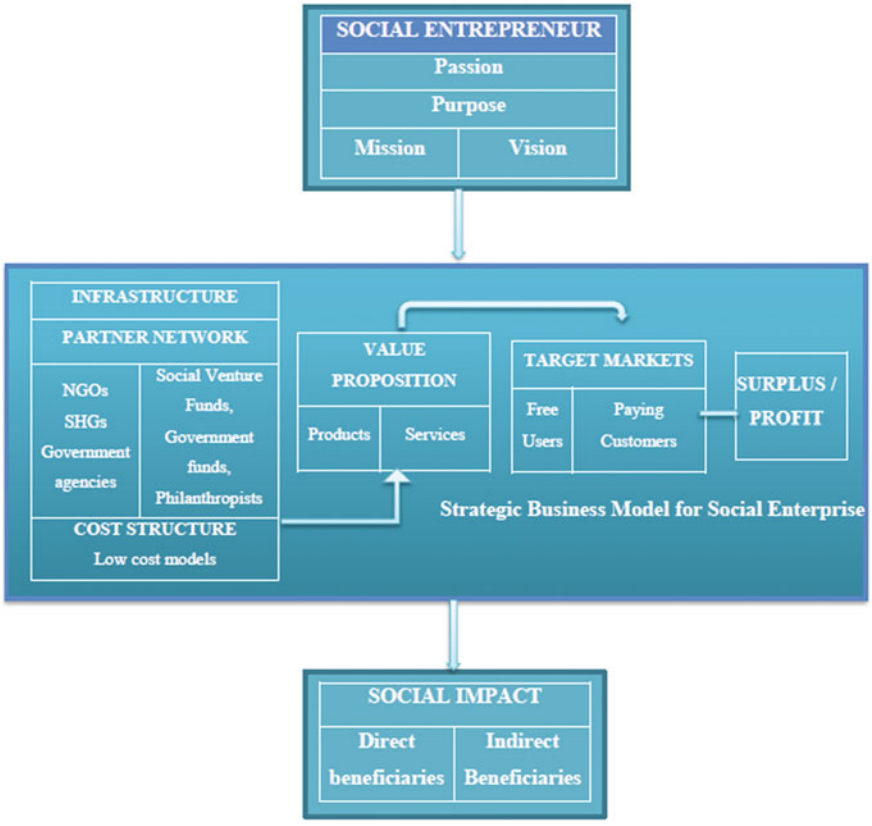

Fig. 13.1 A strategic business model for for-profit and not-for profit social enterprise (adapted from Alexander Osterwalder's business model)

conventional thinking about what is feasible. These inspired entrepreneurs, independent-minded, self-driven, and goal focused persons with strong human values, have shown us new paths and solutions, with a strategic outlook in finding the right value proposition for the underprivileged, by building the business model and participating in value creation and delivery. The social outcome will be to reach out to more beneficiaries and creating surplus. This is the direction we're headed—towards a new model of creating social change!

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Part V
Micro-Entrepreneurship

Chapter 14
Implications of Driving Factors for Entrepreneurship: A Case Study for Immigrants, Ethnic, and Religious Minorities' Entrepreneurship in Pune City

Mahesh L. Abale, Sonal Muluk and Poonam Rawat

14.1 Introduction

Pune city is one of the largest metropolis in India and the second largest in the state of Maharashtra, after Mumbai. Today, Pune is known not only for its educational facilities (also known as the Oxford of the East) but also for its relative prosperity. The city also has growing number of industries in various sectors. These activities attract migrants and students from all over India and abroad. As a result, the city has attained a cosmopolitan outlook which is also reflected in the augmented product range available from Gujarati Khakara, Rajasthani home décor and apparels to Irani bakeries and dry fruits mart. In addition, various enterprises are run by migrants who have started their own business and have become self-employed and are popularly known as migrant entrepreneurs or ethnic entrepreneurs.

Migrants, establishing and running their own businesses have drawn upon more attention in recent times, increasing the significance of ethnic entrepreneurship for local economies. By starting their own businesses, migrant entrepreneurs have

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become active agents shaping their own destinies as well as stimulating the economic sectors by creating not only their own jobs but also providing jobs and apprenticeships for others. They happen to provide goods and services, most of which are not likely to be offered by native entrepreneurs. Thus, migrant entrepreneurs contribute to both local community as well as local economies by offering social capital and paying taxes.

Ethnic groups' entry into entrepreneurship is attributable to a complex set of factors or triggers like economic disadvantages, cultural norms and values, family background in entrepreneurship. They have steadily become a native and significant part of the local economy because of the increased orientation toward ethnic products, ethnic markets and customers, and indigenous ethnic business strategies.

14.1.1 Need for the Study

The initial work of Piore (1979) on ethnic economies, explains a number of underlying factors and characteristic of ethnic populations and entrepreneurs into the formation of "enclave communities." Recently, the field of entrepreneurship is into major focus as it emphasizes self-employment as one of the significant ways to develop the economy of a nation. Considerable attention has also been laid on understanding the dynamics of ethnic economies, the social, religious, and cultural factors that influence the nature of these ethnic communities.

Many metropolitan cities of liberalized India have seen a massive influx of people from different sociocultural or ethnic origins, converting the cities into more multicultural societies. The current study aimed to understand the various dimensions of ethnic entrepreneurship and the factors influencing the establishment of an ethnic enterprise. Thus, the study progressed with following objectives:

14.2 Objective of the Study

1. To find out the driving factors for the entrepreneurship among the ethnic and religious minorities.
2. To find out whether ethnic minority entrepreneurship depends on the socio-economic and ethno-socio characteristics of the immigrant people.
3. To find out the impact of cultural factors for propensity toward entrepreneurship and family business.
4. To find out impact of ethnic enclave conditions to create ethnic business for new immigrants.

14.3 Literature Review

14.3.1 Entrepreneurship

The term "entrepreneurship" comes from the French verb "entreprendre" and the German word "unternehmen," both mean to "undertake." Since its conceptualization in the early 1700s, there have been several definitions of entrepreneurship put forth by scholars, educators, researchers, and policy makers.

The modern definition of "entrepreneurship" was first introduced in 1934 by Joseph Schumpeter and in his words, "the carrying out of new combination is called "enterprise," and "the individual whose function is to carry them out are called "entrepreneurs." Schumpeter attached the concept of entrepreneurship to the creation of five basic "new combinations" namely: (i) introduction of a new product, (ii) introduction of a new method of production, (iii) opening of a new market, (iv) the conquest of a new source of supply, and (v) carrying out of a new organization of industry.

In the words of Peter Drucker 'entrepreneurship' is a practice. It is neither a state of being nor is it characterized by making plans that are not acted upon. Entrepreneurship begins with action, creation of new organization. These kinds of organizations may or may not become self-sustaining and in fact, may never earn significant revenues too. But, when individuals create a new organization, they enter the "entrepreneurship paradigm."

14.3.2 Driving Forces for Entrepreneurship

The Economists, sociologists, political people, and psychologists all place entrepreneurs at a special position. They have their own views on entrepreneurs. Economists view them as an essential element in generating investment opportunities. Sociologists view them as sensitive energizers in modernization of societies. Psychologists examine them as entrepreneurial elements of society. Entrepreneurs are viewed as kingpins of business not merely because they are willing to trade for a profit but because they are the correct exploiters of available resources meanwhile creating more goods and employment.

Facilitating factors	Barriers
1. Technical knowledge	1. Lack of technical skills
2. Entrepreneurial training facilities	2. Lack of proper market
3. Market contacts	3. Lack of capital
4. Family business	4. Lack of business knowledge
5. Availability of capital from sources	5. Social stigmas
6. Successful role models	6. Time pressures and distractions

(continued)

(continued)

Facilitating factors	Barriers
7. Local manpower	7. Legal and bureaucratic constraints
8. Capable advisors and supporters	8. Political instability
9. Supplier assistance	9. Patent inhibition
10. Government and institutional support	10. Non cooperative attitudes of banks

Whether Entrepreneurs are born or made is a critical question that arises in entrepreneurship literature. Prior researches have demonstrated that the "entrepreneurial types," possess certain characteristics linked to the probability of someone in the family being an entrepreneur themselves.

One of the entrepreneurial characteristics—'acceptance of responsibility' is quite stronger because when they start a new business, they take charge, lead, and watch their business till it can stand alone. Though making profit primarily serves as a meter to gage their success and achievement, they often desire to achieve something outstanding and to fulfill this desire they bring all the components of business (including people) together. According to Schumpeter (1934), an entrepreneur may be driven not only by economic motives but also by psychological motives like the desire to innovate and create new products.

14.3.3 Defining Ethnic and Immigrant Entrepreneurship

Researchers have given various definitions for the term 'ethnic group'. Yinger (1976) defined ethnic group as "a segment of a larger society whose members have common origin and share common culture and activities". In his work Waldinger et al. (1990) *defines Ethnic entrepreneurship* as "a set of connections and regular patterns of interaction among people sharing common national background or migration experiences."

The classic works of Weber et al. (2007) on ethnicity and entrepreneurship proposed the concept of strangers as traders, combined with the social structure of societies and pervasive religious norms. Greene and Owen (2004) put forward that "ethnic business typically starts when an entrepreneur begins serving other members of the ethnic community and satisfies their specific ethnic needs." This process is facilitated when larger ethnic groups live in geographically concentrated areas.

Immigrant entrepreneurship: An alternative term used for "ethnic" is "immigrant entrepreneurs," which only includes the individuals who have actually immigrated over the past few decades. "Immigrant entrepreneurs" refer to people who start their own business just after their arrival using their individual/personal connection with former immigrants. They may provide goods and services that indigenous entrepreneurs are not likely to provide. Immigrant entrepreneurs have expert knowledge on specific demands or specific sources of supply relating to

foreign products. By introducing such products and different ways of marketing, immigrant entrepreneurs create a demand for their business. For example, in the case of Chinese restaurants, the indigenous entrepreneurs lack the skill and credibility.

14.3.4 Socioeconomic Factors Affecting Entrepreneurship

Entrepreneurial activity at any time is dependent upon a complex and varying combination of socioeconomic, psychological, and other factors like:

Caste origins: Some social groups produce a larger and more capable body of entrepreneurs than other groups under the influence of prevailing social factors. The caste system has found to be exercising its own influence on the occupational mobility. Some religious communities seem to have an affinity toward industrial activity.

Family background: It comprises of size of family, type of family, and economic status of family. To some extent, joint family provides family property to invest and expand the family business.

Religious background: Religion exercises a strong influence on attitudes toward material gains. Some religions dominate certain type of business and these religious members cooperate with each other while carrying out the business.

Education: It is one of the significant factors having direct relationship with entrepreneurial developments. It equips one with business knowledge besides education, entrepreneurship, and development are interrelated. Education is the best means of developing mans resourcefulness which encompasses different dimensions of entrepreneurship.

14.3.5 Cultural Factors Affecting Entrepreneurship

The cultural theory suggests that ethnic and immigrant groups are equipped with culturally determined features such as dedication to hard work, membership of a strong ethnic community, economical living, acceptance of risk, compliance with social value patterns, solidarity and loyalty, and orientation toward self-employment (Masurel et al. 2004). These features provide an ethnic resource which can facilitate and encourage entrepreneurial behavior and support the ethnic self-employed (Fregetto 2004). Ethnic people often become aware of the advantages their own culture might offer only after arriving in the new environment: “Whether one is English, Albanian or Mongolian, the very act of transferring to a new society with alien customs and incomprehensible language is in itself likely to heighten awareness of one’s own cultural and national identity” (Jones and McEvoy 1986).

14.3.6 Ethnic Enclave Conditions

The immigrants who enter the labor market are unfamiliar with the language and culture and are obviously distinct from the mainstream. Hence, often they live in geographical concentrations or ghettos.

"Ethnic enclaves" provide positive rewards to their members and "ethnic entrepreneurship" is an important avenue for social mobility of ethnic minorities (and can) suggest alternative policies for those still "held up in poverty" (Portes et al. 1992, p. 418). These entrepreneurs also prefer to hire individuals from their own ethnic group (in the process perhaps creating relationships based on hierarchy, privilege, and exploitation among their own ethnic group) thus creating a social and labor network, which interacts as a group with the outside market. In doing so, the enclave has the solidarity and protection of numbers, and helps its members to circumvent discrimination.

14.3.7 Social Networks and Ethnic Entrepreneurship

Social networks are significant social context elements that encourage ethnic entrepreneurship. The study of an individual's role in society in relation to others focuses on individual's relationship with primary and secondary groups. The primary group included family, kin, and other community members who have a major impact on the individual. To these, a third group can be added which includes all those members whom an individual consults on a wide range of topics. These interactions of exchanges are called social networks. These networks provide a tremendous amount of information related to starting a new business and thus will have a significant effect on the prospective business owner's decision whether to form a business.

Social networks in an ethnic community can play an important role in providing informational and economic resources (Portes 1987). Entrepreneurs need information on industrial trends, process, possible site locations, and market conditions. They also need information on specialists who can provide legal and financial advice (Waldinger et al. 1990).

14.3.8 Type of Research

Research is an endeavor to discover facts by scientific method and is a course of a critical investigation (AKPC Swain). The research methodology used was based on a quantitative method to investigate the research propositions. A survey questionnaire was used to gather primary data from respondents. It is pure or fundamental research. The research type is **exploratory research** and data will be collected from

the Pune region majorly from the communities like Muslims, Boharis, Sikhs, Sindhis, Marwaris', Rajasthani, Irani etc.

Exploratory research can be defined as initial research conducted to clarify and define the nature of the problem.

14.3.9 Research Approach

The research approach used is a **Quantitative approach**. It is more over inferential approach to research which infer characteristics or relationships of population.

14.3.10 Sampling Method

Random sampling method is used to select database. Randomly elements are selected from each community or religion for data analysis. A stratum has been created for each community and then data has been selected.

14.3.11 Type of Universe

Type of universe of the research was entrepreneurs from different communities from Pune region.

14.3.12 Sample Size

The sample size of the research is 183.

14.3.13 Data Collection

Data collection refers to the process of raw data and unprocessed information that can be processed into meaningful information, following the scientific process of data analysis.

The required data is collected from primary sources and secondary sources. Primary data is collected with the help of a questionnaire. We had taken responses of different entrepreneurs with actually visiting their enterprise and also some of them got filled up through telephonic conversation. Also, we got some responses through emails. The reason for personally visiting respondents as opposed to

mailing the questionnaire was to ensure that a better commitment to completing the questionnaire through personal contact and assistance would be obtained. The support of family and friends was sought to help distribute and collect the questionnaires. Secondary information is collected with the help of current affairs news.

14.4 Questionnaire Design

Structured Questionnaire was used to collect the data. The research questionnaire consists of 16-questions covered under five parts: the first, to extract the demographic information about the respondents; the second, to extract driving factors for entrepreneurship; the third, to extract cultural factors of the respondents. The fourth is to extract economical factors and market conditions affecting business. And last part to find out the ethnic enclave conditions affecting entrepreneurship.

Every question included options that each respondent was required to tick off as preferred choices, with certain open questions such as ethnic origin, or other factors not included in options.

14.5 Data Analysis and Interpretation

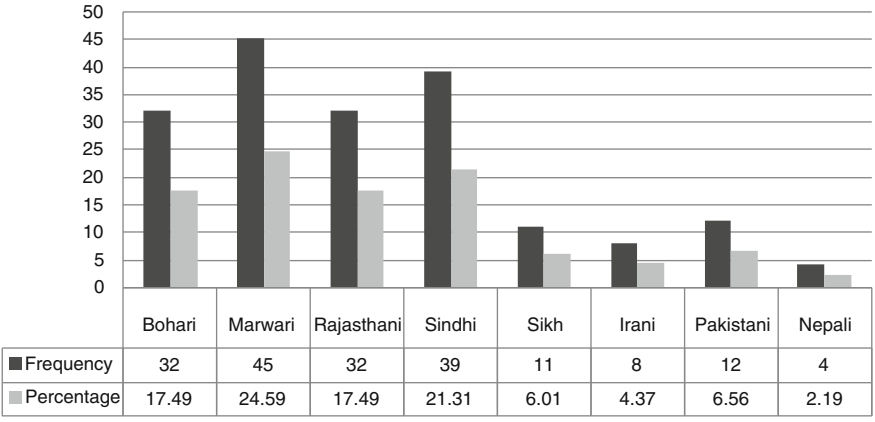
Data analysis is done for all five parts in questionnaire. The questionnaire consists of five parts: the first, to extract the demographic information about the respondents; the second, to extract driving factors for entrepreneurship; the third, to extract cultural factors of the respondents. The fourth is to extract economical factors and market conditions affecting business. And the last part to find out the ethnic enclave conditions affecting entrepreneurship.

14.5.1 Ethnic Group

This research is done with respect to old existing communities in Pune city as well as the immigrants from other countries. Data collected from Boharis, Marwaris, Rajasthanis, Sindhis, Sikh, Wani, and Sonar communities. But for the final evaluation, we have not considered the communities like Wani and Sonar since we got very less frequency in those communities. So here five communities and three immigrant groups are taken into consideration for analysis. With respect to total sample size 183, the frequency and percentage of sample for each community is shown in the Table 14.1 and Graph 14.1.

Table 14.1 Ethnicity of surveyed respondent

Ethnic group	Frequency	Percentage
Bohari	32	17.49
Marwari	45	24.59
Rajasthani	32	17.49
Sindhi	39	21.31
Sikh	11	6.01
Irani	8	4.37
Pakistani	12	6.56
Nepali	4	2.19
Total	*183*	*100*



Graph 14.1 Ethnicity of surveyed respondent

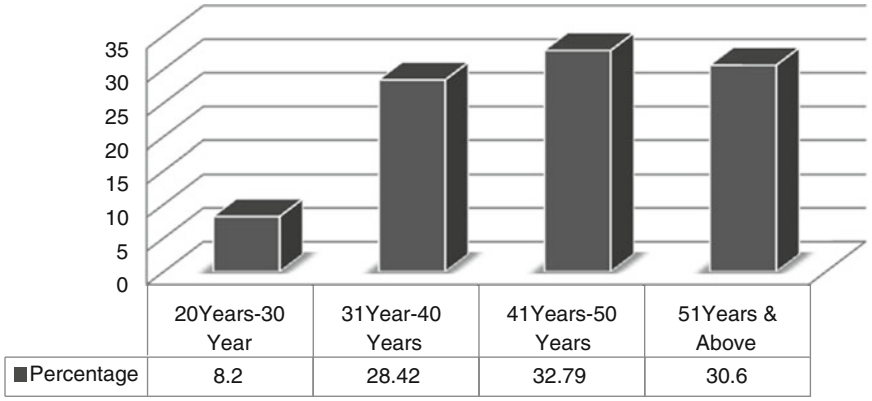
14.5.2 Entrepreneurs' Characteristics

14.5.2.1 Age

The demographic profile of respondents in relation to age, gender and educational background are giving the comparative data of each community. Approximately, 8 % of total respondent are between the age group of 20–30 years. It has been observed that the numbers of respondents are very less in this age group as they are in process of learning about the business, or taking education, also they are struggling to start the business in the age of 25 years and above. 28 % of total respondent are between the age of 31–40 years. Entrepreneurs who are doing their family business are more in this group. The actual and perceived entrepreneurial skills are acquired overtime and age has an impact on entrepreneurship. It has been found that many people below the age of 30 are not able to capture those skills, but the people above 30 possess those skills. Approximately 32 % of total respondent

Table 14.2 Age group and entrepreneurship

Age group (years)	Frequency	Percentage
20–30	15	8.20
31–40	52	28.42
41–50	60	32.79
51 and above	56	30.60
Total	*183*	*100.00*



Graph 14.2 Age group and entrepreneurship

are between the age of 41–50 years. And 30 % of total respondent are between the age of 51 years and above (as shown in the Table 14.2 and Graph 14.2).

14.5.2.2 Gender

It has been observed that Ethnic entrepreneurship is male dominated. Hardly some women entrepreneurs are found in religious entrepreneurship. There is participation from women for helping the existing family business, but very few women have started their own business initially.

In almost 75 % businesses, women are helping their family members. But the percentage of women helping hands is still more in the Marwaris and Rajasthani communities, as compared to others. Hardly, any woman is found supporting the Bohari community business.

14.5.2.3 Educational Background

Nowadays people are very keen to take education and training which is necessary for the success of a business. It has been observed that respondents from ethnic communities are trying to educate their family members for further expansion of the

business. Approximately 10 % of the respondents are postgraduates from all communities. Most of the respondents, doing their family business are either graduates or secondary school certified showing 27 and 41 %, respectively. In some of the business like food and real estate business it is necessary to take training before entering into the business. Like bakery, they are required to take some training programs from reputed institutes. Hence, 13 % of respondents are taking vocational training in respective business. The entrepreneurs who are uneducated are in the business of selling handicraft products (especially Rajasthani people), opened Mutton Shops, Plant Nursery etc.

14.5.2.4 Starting Situation

Table 14.3 is an indication of whether the respondent (entrepreneur) is an owner himself or a successor of the business.

Majority of the entrepreneurs have started business on their own. The table is clearly indicating the percentage of newly started business from each ethnic community is more than those who have taken up business from their family or others. It is seen that in most of the communities, the culture values are more inclined toward self-employment.

In case of immigrants, 100 % respondents have started their business after they migrated from their native place to Pune city. They have established the businesses in Pune city and have mentioned that their next generational will also continue the same business ahead.

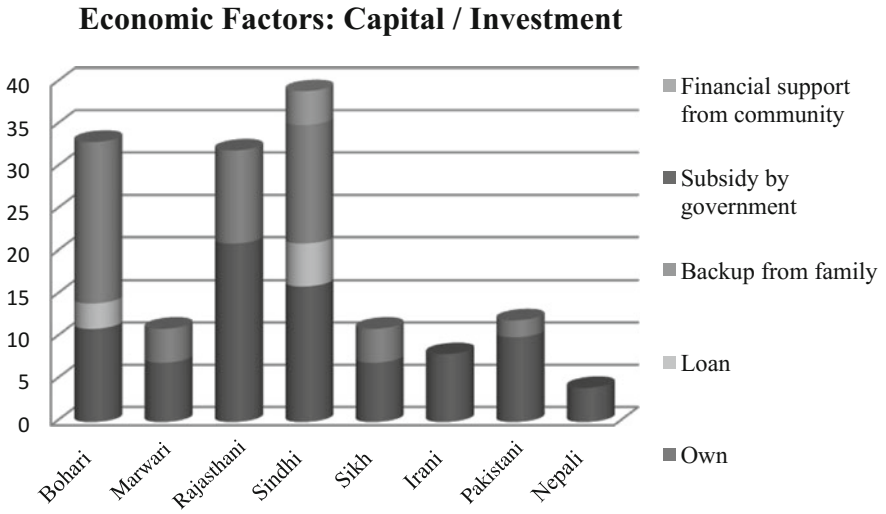
There are some entrepreneurs, who have taken up business from their family. Approximately, 40 % Boharis and 36 % Sikh are continuing their family business.

The percentages of entrepreneurs who purchased business from their friends are very less. There are only four Marwari respondents who have purchased business from their friends or others.

Table 14.3 Starting situation

Ethnic background	Own (newly started business)	Taken over from family	Taken over from others
Bohari (sample size 32)	19 (59.37 %)	13 (40.63 %)	–
Marwari (sample size 45)	31 (68.89 %)	10 (22.22 %)	4 (8.89 %)
Rajasthani (sample size 32)	28 (87.5 %)	4 (12.5 %)	–
Sindhi (sample size 39)	26 (66.67 %)	13 (33.33 %)	–
Sikh (sample size 11)	7 (63.63 %)	4 (36.37 %)	–
Irani (sample size 8)	8 (100 %)	–	–
Pakistani (sample size 12)	12 (100 %)	–	–
Nepali (sample size 4)	4 (100 %)	–	–

Note the percentage is calculated with respect to individual community sample size



Graph 14.3 Position before startup the business

14.5.2.5 Position Before Startup

An indication of respondents positing prior to the current business is shown in the Graph 14.3.

Most of the respondents as shown in the Table 14.4 were entrepreneurs (different business) before starting the current business. There are majorly two reasons found to start new business: first is most of them were not satisfied with current small-scale business and suffered losses in their business. The second reason is they got the opportunity to start new business in a larger scale than their previous one.

Family business and continuation of the same business is considered by respondents who are assisting their parents while completing their study and training. There are some respondents who have started new business after completion of their respective vocational training and their education.

Table 14.4 Position before startup the business

Ethnic background	Employed	Unemployed	School/study	Entrepreneur
Bohari (sample size 32)	–	5 (15.62 %)	5 (15.625 %)	22 (68.75 %)
Marwari (sample size 45)	–	12 (26.67 %)	6 (13.33 %)	27 (60 %)
Rajssthani (sample size 32)	–	19 (59.375 %)	–	13 (40.625 %)
Sindhi (sample size 39)	11 (28.205 %)	–	14 (35.897 %)	14 (35.897 %)
Sikh (sample size 11)	2 (18.18 %)	–	–	9 (81.818 %)
Irani (sample size 8)	–	–	–	8 (100 %)
Pakistani (sample size 12)	–	–	–	12 (100 %)
Nepali (sample size 4)	–	–	–	4 (100 %)

Note the percentage is calculated with respect to individual community sample size

Some of the respondents have taken the existing business as an opportunity to earn money as well as to get them employed. For example, there are some entrepreneurs who started the business of handicraft and ethnic wear by initially selling goods in exhibitions and then after some years started a retail outlet for the same.

Few respondents were earlier employed, but were not satisfied with their job and work culture. So they left their job and started their own business. Some of them had mentioned that they were not ready to work under someone else and wanted to be their own boss.

14.5.3 Nature of the Business

The industry, in which respondents business operated, is indicated in Table 14.5.

While surveying Ethnic entrepreneurship it is found that it is very easy and convenient for people to start business in food and retailing category. Family business in garment industry and in retailing are more in number. Approximately 13.6 % respondents are from manufacturing business, such as manufacturing of Bakery products, hot chips, milk products, ethnic food products etc. Majority of Boharis are in Hardware business. They have attained expertize in hardware business and most of them are doing their family business.

Ethnic food products selling is generally done by women from Marwari and Rajasthani communities. Most of them are selling products like Khakara, Chiwada, and Pickles etc.

Boharis are more in hardware business and few in food and clothing. Sikh communities are more into retailing and some of them are in food business.

Most of the immigrants are in food manufacturing business as most of them are producing and selling varieties of food products in Pune city through more and more outlets.

14.5.4 Driving Factors for Start Up

Table 14.6 shows the responses of these communities to various driving factors. Desiring independence or the urge to be own boss is found to be a common driving factor among all communities. The cultural impact is also seen while getting different response like—Marwaris and Sindhi are more inclined toward financial progress through economic living. This driving factor is also strong because of unemployment while entrepreneurship provides better career with future opportunities. Those respondents who were employed and not satisfied with job are also motivated to start new business.

The drive to continue family business is high among the Bohari, Marwari, and Sindhi communities in comparison to Sikh and Rajasthani people who show less percentage.

Table 14.5 Nature of business

Nature of industry	Service sector	Manufacturing sector	Textile sector	Food	Hardware	Retailing/wholesaling	Construction
Ethnic communities	Frequency						
Bohari	–	–	8M (4.37 %)	9M (4.91 %)	15M (8.19 %)	–	–
Marwari	5M (2.73 %)	8M (4.37 %)	4F + 3 M (3.82 %)	4F + 5 M (4.91 %)	–	12M (6.55 %)	4M (2.18 %)
Rajasthani	–	–	2F + 10 M (6.55 %)	5M (2.73 %)	–	15M (8.19 %)	–
Sindhi	–	–	6M (3.27 %)	17M (9.28)	–	11M (6.01 %)	5M (2.73 %)
Sikh	–	–	–	2M (1.09 %)	–	9M (4.91 %)	–
Irani	–	4M (2.18 %)	–	4M (2.18 %)	–	–	–
Pakistani	–	9M (4.91 %)	–	3M (1.63 %)	–	–	–
Nepali	–	–	–	4M (2.18 %)	–	–	–
Total percentage	5	21	33	53	15	47	9
Sample size 183	2.73 %	11.47 %	18.03 %	28.96 %	8.19 %	25.68 %	4.91 %

Note

1. **F** indicates Female respondents and entrepreneurs and **M** indicates Male respondents and entrepreneurs
2. Percentage of each frequency is indicated in bracket below and total for each sector given in total column

Table 14.6 Driving factors for starting business

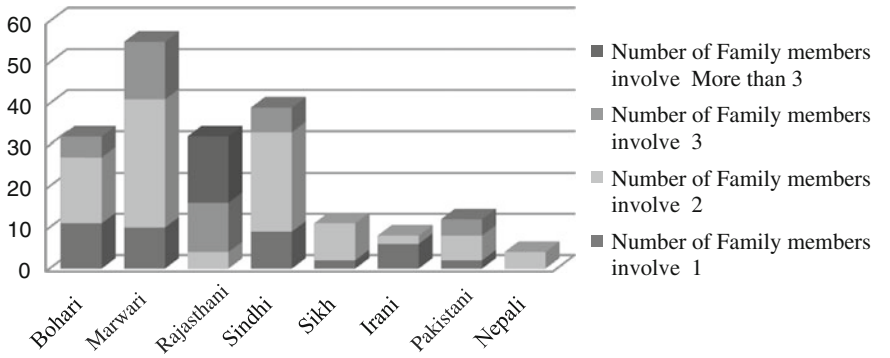
Communities ⇒ / Driving factors ⇓	Bohari	Marwari	Rajasthani	Sindhi	Sikh	Irani	Pakisthani	Nepali
Desire independence/ to be own boss	27	23	18	19	7	6	9	4
Financial progress		21		20				
Unemployed		12	19					
Dissatisfaction with current job				11	2			
Continuation of family business	13	10	4	13	4			
Good start up opportunities				28		8	12	4
Extra income		3	4	22	2			
Desire for self-employment	31			17				
Skills and knowledge	5	6		14		8	12	4
Personal satisfaction	6					2	3	
Need of achievement				12				
Personally know someone who started business (role model)		9	3					

Women are supporting their family with extra income by selling food products. Pune city and its food lovers are one of the prime motivational factors for many communities to start new business. In fact, many are choosing proper training programs and are taking the relevant knowledge before staring their business.

Followers of their role models can be seen in communities like Marwari and Rajasthani. They are influenced by members from their family or friends or other members from community and are working hard to achieve success in business.

14.5.5 Cultural Factors

Cultural values or religious beliefs are man's primary motivators to do best in whatever one's role is. The preferred values are spirit of openness, conformity,



Graph 14.4 Cultural factors

trust, authenticity, proactively, creativity, innovation, collaboration, experimentation, and confrontation. These values, generally followed in corporate organizations with strong culture help in the creation of an effective organizational team.

It is observed that in most of the communities these cultural values are strongly practiced and taught which in turn motivates them to start new business on their own. The value preference is shown below.

Variations in cultural beliefs regarding individual autonomy may influence a person. The other values taught by their culture and religion are dedication to hard work, economic living, acceptance of risk and challenges, orientation toward self-employment, solidarity, and loyalty (Graph 14.4 and Table 14.7).

It is found that dedication toward work as cultural values is taught in almost all communities. Economic living is mostly practiced among Marwaris and acceptance of risk and is high among Marwari, Sindhi, and Sikh communities.

Immigrants are also influenced largely by their cultural values like dedication to hard work, acceptance of the risk, and orientation toward self-employment. This fact cannot be ignored that even they follow the most important cultural value of

Table 14.7 Cultural factors

Cultural values/frequency				
Communities	Dedication to hard work	Economic living	Acceptance of risk	Orientation toward self-employment
Bohari (sample size 32)	32	15	22	30
Marwari (sample size 45)	40	42	41	41
Rajasthani (sample size 32)	25	30	29	32
Sindhi (sample size 39)	39	34	36	39
Sikh (sample size 11)	11	7	11	9
Irani (sample size 8)	8	7	8	8
Pakistani (sample size 12)	10	11	12	9
Nepali (sample size 4)	3	4	3	4

Table 14.8 Number of family members in business

Communities	Number of family members involved			
	1	2	3	More than 3
Bohari	11	16	5	
Marwari	10	31	14	
Rajasthani		4	12	16
Sindhi	9	24	6	
Sikh	2	9		
Irani	6	2		
Pakistani	2	6	4	
Nepali		4		

"Hindu dharma"—"Atithi Deva Bhav." Considering every customer as an "Atithi," i.e., guest, they prefer giving personal attention to them and trying to serve them.

14.5.6 Family Involvement

Cultural values and belief of communities encourage hard work, self-sufficiency, thrift, and helping each other through informal credit institutions. In the same way, family members are also supporting and motivating them to become successful entrepreneurs. The contribution of the family member and the impact of family business is questioned in this part of the questionnaire. It is found that in majority of cases, an immediate family member is involved in the business who guides the others.

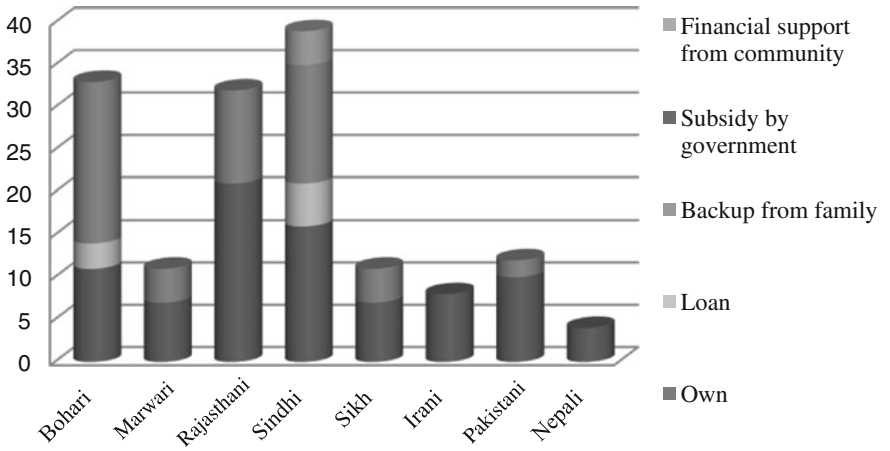
14.5.7 Number of Family Members in Business

At the most in every community more than two members from the family actively participate in the business. In case of Marwaris, Rajasthanis, and Sindhis more than two family members are involved in their business. Contribution of women is also high in these communities (as shown in Table 14.8 and Graph 14.5).

14.5.8 Economic Factors

Source of the capital used by entrepreneur to financially fund his business is mentioned in Table 14.9 and Graph 14.6.

Majority of the entrepreneur, use their own capital to fund their business with the help of funds from either family or friends. None of these entrepreneurs are taking the help of government funds (subsidy). There are some communities who are funding the entrepreneurs from their own communities and are also giving them



Graph 14.5 Number of family members in business

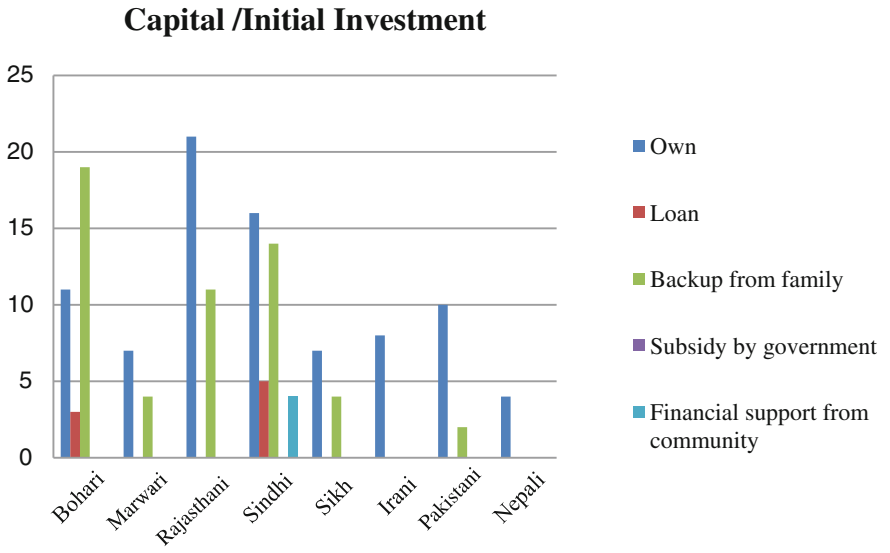
Table 14.9 Economic factors: capital/investment

Capital/ investment	Own	Loan	Backup from family	Subsidy by government	Financial support from community
Bohari	11	3	19		
Marwari	7		4		
Rajasthani	21		11		
Sindhi	16	5	14		4
Sikh	7		4		
Irani	8				
Pakistani	10		2		
Nepali	4				

guidance. Even if someone is doing bad in their business or facing losses, the other members from their community are helping them.

14.5.9 Market Conditions

Approximately 72 % of Marwari entrepreneurs have started business with the objective of introducing ethnic products. The Bohari community (28 %) entered into the food joints like mutton shops and nonvegetarian restaurants due to low economies of scale. 37.5 % of Rajasthanis, 59 % of Sindhis, and 63 % of Sikhs have entered business due to acceptance from local communities. 50 % Irani and all the four Nepali entrepreneurs entered into businesses with low economies of scale. Around 58 % of Pakistani migrants have entered into business as they found less legal restrictions in starting their business (As shown in Table 14.10).



Graph 14.6 Economic factors: capital/investment

Table 14.10 Market conditions

Ethnic background	Growth of ethnic communities	Markets with low economies of scale	Introducing ethnic products	Acceptance from local communities	Less legal restriction
Bohari		9	8	6	9
Marwari	4		23	14	4
Rajasthani	11		9	12	
Sindhi	7			23	9
Sikh				7	4
Irani		4			4
Pakistani	6			5	7
Nepali		4			

14.5.10 Ethnic Enclave

Migration is an important factor, which conditions the chances of ethnic entrepreneurship. Migration as a social process bestows on ethnic group a "sociological advantage" in the form of internal ethnic cohesiveness and collectivity, which appears to be conductive to doing business. Clustering of the same ethnic community in a neighborhood is known as Ethnic enclave who create more

entrepreneurial opportunities. Below mentioned four questions are put to these people to extract the information regarding their ethnic enclave. The questions and the responses to them are given below.

1. How would you describe the general reaction of your community to entrepreneurial behavior?

Most of the communities have given their reaction as "good." And they usually support the entrepreneurial behavior of any member from their community. Some of the communities like Marwaris and Sindhis support their members to start new business and their cultural values are also inclined toward entrepreneurship.

The immigrants Irani, Pakistani, and Nepali have a small number of community members in Pune and nearby Pune region but their response to this question shows that their community provides "extremely good" support for entrepreneurial behavior. All of them are entrepreneurs and they support others to start their businesses.

2. How are successful business people generally viewed by your community?

Most of the respondents have replied to this question as "very highly regarded" by community members. Since their cultural value support and motivates entrepreneurship these people are conditioned from childhood toward starting their own venture and also give high regard to successful business people.

3. How much does Social networking help your business?

Social networking is the most important activity of the ethnic enclave. Through networking opportunities are created for further progress of the business. Their cultural values teach them to make strong social network which is useful in all kinds of business.

It has been observed that one of the important and distinctive features of the ethnic entrepreneurship is to support the community networks. Ethnic entrepreneurs generally take advantages from their networks. Many of these ethnic entrepreneurs, both in manufacturing and service-oriented sectors, have also developed good contacts with large companies through subcontracting relationships.

Respondents have also explained that these networks not only develop their business contacts, but also help them to raise their social standing, which in turn contributes to their entrepreneurial success.

4. How much support in terms of personnel do you get from Community people?

It has been found that most of the communities are helping and guiding the members of their community for the business. Some of the ethnic communities are directly and indirectly giving guidance and making different opportunities available for their people. There are some communities who help new entrepreneurs by supporting them financially for their business.

14.6 Findings

1. Majority of the entrepreneurs fall in the age group of 30 and above and it is found that the actual and perceived entrepreneurial skills are acquired overtime and age has an impact on entrepreneurship.
2. Very few have completed their education till post graduation while starting business but now community members from Sindhi and Sikh are also educating their children for further advancements in business.
3. Maximum entrepreneurs have started business on their own. Very few young entrepreneurs were found who have taken over the business from family members or others.
4. Majority the respondents had started their business on a very small scale and today they have expanded their businesses to great heights.
5. Desire for independence means to be own boss is the primary driving factor and continuation of family business for finical progress happens to be the secondary factor toward entrepreneurship.
6. All communities have shown dedication to hard work as their basic cultural value. Also these communities emphasize upon orientation toward self-employment. Communities like Marwari, Sindhi, and Rajasthani believe in economic living while all immigrants showed acceptance of risk as their learned cultural values.
7. It has been observed that more than two family members are involved in family businesses who happen to be immediate family members.
8. Most of the ethnic and immigrant entrepreneurs have started their business on their own with their personal savings while some have taken financial help from family members. Communities like Sindhis openly provide financial support to their co-ethnic members.
9. Most of the Marwari entrepreneurs have started business with the objective of introducing ethnic products. The Bohari community entered into the food sector like mutton shops and nonvegetarian restaurants due to low economies of scale. Few of the Rajasthani, Sindhi, and Sikh people have entered business due to acceptance from local communities. Half of the Irani and all the four Nepali entrepreneurs entered into businesses with low economies of scale. Around 58 % of Pakistani migrants have entered into business as they found less legal restrictions.
10. The study of ethnic enclave conditions shows that the community members support the growth of co-ethnic businesses not only financially but also by providing personnel from their respective communities. They have all rated social networking as a catalyst to their businesses.

14.7 Limitations

The present analysis is a pilot study and has achieved its primary objective of unearthing facts, from responses to questionnaire and personal interviews of some ethnic entrepreneurs to get more insights into the driving factors, while simultaneously taking into account other structural factors such as communities, gender, education, and nativity.

In the stipulated time, maximum data was collected and the findings and conclusion are purely based on the responses received.

14.7.1 Scope for Future Research

For the socioeconomic well-being of members of the ethnic groups and for the future socioeconomic development, a well-structured program for studying ethnic entrepreneurship coupled with minority and women as essential segments is of paramount importance.

14.8 Conclusion

1. First, the main objective of this chapter was to find out driving factors for entrepreneurship among ethnic and religious minorities. Majority of the respondents have rated desire independence/to be own boss as the primary driving factor.
2. Second, we found that the ethnic entrepreneurs and the immigrants are benefitted by the socio-ethnic characteristics like the socio-ethnic networks they create for their business. Working with ethnic enclaves improves the prospects for social mobility among the ethnic workers.
3. Third, the study reveals that ethnic, religious, and migrated communities are well equipped with culturally determined features such as hard work, membership of a strong ethnic community, economical living, acceptance of risk, and orientation toward self-employment. These features provide an ethnic resource which facilitate and encourage entrepreneurial behavior and support the ethnic self-employment.
4. Fourth, the study has offered evidence suggesting that ethnic enclaves contribute to increase in the level of earnings. This is consistent with the view that the enclave offers a "warm embrace," helping immigrants and ethnic entrepreneurs to move upward on the business ladder. Most of the respondents have shown that the ethnic enclave conditions have supported them in flourishing their business and are regarded highly in the society.

For the ethnic entrepreneurs, entrepreneurship is a survival strategy rather than hobby. Entrepreneurship is the only alternative for economic advancement and social mobility.

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Chapter 15
Success and Life Satisfaction Among Women Entrepreneurs in Micro enterprises

Latha Krishnan and T.J. Kamalnabhan

15.1 Introduction

The growth of entrepreneurship in India and its importance can be gauged by the Global Entrepreneurship Monitor (GEM) (2006, 2007) report which emphasizes that an entrepreneurial boom exists in India, wherein one in every ten persons is engaged in entrepreneurial activity. Such activity or "Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming financial, psychic, and social risks, and receiving the resulting rewards" (Hisrich 2000). While entrepreneurship is a multifaceted phenomenon appearing in all sectors and enterprises of all sizes, entrepreneurship in Micro, Small and Medium Enterprise (MSME) in general and entrepreneurship in microenterprises in particular assumes importance as it is an effective instrument for securing balanced socioeconomic development by increased productivity and employment levels. However, in most developing nations, promotion of microenterprises have been viewed more as a development process for poverty alleviation instead of a robust entrepreneurial activity for growing businesses. Among entrepreneurs in India, women entrepreneurs

Notes: Micro entrepreneurs—Micro entrepreneurs are the owners of small businesses that have fewer than five employees. Examples of micro entrepreneurs are owners of bakeries, provision stores, beauty parlors, power loom industry, repair shops, printing businesses, family-owned shops, small-scale restaurants, tailoring and textile businesses. In our study, it was found that the investment made by microentrepreneurs ranged from Rs. 2 to 5 lakhs.

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constitute about 10 % of the total entrepreneurs, and this percentage is growing rapidly every year. If this trend continues, it is very likely that in another 5 years, women will comprise about 20 % of the entrepreneurial force in India (Nayyar et al. 2007). Entrepreneurial activities among women enhance their leadership qualities and increase their decision-making capabilities in the family and society as a whole. According to Khanka (2000), a woman entrepreneur is confident, innovative, creative, and capable of achieving economic independence individually or in collaboration, to generate employment opportunities for others through initiating, establishing, and running an enterprise by keeping pace with her personal, family, and social life. The first Prime Minister of India, Pandit Jawaharlal Nehru has stated, "When a woman moves forward, the family moves, the village moves and the nation moves." A further examination of the various components of entrepreneurship in micro enterprises like achievement in business, innovation, perceived self-esteem, and various strategic skills and competencies needed for entrepreneurial success and their linkages was called for as limited research has been undertaken in this regard.

Hence, this study was undertaken to determine the relationship between entrepreneurial attitude characteristics using the entrepreneurial attitude orientation (EAO) scale, entrepreneurial competencies using the competency scale and entrepreneurial success, eventually leading to life satisfaction among micro entrepreneurs in Micro enterprises.

15.2 Literature Review and Hypothesis Development

15.2.1 Conceptual Model

Robinson et al. (1991) formulated an attitudinal scale to determine entrepreneurial activity. They perceived that the attitudinal scale could be more domain-specific, which increased the relationship with actual behavior and also mitigated unexplained variability. Attitudes had a tendency to change over time and situations through which an interactive process with the environment took place. So, once a person's attitude was determined, a prediction could be made about his or her success in entrepreneurial activity (Carlson 1985). Thus, based on earlier research on personality, entrepreneurship, and Carlson's attitude consistency model, Robinson et al. (1991) developed the EAO model to predict entrepreneurial activity. The subscales of EAO are (1) Achievement in business; (2) Innovation in business; (3) Perceived personal control of business outcomes; and (4) Perceived self-esteem in business (Fig. 15.1).

Achievement in business referred to the results relating to start up and growth of business. Individuals with a high need for achievement performed better, and took responsibility for their performance and results. They sought feedback, compared themselves and set new challenges and goals to improvise on their performance (McClelland 1961). The achievement motive was based on doing something better

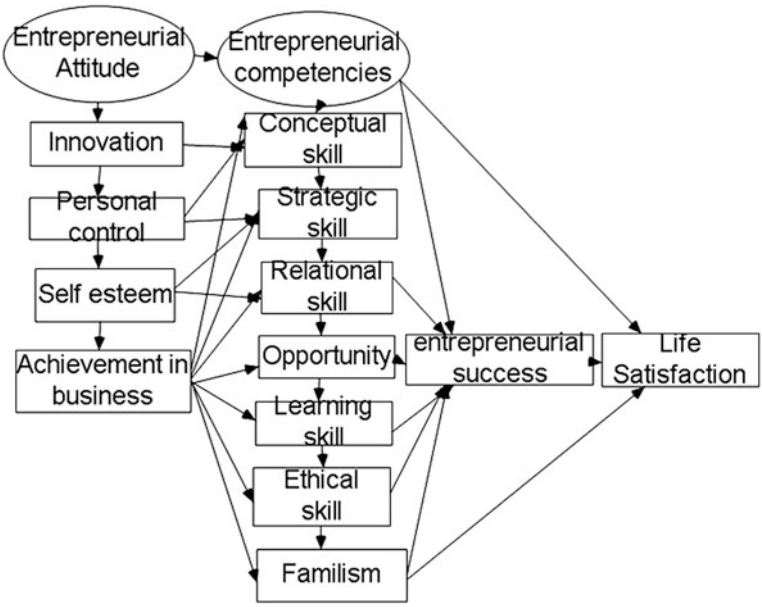

Fig. 15.1 Influence of entrepreneurial attitude, competency, and success on life satisfaction

than the others. The development of the achievement motive occurred when individuals set their own goals against their desire to achieve. Thus, achievement motive is striving for excellence through proper planning and execution (Hensemark 1998). Some studies found a direct, positive correlation between achievement motivation and entrepreneurial activity (Steven 2003). The link between entrepreneurial success and their achievement motivation was shown by several authors (Robinson et al. 1991; Caird 1991). Achievement was conceptualized and sought to be measured in many ways.

Innovation and understanding were crucial elements of entrepreneurship. According to Senge (2000), most people did not understand the system they operate within, even though they may have held long-term personal goals. However, in order to attain a fair degree of achievement in both personal and business goals, innovative ideas and techniques are required. Innovation is creating something new: products, markets, or organization. Innovation relates to acting upon business activities in creative and unique ways (Drucker 1985).

This led to the first hypothesis as under:

> H1—There is a positive direct relationship between achievement and innovation in business among women entrepreneurs in micro enterprises.

Self-control was concerned with the individual perception to exert control and influence his or her business venture. Robinson et al. (1991) also found that internal personal control led to a positive entrepreneurial attitude. Perceived self-esteem in

business pertained to the self-confidence and level of competency of an individual vis-a-vis his or her business affairs. Self-esteem was associated with how people feel about oneself (Hogg and Cooper 2003) and self-efficacy as a part of self-esteem is a belief in the capability of an individual to perform the task (Chen et al. 1998). The Entrepreneurship literature also found that individuals who believed in their skill and ability were successful with new ventures and were motivated to exert more effort (Douglas and Shepherd 2000). This led to the second hypothesis as under:

H2: There is a positive direct relationship between achievement, innovation, self-control and self-esteem among women entrepreneurs in micro enterprises.

Entrepreneurship Competencies have been identified as a specific knowledge and skill essential for successful entrepreneurship and development of new business ventures. In a study into the learning behavior of small firms, Chaston et al. (1999) looked at how different behavior patterns have an impact on organizational capability, and found that in spite of the extensive literature available, relating to organizational learning, there were only few attempts to operationalise its activities especially in the small firm sector. Scholars researching in the field of entrepreneurship brought about the difference between managerial competencies and entrepreneurial competencies. Lerner and Almor (2002) opine that entrepreneurial competencies are needed to start the business, while managerial skills are needed to grow and expand the business, although competence in entrepreneurship requires competencies in both areas (Man and Lau 2002). In a study conducted by Man and Lau (2002), eight areas of entrepreneurial competencies, have been identified namely, opportunity, relationship, strategic, conceptual and learning, and distinguished the personal competencies like social responsibility, familism, and ethical competencies. They have either a direct or indirect impact on the performance of micro enterprises. This led to the third hypothesis as under:

H3: The conceptual, relational, learning and strategic competencies and ethical personality of women entrepreneurs in micro enterprises are positively related to entrepreneurial competencies.

The Satisfaction with Life Scale (SWLS) is a scale to measure life satisfaction and is developed by Ed Diener et al. (1985). Life satisfaction is one factor of subjective well being. Subjective well being has three components: positive affective appraisal, negative affective appraisal, and life satisfaction. Life satisfaction is affective appraisal as it was more cognitively than emotionally driven. Life satisfaction could be assessed to a particular aspect of work life balance. The SWLS is a global measure of life satisfaction. Individuals with entrepreneurial attributes were not contented with conventional rewards if they were to fully use their capabilities (Augers and Arenberg 1992). The main attractions for the entrepreneurs were freedom from rules and regulations (Chay 1993), freedom to make decisions and assume responsibility and accountability to one's self, and have potential for

higher rewards and being their own boss (Timmons 1994). Katz (1992) contended that the values for entrepreneurs are autonomy, creativity, material gain, and satisfaction. In addition, Thompson et al. (1992) found that entrepreneurs had a stronger relationship between job and life satisfaction, job and self-satisfaction, and job and family satisfaction as compared to employed individuals. With global changes continuously taking place, researchers have identified different characteristics about people who enjoyed life satisfaction. Vaillant (2000) said that self-employed people enjoyed better physical and mental health and coped with stress better than non entrepreneurs. Argyle (2001) said they were more energetic, active, efficient, and productive at their jobs and earned a better living. Lyubomirsky (2008) said that happy individuals were more flexible and efficient in problem-solving and decision making. Also, they were more committed to their goals and focused on avoiding failure. This led to the fourth hypothesis:

H4: There is a direct relationship between entrepreneurial success and life satisfaction among women entrepreneurs in micro enterprises.

15.3 Research Methodology

15.3.1 Sample and Data Collection

This study is an empirical research. Interview schedule was administered in the form of questionnaire. Data was collected from Bangalore Rural, Bangalore Urban, Mysore, and Belgaum districts in Karnataka, India. The sample size consisted of 200 women micro entrepreneurs of Grameen Koota, a part of Grameen Financial Services, the NGO-MFI of the Grameen Bank model and 200 women micro entrepreneurs of Sanghamithra Rural Financial Services, the NGO-MFI of MYRADA. In both cases, the sample included both urban and rural women micro entrepreneurs.

The inclusion criteria used for sample selection were as follows:

1. The micro entrepreneurs must currently play an active role in running the business.
2. The business must be operating for at least 3 years
3. The business must have less than 20 employees
4. The business must be stand-alone and not a franchisee or part of large organization.

Purposive sampling technique was formulated in this research study. For quantitative data, a survey using a five-point Likert Scale was administered to access entrepreneurial traits based upon attitude theory. A pilot study was administered among 50 micro entrepreneurs from both the groups. The purpose of the pilot study was to identify the most appropriate instrument and to test the reliability of the questionnaire considered for the analysis. Along with descriptive statistics,

multivariate analysis such as Factor analysis was used to analyze the relationship between the variables relating to entrepreneurial success. Principal Factor Analysis using SPSS statistical package was used on the survey data and to separate the factors contributing to entrepreneurial success. The relationship of entrepreneurship factors for entrepreneurial success is assessed through Structural Equation Modeling (SEM) by using Amos Version 16.

15.3.2 Survey Instrument

EAO scale based on the tripartite model of attitude, i.e., affective, cognitive, and conative measures of attitudes toward entrepreneurship. The constructs of EAO are: (1) achievement in business, (2) innovation in business, (3) perceived personal control of business outcomes, and (4) perceived self-esteem in business. The internal consistencies reported were above 0.70 for entrepreneurial attitude.

The Entrepreneurial competencies scale (Man and Lau 2002) constructs include Conceptual, Strategic, Relational, Opportunity, Learning, Personal skills, Social responsibility, Ethical, and Familism which were used to test the hypotheses. The internal consistencies reported were 0.78 for entrepreneurial competency.

With regard to entrepreneurial success; profitability, sales, return on investment, and employment generation were assessed (Chandler and Hanks 1994). The internal consistency reported was 0.77.

The SWLS to measure life satisfaction reported an internal consistency of 0.80.

A five-point Likert scale was used, indicating "1" as strongly disagree and "5" as strongly agree.

15.4 Instrument Validation

When the survey was completed, the data was organized, and the statistical software, SPSS was used to test the internal consistency of the items in the survey. Construct validity was determined using factor analysis procedure. Table 15.1 indicates the reliability analysis. Factor analysis was used for all the constructs in the study. Factor analysis was done for all the items which showed a higher factor loading. The SWLS consisting of five items was measured. The internal consistency of the SWLS was adequate with alpha coefficient repeatedly exceeding 0.80.

The reliability coefficient for all constructs as per EAO scales in Table 15.1 were found to be reliable as Cronbach alpha ranged more than 0.60.

For internal consistency of the constructs, Cronbach's alpha was computed for each factor, with a value of >0.60 considered to be acceptable and a value of >0.70 considered to be good (Nunnally and Bernstein 1994). The Cronbach's alpha

Table 15.1 Reliability coefficient of EAO sub scales

EAO sub scales	Items	Reliability coefficient (Cronbach's alpha)
Achievement	9, 35, 3, 26, 23, 31	0.65
Innovation	49, 46, 71, 75, 2, 63	0.63
Personal control	47, 45, 8, 60	0.67
Self-esteem	14, 21, 29, 5	0.69
Business leadership	57, 40, 70, 48, 44, 1	0.61
Life satisfaction	1, 2, 3, 4, 5	0.87

Table 15.2 Reliability coefficient of competency subscales

Competency subscales	Items	Reliability coefficient (Cronbach's alpha)
Strategic	7, 14, 28, 32, 35	0.71
Conceptual	3, 10, 15, 17, 30	0.72
Opportunity	2, 22, 66, 76	0.78
Relationship	6, 24, 27, 77	0.88
Learning	9, 25, 33, 41, 44	0.85
Personal	40, 43, 48, 52, 81	0.73
Ethical	37, 38, 39, 42	0.86
Social Responsibility	5, 8, 11, 13	0.84
Familism	19, 23, 26, 53	0.78

coefficient value for all competency constructs was good (i.e., above 0.70). The reliability coefficient for all constructs of competency scales are shown in Table 15.2.

15.5 Measurement Model—CFA Procedure

To use structural models is to analyze the extent to which the hypothesized model fits in the sample data (Byrne 2001). A model can be examined by goodness-of-fit indices which includes Chi square (χ^2), Chi square/degree of difference (χ^2/df), Goodness-of-fit index(GFI), Tucker Lewis Index (TLI), Comparative fit Index (CFI), and Root mean square error of approximation (RMSEA). Besides fit statistics, the standardized regression estimate that assesses the effect of one variable on another was also undertaken. The significance level was set at $p = 0.05$. Prior to testing the model, the goodness-of-fit test was undertaken.

Fit indices of Confirmatory Factor Analysis for Entrepreneurial Attitude and Entrepreneurial competency can be seen in Tables 15.3 and 15.4.

Table 15.3 Fit indices of CFA for entrepreneurial attitude

Construct	χ^2	NFI (≥0.90)	CFI (≥0.80)	GFI (≥0.90)	RMSEA (≤0.08)	Sig
Business Leadership	23.21	0.96	0.97	0.97	0.096	0.000[a]
Innovation	7.54	0.98	0.98	0.97	0.070	
Personal control	6.13	0.96	0.98	0.98	0.081	
Self-esteem	39.28	0.92	0.93	0.94	0.093	
Achievement in business	59.65	0.94	0.98	0.95	0.098	

[a] Significant at $p < 0.05$

Table 15.4 Fit indices of CFA for entrepreneurial competency

Construct	χ^2	NFI (≥0.90)	CFI (≥0.80)	GFI (≥0.90)	RMSEA (≤0.08)	Sig
Strategic	10.18	0.96	0.96	0.98	0.096	0.000[a]
Conceptual	9.09	0.97	0.98	0.96	0.079	
Relational	1.36	0.96	0.96	0.98	0.081	
Opportunity	1.34	0.97	1.00	1.00	0.000	
Learning	7.87	0.98	0.99	0.98	0.052	
Personal	14.04	0.98	0.98	0.97	0.019	
Ethical	13.56	0.98	0.99	0.98	0.074	
Social responsibility	2.79	0.97	0.96	0.98	0.069	

[a] Significant at $p < 0.01$

15.6 Hypotheses Testing Using Structural Equation Model (SEM)

In testing the hypotheses developed for this study, SEM was used because it offers a number of advantages compared to other techniques. First, SEM takes into account measurement error in the observed variables, resulting in accurate estimation of the model. Second, in contrast to other regression procedures, SEM allows for the testing of an entire model instead of testing each bivariate relationship in a step-by-step fashion (Shumaker and Lomax 1996). SEM offers greater precision in model estimation. Third, by taking into account both direct and indirect effects, SEM provides an estimate of both direct and indirect effect of each independent variable on the dependent variable (Kline 1998). Fourth, SEM resolves the problem of multicollinearity, which is often difficult in regression analysis (Rigdon 1994). In the case of this study, the multicollinearity problem associated with entrepreneurial attitude orientation construct was resolved through the higher order structure. As suggested by Rowe (2002), aggregating of items that measure behaviors that are associated with specific constructs, is a useful method of data reduction and is used in improving model testing.

Analysis of Moment Structures (AMOS) version 16 was run to analyze the data by using Structural Equation Modelling (SEM). AMOS graphics were used to graphically represent the model fit for all parameter estimates, sample means, variances, covariances, and correlation (Stine 1989). Hypotheses testing for multiple models like entrepreneurial attitude, entrepreneurial competencies, entrepreneurial success and life satisfaction, and their direct effect and relationship was assessed using SEM in this study. Properties were analyzed with standardized estimates, minimization, and residual moment and modification indices. Standardized estimates displayed estimates of covariance between the observed variables. Correlation estimates were derived after the relevant variances and covariances had been estimated. Seven measures of fit (χ^2, χ^2/df, GFI, AGFI, IFI, TLI, and RMSEA) were explicitly estimated in the model specified.

H1—There is a positive direct relationship between achievement and innovation in business among women entrepreneurs in micro enterprises.

Hypothesis 1 was concerned with testing whether entrepreneurial attitude would positively affect achievement in business and innovation in business. In Fig. 15.2, the structural model for entrepreneurial attitude had a direct relationship toward achievement and innovation in business. This model presents a good model fit of $\chi^2 = 28.1$, $p = 0.000$, $\chi^2/df = 2.00$, GFI is 0.971, AGFI is 0.946, IFI is 0.911, and RMSEA is 0.044. The result therefore, supported the hypothesized relationship.

Unobserved variables or factors/constructs are represented by circles or ovals (Fig. 15.2), the circles at the top, i.e., innovation and achievement are the unobserved or latent variables; the circles at the side are factors (observed variable and e is the errors in the variable).

Say (1936) highlighted the importance of converting knowledge into marketing products. Schumpeter (1939) enunciated that innovation enabled an individual to manage his business better. Zimmerer and Scarborough (2002), stressed that entrepreneurial dynamics and entrepreneurial spirit were the key components to entrepreneurial success. This supports our tested hypothesis.

H2: There is a positive direct relationship between achievement, innovation, self-control and self-esteem among women entrepreneurs in micro enterprises.

As depicted in the Fig. 15.3, analysis of data using SEM procedure showed a significant direct relationship of entrepreneurial attitudes like achievement in business, innovation in business, and personal control and self-esteem. This model yielded a model fit of $\chi^2 = 176.60$, $p = 0.000$, $\chi^2/df = 2.00$, GFI is 0.917, AGFI is 0.918, TLI = 0.786, CFI is 0.965, and RMSEA is 0.067. The results, therefore, supported the hypothesized relationship.

Timmons (1994) confirms that entrepreneurship was the ability to create and build wealth from nothing. Driessen and Zwart (1998), state that entrepreneurship is initiating and building a successful enterprise. Das and Bing-Sheng (2001) state that recognizing and exploiting opportunity and having personal control and entrepreneurial alertness led many individuals to entrepreneurial career and success.

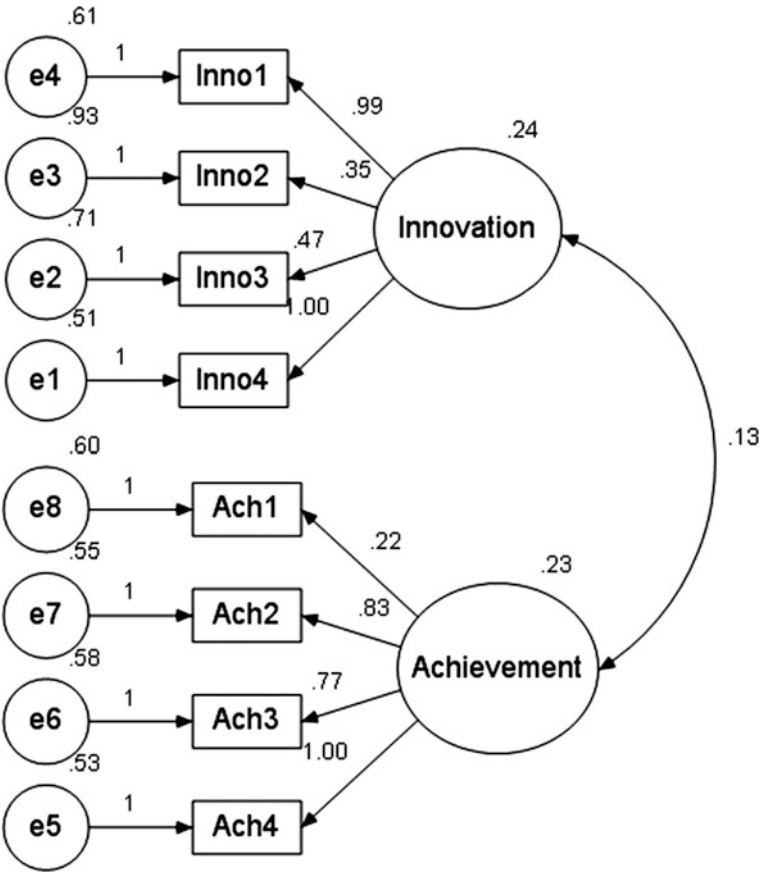

Fig. 15.2 Structural model—innovation and achievement

This finding is consistent with the study undertaken by Shapero (1982) and Krueger and Carsrund (2000), who opined that the propensity to act is an essential component for venture creation and the observation made by Hansemark (1998), who stated that participation in enterprise development significantly increased the personal control of an entrepreneur.

H3: The conceptual, relational, learning and strategic competencies and ethical personality of women entrepreneurs in micro enterprises are positively related to entrepreneurial competencies.

As depicted in the Fig. 15.4, analysis of data using SEM procedure showed a significant direct relationship of entrepreneurial competencies like conceptual skill, strategic skill, relational skill, learning skill, and ethical skill. This model presents a good model fit of $\chi^2 = 117.0$, $p = 0.000$, $\chi^2/df = 2.00$, GFI is 0.946, AGFI is 0.922, IFI is 0.878, and RMSEA is 0.0514. The result, therefore, supported the hypothesized relationship.

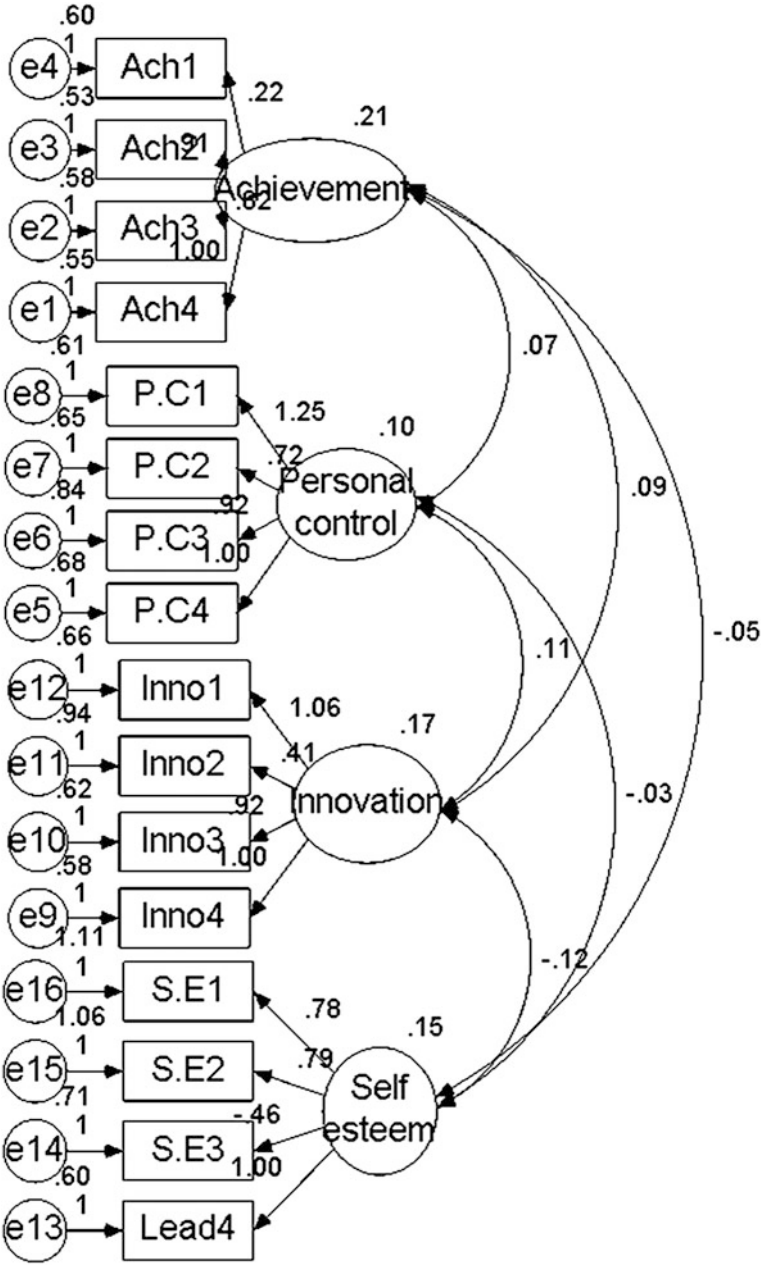

Fig. 15.3 Structural model—innovation, achievement, and personal control and self-esteem

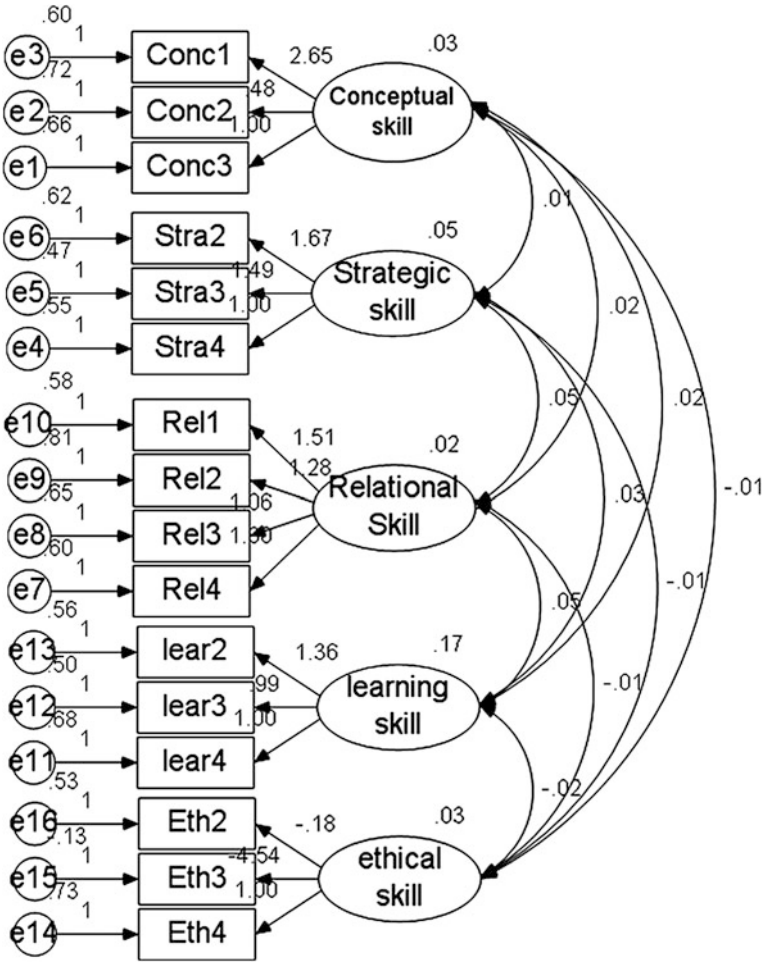

Fig. 15.4 Structural model—conceptual, strategic, relational, learning, and ethical skill

This finding is consistent with the study undertaken by Markman (2007), that entrepreneurs are those who possess knowledge, skill, and abilities to be strategic leaders for their ventures, and their actions influence ventures success. They formulate strategies, recognize opportunities, and transmute these opportunities into business success (Beaver and Jennings 2005). They believe that values and ethics are prerequisites for good business (Spence and Rutherford 2001).

Thompson et al. (1997), confirmed that personal competency was an important competency. Successful entrepreneurs possess high level of determination and desire to overcome hurdles and pursue their goals (Chandler and Jansen 1992). They are goal-oriented and possess a high need for achievement (Lee and Tsang 2001). They have concern on ethical practices in business and this value in business practices 'pay off; in the long run (Zuari and Peters 2002).

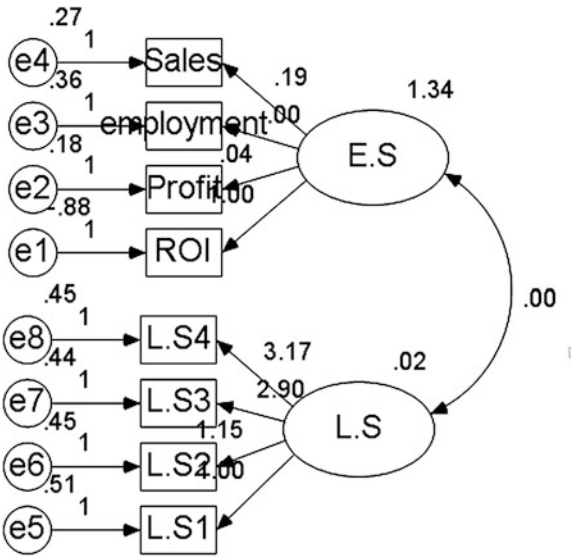

Fig. 15.5 Structural model—entrepreneurial success and life satisfaction

There is a strong relationship between job and self-satisfaction, job and life satisfaction, and job and family satisfaction among entrepreneurs (Thompson et al. 1992). This supported our hypothesis.

H4: There is a direct relationship between entrepreneurial success and life satisfaction among women entrepreneurs in Micro enterprises.

As depicted in the Fig. 15.5, analysis of data using SEM procedure showed a significant direct relationship between entrepreneurial success and life satisfaction. This gives a good model fit index of $\chi^2 = 40.7$, $p = 0.000$, $\chi^2/df = 2.00$, GFI is 0.966, AGFI is 0.781, IFI is 0.948, TLI is 0.986, and RMSEA is 0.056.

Hammermesh (1990) and Chay (1993) found that entrepreneurs worked an additional 17 h every week more when compared to employed individuals. The positive aspects of work increased their energy levels and enthusiasm needed in job, leading to life satisfaction (Naughton 1987). This supported our hypothesis.

The result therefore, supported all the hypothesized relationship

15.7 Results and Discussions

15.7.1 Profile of Participants

Table 15.5 indicated that the women entrepreneurs' ages ranged from 23 to 40 years. Monthly income ranged from Rs. 10,000 to 30,000. Majority of entrepreneurs in both the groups were married and are into trading or services sector. The differences cannot be observed between women entrepreneurs with regard to age, education, and

Table 15.5 Demographic profile

Variables and categories	Sanghamithra financial services (MFI)	Grameen Koota financial services (MFI)
Rural women entrepreneurs	108 (54 %)	124 (62 %)
Urban women entrepreneurs	92 (46 %)	76 (38 %)
Type of family		
Joint	120 (60 %)	130 (65 %)
Nuclear	80 (40 %)	70 (35 %)
Age		
21–30	50(25 %)	60 (30 %)
31–40	104 (52 %)	116 (58 %)
41–50	20 (10 %)	10 (5 %)
50–60	26 (13 %)	14 (7 %)
Education		
Undergraduation	100 (50 %)	85 (43 %)
Matriculation	40 (20 %)	65 (32 %)
School dropouts	60 (30 %)	50 (25 %)
Training attended		
0–3 months	60 (30 %)	50 (25 %)
3–6 months	40 (20 %)	30 (15 %)
6–12 months	20 (10 %)	20 (10 %)
Nil	80 (40 %)	100 (50 %)
Marital status		
Unmarried	35 (17 %)	60 (30 %)
Married	165 (84 %)	140 (70 %)
Type of industry		
Manufacturing	42 (21 %)	38 (19 %)
Trading	50 (25 %)	84 (42 %)
Services	108 (54 %)	78 (39 %)
Income		
1,0001–15,000	24 (12 %)	40 (20 %)
15,001–20,000	86 (43 %)	108 (54 %)
20,001–25,000	70 (35 %)	40 (20 %)
25,001–30,000	20 (10 %)	12 (6 %)

marital status between Sanghamithra financial services and Grameen Koota financial services. All the entrepreneurs had attended formal or informal training in technical areas like tailoring, computers, printing, and designing textiles but 50 % of them had informal training associated with hands-on experience.

Table 15.6 indicated responses from women micro entrepreneurs of Grameen Koota and Sanghamithra, it can be asserted that there are differences in their occupation and business among entrepreneurs of both the groups. It is noted that those women entrepreneurs who are first generation entrepreneurs face more challenges

Table 15.6 Socio-economic dimensions between Grameen Koota and Sanghamithra women micro entrepreneurs

S.No	Description of socio-economic variables	Mean score of micro entrepreneurs of Grameen Koota	Mean score of micro entrepreneurs of Sanghamithra	SD	*t*-values
1.	Family's occupation/ business	16.485	14.253	4.506	6.00**
	a. Dairy				
	b. Power loom				
	c. Restaurant				
	d. Flower and fruit business				
	e. Vegetable shop				
	f. Provision stores				
	g. Jewellery shop				
	h. Textile business				
	i. Tailoring shop				
	j. Printing press				
	k. Computer center				
2.	Educational level	11.700	11.286	2.660	1.45NS
3.	Successful previous start ups	7.870	7.083	1.498	5.18**
4.	Inherited success	5.440	6.196	1.869	4.66**
5.	Support from family members	5.975	5.640	1.549	2.18*
6.	Support from financial institution	4.810	5.303	2.048	3.32**
7.	Resources to sell at competitive prices	5.510	5.639	1.686	1.23NS
8.	Perceived social status	4.895	4.750	2.272	0.88NS
9.	Perceived economic status	7.960	7.830	1.631	0.91NS

**significant at $p < 0.01$
*significant at $p < 0.05$
NS not significant

and need to be assertive and enterprising to improve their business. Women entrepreneurs differ significantly in successful startups of their business, support from family members, and support from financial institutions as we find that they not only borrow from their NGOs but also from family, friends, and banks for running their enterprises. The success of entrepreneurs does not depend on group intervention but their individual skill and competencies and entrepreneurial bent of mind.

There are no significant differences in educational level of the micro entrepreneurs in both groups. However, there is a significant difference in perceived social status and perceived economic status among the entrepreneurs of both the groups. It can be seen that in both the groups the entrepreneurs possessed the necessary skills

to cope up with their roles at home and at their work place. They are all necessity entrepreneurs and the main motivating factor to start an enterprise had been to improve both social and economic status in the society. This influences economic development. However, women-owned enterprises have their own share of issues and concerns that require being redressed, which helps them to perform at par and may be better than their male counterparts. Key issues for new and growing women-owned enterprises include lack of capital, lack of access to information, and market. In Karnataka, women micro entrepreneurs with poor access to education and training experience find difficulties in raising finances, lack self-confidence, do not have adequate support from their families, and are unable to interact effectively with bankers, suppliers, and clients. The effort to balance work and family is a major challenge.

About 60 % of the micro entrepreneurs do not survive more than first two years and of those who do, only 30 % expand their business venture. 60 % of microenterprises never grow big and do not pursue expansion. They lack a level playing field but are yet courageous, enterprising, and get a sense of pride and identity as business owners. Opportunity micro entrepreneurs differ in risk but in respect to innovation and need for achievement, both were found to be the same. Life satisfaction among micro entrepreneurs was found consistently high due to small size in business and investment, along with value system and family bonding. The finding of SEM procedure showed a significant direct relationship between entrepreneurial competencies like conceptual skill, strategic skill, and learning leading to entrepreneurial success in terms of sales, profit, and return on investment.

In our studies 68 % of the entrepreneurs' level of satisfaction was consistently high. The correlation was considerable (0.81 %). The biggest drivers of life satisfaction are physical and emotional health (28 %). Life evaluation like marriage, children, and friends constituted 22 %. Entrepreneurial factors like sense of independence, responsibility for business endeavors, work environment, and accountability for their successes and failures constituted 24 %. A strong sense of family values like tolerance, healthy behavior, determination, and a philanthropic attitude, coincided with a higher level of satisfaction with life (26 %). SEM procedure showed a significant direct relationship between entrepreneurial success and life satisfaction. Our study found that entrepreneurs worked an additional 17 h a week more than employed individuals. This increased their energy levels when there was a high demand for personal energy needed in the job satisfaction, leading to life satisfaction.

In the study, it was observed that MFIs like Grameen Koota and Sanghamithra were providing valuable assistance and guidance in providing funds for developing Micro enterprises, but were unable to provide adequate finances to support small-scale or growing businesses. A majority of the micro entrepreneurs promoted by both the groups have taken loans from banks and other sources. It was also found that around 30 % of the women micro entrepreneurs in the power loom industry and travel business are business owners for merely name sake, with the loan being taken

in the wife's name, but actually run by the husbands. This was confirmed by the Project Officers of MFIs and also the President, Women Entrepreneur Wing of KASSIA. It was strongly felt that MFIs need to examine the various financial services they provide and their repayment schedule in light of the needs of women entrepreneurs.

Dual membership was detected in several cases in both Grameen Koota and Sanghamithra. While Grameen Koota allowed its members to be associated with two groups, officially, Sanghamithra did not permit it. When enquired about dual membership, a woman entrepreneur running a dairy with Nandini/Nilgiri/Good Life milk products stated that she was compelled to choose this option to raise adequate, hassle-free finance for her business. The Field Officers said that this was inevitable, but confirmed that repayment was not an issue, and that the repayment schedule in both groups being around 95 %. Hence, recommendations to MFIs should focus on the provision of flexible lending, and address the need of the small businesses, and provide larger loan sizes and access to working capital requirement of entrepreneurs.

Given the dynamic business environment that micro entrepreneurs worldwide face, largely due to the increasing globalization of business, the possession of the appropriate attitude and competencies should greatly assist entrepreneurs to face the travails and turbulences of business and life with fortitude, and to face the uncertain future with confidence. Based on the results of this study, there is no doubt that entrepreneurial attitude and competencies are the critical components for entrepreneurial success and life satisfaction among entrepreneurs in micro enterprises and as such, they should continue to be a central focus for any entrepreneurship development programme or any development policy planning or implementation by the State.

15.8 Conclusion

The study shows that many women micro entrepreneurs are still operating their small businesses under severe pressures and negative attitude from their families and society. Most of them continue to be homemakers, doing household chores and child rearing along with their business activities.

This study shows that with the right attitude and competencies, they have proved to be successful in their small business ventures, which has brought a better standard of living to their families and in some cases, their employees too. This business endeavor and success also gave the women entrepreneurs a great sense of pride and self-satisfaction, creating an identity, respect, and status within their surroundings. Perhaps most importantly, these women are role models for other women within their family, friends, community, and society. Despite several odds, prejudices and lack of a level playing field, these courageous, enterprising women have adopted the right mix of attitude and competencies to bring about entrepreneurial successes in their businesses, and also life satisfaction to themselves and to their families.

15.9 Limitations of this research

The study was confined only to selected districts of Karnataka. Moreover, the sample was restricted to 200 female respondents. Hence, the results of this study cannot be generalized.

15.10 Directions for future research

1. Classifying the micro entrepreneurs based on the type of business was not within the scope of this study. Such a classification would have shown more interesting results.
2. To understand more about the findings of this research, a detailed study on each one of the micro entrepreneur's entrepreneurial traits can be taken up using a case study approach. This research study could also be replicated in other research areas covering SME sector.

Appendix: Entrepreneurial Survey Statement Relating to Each Scales

Kindly give your level of agreement about the statement given below	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I get my biggest thrills when my work is among the best	1	2	3	4	5
2. I believe that concrete results are necessary in order to judge business success	1	2	3	4	5
3. I believe it is more important to think about future possibilities than past accomplishments	1	2	3	4	5
4. I always try to make friends with people who may be useful in my business	1	2	3	4	5
5. I believe the most important thing in selecting business associates is their competency	1	2	3	4	5
6. I believe that to become successful in business you must spend some time every day developing new opportunities	1	2	3	4	5

(continued)

(continued)

Kindly give your level of agreement about the statement given below	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7. I get excited creating my own business opportunities	1	2	3	4	5
8. I usually take control in unstructured situations	1	2	3	4	5
9. I have always worked hard in order to be among the best in my field	1	2	3	4	5
10. I get excited when I approach tasks in unusual ways	1	2	3	4	5
11. I create the business opportunities	1	2	3	4	5
12. I feel very good because I am ultimately responsible for my own business success	1	2	3	4	5
13. I feel self-conscious when I am with very successful business people	1	2	3	4	5
14. I spend a considerable time to impress upon people I work with	1	2	3	4	5
15. I get a sense of pride when I do a good job on my business projects	1	2	3	4	5
16. I always feel good when I make the organizations I belong to function better	1	2	3	4	5
17. I make a conscientious effort to get the most out of my business resources	1	2	3	4	5
18. I believe that to succeed in business it is important to get along with people	1	2	3	4	5
19. I do every job as thoroughly as possible	1	2	3	4	5
20. I take reasonable job related risks	1	2	3	4	5
21. I treat new problems as opportunities	1	2	3	4	5
22. I monitor progress toward objectives in risky actions	1	2	3	4	5
23. I can understand the broader business implications of ideas and issues	1	2	3	4	5

(continued)

(continued)

Kindly give your level of agreement about the statement given below	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
24. I monitor progress toward strategic goals	1	2	3	4	5
25. I identify long-term issues/ problems or opportunities	1	2	3	4	5
26. I align current action with strategic goals	1	2	3	4	5
27. I determine strategic actions by weighing costs and benefits	1	2	3	4	5
28. I interact effectively with others	1	2	3	4	5
29. I develop long-term relationship with others	1	2	3	4	5
30. I promote teamwork	1	2	3	4	5
31. I interact effectively with people	1	2	3	4	5
32. I seize high-quality business opportunities	1	2	3	4	5
33. I prioritize tasks to manage time	1	2	3	4	5
34. I motivate myself to function at an optimum level of performance	1	2	3	4	5
35. I maintain a high level of energy	1	2	3	4	5
36. I am honest and transparent in business dealings	1	2	3	4	5
37. I am committed to offer products and services at fair prices	1	2	3	4	5
38. I take responsibility and I am accountable for my own actions	1	2	3	4	5
39. I admit mistakes and tell the truth	1	2	3	4	5
40. I forge relationship with charitable organizations	1	2	3	4	5
41. I engage voluntarily in community activities	1	2	3	4	5
42. I create job opportunities within the local community	1	2	3	4	5
43. I show concern for staff welfare	1	2	3	4	5
44. I cooperate with and help others in business especially close associates	1	2	3	4	5

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