

**MICROENTERPRISE DEVELOPMENT AS A POVERTY-REDUCTION
STRATEGY IN NEPAL: A MULTIDIMENSIONAL ANALYSIS
OF THE FACTORS DETERMINING MICROENTERPRISE
PERFORMANCE**

Ajay Thapa

**A Dissertation Submitted in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy (Development Administration)
Graduate School of Public Administration
National Institute of Development Administration
2013**

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ABSTRACT

Title of Dissertation	Microenterprise Development as a Poverty-Reduction Strategy in Nepal: A Multidimensional Analysis of the Factors Determining Microenterprise Performance
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Microenterprise development is one of the most discussed antipoverty strategies in contemporary development discourses. Many developing countries have adopted this strategy to fight against poverty. In Nepal also, a microenterprise development program with the objectives of increasing income and employment, and thereby reducing poverty, has been implemented since 1998. Microenterprise development is particularly targeted to the households living below the poverty line. Among the people living below that line, the program is more focused on rural women, unemployed youth, and people from socially-excluded communities such as dalits, indigenous nationalities, religious minorities, other madhesi castes, differently-abled people, brahmin, chhetri, sanyasi, thakuri, disaster-affected families, conflict-affected families, people living with HIV and AIDS, and Maoist youth ex-combatants discharged from cantonments.

Antipoverty strategies often come under criticism for their poor performances. The microenterprise development strategy also, apart from some success stories, is not very far from such criticism. Most of the studies in Nepal have focused on assessing the impacts of microenterprises. Some studies have found positive impacts of these enterprises in improving the livelihood of the people, while other studies have reported that not all microenterprises are as successful as there have been purported to be. Therefore, in response to why some microenterprises are more successful than

others, or in other words, why some microenterprises perform better than others, this study focused on the investigation of the socio-demographic and economic characteristics of micro-entrepreneurs and microenterprises, exploring the microenterprise performance, and identifying the factors determining such performance.

Based on a rigorous review of related economic, organizational, and entrepreneurial theories and the results of empirical studies, an integrated conceptual framework was developed for the purpose of this study. The primary data for the study were enumerated using a survey questionnaire or interview schedule with 501 randomly sampled micro-entrepreneurs stratified in the gender, caste/ethnicity, and enterprise categories across three ecological belts in Nepal. The mixed research method was adopted for the research; the quantitative research method was the main method of analysis; and the qualitative method was used to triangulate the quantitative results and enrich the discussion of the quantitative results with detailed information, evidence, and contextual relevance.

The findings of the study, besides confirming the hypothesized association of many factors, also nullified several other hypotheses and findings of previous studies, and explored the interesting association of some of the factors with the performance of the microenterprise. The study observed an increase in the level and growth of the measures of the microenterprise's performance, such as employment, profit, and sales and assets between BS 2068 (April 2011 - March 2012) and 2069 (April 2012 - March 2013). However, a noticeable variation in the level and growth of employment, profit, sales and asset growth among microenterprises was also observed. The study further revealed that entrepreneur-related factors, particularly gender, educational attainment, managerial skills, the need for achievement, the need for autonomy, creative tendency, internal locus of control, and managerial foresight; enterprise-related factors, particularly enterprise age, enterprise size and initial financial constraints; and environment-related factors, particularly environment hostility and social network, were among the key factors determining microenterprise performance in Nepal. On the other hand, the age of the micro-entrepreneur, previous experience, calculated risk taking traits, the enterprise sector, family environment, environmental dynamism, and environmental heterogeneity did not appear to have significant effects

on microenterprise performance. The study also revealed the significant mediating effect of managerial foresight on microenterprise performance. Managerial foresight appears to mediate the effects of educational attainment, need for achievement, need for autonomy, enterprise size, initial financial constraint, environmental hostility and social network on the performance of the microenterprise.

In order to improve microenterprise performance and thereby contribute to the reduction of poverty in Nepal, the study has made some policy recommendations. The study suggests the following: that microenterprise development programs and related policymakers focus more on strengthening the weaker microenterprises; that managerial skills, managerial foresight and the creativity of the micro-entrepreneurs be strengthened in order to improve microenterprise performance; organizing refresher courses on the components of the microenterprise development model on a regular basis; initiate awareness programs on the importance of managerial foresight in relation to enterprise performance so that the micro-entrepreneurs can gain multiple benefits from the significant effect of managerial foresight; encourage micro-entrepreneurs to widen and strengthen their social network; strengthen the micro-entrepreneur's direct and convenient network with customers and suppliers; encourage the micro-entrepreneurs to continue the microenterprise business as they are likely to perform better in the long-run; encourage micro-entrepreneurs to invest more or expand their enterprises, as bigger microenterprises seem to have higher performance; facilitate the access of the poor to microcredit so that they can start microenterprises; adopt corrective measures to strengthen the micro-entrepreneurs to cope with environmental hostility; enhance the accessibility of the target groups of the microenterprise development program or the people living below the poverty line to education; encourage the micro-entrepreneurs to apply their full effort or work full-time so that they can achieve the higher performance of microenterprises. Last, the study has explored the idea that the microenterprises owned by the micro-entrepreneurs that are female, have more years of education, higher managerial skills, higher managerial foresight, greater creative tendency, less motivational orientation of need for achievement, need for autonomy and internal locus of control are relatively more successful or exhibit higher performance. Therefore, the study encourages the

persons with these profiles to become involved in the microenterprise sector so that they will be more successful.

The study has made some modest practical and theoretical contributions to the field of micro-entrepreneurship. From the perspective of the practical contributions of the study, it has significant value for microenterprise-related policymakers and researchers. Similarly, the micro-entrepreneurship is still a novel field for scientific research programmes. The micro-entrepreneurship as a field of scientific research programme still lacks its own sound theoretical foundation. The results of this theory, besides confirming some of the hypothesized theoretical associations, have also nullified several other associations, and observed some other interesting results that contrast with the conventional thinking and the findings of previous studies.

The study, considering the likely difference in the nature and the challenges of a self-initiating micro-entrepreneur from those initiated under a microenterprise development program, suggests that future studies focus on self-initiated microenterprises. Last, but not the least, the study further suggests that future studies carry out qualitative studies exploring the distinctive factors determining microenterprise performance in a particular context.

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ABBREVIATIONS AND SYMBOLS

Abbreviations	Equivalence
CBS	Central Bureau of Statistics
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
DMEGA	District Micro-Entrepreneurs' Group Association
EDF	Enterprise Development Facilitator
EFA	Exploratory Factor Analysis
ESPAAV	Enhancing Swabalamban for Poverty Alleviation in Arun Valley
et al.	<i>at alia</i> meaning 'and others'
FFP	Food and Feeding Program
FGD	Focus Group Discussion
FWP	Food for Work Program
GET	General Enterprise Tendency
GSBK	Garib Sanga Bisheshwar Karyakram
ICDP	Integrated and Community Development Projects
IDB	Inter-American Development Bank
INGOs	International Non-Government Organizations
JWIGP	Jagriti Women Income Generating Program
KMO	Kaiser-Meyer-Oklin
ME	Microenterprise
MEA	Microenterprise Assistant
MEC	Microenterprise Creation
MEDEP	Micro-Enterprise Development Program
MEGA	Micro-Entrepreneurs' Group Association
NGOs	Non-Government Organizations
NMEGA	National Micro-Entrepreneurs' Group Association

NPC	National Planning Commission
NRs.	Nepalese Rupees
PAF	Poverty Alleviation Fund
PCI	Per Capita Income
PIDP	Production Input Distribution Program
SMEs	Small-scale Microenterprises
SPSS	Statistical Package for Social Sciences
TMT	Top-level Management Team
ToPE	Training of Potential Entrepreneurs
ToSE	Training of Starting Entrepreneurs
UNDP	United Nations Development Program
VAT	Value Added Tax
VIF	Variance Inflation Factor
WFP	World Food Program
WTPAP	Western Terai Poverty Alleviation Program

CHAPTER 1

INTRODUCTION

1.1 Background

1.1.1 Poverty Situation in Nepal

Poverty has become a global phenomenon. It is more concentrated in developing countries and even more predominantly in rural areas. The majority of people in the developing world (55 percent) live in rural areas. A large majority of the very poor people of developing countries (70 percent) live in rural areas (International Fund for Agricultural Development, 2011). In the context of Nepal, one in every four still lives below the poverty line. A significant majority of the total population (88.3 percent) live in rural areas. The incidence of poverty in rural area is almost double that of the urban areas (27.43 percent vs. 15.46 percent, Central Bureau of Statistics, 2011). As with rural-urban inequality, caste/ethnic inequality is another phenomenon of poverty in Nepal. According to Central Bureau of Statistics (2011), dalits bear the burden of poverty more than non-dalits. The percentage of poor among dalits is almost double that of non-dalits (42 percent vs. 23 percent, Central Bureau of Statistics, 2011).

The income inequality between the rich and poor in Nepal is quite huge. The highest quintile of the population, opposed to the lowest quintile, has around a six times higher per capita income. The nominal average per capita income of a Nepali is 41,659 Nepalese Rupees (NRs). The lowest quintile of the population has a per capita income of around 15,888 NRs only, whereas the highest quintile has a 94,149 NR income (Central Bureau of Statistics, 2011).

Besides poverty and inequality, unemployment and or underemployment are other noticeable phenomena in Nepal. Nepal is under a relatively high labour-force growth rate (2.6 percent). According to National Planning Commission of Nepal (2008), more than 300,000 labourers are added in the labour market every year.

According to Human Development Report 2013, the ratio of employment to the population (percent of the population aged 25 years or older) is around 86.4 percent (United Nations Development Program, 2013).

Agriculture is one of the main sectors engaging the working-age population. Self-agriculture alone provides more than three-fifths of the total employment (61.20 percent). Self non-agriculture and other extended economic work provide around one-fifth of the total employment (23.40 percent) followed by the wage non-agriculture (12.60 percent) and wage agriculture sector (2.8 percent). However, with reference to wage employment, the non-agriculture sector holds around two-thirds of the total wage employment (65 percent) whereas the agriculture sector holds only around one-third (35 percent). The non-agriculture sector also provides significantly higher earnings for the workers (mean daily wage 263NRs) than the agriculture sector (mean daily wage 170NRs) (Central Bureau of Statistics, 2011).

The trend in the incidence of poverty in Nepal is gradually declining. The overall incidence of poverty in Nepal in 1995/96 was 41.8 percent (Central Bureau of Statistics, 1996), which in 2003/04 declined to 30.8 percent (Central Bureau of Statistics 2004), and recently in 2010/11 further declined to 25.4 percent (Central Bureau of Statistics, 2011). There might be several reasons behind the declining trend in poverty over time in Nepal. Poverty reduction strategies and efforts initiated in the country could be one of the reasons behind it. The succeeding section discusses the major poverty reduction efforts in Nepal.

1.1.2 Poverty Reduction Efforts in Nepal

Developing countries have been committed to eliminating poverty as one of the key goals of their development plans and programmes. More specifically, eliminating absolute poverty has also become a major objective of the government, the United Nations and its specialized agencies, multilateral and bilateral donor and aid agencies, and international and domestic organizations. Various strategies and approaches, including the highly propagated pro-poor strategies and programmes such as participatory development, community-based models, empowerment of the poor, skills development, and capacity building, credit for the poor, the construction of sustainable livelihoods, and so on, have been implemented since long ago to achieve

the goals of poverty reduction. The following segment briefly reviews the plans and programs initiated to fight poverty in Nepal. The review is extensively based on the formal periodic plans of the Government of Nepal (available at www.npc.gov.np).

1.1.2.1 Addressing Poverty in Formal Periodic Plans

Nepal has more than a six-decade-long history of formal periodic planning. The first periodic plan was initiated in 1956. Plans up to the fifth plan (1976-1980) emphasized mainly erecting the foundation of development in the country. Until the fifth plan, the plans were more concerned about the policies and programmes with the objectives of improving economic conditions, raising production or output, education, employment, health, standards of living, welfare, general well-being, equality, people-oriented development, focusing on minimum needs, regional balance, and so on.

The sixth plan (1981-1985) recognized unemployment and poverty as the key issues of concern in the development of the country. The plan primarily aimed to increase production at a faster rate, increase productive employment opportunities, and meet the minimum needs of the people. From the poverty reduction perspective, the plan adopted the basic needs approach. It aimed to provide the basic needs of the people such as food grains, fuel (firewood), drinking water, basic health services, primary, vocational adult education, and basic transport facilities. The sixth plan emphasized such policies as giving priority to the development of the agriculture sector, development of cottage and small scale industries, export and tourism development, conservation of natural resources and stress on the development of water resources, utilization of the available infrastructure, improving the absorptive capacity of the economy and controlling population growth rate, and controlling population growth.

The seventh plan (1986-1990) acknowledged the objectives of the sixth plan as long-term ones. The plan considered extensive poverty as the main problem of the economy and increasing production as the only solution for the gradual removal of prevailing poverty from the country. The plan emphasized increasing production and employment opportunities, and thereby fulfilling the minimum needs of the people. The seventh plan also recognized the importance of private sector involvement in enterprise development, thus, adopting a *laissez-faire*

strategy to create a better atmosphere for private sector growth. It also focused on strengthening the institutional basis to operate private enterprises and providing support and assistance to the small farmers, industrialists and professionals so that they could improve their economic conditions.

The eighth plan (1993-1997), the leading national plan after the restoration of democracy in 1991, recognized poverty alleviation as one of the three principal objectives of the plan—sustainable economic growth, poverty alleviation, and reduction of regional imbalances. The plan gave priority to creating productive assets, employment opportunities, and extending social services such as health, education, vocational training and drinking water, and so on. Moreover, the eighth plan adopted a self-sustainable development process from the village level up so that the rural people, where the majority of the poor live, could attain a minimum standard of living. For this purpose, the pronouncement of late B.P. Koirala, “Plans or budgets should be formulated with the peasant in mind...Every Nepali should have a small house to live in and a milk cow in the court yard,” was adopted to provide a guideline for making decisions concerning development programmes.

The ninth plan (1997 – 2002) adopted the alleviation of widespread poverty in the country as one of its sole objectives. This plan also established long-term goals for improving development indicators such as a higher economic growth rate, pro-poor development process, and equitable distribution of income with special focus on poverty alleviation, employment promotion, regional balance, and equitable distribution of the benefits of the development. The plan targeted the long-term goal of reducing the incidence of poverty from 42 percent to 10 percent within 20 years. The plan proposed the need for employment generation, production and productivity enhancement, good governance, human resource development, and empowerment of people to fight poverty in the country. The agricultural perspective plan (APP) was also adopted as the main basis for increasing production, providing food security, increasing employment and income, and ultimately contributing to poverty alleviation. It focused on the promotion and extension of cottage and small-scale industries and or rural entrepreneurship development and mobilization of the rural labour force in productive activities through human resource development and extensive expansion of entrepreneurial and skill-oriented training programmes,

technical assistance, consultancy and the credit-flow to the rural villages, and so on as instruments to alleviate the poverty. This plan targeted the implementation of market-oriented skill development programmes for one hundred thousand (100,000) people to promote and enhance the microenterprises and cottage and small-scale industries in the country.

The tenth plan (2002-2007), the first plan of the twenty-first century and the new-millennium, aimed to enhance the concept of developing a cultured, competitive, affluent and equitable Nepali society reflecting the ultimate aspirations of Nepal and the Nepali people at large. This plan focused on mobilizing the means and resources for the mutual participation of government, local agencies, non-governmental sectors, the private sector, and civil society to extend the economic opportunities in the country. It also focused on enlarging employment opportunities and widening the access to means and economic achievements for women, Dalits, peoples of remote areas, and poor and backward groups through programmes that included such aspects as empowerment, human development, security and targeted projects thereby improving the status of overall economic, human, and social indicators. The plan also incorporated an interim poverty-reduction strategy. It considered high-sustainable and wide economic growth, development of social and rural infrastructures, targeted programs and good governance as the four pillars of poverty alleviation. Moreover, the plan, under the industrial sectoral policy, also emphasized micro-, cottage and small-scale industry development, which could generate employment opportunities and increase the per capita income and purchasing power of the rural people, thus contributing to poverty alleviation.

The three-year interim plan (2008-2010) focused on reducing unemployment, poverty and inequality by emphasizing support to conflict-affected peoples, reconstruction and reunion, pro-employment and pro-poor wide economic growth, good governance, infrastructure development, social development and inclusive development and targeted programmes. Under the industrial policy, the three-year interim plan has also considered microenterprise development as one of the key strategies to fight poverty. The plan also set a strategy to initiate micro-entrepreneurship or domestic or traditional entrepreneurship skills development programmes and to extend them to all the districts in the country.

The three-year interim plan (2011-2013), like the preceding plans, has given priority to poverty alleviation through inclusive employment creation and equitable economic growth. The plan has prioritized agricultural development, tourism, industry, and exports as some of the key sectors to strengthen, thereby creating employment and economic growth and consequently resulting in poverty reduction. The plan, under the industrial policy, also has given priority to the extension of micro-enterprise development to create entrepreneurship and employment among the poor and disadvantaged population in the country.

1.1.2.2 Poverty Reduction Programs in Nepal

The government has been initiating several programs and projects that have been targeting poverty reduction since the early 1970s. Some of these major programs are the Subsidized Ration Distribution Program (SRDP-1970s), the Production Input Distribution Program (PIDP-1970s), the Integrated and Community Development Projects (ICDP-1975), Food and Feeding Programs (FFP-1980s), the Food for Work Program (FWP), Garib Sanga Bishweshwar Karyakram (Bisheshwor Among the Poor Program) (GSBK-1990s), the Western Terai Poverty Alleviation Project (WTPAP-1997), the Jagriti Women Income Generating Program (JWIGP-1990s), Enhancing Swabalamban for Poverty Alleviation in Arun Valley (ESPAAV-1998), (Dhakal, 2002: 81-88); Poverty Alleviation Fund (2010/11), and the Micro-Enterprise Development Program (MEDEP) (Pun, 2010).

To review the programs briefly (the review is extensively based on Dhakal, 2002: 80-88, Poverty Alleviation Fund, 2010/2011 and Pun, 2010), the poverty reduction programs begun in 1970s were more subsidy oriented. The government emphasized providing subsidies to the farmers and therefore employment and production could be increased, resulting in improvements in the standard of living. The Nepal Food Corporation started the Subsidized Ration Distribution Program to subsidize particularly the transportation costs on rations to deliver to the remote areas of the country such as the hilly and mountainous regions. The Production Input Distribution Program focused on providing subsidized fertilizers and credits to the farmers so that the poor farmers could increase their agricultural production. Similarly, several projects under the ICDP were launched across the

country to improve the quality of life of the rural poor through increased production, employment, capability, and basic infrastructure.

In the 1980s, the government started several programs to combat poverty in the short run and long run. Some programs were targeted to support the ultra-poor or vulnerable groups directly with food and employment. For instance, realizing the lack of sufficient food among the poor in the country, the FFP was implemented in the country with support from the World Food Program (WFP) to increase access of vulnerable groups such as malnourished children, pregnant women and the primary school children to food. Similarly, with the objective of employment generation, the government also started the FWP. The World Bank's Food/Cash for Work program is one of the major food for work programs to help vulnerable groups of people in remote districts. On the other hand, the government constituted the Council for Technical Education and Vocational Training (CTEVT) in 1989 for the production of technical and skilful human resources required for the nation; therefore, technical and skilful human resources could be produced, thereby addressing the issue of unemployment and poverty in the country in the long run.

In the 1990s, after the restoration of the democracy, the elected democratic government initiated several poverty reduction programs across the country. For example, the WTPAP, with the goal of generating income and welfare to needy farmers, has been providing loans and other facilities in several districts across the western Terai of Nepal since 1997. Likewise, the JWIGP, a poverty reduction program started by the Ministry of Women, Children and Social Welfare, has emphasized assisting the backward women in employment and income generation and thereby improving their livelihoods. Similarly, in 1998, with the objective of creating self-employment, the ESPAAN program was begun in Shakhunsabha and Bhojpur districts in 1998. The GSBK was one of the popular programs designed to raise the livelihood of the poor through social mobilization, improved access to health, education, credit, skill development, local leadership development, and participation in decision making, in 1998, thus combating poverty in the country. However, perhaps due to the political turmoil in the country, the highly-propagated poverty reduction program—GSBK—was not well materialized.

In 1998, with the main objectives of increasing income through self-employment and consequently reducing rural poverty in the country, the government of Nepal (Ministry of Industry, Commerce and Supplies/MoICS), with special technical and financial support from various international organizations initiated the Micro-Enterprise Development Program (MEDEP) in 1998 with 10 districts across the country. The MEDEP has targeted the people living below the poverty line. The program until now has been implemented in 36 districts in different phases over the period (Pun, 2010).

The government also established the Poverty Alleviation Fund (PAF) in 2004, which is especially concentrated on bringing the excluded and disadvantaged communities into the mainstream of development. The PAF has been emphasizing small-scale village and community infrastructure development, income generation, innovation, capacity building through social mobilization of community groups, capacity building for local bodies, capacity building for target groups engaged in income generating activities, support to rural and community finance, and information, monitoring and evaluation (Poverty Alleviation Fund, 2010/11).

1.1.3 Microenterprise Policy and Strategies in Nepal

The Industrial Enterprise Act 1992 has classified the enterprises in three categories only: small-scale enterprises (with the fixed assets of up to 30 million NRs), medium-scale enterprises (with the fixed assets from 30 million NRs to 100 million NRs), and large-scale enterprises (with the fixed assets of above 100 million NRs). The Industrial Enterprise Act 1992 has been silent about microenterprise development. However, in 2006, realizing the role of the microenterprise in the economy and poverty reduction through employment generation and production, the Microenterprise Business Development Act 2063 was introduced. The act focused on encouraging the participation of the ultra-poor women, dalits, indigenous, janajatis and marginalized or disadvantaged groups of the population in microenterprises and on strengthening their enterprises, thus generating employment and income to the poor and thereby reducing poverty and strengthening the national economy. The act comprises some provisions of special facilities for the microenterprises; for example, the income from the microenterprise shall not be taxed, all the facilities of the

domestic industries shall be considered to be provided to the microenterprises, and a 50 percent cut off on the taxable amount of the sales of microenterprise products by other businesses. Similarly, the act also has the provision of prioritized credit facilitation through financial institutions, establishment of a microenterprise development fund for the district development committee (DDC) and a vulnerable microenterprise reactivation fund, and priority on the purchase of goods and services produced from the microenterprises by the government offices.

Later on in 2010, a more comprehensive policy—Industrial Policy 2010 (Udhyog Niti 2067)—along with specific strategies and programmes addressing the issues related to microenterprise, cottage and small-scale industries, was introduced. The industrial policy 2010, with the broad objective of making a contribution to the goal of poverty reduction through broad-based industrial growth, facilitating the interplay of public, private and cooperative sectors, has recognized microenterprises as one of the separate classifications of enterprises in Nepal. According to the Industrial Policy 2010, the microenterprise refers to the enterprise having met the following criteria:

- 1) Where investment is up to two hundred thousand rupees as fixed capital except the house or land
- 2) Where the entrepreneur himself or herself engaged in management
- 3) Where there are up to nine workers including the entrepreneur
- 4) Where the annual financial transaction is less than two million rupees, and
- 5) If an instrument with engine is used, the electric motor or other oil engine capacity has to be less than ten kilowatts

Moreover, despite meeting the aforementioned conditions, an enterprise that requires permission such as liquors, beer, cigarettes, biri, or other tobacco goods or materials production-related enterprises are not considered to be microenterprises.

Industrial Policy 2010 has set some special policy provisions for microenterprises, cottage, and small-scale industries. The policy has emphasized developing the necessary legal provisions, organizational structure, and infrastructure and extending the industry development fund to promote microenterprise, cottage and small-scale industries and to improve their competencies. It has also emphasized

providing entrepreneurship-development training, business development services (BDS), and developing an information technology system for the better production and management of the microenterprises, cottage and small-scale industries. The concept of one village one product has emphasized the strengthening of the industries by identifying the potential of local resources, and by establishing product development centres and additional product specific industrial clusters.

In addition to the policies associated with microenterprise, cottage and small-scale industries, to materialize the policies, the Industrial Policy 2010 has also proposed various strategies related to the same. For instance, mobilizing the community, encouraging market oriented quality production, managing village independent fund, equity fund or credit guarantee to extend the access to credit, extending one village one product program, encouraging entrepreneurs to form an umbrella organization, encouraging government and non-government organizations to use the microenterprise products, encouraging private service in providing business development services, and so on, are some of the key strategies constituted in the Industrial Policy 2010 to materialize its policies. Moreover, the Industrial Policy 2010 has also set the provisions, for example, the microenterprise will not be charged with any kind of tax: a government tax, income tax, value added tax (VAT). Similarly, to extend the microenterprises, cottage and small-scale industries' access to credit, the policy has the provision of managing the existing provision of loan services to the poor in the financial institution act efficiently and incorporating these enterprises and industries in the cooperatives.

1.1.4 Micro-Enterprise Development Program (MEDEP)

The microenterprise development program is one of the most popular programs implemented in Nepal to fight poverty. It was launched in June, 1998. It aims to combat poverty through creating and developing microenterprises, generating self-employment, and increasing household income in the rural areas of Nepal (Micro-Enterprise Development Program, 2013). The following description of the microenterprise development program is extensively based on the information available at the Micro-Enterprise Development Program website (www.medep.org.np) and Micro-Enterprise Development Program (2013).

The government of Nepal (GoN) with financial and technical support from the United Nations Development Program (UNDP), initiated MEDEP in 1998. After the initiation, apart from the UNDP, many other donors and or international organizations such as Australian Aid (AusAID), the Department for International Development (DFID) of the UK government, the New Zealand Agency for International Development (NZID), the Canadian International Development Agency (CIDA), and so on, have also supported the program. The Ministry of Industry (MOI) is the main implementing agency of the MEDEP. The Ministry of Local Development (MoLD) and the Ministry of Forest and Soil Conservation (MoFC) are co-implementing agencies.

In the beginning, the program, as a five-year pilot program, was implemented in 10 districts (Baitadi, Dadeldhura, Dang, Dhanusha, Nawalparasi, Nuwakot, Parbat, Pyuthan, Sunsari, and Tehrathum) as a pilot program during the first phase (1998 to 2003). The programme was extended to an additional 15 districts (Banke, Bardia, Darchula, Kailali, Myagdi, Ramechhap, Rasuwa, Sindhuli, Sindhupalchok, Udaypur, Kabhre, Kapilbastu, Sarlahi, Siraha, Saptari) in the second phase (2004 – 2007), and 11 other districts (Jumla, Kailkot, Dailekh, Surkhet, Dolakha, Baglung, Rukum, Rolpa, Salyan, Mohatari, and Rautahat) in the third phase (2008 to 2012). Until now, the program has been implemented in 36 districts across the country.

MEDEP has adopted a demand-driven approach of implementing the program. In order to explore its needs and potentials, MEDEP conducted a baseline study on natural resources and services, enterprise potential, market demands, and target groups. The survey results helped to evaluate the people's needs, resources and potential, and market demand, thereby identifying the MEDEP intervention area (see Figure 1.1).

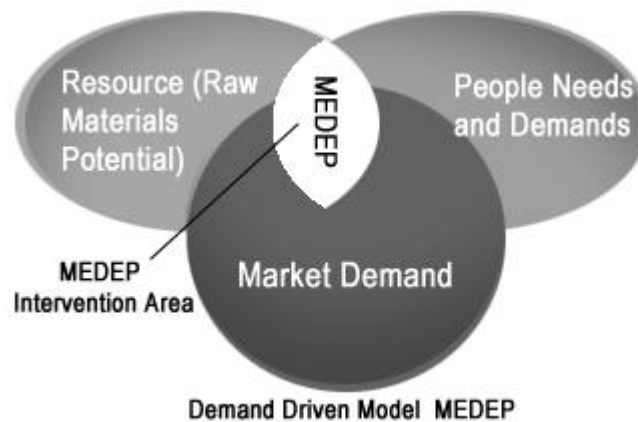


Figure 1.1 MEDEP Intervention Area

Source: Micro-Enterprise Development Programme

Moreover, MEDEP has its own ME development model. The ME development model includes six components: (1) social mobilization for enterprise development, (2) entrepreneurship development, (3) technical skills development, (4) access to micro-credit, (5) access to appropriate technology, and (6) marketing and business counselling.

Social mobilization refers to the entry point for creating micro-entrepreneurs by identifying the potential target groups by the Enterprise Development Facilitator (EDF). Entrepreneurship development includes the transfer of entrepreneurship skills through trainings such as Training of Potential Entrepreneurs (ToPE), Training of Starting Entrepreneurs (ToSE), Training of Existing Entrepreneurs (ToEE), and Training of Growing Entrepreneurs (ToGE). Access to micro-credit includes the facilitation of the micro-financial institutions for the micro-entrepreneurs by MEDEP. MEDEP does not provide financial support directly. Access to appropriate technology refers to the use of user-friendly and low-cost technical skills, equipment and machinery, which is mostly supported in groups by MEDEP. Last, MEDEP provides support to the micro-entrepreneurs in developing linkages with small to large enterprises, pricing, labelling and branding their products.

The target beneficiaries are the families living below the national absolute poverty line (NRs. 21,268 per capita income for the year 2012/2013, Nepal Rastra Bank quoted in Micro-Enterprise Development Program, 2013). Moreover, among the poor also, MEDEP has specific target beneficiaries that include women, unemployed youth, people from socially-excluded communities such as dalits, indigenous nationalities, religious minorities, other madhesi castes, differently-abled people, brahmin, chhetri, sannyasi, thakuri, disaster-affected families, conflict affected families, people living with HIV and AIDS, and Maoist youth ex-combatants discharged from cantonments (Micro-Enterprise Development Program, 2013).

1.2 Statement and Significance of the Problem

Microenterprise refers to a very small, family-based enterprise that focuses on the assets of the poor and strives to empower citizens to become economically self-sufficient (Akpinar, 2004). The microenterprises are of two types: formal and informal. Informal microenterprises are generally initiated by individuals or families to earn money using their traditional craft skills. Formal microenterprises are initiated by NGOs and government agencies as an income-generating programme for needy families. Formal microenterprises are, to some extent, backed by training, funds, use of appropriate technology, business counselling, market linkage, and so on, by the government or non-government organizations.

Microenterprise development has become one of the most widespread poverty reduction strategies in contemporary development discourses. It emerged as a tool to combat poverty during the 1980s following the concept of Grameen (“Rural”) Bank of Bangladesh formed in the late 1970s. The Grameen Bank provided small loans or microcredit to the poor to run their household based microenterprises and to generate self-employment (Akpinar, 2004). After the success of the concept of the Grameen Bank in Bangladesh, microenterprise development has been given high priority worldwide to fight poverty.

In the context of Nepal, microenterprise development as an antipoverty strategy was launched in June, 1998. The main objective of the ME development is to increase the income through self-employment and consequently reduce poverty in the

rural areas of Nepal. The microenterprise development is particularly targeted to the households living below the poverty line. Among those people, the program is more focused on rural women, poor-scheduled caste, poor indigenous groups, the differently-able (mentally and physically challenged), deprived women (divorced women, women-headed households), and so on (Pun, 2010; Micro-Enterprise Development Program, 2013). There are 26 different poor scheduled castes, 59 different indigenous groups of which 12 are ethnic minority groups and among which eight have been considered as endangered ethnic groups (Pun, 2010).

Until now, out of total 75 districts, the ME development program has been implemented in 36 districts across three ecological belts: mountain, hill and terai in Nepal. The program has created 51,182 micro-entrepreneurs and has generated employment for 52,374 people living below the poverty line with more than two-thirds women micro-entrepreneurs (67 percent). A large majority of microenterprises (68 percent) created by MEDEP are in the hill region followed in the terai/madesh/plain region (32 percent) and the mountain region (22 percent). Among the total micro-entrepreneurs, a majority share (55 percent) involves youths (16 to 35 years) with a vast majority of female youths (74 percent) (Pun, 2010). Pun further claimed that the average per-capita income (PCI) of the micro-entrepreneurs has increased by 240 percent. The average PCI of these micro-entrepreneurs, before joining the microenterprise development programme, was 4,431NRs, which by the year 2010, had increased to 15,108 NRs (Pun, 2010).

The antipoverty strategies often come under criticism for their poor performances. Microenterprise development strategies also, apart from some success stories (observed, discussed and or pointed out by Inter-American Development Bank, 1998; Bhatt, Painter, & Tang, 1999; Clark & Kays, 2000; Ritter, 2000; Farnan, 2001; Schreiner, 2001; Develtere & Huybrechts, 2002; Gennrich, 2002; Ajibefun & Daramola, 2003; Inter-American Development Bank, 2003; Eversole, 2004; Kadiyala, 2004; Ferguson, 2007; Thapa, 2007) are not very far from criticism. Critics are of the view that microenterprises are not as successful as they are purported to be. Studies have noted that microenterprise development strategies also do not have uniformly significant impacts on the microenterprises. Microenterprises tend to be undercapitalized, inefficient, and only very few of the unemployed are self-employed

and only a small fraction of the poor can escape from the poverty (observed, discussed and or pointed out by Servon, 1996; Ehlers & Main, 1998; Schreiner, 1999; Gaiha, Imai, & Kaushik, 2001; Kevane & Wydick, 2001; Schreiner, 2001; Sanders, 2002; Eversole, 2003; Mueller, 2006;).

In the case of Nepal, apart from some studies conducted by the implementing agencies or organizations themselves, there are very few studies conducted in the field of microenterprise. Most of the studies have concentrated on assessing the impacts of microenterprises. Some studies have found positive impacts of microenterprises in improving the livelihood of the people (Binayee, Sapkota, Subedi, & Pun, 2004; Nepal, 2004; Dhakal, 2006; Pandey, 2006; Rana, 2006; Sitoula, 2006; Adhikari, 2007; Gurung, 2007; Koirala, 2007; Lama, 2007; Thapa, 2007), while other studies have reported that not all microenterprises are as successful as they were expected to be. Studies have reported that some microenterprises have not created as many employment opportunities as others (Pun, 2007), are not able to repay the instalment of the credits (Khanal 2007), and are unable to gain the optimum benefit of the occupation (Pandey, 2007). The difference in the success of microenterprises reported by the existing research in Nepal and across the world, has encouraged scholars to explore why some microenterprises are successful and why others not or why some microenterprises have performed better than others, or vice versa.

There might be various factors causing the variation in the success or performance of the microenterprises. The literature on the factors associated with enterprise performance or its success points out that the factors related to the background characteristics of the micro-entrepreneur himself or herself, the factors related to the characteristics of the microenterprise, and the factors related to the business environment tend to determine the microenterprise performance. To the extent of the researcher's knowledge, there is almost no such comprehensive study particularly identifying the factors determining the performance of microenterprises in Nepal. Considering the difference in the success or performance of the microenterprises created and supported under the same program across the country, there is a dire need for studies exploring the factors determining the performance of microenterprises. If the key factors determining the performance of microenterprises are identified, the future microenterprise-related policies and programs can address

the factors so that the performance of the relatively weaker microenterprises can also be improved. Therefore, this study seeks to identify the factors determining the performance of microenterprises in Nepal, and it can serve as a very crucial step towards understanding the performance of the microenterprise and its determinants in Nepal so that microenterprise development policy efforts of the government and several INGOs in the future can be made more effective and efficient in increasing self-employment and income, thus resulting in the reduction of poverty.

1.3 Objectives of the Study

The overall objective of the study is to identify the factors determining the performance of microenterprises in Nepal. The specific objectives of the study are as follows:

- 1) to investigate the socio-demographic and economic characteristics of micro-entrepreneurs and microenterprises
- 2) to explore the level and growth of employment, profit, sales and assets and performance of microenterprises
- 3) to examine the effects of entrepreneur-, enterprise- and environment-related factors on the microenterprise performance.
- 4) to make some specific policy recommendations
- 5) to contribute to the microenterprise policy debate and the body of entrepreneurship knowledge.

1.4 Research Questions

In order to obtain the aforementioned objectives of the study, this study aims to explore answers to a number of research questions as follows:

- 1) What are the socio-demographic and economic background characteristics of micro-entrepreneurs in Nepal?
- 2) What is the level of the performance of microenterprises in Nepal?
- 3) What are the entrepreneur-related factors determining the microenterprise performance?

4) What are the enterprise-related factors determining the microenterprise performance?

5) What are the environment-related factors determining the microenterprise performance?

1.5 Scope of the Study

This study has focused on identifying the factors determining the performance of the MEs supported by the MEDEP initiated by the government in a partnership approach with international organizations to fight poverty in Nepal. There are around 51,182 micro-entrepreneurs created and or supported under the ME development program in 36 districts across the country. Therefore, primarily, this study has a countrywide scope in Nepal. Moreover, microenterprise development has become one of the popular strategies to combat poverty in many developing countries and is a much-discussed antipoverty strategy in academia and practice. Therefore, the findings and recommendations of this study will provide a modest contribution to the debate of microenterprise development, economic policies and programmes, and the antipoverty strategies.

Besides geographic or population and policy scope, this study also includes in the field of entrepreneurship study. It has been conceptualized based on economic, organization, and entrepreneurship-related theories such as Schumpeter's theory of economic development, resource-based theory, trait theory, role theory, behavioural theory, network theory, contingency theory, and the findings from the related empirical studies. After a comprehensive review and discussion of the related theories and findings of empirical studies, an integrated conceptual framework was developed to study the factors determining the ME performance, such as entrepreneur-related factors, enterprise-related factors, and environment-related factors. The use of an integrated framework is a more comprehensive approach to study the factors determining the performance of microenterprises than using a single, theory-driven approach, as most of the studies did in the past. Moreover, the study has also employed multidimensional measures of microenterprise performance, which has made the analysis more robust than would have been possible with only a one-

dimensional measure. Therefore, this study has a wide scope in the field of entrepreneurship study, as well.

1.6 Limitations and Delimitations of the Study

Every study has some limitations and delimitations. A limitation refers to the factors that are beyond the control of researchers. Delimitation refers to the choices made by the researcher himself or herself. The respondents for this study were the micro-entrepreneurs that were supported by the microenterprise development programme of the government of Nepal with special assistance from various international organizations. There might be many other microenterprises across the country not initiated and or supported under the microenterprise development program or that are supported by other organizations and programs. Therefore, the results of this study may not reflect the characteristics of the entrepreneurs and enterprises not supported by the microenterprise development program. Secondly, due to time limitations, microenterprise performance was assessed in terms of the growth in employment, profit, sales and assets for the past two years only. The performance could also be measured for longer period using longitudinal data, so that the effects of seasonal variations and the survival aspects of the microenterprise could be assessed. Thirdly, the sampled districts for the study are Sindhupalchok, Parbat, and Nawalparasi. The inferences drawn from this may not be directly generalizable to other districts of the country or to the other parts of the world. Thus, the inferences of this study may be only cautiously generalized to other settings.

1.7 Definition of Key Terms

In social science research, sometimes the same term is understood differently in different contexts and periods. The key terms employed in the study are defined below.

- 1) Microenterprise is a very small-scale, self-employment-oriented, household-based economic activity.

2) Microenterprise performance is the progress of a microenterprise towards achieving its vision, goals or objectives such as the growth of employment, profit, sales, and assets.

3) Managerial foresight refers to the behavior of an entrepreneur in analyzing contingencies and desired future courses of action.

4) Entrepreneur-related factors refer to the personal background characteristics of micro-entrepreneurs that include gender, age, education, previous experience, managerial skills, personality traits and motivation, and the managerial foresight of the micro-entrepreneurs.

5) Enterprise-related factors refer to the features of microenterprises that include enterprise age, enterprise size, enterprise sector, and the financial capital of the microenterprises.

6) Environment-related factors refer to the factors around the microenterprise and the perceived task environment by the micro-entrepreneurs that include family environment, social network, and the perceived task-environment.

1.8 Benefits of the Study

The results of this study are presumed to benefit at multiple levels: micro-entrepreneurs, policy debates, and the body of entrepreneurship knowledge. This study has explored the socio-demographic and economic characteristics of micro-entrepreneurs and the microenterprises, the level of performance of the microenterprises, and has identified the factors determining the performance of microenterprises. The findings from this study will benefit micro-entrepreneurs in terms of understanding the factors determining their enterprise performance. The micro-entrepreneurs that are not as successful as others can learn about the factors affecting their performance and may improve accordingly.

This study has contributed to policy debates that could be useful to microenterprise development-related policy makers, planners, and policy implementers, international organizations, and NGOs in order to create future policies and programs that are more efficient and effective in improving the performance of microenterprises.

The micro-entrepreneurship is often categorized as small-scale entrepreneurship. However, it has some very peculiar features and objectives that are different from other enterprises. The micro-entrepreneurship as a field of scientific research still lacks its own sound theoretical foundation. This study, using an integrated framework of factors determining the performance of microenterprises and multidimensional measures of the microenterprise performance, has provided a robust analysis of the factors determining the performance of microenterprises. Moreover, since the integrated framework used in the study has been designed based on a rigorous review of economic, organizational, and entrepreneurship-related theories and empirical studies across the world, the study also explores the relevance of the theories developed based on small-scale, medium-scale, or large-scale enterprises and empirical findings in the context of micro-entrepreneurship. Therefore, the results of this study contribute in the body of microenterprise knowledge and microenterprise policy debate. Hence, the results of this study benefit the academicians, professionals and policymakers to gain more insights in the field of entrepreneurship.

1.9 Organization of the Study

This report has been organized into six chapters: 1. Introduction, 2. Review of Literature, 3. Research Methods, 4. Presentation and Analysis of the Data, 5. Results Discussion, and 6. Summary of Findings, Conclusions and Recommendations followed by Bibliography, Appendices and the researcher's biography. In the first chapter (introduction), the statement and significance of the problem, the objectives of the study, the research questions, the limitations and delimitations of the study, the benefits of the study, and the organization of the study are described. In the succeeding chapter (Review of the Literature), the review and discussion of related theories, models, and approaches and relevant empirical studies, and an integrated conceptual framework, model equations, and the research hypotheses are presented. In the third chapter (Research Methods), the research design, the unit of analysis, population, sample size, sampling methods, operational definition, measurement, data collection methods and instruments, and data management and methods of analysis are described. In the fourth chapter (Presentation and Analysis of the Data), the

demographic or descriptive and inferential results are presented and analyzed. In the fifth chapter (Results Discussion), the findings of the study are discussed in relation to the relevance of related theories, other empirical findings, and the study context. In the sixth chapter (Summary of Findings, Conclusions, and Recommendations), the major findings of the study with bibliography to the respective objectives are presented, conclusions of the study are drawn, some specific policies are recommended, and the contribution of the study to policy debates and the body of the knowledge of entrepreneurship are stated. Last, at the ending part of the sixth chapter, the directions for future research are stated. The last chapter is followed by a list of the bibliography quoted in the study, appendices, and the researcher's biography.

1.10 Chapter Summary

The main purpose of the chapter was to set a contextual background and to provide a description of what the research is all about. In this regard, the chapter presented a brief contextual background of the study that included the poverty situation, the poverty reduction strategies, and the microenterprise policy and strategies in Nepal. The chapter described the statement of the problem and the significance of studying a particular problem. Under this section, what the policy problem is, why it is a policy problem, and what the significance of studying such a problem is, particularly regarding the significance of policy and academic significance, were discussed. The successive sections in the chapter presented the objectives of the study and research questions, discussed the scope of the study, and the limitations and delimitations of the study, presented the definition of key terms, the benefits of the study, and described the organization of the study.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

A literature review is an extensive search and compilation of information on the area of the interest of the research. Cardesco and Gatner (1986 quoted in Pant, 2009: 52) described a literature review as a “self-contained unit in a study which analyzes critically a segment of a published body of knowledge through summary, classification and comparison of prior research studies and theoretical articles.” Similarly, Walliman (2006 quoted in Pant, 2009: 52) also defined it as “a summary and analysis of current knowledge about a particular topic or area of enquiry.” Furthermore, Pant (2009: 52) defined literature review as “a process of the systematic, meticulous, and critical summary of the published literature in the particular field of research.” It provides a comprehensive picture of the field of study and thereby guides researchers to think critically and develop a framework for the study.

The study has made a comprehensive review of the related theories and empirical studies and has drawn an integrated framework of the factors determining the performance of MEs. The literature review section in this study includes a conceptual review of the concepts of entrepreneur, entrepreneurship, microenterprise; a discussion of the measures of performance, the theoretical framework of the study, a summary of the review, the conceptual framework, and the models and research hypotheses of the study.

2.2 Concepts of Entrepreneur, Entrepreneurship, and Microenterprise

2.2.1 Entrepreneur

The term entrepreneur is derived from the French ‘enterprendre’. In the French language, ‘enterprendre’ means ‘to undertake’ (Frederick & Kuratko, 2010). It is

also referred as ‘one who takes between.’ Semantically, an entrepreneur is “a person who sets up a business or businesses, taking on financial risks in the hope of profit” (Oxford Dictionaries). There is no such standard consensus among the scholars in defining entrepreneur. Different scholars have focused on different aspects of entrepreneurship in defining an entrepreneur. Some scholars define an entrepreneur as a businessperson, and others define it as an innovator, risk-taker, and a catalyst for economic change. For example, Nayab (2011), quoting to Richard Cantillon (1680-1734), one of the first major economic thinkers stated that an entrepreneur is “an agent that buys the means of production at certain prices and combines them into a new product.” Robert C. Ronstadt (1984 quoted in Frederick & Kuratko, 2010) defined entrepreneur as “an innovator or developer who recognizes and seizes opportunities; converts those opportunities into workable or marketable ideas; adds value through time, effort, money or skills; assumes the risks of the competitive market place to implement these ideas; and realizes the rewards from these efforts.”

Say, Cantillon, Kirzner, Schumpeter, Knight, Casson and Shackle are some of the legendary scholars that have also defined the role of the entrepreneur (Deakins & Freel, 2003: 3-7). According to Say and Cantillon, an entrepreneur is a catalyst for economic change that plays the role of the organizer of factors of production. Kirzner views the entrepreneur as someone that has the ability of creative alertness and spotting opportunity. He or she is alert to profitable business opportunities. For Schumpeter, an entrepreneur is an innovator that introduces new technologies to bring changes in the domain of the business. Knight views an entrepreneur as a risk-taker in an uncertain world for a profit (quoted in Deakins & Freel, 2003: 3-7). Cuervo, Ribeiro, and Roig, (2007: 2) mentioned that an entrepreneur is “a creator who initiates and motivates the process of change or discover and exploits opportunities... accepts risk, uses intuitions, is alert, explores new businesses, initiates new ways of acting, identifies business opportunities, creates new firms...”

2.2.2 Entrepreneurship

Entrepreneurship is about doing business differently from the general ways of doing it (Schumpeter, 1934 quoted in Frederick & Kuratko, 2010). According to Curran and Stanworth (1989 quoted in Deakins & Freel, 2003: 6), entrepreneurship is

the creation of a new economic entity producing at least one new product or service. Similarly, for Hisrich (1990 quoted in Rauch & Frese, 2000), "Entrepreneurship is the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction." Likewise, Cuervo et al. (2007: 4) noted:

Entrepreneurship is an essential element for economic progress as it manifests its fundamental importance in different ways: a) by identifying, assessing and exploiting business opportunities; b) by creating new firms and or renewing existing ones by making them more dynamic; and c) by driving the economy forward—through innovation, competence, job creation and by generally improving the wellbeing of society.

Ronstadt (2009 quoted in Frederick & Kuratko, 2010) defined entrepreneurship as a dynamic process of creating incremental wealth by the risk-taker individuals. Furthermore, Frederick and Kuratko (2010: 11) also offered a more integrated definition of entrepreneurship as:

Entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks in terms of time, equity, or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; the fundamental skill of building a solid business plan; and, finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion.

2.2.3 Microenterprise

The microenterprise is relatively a new field of study. Unlike a large-scale enterprise, a medium-scale enterprise, or a small-scale enterprise, a microenterprise has not had long recognition in academia. The concept of a microenterprise in academia and practice became popular after the success of the microcredit programs to support the rural poor in Bangladesh. The microcredit program was particularly initiated by Nobel laureate Prof. Yunis—well-known as ‘banker to the poor,’ through the Grameen Bank in Bangladesh in the late 1970s with the objective of providing access to small loans or microcredit by the rural poor that lack the collateral to obtain a loan or credit from financial institutions for their family-based small businesses (Grameen Bank). It is believed that the idea that access to small loans could help poor families build their businesses, increase their income, and escape poverty triggered the idea of formal microenterprise development programs all around the world since the 1980s and flourished into a global movement.

The microenterprise is quite often categorized under small-scale businesses. However, it has some peculiar characteristics different from other businesses and has varied definitions across countries and organizations. It is usually defined in terms of the number of employees, the nature of ownership, and the size of the investment or capital or assets or even sales.

In literal terms, a microenterprise can be defined as a business operating on a very small scale, especially one in the developing world that is supported by microcredit (Oxford Dictionary). According to the Commission of the European Communities (2003 quoted in Ayyagari, Beck, & Demirgüç-Kunt, 2005: 3), “an enterprise is any entity engaged in economic activity, irrespective of its legal form, that includes, in particular, self-employed persons and family businesses engaged in craft or other activities and partnerships or associations regularly engaged in economic activity.” The commission further stated that the microenterprise as an enterprise employing fewer than 10 persons and has an annual turnover and or annual balance sheet total that does not exceed two million Euros. The SME department of the World Bank defined microenterprise as an enterprise that has up to 10 employees, total assets of up to \$10,000, and total annual sales up to \$100,000.

In the United States, the U.S. Small Business Administration (2010) defined the microenterprise as “a sole proprietorship, partnership, limited liability corporation or corporation that has fewer than five employees, including the owner, and generally lacks access to conventional loans, equity or other banking services.” Furthermore, in the U.S. context, “it is small enough to benefit from loans under \$25,000 and usually is too small to access commercial banking services” (Nelson, 2000). In addition to the number of employees being less than five, Michael Pretes (2002 quoted in Nabavi 2009: 122) pointed out that the microenterprises in many developing countries are typically unregistered and do not pay taxes. Nabavi (2009) further explained, “To be successful, micro-entrepreneurs must possess managerial skills, knowledge of markets and prices, and the technical ability to create their product.”

In Nepal, the Industrial Policy 2010 defined the microenterprise as fulfilling the following criteria:

- 1) Fixed investment of a maximum NRs. 200,000 except buildings and lands,
- 2) Involvement of the entrepreneur himself/herself,
- 3) Employment up to nine persons including the entrepreneur himself/herself,
- 4) Amount of annual transaction less than NRs. 2,000,000, and
- 5) The use of power or energy less than 10 kilowatts if used.

However, despite the fulfillment of the above-stated criteria, the enterprises that need to obtain permission before starting, for example regarding the production of alcoholic drinks, cigarettes, and tobacco, are not considered as MEs.

2.3 Measures of Microenterprise Performance

Performance is understood as an act or process of performing a task successfully using related knowledge and skills to achieve the desired visions, goals and objectives. The Oxford Dictionary defines performance as, “A task or operation seen in terms of how successfully it is performed.” It may be viewed as multidimensional (Govindarajan, 1988, Neill & Rose, 2006, Wiklund, 1999 quoted in Amsteus, 2011: 70). Hofer (1983) described performance as a contextual concept

related to the phenomenon being studied. The definition of performance may vary from context to context. In the context of enterprises or businesses, it can be operationalized in terms of progress towards achieving the vision, goals or objectives of the enterprise such as survival of the enterprises, growth in the employees, and the profitability (Lerner et al., 1997). Rosa, Carter, and Hamilton (1996: 465) classified the measures of business performance into four groups:

- (1) primary performance measures that are measured by number of employees, growth in employees, sales turnover, and value of capital assets;
- (2) proxy performance measures that are measured by geographical range of markets, VAT registration;
- (3) subjective measures including the ability of the business to meet business and domestic needs; and
- (4) entrepreneurial performance measures which include the desire for growth or the ownership of multiple businesses.

Likewise, the performance criteria of the managerial competency index developed by Orser (1997, 2000 quoted in Industry Canada, 2003) consist of business outcomes, personal outcomes and social outcomes. The business outcomes as a measure of performance includes productivity, profit, return on investment (ROI), efficiency and others. The personal outcomes as a measure of performance include income/earning, employment, well-being, and others. The social outcomes as a measure of performance include employment, economic and/or community development, and others.

Furthermore, Okurut (2008) used monthly sales revenue to measure the performance of the ME. Brush and Vanderwerf (1992) in their studies also used annual sales, growth on sales, return on sales, return on assets, and growth in employees, as measures of performance. Similarly, Dunn and Arbuckle (2001) used enterprise profit, enterprise fixed assets, and employment as measures of ME performance. Praag, Wit, and Bosma (2005) used profit as a measure of firm performance. Musso and Schiavo (2008) used firm growth in terms of sales, capital stock, and employment as a measure of firm performance.

A brief review of the measures of enterprise performance shows that there is no general agreement among the scholars on the standard measures of the performance of enterprises. However, it is seen that the studies, irrespective of the particular measure types, share a common factor of multiple measures of the performance of enterprises. None of the measures of performance is exclusive. The measures largely complement each other. For example, a change in sales may bring a change in profit and consequently changes in the employment, assets and survival of the enterprise as well. They complement each other and provide a holistic picture of performance. Measuring the performance from multiple dimensions such as employment, sales, profit, assets, and so on can be taken as a more robust approach than measuring performance using only one dimension.

The most common dimensions of the measures found in the literature used to measure enterprise performance are sales, profit, employment, assets and survival of the enterprises (Brush & Vanderwerf, 1992; Rosa et al. 1996; Lerner, Brush, & Hisrich, 1997; Dunn & Arbuckle, 2001; Praag et al., 2005; Teoh & Chong, 2007; Musso & Schiavo, 2008; Okurut, 2008). Survival measures cannot be used in a one-time, cross-sectional survey. The survival measure requires at least two surveys of the same sample so that whether a particular sample can survive over time or not can be observed. Therefore, in one-time, cross-sectional studies, other dimensions of enterprise performance measures—the growth of sales, profit, employment, and assets—can be used to measure enterprise performance.

2.4 Theoretical Framework of the Study

A theoretical framework provides the background and context for the research problem, and establishes the interrelationships and expected networking among the variables of under reference (Pant, 2009). In this section, relevant economic, organization, and entrepreneurship related theories and empirical studies are discussed to establish a relationship between the variables as identified in the literature, thereby developing an integrated conceptual framework of the factors determining the performance of microenterprises for the purpose of this study.

The field of entrepreneurship study is very broad. There are various theories and approaches of entrepreneurship that reflect different theoretical aspects and paradigms for explaining the nature, behavior, and characteristics of the entrepreneurs, enterprises, and environment having an association with the performance of enterprises. Different scholars have used different theories and approaches to explaining the characteristics, nature, and determinants of enterprise performance. Veciana (2007: 35) pointed out several theories and approaches such as the theory of entrepreneurial profit, the theory of occupational choice under uncertainty, transaction cost theory, Schumpeter's theory of economic development, trait theory, Kirzner's entrepreneur theory, social marginality theory of entrepreneurship, role theory, network theory, Weber's theory of economic development, population ecology theory, behavioral theory of the entrepreneurs and models of new enterprise success and failure, which contribute to the methodological debates in the field of entrepreneurship study. Similarly, scholars have also noted multiple of aspects of entrepreneurs such as individual characteristics, networks and so on to be considered in an entrepreneurship study. Cuervo et al. (2007: 3) stated as follows:

The study of entrepreneurs as individuals requires the analysis of variables that explain their appearance, such as personal characteristics, the psychological profile (the need for achievement, the capacity to control, tolerance of ambiguity and a tendency to take risks) and non-psychological variables (education, experience, networks, family, etc.).

The theory of economic development proposed by Schumpeter in 1912 is one of the most prominent theories in the field of economic development studies. According to Schumpeter (1912 quoted in Veciana, 2007: 39), "the creation of new firms as a factor of economic development depends on the entrepreneur's behavior that carries out a new combination of the productive factors." Shane (1996 quoted in Veciana, 2007) also observed a positive association between the rate of technological

change and new firm creation rate, thus confirming the assumption of Schumpeter's theory.

Similarly, the occupational choice under uncertainty is another theory that explains "why certain individuals choose to become entrepreneurs while others prefer an alternative occupation, for instance, paid employment" (Veciana, 2007: 37). Studies have found that inborn ability and risk-taking behavior influence the entrepreneurship as occupational choice during uncertainty (Veciana, 2007).

There have been many empirical researches in the field of entrepreneurship that have identified the factors determining the performance of enterprises. Different studies have adopted different theories or models to examine the association between the determinants and the performance of enterprises. Most of the studies have examined the determinants from one approach or based on certain theoretical perspectives. For example, Masakure, Henson and Cranfield (2009) examined the determinants of microenterprise performance from a resource-based view. They found a significant effect of the characteristics of entrepreneur and the enterprise itself, enterprise location, sector and business environment on the magnitude of the profit of a firm.

On the other hand, some scholars have also suggested multiple perspectives to examine the determinants of performance. For instance, (Teoh & Chong, 2007) in their study entitled "Theorizing a framework of factors influencing performance of women entrepreneurs in Malaysia," proposed a framework to study the factors affecting the performance of entrepreneurs. The framework includes the individual characteristics, management practices, goals and motivations, networking and entrepreneurial orientation that tend to influence the performance of entrepreneurs. Their framework appears to include different theories and approaches related to entrepreneurs, and the organization and the environment, such as entrepreneurial trait theory, the resource-based view of the firm, behavioral theory, the network theory of entrepreneurs, and so on.

Similarly, according to the model of new venture performance developed by Sandberg and Hofer (1987 quoted in Chrisman, Bauerschmidt, & Hofer, 1998), new venture performance is a function of multiple entities such as industry structure (IS), venture strategy (S) and the attributes of the founding entrepreneur (E). After

examining Sandberg and Hofer's model of new venture performance (1987), Chrisman et al. (1998: 5) in their study entitled "The determinants of new venture performance: An extended model," proposed an extended model to study new venture performance. In the extended model, they claimed, "the model must be extended to include the resources and the organizational structure, processes, and systems developed by the venture to implement its strategy and achieve its objectives." They suggested different variables, such as entrepreneurial variables (personality characteristics, values and beliefs, skills, experience and education, and behaviors and decisions), industry structure variables (structural characteristics, industry rivalry and natures of buyers and suppliers) and business strategy variables (planning and strategy formulation, goals and objectives, strategic direction, entry strategy, competitive weapons, segmentation, scope, investment strategy and political strategy), and resource variables (tangible assets, intangible assets) to predict the performance of ventures. The extended model also appears to include different theories and approaches such as entrepreneurial trait theory, the resource-based view of the firm, and behavioral theory of entrepreneurs.

The aforementioned discussion on the studies in entrepreneurship signifies a need for multiple perspectives to examine the factors determining enterprise performance. Therefore, this study has integrated multiple theoretical perspectives and related empirical evidence related to entrepreneur, enterprise, and environment in order to develop an integrated framework of the factors determining the performance of microenterprises. Below are detailed review and discussion of the related theories and empirical studies.

2.4.1 Entrepreneur-Related Factors and Microenterprise Performance

Entrepreneur-related factors are some of the key determinants of firm performance. The essential thesis is that successful entrepreneurs may have common personal background characteristics with regard to their gender, age, education, previous experiences, managerial skills, motivation and entrepreneurial traits, and managerial foresight determining the enterprise performance. The succeeding sections discuss the related theories and findings of previous studies.

2.4.1.1 Gender

Gender can be understood as the socio-cultural manifestation of the sex of a person. Studies have observed significant differences in the performance between female-owned and male-owned firms. The difference in the firm's performance is generally believed to be due to the gender difference between males and females. Males and females have different gender orientation and social learning that tend to affect performance as well.

Johnson and Storey (1985 quoted in Rosa et al., 1996) reported a relatively higher profitability of male-managed businesses than female-managed businesses in the U.K. Similarly, Cooper, Gimeno-Gascon and Woo (1994) in their study found that the women-owned ventures were less likely to grow. Rosa et al. (1996) in their study conducted among Scottish and English small business owners or managers reported a complex relationship between gender and small business performance, however, they still observed gender as a significant determinant of business performance even after controlling for other key factors. The female business owners compared to male business owners were likely to exhibit lower business performance. A study by Davies-Netzley (1998 quoted in Alam, Jani, & Omar, 2011) also observed a significantly lower receipts and sales of women-owned businesses than those of men-owned businesses. In a study of selected African countries such as Botswana, Kenya, Lesotho, Malawi, Swaziland and Zimbabwe, Liedholm (2002) reported the significantly greater enterprise performance (growth) of male proprietors or entrepreneurs. Similarly, Okurut (2008) also concluded that the performance of the microenterprises is negatively influenced by being female-owned as compared to the male-owned. Kim and Zhan (2011) in their study conducted in the United States also found a significant relationship between the gender and measures of the microenterprise performance (microenterprise startup, household income, and income expectation for the next five years). The study reported the lower performance of female micro-entrepreneurs compared to male micro-entrepreneurs. However, Stam, Gibcus, Telussa and Garnsey (2008) in a study conducted among 354 firms in the Netherlands using panel data over the period of 1994 to 2004 did not find a significant effect of the gender of entrepreneurs on firm growth.

2.4.1.2 Age, Education, Experiences, and Managerial Skills

The resource-based view of the firm is one of the well-known approaches adopted in entrepreneurship studies. From the perspective of the resource-based theory, “entrepreneurship is a process of identifying and acquiring resources to exploit opportunities” (Bergmann-Lichtenstein & Brush, 2001 quoted in Segal, Borgia, & Schoenfeld, 2010: 2). Pointing to Daft (1983), Barney (1991: 101) referred to firms resources as “all assets, capabilities, organizational process, firm attributes, information, knowledge, etc. controlled by a firm that enable it to improve its efficiency and effectiveness.” According to the resource-based view of the firm, the valuable, rare, imperfectly imitable and non-substitutable resource combinations have the potential to serve as a source of sustained competitive advantage for firms (Barney, 1991: 105-106). Furthermore, pointing to Williamson (1975), Becker (1964) and Tomer (1987), Barney (1991: 101) identified three types of resources:

Physical capital resources include the physical technology used in a firm, a firm’s plant and equipment, its geographic location, and its access to raw materials. Human capital resources include training, education, experience, judgment, intelligence, relationships and insight of individual managers and workers in a firm. Organizational capital resources include a firm’s formal reporting structure, its formal and informal planning, controlling and coordinating systems, as well as informal relations among groups within a firm and between a firm and those in its environment.

These resources are valuable, rare and not easily imitable. These resources lead to competitive advantage and better firm performance, thus are crucial for the success of firms.

Among three types of resources, the human capital resources are generally entitled to an individual, such as a manager, an employee or an entrepreneur of the firm that tends to affect the performance of the firm. In relation to the effects of education on enterprise success, Deakins and Freel (2003: 289) presented two contrasting hypotheses:

(1) Education provides a foundation from which the entrepreneur can undertake the personal and professional development necessary for successful entrepreneurship and that education will endow the entrepreneur with greater confidence in dealing with bankers, customers and suppliers. (2) Business ownership is not an intellectual activity, and the educated entrepreneur will quickly become wearied with the many tedious tasks, which form the remit of most owner-managers.

Several scholars have reported the positive effects of human capital resources such as age, education or training, experience, managerial skills, and so on on the performance of firms or enterprises. For instance, Burke, FitzRoy, and Nolan (2002: 256) argued that many forms of human capital, such as work experience, education, knowledge of the market, and business practices to be more productive influence the ability of an entrepreneur to exploit profit opportunities. Davidsson (1989), and Robinsson and Sexton (1994) in their studies also reported the positive effects of educational attainment, entrepreneurial or managerial or prior experiences in the industry on the firm's performance (quoted in Delmar, 1996). Similarly, Box, Watts and Hisrich (1994) in their study conducted in the Tulsa MSA and rural east Texas observed significant correlations of the age of the entrepreneur at founding, entrepreneurial management experience, and industry experience with firm performance as measured by employment growth. Pointing to Hoad and Rosko (1964), Hisrich and Brush (1984), and Birley and Norburn (1987), Box, Beisel, and Watts (1995) noted a positive correlation between age and years of formal education of the entrepreneurs and firm performance. Similarly, Mengistae (1998) also reported the significant strong effect of the level of formal education on the firms' efficiency. Likewise, Cressy also argued that the age of the entrepreneur is a significant characteristic of growth firms (quoted in Deakins & Freel, 2003: 290). However, Stam et al. (2008), in a study among 354 firms in the Netherlands using panel data over the period of 1994 to 2004, found the negative effect of the age of the entrepreneurs on firm performance (employment growth).

Box et al. (1995) in their study of Thai entrepreneurs reported positive correlations among previous experiences as a member of an entrepreneurial management team, number of previous starts, age and scanning intensity, and firm performance. Similarly, Lee and Tsang (2001) in their study conducted among Chinese entrepreneurs in small- and medium-sized businesses in Singapore reported the positive effect of the experience of entrepreneurs on venture growth. However, very interestingly they found the positive impact of education on larger firms and negative for smaller firms. Praag et al. (2005) in their study conducted using panel data among Dutch entrepreneurs also observed the significant positive effects of human capital, such as education and experiences, on firm performance as measured by profit. In the same way, Okurut (2008) also opined that education level, experience, and business assets have significant positive influence on microenterprise performance.

Similarly, Gebreeyesus (2009) in a study conducted in Ethiopia also reported the strong positive effect of vocational training on the innovation activity in the firm and thereby it grew faster. Likewise, Segal et al. (2010) noted the positive impact of education and industry managerial experience on firm performance. They found a relatively higher or stronger correlation of firm performance with industry managerial experience than with the level of education. They argued that a higher correlation of managerial experience with the firm's performance than the level of education seems logical, as human capital aroused from the years of managerial experience in the same industry is more likely to enhance firm's performance than from the level of education.

Different entrepreneurs tend to have different skills or capabilities that might influence the performance of the enterprise. The resource-based view of the firm recognizes managerial skills or capabilities as a human capital resource of a firm. Similarly, according to the behavioral theory of the entrepreneur, the ability of an entrepreneur or manager to search and gather information, identify opportunities, deal with risks, establish relationships and networks, make decisions under uncertainty and ambiguity, lead the organization, and learn from experiences are the vital behaviors of entrepreneurs or managers that have a significant influence on the enterprise or business performance (Veciana, 2007: 53). Likewise, Kirzner's theory of the

entrepreneur (1973) also argued that alertness to information is imperative to be a successful entrepreneur. According to Kirzner (1973 quoted in Veciana, 2007: 43), "The aspect of knowledge which is crucially relevant to entrepreneurship is not so much the substantive knowledge of market data as alertness, but the 'knowledge' of where to find the market data." Similarly, Chrisman et al. (1998) opined that the skills of an entrepreneur affect the entrepreneur's behaviors and decisions and thereby influence the survival and success of the enterprise.

Several empirical studies have established a relationship between the managerial skills or abilities and their impact on the performance of firms. For example, Cooper et al. (1994) observed a significant contribution of industry-specific know-how in the survival and the growth of the venture. Newton (2001) in his study on management skills for small businesses also suggested that management skills are central to the process of innovation and thus key to their survival and growth. Similarly, Industry Canada (2003) in its study of SMEs in Canada reported owner's growth intentions and the diversity of managerial ability as the primary factors driving firm performance.

Similarly, Carmeli and Tishler (2006) in their study found the significant effect of managerial skills (human resource skills and intellectual ability) on the firm's performance. They further argued that a top-level management team (TMT), which possesses complementary managerial skills, might generate a competitive advantage. Aivazian, Lai and Rahman (2013) in their study of the skills of chief executive officers (CEOs) of S&P 500 firms in the U.S. also reported that the chief executive officer's skills have a bearing on firm performance. Similarly in the case of micro-entrepreneurship, the micro-entrepreneurs play the key role as a whole whatever the title such as TMT or CEO or entrepreneurs, be given to them. A micro-entrepreneur alone represents both TMT and CEO. In the same way, Bourne and Franco-Santos (2010) in their study of investors in people, managerial capabilities, and performance conducted in the U.K. observed the positive effect of increased managerial capabilities on financial and non-financial performance.

2.4.1.3 Entrepreneur's Personality Traits/Motivation

Increasingly, scholars in the field of entrepreneurship study believe that entrepreneurial traits and motivational factors determine business growth and

performance. The trait theory is one of the most popular theories explaining the psychological aspects of entrepreneurs. Collins and Moores's book (1964) is usually recognized as providing a base for the trait theory and explanation of the entrepreneurial world differently from the then-existing approaches (Veciana, 2007). Initially, psychological or personality traits or motivational factors were generally studied in relation to the start-up of the business. However, later, these factors were also widely used with respect to entrepreneurial success (Rauch & Frese, 2000). The 'hard core' of the trait theory of the entrepreneur has two basic assumptions (Veciana, 2007: 42):

1st: The entrepreneur, that is, the person who decides to create a new enterprise, has a different psychological profile from the rest of the population. 2nd: Successful entrepreneurs have a psychological profile different from the less successful ones.

Many scholars have carried out studies on the area of psychological traits and motivational factors and thus have identified the common traits or factors of successful entrepreneurs. For example, achievement, creativity, determination, education, risk-taking behavior, and technical knowledge are some of the well-known factors having an association with successful entrepreneurs. Rauch and Frese (2000) suggested a typical approach to correlate the personality or entrepreneurial trait scales with performance measures to study the relationship between psychological or personality traits or motivational factors and entrepreneurial success. For instance, Singh (1988 quoted in Rauch & Frese, 2000) conducted a study using five questionnaires that measured 29 scales of personality and found the positive association of eight personality scales, negative association of three scales, and no association of 18 scales to growth.

Scholars have explored several common personality traits and motivational factors associated with entrepreneurs and their success. For example, McClelland (1961 quoted in Deakins & Freel, 2003: 13) identified three key competency traits of successful entrepreneurs: pro-activity (initiative and assertiveness), achievement orientation (ability to see and act on opportunities) and

commitment to others. Pointing to McClelland (1961), Rauch and Frese (2007) also noted a positive correlation between the need for achievement and business success. Similarly, Meredith, Nelson and Neck (1982 quoted in Deekins & Freel, 2003: 15) reported five core traits of entrepreneurial success: self-confidence, risk-taking activity, flexibility, need for achievement and strong desire to be independent or need for autonomy. Similarly, the need for independence, the need for achievement, internal locus of control, and risk-taking propensity are some of the key psychological traits and motivations of entrepreneurs (Veciana, 1989 quoted in Veciana, 2007:42) that play vital role in their success. Rauch and Frese (2000) opined that the need for achievement, risk-taking, and internal locus of control are some of the most frequently studied personality traits of entrepreneurs.

Caird and Johnson (1988) have developed a measure of enterprising traits (or entrepreneurial abilities) called the General Enterprise Tendency (GET). The measure consists of the need for achievement, locus of control, creative tendency, calculated risk-taking, and the need for autonomy. According to Caird and Johnson:

Enterprising persons are highly motivated, energetic, and have the capacity for hard work. They are busy, dynamic, and are highly committed to getting things done...The enterprising person is highly motivated, energetic, likes to lead, shape and do things their way. They are independent, driven, dynamic and may have to be number one or work solo...The enterprising persons is restless with ideas, has an imaginative approach to solving problems, and tends to see life in different ways to others. Their innovative tendency and need for achievement help them to develop ideas to create new products and processes, for example, new technologies, businesses, projects, organizations, comedy and artistic outputs...The enterprising person is opportunistic and seeks information and expertise to evaluate if it is worth pursuing the opportunity that will usually involve some risk... The enterprising persons has an internal locus have control over own destiny and make their own 'luck'...The confidently seek to exert

control over life, draw on inner resource and believe that it is down to them if they succeed through their own efforts and hard work...

Evans and Leighton (1989) in their study conducted in the U.S. found that the businessmen that believed in their performance depended largely on their own actions, or in other words the businessmen that had an internal locus of control and had a higher propensity to start a business. Carsrud, Olmb, and Thomasc (1989) observed the significant impact of the need for achievement-related factors such as need for influence and need for power on the success of the firm. In the same way, Babb and Babb (1992) in their study conducted in north Florida observed a relationship between psychological traits such as the need for achievement and firm performance. Lee and Tsang (2001) in their study examining the effects of personality traits on venture growth among Chinese entrepreneurs in small- and medium-sized businesses in Singapore reported the positive impacts of internal locus of control and need for achievement on venture growth. In a study conducted among 83 Mexican managers, Frucot and Shearon (1991) observed the strong significant effect of internal locus of control on the performance of the managers. Similarly, Boone, Brabander and Witteloostuijn (1996) in a cross-sectional integrative study among 39 small firms, considering CEO to be both a formulator and implementer of organizational strategies, observed the significant positive association between internal locus of control and firm performance. They argued that the CEO's locus of control seems to explain organizational performance considerably. In another study conducted in 2000, Boone et al. again confirmed this association.

Burke et al. (2002) in their empirical study conducted in the U.K. reported the significant effects of non-pecuniary motivation such as the desire to be one's own boss, which is a kind of desire for autonomy on business performance. However, Alam et al. (2011) in their study conducted in Malaysia observed the significant positive effect of internal motivation on the success of women entrepreneurs in small businesses. Similarly, Rauch and Frese (2007) in a meta-analysis study reported the significant association of business owners' personality traits and business creation and success. They also observed significant effects of the

need for achievement, generalized self-efficacy, innovativeness, stress tolerance, the need for autonomy, and proactive personality on business creation and success.

In a study conducted using 167 New Zealand firms, Gibb and Haar (2010) also reported the significant relationship of innovativeness and risk-taking with firm performance. Boermans and Willebrands (2012) also claimed that risk-taking behavior as one of the key determinants of firm performance. On the other hand, some scholars have also reported that risk-taking does not always favor entrepreneurs. For instance, Bromiley (1991) in a study testing a causal model of corporate risk-taking and performance among manufacturing companies classified under Standard Industrial Codes (SIC) 3000 to 3999 found the negative influence of risk taking on future performance. In the same way, Naldi, Nordqvist, Sjoberg, and Wiklund (2007) in a study conducted using a sample of 2455 Sweden firms also observed a negative relationship between risk-taking behavior and family firm performance. However, Zhao, Seibert and Lumpkin (2010) in their meta-analytic review of the relationship of personality to entrepreneurial intentions and performance did not find such a significant association between risk-taking propensity as a separate dimension of personality and entrepreneurial performance.

Like other personality traits of an entrepreneur, creative tendency also tends to influence the firm performance. Creativity is “central to the entrepreneurial process” (Barringer & Ireland, 2006 quoted in Baldacchino, 2009) and “entrepreneurs use creative ideas to introduce innovative products or services, or to deliver products or services in a new, more efficient way” (Baldacchino, 2009). It tends to bring something new such as a new solution to a problem, and make connections that no one else has made (Okpara, 2007).

The creativity and innovation in microenterprises depend upon the creative tendency of micro-entrepreneurs. It also leads to the innovation of the products and process in the firms. The growth of firms or creating new ventures requires an “exercise of autonomy by strong leaders, unfettered teams or creative individuals” (Lumpkin & Dess, 1996: 140). Okpara (2007) argued, “creativity and innovation are at the heart of the spirit of enterprises.” Okpara further noted that creativity and innovation strengthen the entrepreneurs to struggle in whatever new directions the market is heading, therefore getting the benefits of delighted customers.

Similarly, Baldacchino (2009) in a study among enterprises in Malta reported a high level of creativity and innovation among the start-up entrepreneurs. She further argued:

These entrepreneurs generate, develop and implement new ideas for their start-ups, foster a climate that is conducive to creativity and innovation, provide top-down support for creativity and innovation in their organization, and offer innovative products and services through innovative methods and production and delivery (Baldacchino, 2009: 2).

Moreover, Im and Workman (2004) found the significant effect of creativity in mediating the relationship between market orientation and new product success, and thus causing the greater performance of the firm.

The above discussion of the factors related to the personal and background characteristics of the entrepreneur affecting enterprise performance signifies that the entrepreneur's personal background—gender, age, education and experience, managerial skills and personality traits and motivation, the need for achievement, the need for autonomy, risk-taking behavior, internal locus of control and creative tendency—tend to influence the performance of enterprises.

2.4.2 Enterprise-Related Factors and Microenterprise Performance

Enterprise-related factors are widely considered as the direct determinants of enterprise performance. Studies have reported both the positive and negative effects of enterprise-related factors on enterprise performance. The literature suggests that variables such as enterprise age, enterprise size, enterprise sector, and financial capital are some of the important enterprise-related factors that tend to have an influence on performance. The succeeding section is a discussion of the related theories and findings of previous studies with reference to the effects of enterprise-related factors on enterprise performance.

2.4.2.1 Enterprise Age and Size

The age and size of enterprises influence their performance in many ways. Smaller and younger firms grow faster than larger and older ones (Deakins & Freel, 2003). Enterprise age can help firms become more efficient as over a period of time firms observe and gain experience and learn from those observations and experiences. They “discover what they are good at and learn how to do things better” (Arrow, 1962, Jovanovic, 1982, Ericson & Packes, 1995 quoted in Loderer & Waelchli, 2009: 3). The older enterprises “specialize and find ways to reduce their costs and improve quality” (Loderer & Waelchli, 2009: 3). Similarly, pointing to Stinchcombe (1964), Majumdar (1997) argued that due to their greater experience, older firms tend to enjoy the benefits of learning and thus enjoy superior performance. In the same way, Mengistae (1998) also reported a positive association between the age of firms and their efficiency.

However, some other studies have also observed that the age of the firm has negative effects on firm performance. The older firms tend to become more rent-seeking types (Olson, 1982 quoted in Loderer & Waelchli, 2009). In a study of selected African countries such as Botswana, Kenya, Lesotho, Malawi, Swaziland and Zimbabwe, Liedholm (2002) found significant negative effects of firm age and initial size on enterprise performance (growth). Similarly, Loderer and Waelchli (2009) also reported a highly-significant negative correlation between firm age and profitability. Gebreeyesus (2009), in a study conducted in Ethiopia, also observed the significant effect of the age of the firm on its growth. Gebreeyesus noted a faster growth of younger firms than older ones. Wiklund, Patzelt and Shepherd (2009) also observed a similar association in their study conducted among Swedish companies. Majumdar (1997) in his study conducted among 1020 firms in India found older firms more productive but less profitable. However, Masakure et al. (2009) did not find such a significant association between enterprise age and performance.

Regarding the effects of the enterprise’s size on its performance, economic theories argue that increasing the size of an enterprise creates incremental advantages for it because the size of the enterprise enables it to gain an advantage in the economics of scale and thereby attain greater profitability. Similarly, the relationship between profitability and size is likely to affect industrial concentration

and has implications for returns to sales and monopoly power (Whittington, 1980). According to the oligopoly model of Reinhard (1983 quoted in Ramasamy, Ong, & Yeung, 2005: 87), the size of an enterprise has a positive association with its ability to produce technologically complicated products. Such products are unique and thus are supplied by few competitors, therefore leading to larger profits.

Many studies have supported the views of the economic theories and models. For example, pointing to Penrose (1959), Majumdar (1997) argued that compared to the performance of smaller firms, the diverse capabilities and the abilities of larger firms result in superior performance. Similarly, Hall and Weiss (1967 quoted in Ramasamy et al., 2005) in their study of Fortune 500 industrial corporations using panel data from 1956 to 1962 found a significant positive association between firm size (measured by log of firm assets) and profitability (measured by return on equity and return on assets). Mengistae (1998), in a study of manufacturing firms established in Ethiopia also observed a positive correlation between the size of the firms and their efficiency. Likewise, Gebreeyesus (2009) in a study conducted in Ethiopia reported that smaller firms are more likely to grow faster. Moreover, Lee (2009) in his study using panel data from American corporations between 1987 and 2006 observed a non-linear type of positive correlation between profit rates and firm size (firm size was measured by the log value of total assets).

However, other studies have also reported a contrasting association between enterprise size and performance. The bigger enterprises are not always better-performing enterprises. Enterprise size also, to a certain extent, seems to have negative effects on performance. For instance, Whittington (1980) in his study using a panel data from 1960-1974 among United Kingdom-based companies found a negative relationship between firm size and profitability. Similarly, in a study of selected African countries such as Botswana, Kenya, Lesotho, Malawi, Swaziland and Zimbabwe, Liedholm (2002) observed significant negative effects of firm age and firm size on enterprise performance (growth). In the same way, Ramasamy et al. (2005) in their study of the Malaysian palm oil sector, and Gebreeyesus (2009) in a study conducted in Ethiopia reported a negative association between enterprise size and performance. On the other hand, a study conducted among German manufacturing firms by Poensgen and Marx (1985) and a meta-analysis conducted by Capon, Farley

and Hoenig (1990 quoted in Ramasamy et al., 2005) did not find strong correlations between firm size and profitability, rather, the correlations were reported to be weak and unstable over time.

2.4.2.2 Financial Capital Constraints

Financial capital is one of the key resources that tend to determine the emergence and success of microenterprises. There is a theoretical debate about the association between financial capital constraints and entrepreneurial performance. There are two opposing views that the theoretical debate has put forth (Praag et al., 2005: 42):

Capital markets are perfect and, therefore, do not hinder entrepreneurs in their required investments with regards to the levels and timeliness, vis-à-vis 2) Capital markets do not supply the right amounts of capital to entrepreneurs due to asymmetric information.

With reference to the theoretical debate on financial capital constraints and entrepreneurial performance, Praag et al. (2005: 36) further argued:

Financial capital constraints might prevent entrepreneurs from creating buffers against random shocks, thereby affecting the timing of investments negatively. Moreover, capital constraints might debar entrepreneurs from the pursuit of more capital-intensive strategies.

In the context of the micro-entrepreneurship, since it is targeted to the poor households that usually do not have sufficient initial financial capital even to initiate a small business, the influence of financial capital in the business tends to be clearly visible. To fight against the financial capital constraint of the poor, the concept of credit, particularly the microcredit or microfinance, has become a widely-known impressive idea and instrument. The idea of microcredit is to provide loans to poor people without any financial security, adopted successfully by Prof. Md. Yunus Muhammad, a Nobel Peace Prize Laureate at the Grameen Bank of Bangladesh, to help move millions of impoverished women toward a better life through tiny but

transformational loans (Polgreen, 2011) in Bangladesh since the early 1980s. The basic theme of the microcredit is to help poor people start and run their small and household-level microenterprises and thereby generate a relatively better-sustained economy for the poor households to fight against poverty. The microcredit is expected to help in strengthening the microenterprise's performance and thereby produce greater income. After the success story of the microcredit in Bangladesh, it became a very popular strategy for the government across the world to fight poverty and an emerging field of study among scholars as well. The facilitation of microcredit as an instrument to fight against the financial capital constraints among the poor has been used around the world, and in Nepal as well.

Several empirical studies have examined the relationship between financial capital, which can be in terms of financial constraints or access to financial capital, and firm performance. Entrepreneurial ability and access to finance determine the capability of self-employed people (Evans & Jovanovic, 1989 quoted in Burke et al., 2002). Cooper et al. (1994) in their study reported the significant contribution of the amount of initial financial capital, which is one of the most visible resources in the firm, on the survival and growth of the firm. Binks and Ennew (1996 quoted in Musso & Schiavo, 2008) in their study, in the U.K. using 6000 firms also observed that a significant association between the expected future growth of the firm and perceived constraints that are crucial in shaping the firm's development decisions. The perceived credit constraint was also found to have a negative effect on innovation expenditure and overall investment (Winker, 1999), which consequently influences the firms' performance. Likewise, Dunn and Arbuckle (2001) in their study of microcredit and microenterprise performance in Peru also reported better enterprise performance (enterprise profit, enterprise fixed assets, and employment relationships) of the micro-entrepreneurs that were clients of microcredit institutions than those that were not clients of microcredit institutions. Praag et al. (2005) in their study conducted using panel data among Dutch entrepreneurs also found initial capital constraints hindering the entrepreneur's performance (profit as a proxy measure of performance).

Access to finance or credit also appears to have significant effects on the firm's performance. The access to external finance tends to make small firms

more competitive (Aghion, Fally, & Scarpetta, 2007 quoted in Segarra & Teruel, 2009). Musso and Schiavo (2008) in a study of almost 15,000 French manufacturing firms using panel data over the 1996 - 2004 period also found a positive effect of access to external financial resources on firm growth in terms of sales, capital stock, and employment. Gebreeyesus (2009) in a study conducted in Ethiopia also reported the significant effect of access to finance on the growth of the firm. He argued that the firms with fewer capital constraints grow more rapidly. Similarly, Savignac (2008 quoted in Segarra & Teruel, 2009) observed the negative effect of credit constraints on innovation expenditure and overall investment. Segarra and Teruel (2009) noted that small firms, compared to larger firms, are “more dependent on internal resources and less reliant on bank loans.” In their study using panel data from Spanish manufacturing firms for the period 2000-2006, they observed the more sensitive effect of financial sources on the growth of smaller firms than larger ones. Boermans and Willebrands (2012: 1) also claimed that “firms that are financially constrained cannot obtain loans from banks, hold little savings, under-invest, and show poor performance.”

2.4.2.3 Enterprise Sector

The performance of enterprises also varies by their sector (Liedholm & Mead, 1998). There might be a difference in the level of performance between manufacturing or production, service and business-sector enterprises. Gebreeyesus (2009) argued that the firms in the manufacturing sector are more likely to be more innovative, and therefore grow faster. Masakure et al. (2009) also in their study conducted to assess the financial performance of microenterprises in Ghana reported the significant bearing of the enterprise sectors on enterprise performance. More specifically, they found a significantly-higher performance (larger profit) of MEs involved in food processing and beverages than the microenterprises related to other sub-sectors such as chemical activities and textiles and garments. Similarly, in a study of selected African countries such as Botswana, Kenya, Lesotho, Malawi, Swaziland and Zimbabwe, Liedholm (2002) reported the significantly-higher enterprise growth of manufacturing and service sectors than the trading sectors. Between the manufacturing and services sectors, the service sector, compared to the manufacturing sector, had higher enterprise growth.

The above discussion on the related theories and findings of previous studies signifies that the enterprise-related factors such as enterprise age, enterprise size, capital constraints, and enterprise sector tend to have significant effects on the performance of enterprises.

2.4.3 Environment-Related Factors and Microenterprise Performance

Entrepreneurship is not something that is complete within or between an entrepreneur and the enterprise itself. Entrepreneurs and the enterprises have direct and indirect interactions with the environment. The effect of environment seems to be unavoidable on the enterprise performance. The literature on the theories and findings of empirical studies, points out that some family environment, social network, and task environment-related factors influence enterprise performance.

2.4.3.1 Family Environment

Understanding the family environment, particularly in the case of the microenterprise since it is a family-based enterprise, is critical. The family environment can motivate, guide and provide various tangible and intangible supports to a person to start and run a business in a competitive way. A person that has grown up in a family within a business environment might have a better orientation to run a business and cope with various business challenges on the real ground than those that did not have such a family environment. Similarly, a family also provides different kinds of resources such as financial capital and human resources for the MEs and thus influences the performance of the enterprises.

In a study of entrepreneurship, role theory explains how family environment influences an entrepreneur in terms of starting a business and thereby helping him or her to survive and be successful. According to the role theory of entrepreneurship, the entrepreneurship culture plays a vital role in the creation and success of new entrepreneurs or enterprises (Veciana, 2007). The family that lives within a business environment provides an opportunity for family members to learn the knowledge and skills needed to run an enterprise. An entrepreneur learns valuable tacit knowledge gained from the informal learning in the family business where he or she has grown up. The family business can influence the social, psychological, and economic behaviour of an entrepreneur. The persons or individuals that are from

families that are practicing entrepreneurship successfully tend to be entrepreneurs. The family environment can also affect entrepreneurial success or failure. Veciana (2007: 45) also argued that “in family environments in which there are or have been entrepreneurs and, therefore the “role of entrepreneur” has been seen and experienced closely it is more likely that new entrepreneurs emerge.”

Many empirical studies have been conducted to explore the relationship between the family business environment and enterprise performance. Scherer, Adams, Carley and Wiebe (1989) observed a relationship of parental role model with education and training aspirations, task self-efficacy, and expectancy for an entrepreneurial career. Such associations of parental role model can influence the performance of entrepreneurs. Similarly, Fairlie and Robb (2007a quoted in Parker, 2009: 135) noted a significant positive effect of experience obtained from prior work in a family member’s business on firm performance such as employment, sales, profit and survival. Lentz and Leband (1990 quoted in Parker, 2004) also observed a higher income of the self-employees that followed the parental occupation than non-followers. Cooper et al. (1994) also found the significant effects of the parents, who had owned a business, on the survival of the ventures. Similarly, Henning and Jardim (1978) and Belcourt et al. (1991) in their studies reported a significant positive influence of fathers and their businesses on the success of women entrepreneurs (quoted in Teoh & Chong, 2007). Teoh and Chong (2007) also argued that “family members, especially parents, play a key role in establishing the desirability and credibility of entrepreneurial actions for individuals.” Furthermore, Fairlie (2009) reported a higher chance of being successful (10 to 40 percent) in the business when entrepreneurs work in the family business before starting their own.

2.4.3.2 Social Networks

Entrepreneurship is something that usually begins with creating relationships with others. If the lifecycle of the entrepreneurship is closely observed, many other elements or actors can be found to be involved in the process. Network theory explains why a network is essential in entrepreneurship. According to this theory, “The entrepreneurial function exists and develops in a network of social relations” (Veciana, 2007: 46). Veciana further argued that “the establishment and maintenance of a network of relationships is something inherent to the entrepreneurial

function and to the entrepreneur's task of acquiring and combining the factors of production" (Veciana, 2007: 49). The entrepreneurship and network—the relationships among the entrepreneurs, suppliers, customers, bank, public or private agencies, family friends, relatives, and social institutions—have a strong relationship (Veciana, 2007). The network success hypothesis in business states, "Those entrepreneurs who can refer to a broad and diverse social network and who receive much support from their network are more successful" (Bruderl & Preisendorfer, 1998: 213).

The creation and success of new enterprises are significantly influenced by the various activities within networks such as information communication, exchange of goods and services, and generation of expectation. The network of an entrepreneur can also be classified as formal and informal, as can be seen in the following from Birley (1985: 109):

The formal includes local, state, federal agencies such as banks, accountants, lawyer, realtors, chamber of commerce or the small business administration (SBA)...in their interaction with the entrepreneur they are not usually in the business of diagnosing needs, but rather of satisfying them by responding to specific requests. The informal network includes family, friends, previous colleagues, or previous employers, a group that whilst it may be less informed about the options and schemes open to the entrepreneurs, is more likely to be willing to listen and to give advice...both are important in helping the entrepreneur seek the optimum arrangement for his firm.

Formal and informal networks are often described as the social capital of micro-entrepreneurs. Social network can have direct and or indirect influences on their businesses, as well. According to Sanders and Nee (1996 quoted in Parker, 2004: 74):

The social relations may increase entrepreneurial success by providing instrumental support, such as cheap labor and capital, productive

information such as knowledge about customers, suppliers and competitors and psychological aid, such as helping the entrepreneur to weather emotional stress and to keep their business afloat.

Like other forms of capital, such as human capital and financial capital as the resources of an entrepreneur for a firm, the network of an entrepreneur can also be considered as social capital. The World Bank (1985 quoted in Doh & Zolnik, 2011: 4963) defined social capital as “the norms and social relations embedded in social structures that enable people to coordinate action to achieve desired goals.” Similarly, Coleman (1988: 98) described social capital as follows:

...a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors- whether persons or corporate actors- within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible...social capital is a resource of a person...

Likewise, according to Burt (1997), “social capital is the quality created between the people.” The manager’s network enhances his or her ability to identify and develop opportunities, therefore enlarging the rewarding opportunities.

Several empirical studies have examined the influence of the network and the social capital of entrepreneurs on the firm’s performance. For instance, Aldrich et al. (1987 quoted in Veciana, 2007: 47)) reported the significant association between network variables and the number and performance of new firms. Johannisson (1988) noted that the key to the success of the entrepreneurial activity depends in the ability of an entrepreneur to develop and maintain a personal network. He further argued, “The inexperienced new entrepreneur needs support to create a personal network and to manage the enacted environment in the network.” Similarly, Hill and McGowan (1997 quoted in Shaw, 1999) pointed out the importance of the personal network in accessing resources. Bruderl and Preisendorfer (1998) in their study conducted among 1700 new business ventures in Upper Bavaria (Germany)

reported a positive association between network support and the probability of survival and growth of newly-founded businesses. Mengistae (1998) also reported the significant effect of the owner's access to business networks on the firm's efficiency.

"The network and the activity of the networking are indeed important entrepreneurial marketing tools," (Shaw, 1999: 24). Shaw further restated the empirical evidence of the positive effects the entrepreneur's personal contact network in the development and growth of entrepreneurial firms. Lee and Tsang (2001) in their study conducted among Chinese entrepreneurs in small- and medium-sized businesses in Singapore reported the positive effects of the networking activities of entrepreneurs on venture growth. Similarly, Gomez and Santor (2001) also observed a substantially higher earning of the self-employed that were members in the community organization than the self-employed that were not members in the community organization. Praag et al. (2005) in their study conducted using panel data among Dutch entrepreneurs also reported the positive effects of social capital on enterprise performance (profit as a proxy measure). They argued that social capital strengthens the information-gathering channels such as general network, commercial relations, and fellow entrepreneurs. In the same way, Stam et al. (2008) in a study among 354 firms in the Netherlands using panel data over the period of 1994 to 2004 found the significant positive effect of the entrepreneur's network on firm growth.

Ofori and Sackey (2010) in their study conducted in Ghana also reported a significant and positive association between social capital and organizational performance. They claimed that social capital is critical to knowledge sharing in Ghanaian organizations and thereby helps in attaining the organizational objectives. Doh and Zolnik (2011) also reported a positive relationship between individuals' social capital and their propensity for entrepreneurship. They argued that individuals with a high level of social capital such as passive or active membership and civic norms are more likely to be entrepreneurs than those with a low level of social capital. In the same way, Alam et al. (2011) in their study conducted in Malaysia also observed the positive effects of family support and social ties on the success of women entrepreneurs in the small business.

On the other hand, Dicko and Breton (2010) in their study about social networks—classified as economic, political and social affiliations of the board of

directors of the firms and their effect on the performance of the firms in Canada—observed significant negative effects of the political network on the performance of the firm. However, Birley’s research (1985) conducted in St. Joseph County, Indiana, did not find such a significant value of formal networks in the creation and success of the new firm.

2.4.3.3 Task Environment

According to the adaptation perspectives of organization theory, the environment affects the organization, and in response to that, the managers formulate strategies, make decisions and implement them. Therefore, “the managers, who scan the relevant environment for opportunities and threats, formulate strategic responses, and adjust their organizational structure appropriately” (Hannan & Freeman, 1977: 930), tend to be more successful.

Similarly, population ecology theory which is also often known as organizational ecology theory assumes that “the environment determines the birth, growth, and death of new organizational forms or enterprises” (Veciana, 2007: 49). According to Veciana (2007: 50), the basic assumptions of the population ecology theory are as follows:

- 1) The existing organizational forms in a certain time are unable to adapt to the environmental changes due to internal inertia.
- 2) Environmental changes produce new organizational forms and thereby “new firms”.
- 3) Changes in organizational populations are essentially due to the demographic processes of creation (births) and disbandment (deaths) of organizations.

Likewise, contingency theory argues that firms have to deal with several kinds of contingencies such as uncertainty contingency, size contingency, decline contingency, strategy contingency, resource contingency and environmental challenge contingency. Donaldson (1995: xvi) stated:

An organization can be seen as being dependent upon the environment for resources needed to survive or grow...In order to acquire these

resources, the organization needs to deal with the environment in one of several ways...The first is to become effective in competing against other firms. Such competitive advantage requires superior organizational performance in terms of the key environmental challenges.

The environment surrounding the firms tends to be dynamic, heterogeneous, and hostile. These factors can encourage the innovativeness (Awang, Yusof, Kassim, Ismail, Zain, & Madar, 2009) of the entrepreneurs. Peterson and Berger (1971 quoted in Miller & Friesen, 1982: 6) stated that “the managers, who prefer to take high risk to gain high awards, may be partly responsible for making the environment dynamic by contributing challenging product innovations.”

The environment-related variables—dynamism, and heterogeneity, hostility—are expected to relate positively to innovation (Miller & Friesen, 1982) and entrepreneurial activity (Miler, 1983) and consequently affect firm performance. The task environment of the firm has been investigated through the entrepreneur’s perception of the environmental dynamics, hostility, and heterogeneity (Miller & Fiesen, 1982; Wiklund et al., 2009). According to Wiklund and colleagues, environmental dynamism refers to instability and continuous social, political, technological, and economic changes. Environmental hostility refers to the environment that “creates threats to the firm, either through increased rivalry or decreased demand for the firm’s products that can seriously reduce the growth opportunities for a small firm” (Wiklund et al., 2009: 354). Environmental heterogeneity refers to the complexity of the environment (Wiklund et al., 2009). Wiklund et al. (2009) asserted that “[i]n heterogeneous markets, it is relatively easier for small firms to find and develop specific market niches than in markets where demand is homogeneous.” Miller and Friesen (1982) developed 15 items to assess these constructs: five items for environmental dynamism, four items for environmental heterogeneity, and six items for environmental hostility (see Appendix B).

The above discussion of the related theories or perspectives and findings of previous studies signifies that the entrepreneur’s family business

environment, social networks, and the entrepreneur's perception of the task environment (dynamism, hostility, and heterogeneity) tend to have an influence on the performance of microenterprises.

2.4.4 Managerial Foresight and Microenterprise Performance

"Futures are at least as central to the human enterprise as the past is commonly assumed to be" (Slaughter, 1996: 156). Semantically, the Oxford Dictionary defines foresight as "the ability of a person to predict what is likely to happen and to use this to prepare for the future." It is a type of system thinking, which catalyzes new insights in the minds of decision-makers (Bezold, Juech, & Michelson, 2009). It is widely used to refer to the activities and processes that assist decision-makers in drawing the firm's future course of action (Vecchiato, 2012). It "brings an awareness of long-term challenges and opportunities into more immediate decision-makings" (FOREN Network, 2001: III). In other words, it is "a condition of human life that the actions and decisions are founded both on what has gone before and on what is expected or intended" (Slaughter, 1996: 156) for the future. It provides a comprehensive visionary approach at the present for an entrepreneur or manager to view the future of the firm and prepare accordingly. Martin (1995: 140) defined foresight as follows:

The process involved in systematically attempting to look into the longer-term future of science, technology, the economy and society with the aim of identifying the areas of strategic research and the emerging generic technologies likely to yield the greatest economic and social benefits.

Martin stressed two aspects of foresight: foresight as a process, not just a set of technique, and the possibility of many possible futures which in the overall aims to systematically explore the alternative futures. In the same way, Butter et al. (2005: 3) defined foresight, which is often remarked as the best explanation of foresight (Calof, 2012), as "a participative approach to creating shared long-term visions that inform short-term decision-making processes." This indicates that the foresight has a long-term influence on the firm's performance. It benefits the firms from different

pathways such as building early warning systems, impacting on firm strategy, prioritizing resources, propelling societal learning processes, stimulating innovative policy making (Yuan, Hsieh, & Chang, 2010), informing policy, facilitating policy implementation, embedding participation in policy making, supporting policy definition, reconfiguring the policy system, and as a symbolic function (DaCosta, Warnke, Cagnin, & Scapolo, 2008).

In the field of entrepreneurship or business research, managerial foresight can be understood as the behavior of a manager (Amsteus, 2008). As in the case of micro-entrepreneurship study, the micro-entrepreneur himself or herself is the owner and manager, and managerial foresight can also refer to the behavior of a micro-entrepreneur himself or herself. Martin Amsteus, in his doctoral dissertation entitled “Managerial foresight and firm performance,” which was awarded the 2011 Emerald/EFMD Outstanding Doctoral Research Award, has made a remarkable contribution to the study of managerial foresight by defining and developing its quantitative measures, and examining its association with firm performance. According to Amsteus (2008: 53), foresight is a behavior along three dimensions, as he stated in the following three points:

- (1) Degree of analyzing present contingencies and degree of moving the analysis of present contingencies across time;
- (2) degree of analyzing a desired future state or states a degree ahead in time with regard to contingencies under control;
- and (3) degree of analyzing courses of action a degree ahead in time to arrive at the desired future state.

Furthermore, Amsteus (2011) in a study conducted among Swedish managers observed a statistically-significant positive correlation between managerial foresight and firm performance.

Furthermore, during the period of a changing business environment resulting in the need for greater competitiveness and environmental dynamics, or when the entrepreneurs perceive their market to be increasingly competitive and dynamic, the need for foresight is assumed to be substantial (Jannek & Burmeister, 2007). The

shorter decision horizons of entrepreneurs or managers or CEOs may increase short-term investment and information risks, whereas the longer decision horizons tend to have a relationship with better firm performance (Antia, Pantzalis, & Park, 2010). To achieve a higher performance in the firm, “foresight is no longer a choice: it is a necessity” (Slaughter, 1996: 162).

The need for foresight has been recognized well in the business sector. However, apart from the publications of Amsteus (2008, 2011), there is almost no study quantifying the managerial foresight and examining the association between entrepreneurial or managerial foresight and firm performance. Among the few studies on managerial foresight, most of them have focused solely on large-scale enterprises (Jannek & Burmeister, 2007); very few studies have considered small-scale enterprises. To the extent of the author’s knowledge, in the case of microenterprises, the foresight aspect of micro-entrepreneurs and its effect on microenterprise performance have not yet been studied—the aspect of foresight in micro-entrepreneurship needs to be further explored.

Moreover, there might be several antecedents to managerial foresight itself, such as gender, age, educational attainment, previous experience, environment, and so on; in other words, managerial foresight might also mediate the effect of other entrepreneurial and environment-related factors on enterprise performance. Amsteus (2011) also suggested further research to identify the antecedents of foresight that may influence the foresight, such as environmental conditions, formal systems, training programs, and so on. Furthermore, educational attainment improves the knowledge and skills of a person and develops the ability of system thinking. Anderson (1997) prioritized the need for skills, education, business awareness, technology, and networks to strengthen foresight. Similarly, Slaughter (1997) also opined that education can fortify the capacity to explore its future implications. Therefore, more educated and skilled managers or entrepreneurs are expected to have greater foresight. Previous similar business experiences offer more practical knowledge and skills to an entrepreneur. An entrepreneur with greater similar business experiences knows more about the constraints and challenges of a particular business and has ideas to deal with them. Mackay and McKiernan (2004: 175) described foresight as a result of the continuous analysis of the past in the present and

thereby predicting the future. They pointed out that the memories of the past are influenced by individual lenses, previous experiences, cultural myths, routines and ideologies; the experience of actual events in the present is influenced by viewpoint, bias, direct or indirect involvement, and quality of information, and the concepts of the future behavior and cognition, concepts of events that have not taken place are influenced by foresight bias, counterfactual past, and memory of the future.

Furthermore, in patriarchal societies such as Nepal, gender (being male) is considered an advantage for a manager to run a business. Males tend to have access to better opportunities such as education, training, and so on, and exposure to the external environment, which may enhance their ability to predict the future and therefore have better foresight. For instance, the Management Research Group (2013) in a study conducted among 1,800 male and female managers in north America observed a higher rating for male managers in strategic planning. In the same way, Kennard (2012) also in a study conducted among 14,000 U.K. leaders and managers reported a higher score of men in strategic vision. However, Pfaff (2014) in a study conducted among 2,482 managers at all levels from 459 organizations across nineteen states in the United States with the objective of testing the conventional thought of men being more decisive, better at planning, and having greater technical skills observed that the female managers were better than their male counterparts at goal setting, planning, and facilitating change. The better position at goal setting, planning and facilitating change seems to indicate a higher level of managerial foresight among female managers. This indicates that managerial foresight also has a gender difference.

Age is not only a demographic variable. Age also indicates greater maturity and more experience in the life of a person. The maturity and experience in life enhance the system thinking of a person, thus resulting in a positive effect on managerial foresight. Anita et al. (2010) in a study conducted across 1,500 S&P firms between 1996 and 2003 found a significant association between the longer decision horizons and firm performance. They noted that the firms led by long-term oriented CEOs exhibit higher performance compared to the short-term oriented ones. Furthermore, they found that the long-term oriented CEOs were either young or expected to be longer in the firm than other CEOs in the firm.

Likewise, the need for achievement and the need for autonomy, which are known as the motivational factors of entrepreneurs, are related to future gain. These factors point out the hidden foresight in these persons. The future is never certain. It is always about risk-taking. Entrepreneurs with a higher calculated risk-taking trait can plan a better future and thus have greater foresight. Similarly, a creative tendency can strengthen future competitiveness. The entrepreneurs with a creative tendency can be very creative in designing new products and strategies to create a future market for their benefit. An internal locus of control refers to the extent to which an entrepreneur believes that he or she can control his or her destiny or the events that affect him or her. This kind of control is also important for setting a plan for the future. The entrepreneurs that believe that they can control the events that affect their business in the future can have greater foresight than those that do not have such control.

The successful entrepreneurs in manufacturing or production, business and the service sector due to the difference in the nature of the business may have different levels of managerial foresight. For example, in the manufacturing or production sector, it takes relatively a longer time to get a return on investment; however, in the service sector, the returns begin more quickly, and therefore the entrepreneurs in the manufacturing or production sector might require higher foresight.

The aspects of foresight, such as analyzing present contingencies, desired future states, and courses of action a degree ahead in time to arrive at the desired future state (Amsteus, 2008) indicate the preparation of a firm to adapt to the changing environment to survive and gain the maximum benefit from it. Christensen (1997 quoted in Rohrbeck & Schwarz, 2013: 11) argued that “large firms find it especially difficult to respond to discontinuous change.” On the other hand, larger firms can also have more highly-educated and skilled managers or entrepreneurs with higher foresight than smaller firms. Similarly, due to the lack of enough resources that prevents the successful implementation of actions, the application of formal planning mechanisms often tends to be missing in the small- and medium-scale enterprises or in other words up to a certain critical size (Karagozoglu & Lindell, 1998 quoted in Kraus, Reiche, & Reschke, 2005: 2). Kraus et al. (2005: 17) also noted the dependence of company size and strategic planning methods and instruments, thus

causing small- and medium-scale enterprises to plan less than established larger enterprises. This indicates that enterprise size also has an association with foresight.

Similarly, financial capital seems to play a crucial role in drawing future courses of action. The future strategy initiated by the entrepreneurs or managers must be financially viable for the firm as Hill (2014) argued:

Strategic planning is the process of a small-business owner setting goals for the upcoming year and beyond, and determining how to allocate the financial and human resource of his company to achieve the goals. His strategic choices balance the company's need for current profitability with the need to invest in the company's future growth. A company's current financial difficulties may make strategic planning more difficult.

Similarly, Clements (2014) also argued that in the lack of financial capital, strategic planning suffers. In other words, the entrepreneurs or managers of the firm that have financial constraints in the present may not be very interested in planning for the long-term future. They rather tend to cut employment, investment, technology spending, marketing, and so on (Campello, Graham, & Harvey, 2009). They tend to be engaged in solving present problems. For these forms, surviving in the present becomes more important than planning for future courses of action. On the other hand, the entrepreneurs that have initial financial constraints can take out a loan. If an entrepreneur has invested the loan in the business that has to be paid back in the future, he/she needs to plan the future, thereby associating with managerial foresight.

The family business environment also can have an effect on the foresight of an entrepreneur. An entrepreneur or manager that grew up in a family in a business environment can shape the business approach differently than others. Similarly, the social network can also play the role of backup support and encourage plans for the future of a firm. A person can learn tacit knowledge from the family business environment and social network, which could be very useful in developing future strategies for the successful firm. Edelman (1992 quoted in Slaughter, 1996: 752) stated the following in this connection:

The freeing of parts of conscious thought from the constraints of an immediate present and the increased richness of social communication allow for the anticipation of future states and for planned behavior. With that ability come the abilities to model the world, to make explicit comparisons and to weigh outcomes; through such comparisons comes the possibility of reorganizing plans. Obviously, these capabilities have adaptive value.

Similarly, the business environment is becoming more and more challenging, unpredictable, and competitive. The analysis of the dynamics of the business environment is very influential in the foresight of the managers and thereby for the success of the firm. The managers or entrepreneurs need a good strategic response to environmental dynamics. In other words, the future course of action of an entrepreneur should take environmental dynamics into account. In a turbulent environment, the firms with foresight can perform better and take advantage of the available market earlier and more quickly than others (Ansoff, 1991). An entrepreneur or manager also should consider whether the business environment is dynamic, hostile or heterogeneous, and plan the future accordingly. The future strategy for a dynamic business environment can be different from that for a hostile environment and also from the heterogeneous environment. Therefore, the perceived task environment is expected to have an effect on managerial or entrepreneurial foresight.

Hence, in addition to the likely positive effect of managerial foresight on ME performance, managerial foresight also tends to mediate the effects of the entrepreneur-related factors, enterprise-related factors, and environment-related factors on the performance of the enterprises. In other words, entrepreneur-related factors, enterprise-related factors, and environment-related factors also have indirect effects on ME performance through managerial foresight.

2.5 Summary of the Review of the Literature

The micro-entrepreneurship is one of the key agendas in current development discourse around the world. Governments and several non-governmental organizations in the developing countries have recognized microenterprise development as a weapon to fight poverty, and scholars have conducted many studies assessing the impacts of microenterprises on poverty or the living standard of people. Despite many success stories, some studies have also commented on the performance of microenterprises. Critics are of the view that not all microenterprises are equally successful. There might be several factors that affect the performance of microenterprises or cause unequal success among microenterprises. Scholars have used economic, organizational, and entrepreneurial theories such as the resource-based view of the firm, entrepreneurial trait theory, network theory, role theory, behavioural theory and so on to explain the different aspects of enterprises. For example, many scholars have explained the personality traits of the entrepreneurs and their effect on performance. Similarly, the resource-based view of the firm is among the commonly-used theories to explain performance in relation to human capital, organizational capital and social capital resources.

The empirical studies have observed different kinds of associations among the factors and their effects on performance. Many scholars have reported the significant effects of several factors related to entrepreneurs (such as gender, age, education, experience, managerial skills and personality traits), enterprise (such as age, size, financial constraints, and type/sector) and the environment (family business environment, social network and task environment) on enterprise performance. Recently, studies have also observed a significant positive association between managerial foresight and firm performance. In addition to its direct effect on enterprise performance, scholars have also pointed out that age, education, skills, experiences and social network are some of the likely antecedents of managerial foresight. The literature still lacks sufficient empirical findings on the mediating role of managerial foresight in microenterprise performance. Table 2.1 is a brief review of the relationship between the independent and dependent variables along with a list of the supporting literature with the year of publication of relevant studies (in

chronological order) that have been reviewed to develop an integrated framework of the factors determining the performance of microenterprises for the purpose of this study.

Table 2.1 Summary Table of the Literature Showing the Relationship between the Independent Variables and Microenterprise Performance

Factors	Relationship	Supporting theories/literature/scholars /date of publication
Entrepreneur-related factors		Resource-based Theory/Behavioral Theory of Entrepreneur/ Entrepreneurial Traits Theory
Gender	+/-	Johnson and Storey (1985); Cooper et al. (1994); Rosa et al. (1996); Davies-Netzley (1998); Liedholm (2002); Davidsson and Honig (2003); Okurut (2008); Stam et al. (2008); Kim and Zhan (2011)
Age	+	Hoad and Rosko (1964); Birley and Norburn (1987); Box et al. (1994); Hisrich and Brush (1984); Box et al. (1995); Davidsson and Honig (2003); Stam et al. (2008)
Education	+	Hoad and Rosko (1964); Hisrich and Brush (1984); Birley and Norburn (1987); Davidsson (1989), Robinsson and Sexton (1994); Mengistae (1998); Praag et al. (2005); Okurut (2008); Segal et al. (2010)
Previous experience	+	Davidsson (1989), Robinsson and Sexton (1994); Box et al. (1995); Lee and Tsang (2001); Praag et al. (2005); Okurut (2008); Segal et al. (2010)
Managerial skills	+	Cooper, et al. (1994); Newton (2001); Burke et al. (2002); Industry Canada (2003); Carmeli and Tishler (2006); Veciana (2007); Aivazin et al. (2013); Bourne and Franco-Santos (2010)
Entrepreneurial traits and motivation		
Need for achievement	+	Carsruda et al. (1989); Babb and Babb (1992); Lee and Tsang (2001); Rauch and Frese (2007); Alam et al. (2011)

Need for autonomy	+	Carsrud et al. (1989); Burke et al. (2002); Rauch and Frese (2007); Alam et al. (2011)
Calculated risk-taking	+/-	Bromiley (1991); Naldi et al. (2007); Koellinger et al. (2007); Zhao et al. (2010); Kraus et al. (2012); Boermans and Willebrands (2012)
Internal locus of control	+	Evans and Leighton (1989); Boone et al. (1996); Boone et al. (2000); Lee and Tsang (2001); Veciana (2007)
Creative tendency	+	Lumpkin and Dess, (1996); Im and Workman (2004); Rauch and Frese (2007); Veciana (2007); Okpara (2007); Baldacchino (2009)
Enterprise-related factors		Resource-based Theory
Enterprise age	+/-	Arrow (1962); Stinchcombe (1964); Jovanovic (1982); Olson (1982); Ericson and Packes (1995); Majumdar (1997); Majumdar (1997); Mengistae (1998); Liedholm (2002); Masakure et al. (2009); Loderer and Waelchli (2009); Gebreeyesus (2009)
Enterprise size	+/-	Penrose (1959); Hall and Weiss (1967); Whittington (1980); Reinhard (1983); Poensgen and Marx (1985); Capon et al. (1990); Majumdar (1997); Mengistae (1998); Liedholm (2002); Ramasamy et al. (2005); Gebreeyesus (2009); Lee (2009)
Financial constraints	-	Cooper et al. (1994); Binks and Ennew (1996); (Winker, 1999); Dunn and Arbuckle (2001); Praag et al. (2005); Savignac (2008); Gebreeyesus (2009); Segarra and Teruel (2009)
Enterprise sector	+/-	Liedholm and Mead (1998); Lidholm (2002); Gebreeyesus (2009); Masakure et al. (2009)
Environment-related factors		Role Theory/Network Theory/Adaptive Perspective of Management Theory/Contingency Theory/Population Ecology Theory

Table 2.1 (Continued)

Factors	Relationship	Supporting theories/literature/scholars /date of publication
Family business environment	+	Henning and Jardim (1978); Scherer et al. (1989); Lentz and Leband (1990); Belcourt et al. (1991); Cooper et al. (1994); Veciana (2007); Teoh and Chong (2007); Fairlie (2009)
Social network	+	Birley, (1985); The World Bank (1985); Aldrich et al. (1987); Johannisson (1988); Coleman (1988); Sanders and Nee (1996); Burt (1997); Hill and McGowan (1997); Bruderl and Preisendorfer (1998); Bruderl and Preisendorfer (1998); Mengistae (1998); Shaw (1999); Lee and Tsang (2001); Gomez and Santor (2001); Praag et al. (2005); Veciana (2007); Stam et al. (2008); Dicko and Breton (2010); Ofori and Sackey (2010); Doh and Zolnik (2011); Alam et al. (2011)
Task environment		
Dynamism	+	Peterson and Berger (1971); Miller and Friesen(1982); Miller and Friesen (1982); Miler(1983); Awang et al.(2009); Wiklund et al. (2009)
Hostility	+	Miller and Friesen (1982); Miler (1983); Smart and Vertinsky (1984); Awang et al. (2009); Wiklund et al. (2009)
Heterogeneity	+	Chandler (1962); Miller and Friesen (1982); Miller (1983); Awang et al. (2009); Wiklund et al.(2009)
Managerial Foresight	+	Ansoff (1991); Martin (1995); Slaughter (1996); Jannek and Burmeister (2007); Antia, et al. (2010); Amsteus (2008). Amsteus (2011)
Managerial Foresight		
Gender	-/+	Kennard (2012); Pfaff (2014); Management Research Group (2013)
Age	+	Anita et al. (2010)

Table 2.1 (Continued)

Factors	Relationship	Supporting theories/literature/scholars /date of publication
Education/ Managerial Skills	+	Anderson (1997); Slaughter (1997); Amestues (2011)
Previous experience	+	Mackay and McKiernan (2004)
Enterprise size	-/+	Christensen (1997); Karagozoglu and Lindell (1998); Kraus et al. (2005); Rohrbeck and Schwarz (2013)
Financial constraints	-	Hill (2014); Clements (2014)
Social network	+/-	Edelman (1992); Anderson (1997)
Task environment	+/-	Ansoff (1991); Amestues (2011)

2.6 Conceptual Framework of the Study

After a comprehensive review and discussion of the related concepts, and the theories and findings of previous studies on the factors determining ME performance, the following integrated conceptual framework (Figure 2.1) was developed for the purpose of this study:

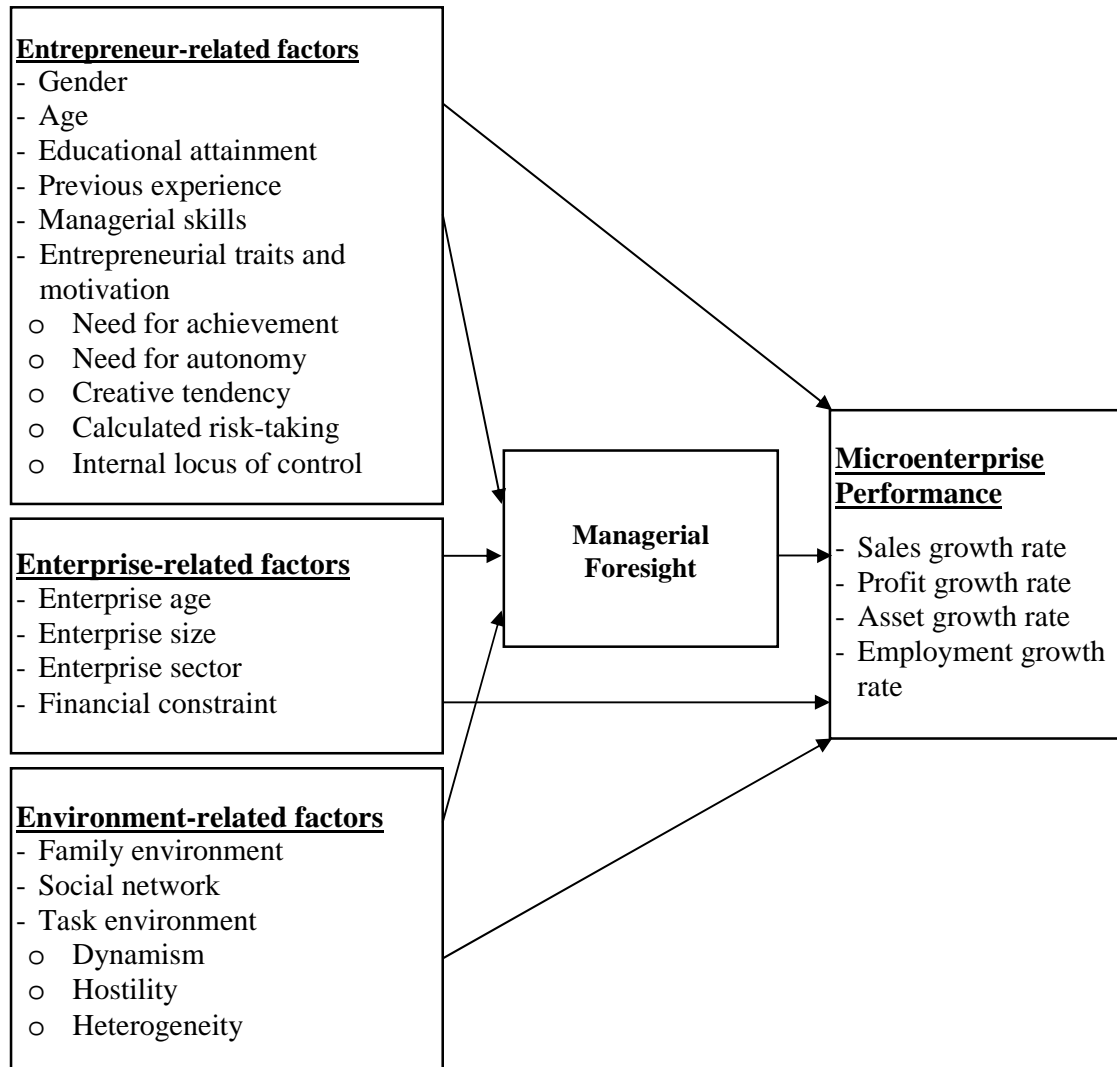


Figure 2.1 The Conceptual Framework for the Study Showing the Proposed Relationship Between Entrepreneur-, Enterprise-, and Environment-Related Factors, and Microenterprise Performance

2.7 Models Specification

To examine the effect of the entrepreneur-, enterprise- and environment-related factors on microenterprise performance, this study has run the following structural equations:

$$\text{PROFITGROWTH} = \beta_0 + (\beta_j \text{Entrepreneur}_j) + (\beta_k \text{Enterprise}_k) + (\beta_l \text{Environment}_l) + \beta_q \text{Managerialforesight}_q + \varepsilon_i \dots \dots \dots (1)$$

$$\text{SALESGROWTH} = \beta_0 + (\beta_j \text{Entrepreneur}_j) + (\beta_k \text{Enterprise}_k) + (\beta_l \text{Environment}_l) + \beta_q \text{Managerialforesight}_q + \varepsilon_i \dots \dots \dots (2)$$

$$\text{ASSETGROWTH} = \beta_0 + (\beta_j \text{Entrepreneur}_j) + (\beta_k \text{Enterprise}_k) + (\beta_l \text{Environment}_l) + \beta_q \text{Managerialforesight}_q + \varepsilon_i \dots \dots \dots (3)$$

$$\text{MANAGERIAL FORESIGHT} = \beta_0 + (\beta_j \text{Entrepreneur}_j) + (\beta_k \text{Enterprise}_k) + (\beta_l \text{Environment}_l) + \varepsilon_i \dots \dots \dots (4)$$

Where,

PROFITGROWTH PROFITGROWTH refers to the growth rate of the profit of microenterprises between 2068 and 2069.

SALESGROWTH SALESGROWTH refers to the growth rate of the sales of microenterprises between 2068 and 2069.

ASSETGROWTH ASSETGROWTH refers to the growth rate of the monetary amount of the value of asset of microenterprises between 2068 and 2069.

MANAGERIAL FORESIGHT MANAGERIALFORESIGHT refers to the behavior of micro-entrepreneurs in reviewing past experience, seeing and analyzing the present contingencies and preferred future state, and thereby developing a sustainable plan.

Entrepreneur: Entrepreneur refers to the vector of entrepreneur-related factors that include socio-demographic, personality traits and motivation related and entrepreneur-related factors: gender, age, educational attainment, experience, managerial skills, need for achievement, need for autonomy, internal locus of control, calculated risk-taking and creative tendency, and managerial foresight.

Enterprise:	Enterprise refers to the vector of enterprise-related factors that include enterprise age, enterprise size, enterprise sector and initial financial constraints.
Environment:	Environment refers to the vector of environment-related factors that include the family business environment, the network and the task environment.
β :	β_0 is a statistical symbol representing the intercept or constant. β in other cases represents the regression beta weight or coefficient for the respective independent variable.
ε_t :	ε_t refers to a random error term that represents the influence of other variables not included in the respective model.

2.8 Research Hypotheses

From the above theoretical and conceptual framework, the following multivariate research hypotheses are proposed for the purpose of the study:

1) Hypothesis 1

The entrepreneur-related factors: being male, older, having higher educational attainment, more experience, and greater managerial skills, greater need for achievement, greater need for autonomy, higher calculated risk-taking behavior, higher internal locus of control, greater creative tendency and managerial foresight; enterprise-related factors: higher age, bigger size, being in manufacturing or production sector, having lesser financial constraints; and environment-related factors: having family business environment, wider networks, more dynamic, hostile and heterogeneous task environment have positive effects on microenterprise performance: profit, sales and asset growth rates.

2) Hypothesis 2

The entrepreneur-related factors: being male, older, having higher educational attainment, more experience, and greater managerial skills, greater need for achievement, greater need for autonomy, higher calculated risk-taking behavior, higher internal locus of control, greater creative tendency and managerial foresight; enterprise-related factors: higher age, bigger size, being in manufacturing or

production sector, having lesser financial constraints; and environment-related factors: having family business environment, wider networks, more dynamic, hostile and heterogeneous task environment have positive effects on managerial foresight.

3) Hypothesis 3

Managerial foresight tends to mediate the effects of entrepreneur-, enterprise-, and environment-related factors on microenterprise performance positively.

2.9 Chapter Summary

The chapter presented a detailed review of the related theories and empirical findings of previous studies in the field of entrepreneurship and enterprise performance. Starting with a basic introduction of a review of the literature, the chapter, with an objective of providing a better understanding of microenterprise performance, described the concepts of entrepreneur, entrepreneurship, and microenterprise. As microenterprise performance is the main dependent variable of the study, the chapter also discussed the multidimensional measures of microenterprise performance. Further, as the main objective of the chapter is to build an integrated theoretical framework and thereby provide a conceptual framework for the study, the chapter presented a discussion on the different economic-, organization- and entrepreneurship-related theories and empirical findings with reference to the factors determining microenterprise performance. Based on the linkage established by the related theories and findings of empirical research across the world, the chapter presented a conceptual framework, model specification, and multivariate hypotheses for the purpose of the study.

CHAPTER 3

RESEARCH METHODS

3.1 Introduction

Research method refers to the systematic process of doing research. It describes the exact steps to be undertaken to address the research hypotheses or research questions (Rudestam & Newton, 2001). The methods of the research depend on the types of the research itself and the kinds of research questions. For instance, quantitative methods are more appropriate for descriptive, analytical and predictive types of research, whereas qualitative methods such as case studies, focus group discussion, observation, and phenomenology kinds of methods are more suitable for exploratory research. In recent days, the mixed-methods approach in research has gradually emerged in the field of social research. Mixed-methods research refers to adopting quantitative and qualitative methods of research in the study.

This chapter includes a detailed description of the research process used in this study, such as research design, unit of analysis, population, sample size, sampling method, operational definition of the terms, measurement and instruments, data-collection methods, data management, and the methods of analysis used in this study.

3.2 Research Design

The research design is a plan and strategy of investigation specifying the methods and procedures for collecting and analyzing the data to answer the research questions (Kerlinger, 1986; Zikmund, 2007 quoted in Pant, 2009). Furthermore, Pant (2009) stated that the research design is an organized and integrated system that specifies the methods and guides in collection and analysis of the data, the research instrument to be utilized, and the sampling plan to be followed.

This study adopts a mixed-methods research design. In a mixed-methods research, both qualitative and quantitative approaches are used. In other words, in the mixed-methods design, “the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches in a single study” (Teddlie & Tashakkori, 2009). The quantitative research method is the main method of research used in this study. The qualitative method is used to supplement some additional relevant information to make the analysis and discussion more comprehensive.

3.3 Unit of Analysis

The unit of analysis is the entity that is mainly analyzed in the study (Trochim, 2006). It manifests what is being studied. It can be at different levels, individual, organization, community, and so on. As the main objective of this study is to identify the factors determining microenterprise performance, the microenterprise is the principal unit of analysis in the study.

3.4 Quantitative Methods

Quantitative research methods are commonly used to describe, analyse, and predict the phenomenon of interest using numerical data randomly sampled from a large population (Pant, 2009). This method adopts the positivist paradigm. Positivists argue that social research should adopt the scientific method, which consists of the rigorous testing of hypotheses using quantitative data (Teddlie & Tashakkori, 2009). In this study, the quantitative method is used to describe the demographic characteristics of the micro-entrepreneurs and microenterprises, explore the level of performance of the microenterprises, and to identify the factors determining the performance of microenterprises.

The quantitative method uses the numerical data sampled from a large population and aims to generalize the findings to the population. The representativeness of the sample to the population, sampling methods, the operationalization of the variables, measurement of the constructs, the pre-test of the

instruments, the validity and reliability of the constructs or scales, the kinds of the instruments of data collection, and the techniques of data management and analysis are very important in the quantitative methods to draw valid conclusions from the study. These are briefly described below.

3.4.1 Population, Sample Size, and Sampling Frame

3.4.1.1 Population

As the study aims to identify the factors determining the performance of the MEs supported by the ME development program initiated by the government in a partnership approach with international organizations, the total population of the study comprises 51,182 MEs created and/or supported under the ME development program in 36 districts across Nepal.

3.4.1.2 Sample Size

Sample size indicates the generalizability of the findings to the population of the study. It also depends on the nature of the study. Different scholars have provided different methods of determining sample size. Some scholars emphasize representing the population, and others the method of the analysis and variables used in the study. For instance, Krejcie and Morgan (1970) provided a table that helps researchers to determine the appropriate sample size representing the population at a short glance. According to their table, if the total population of the study is 50,000, the required sample size is 381 and 382 for a population of 75,000. On the other hand, Cooper and Schindler (2003) argued that if the calculated sample size exceeds five percent of the population, the sample might be reduced without sacrificing precision. Meanwhile, Roscoe (1975) emphasized the types of research methods to determine the sample size. Roscoe stated a rule of thumb for determining the sample size for multivariate research, including multiple regression analysis where the sample size should be preferably 10 times or larger than the number of variables in the study (Krejcie & Morgan, 1970, Roscoe, 1975, Cooper & Schindler, 2003 quoted in Pant, 2009). The number of variables used in the study is 23. According to Krejcie and Morgan's table, for a study with a total population of 51,182, the minimum sample size is around 381. And according to the criteria of (Roscoe, 1975), for 23 variables, the minimum sample size is 230. Therefore, considering these suggestions

to determine the appropriate sample size for the research, and the view of larger samples reflecting a more reliable population mean, the minimum sample size proposed for this study was 500.

3.4.1.3 Sampling Frame

For the selection of the representative samples, 36 districts where a microenterprise development program has been implemented were grouped into three clusters: mountain, hill and terai region. From these clusters, three districts each representing an ecological belt such as Sindhupalchok representing the mountain belt, Parbat representing the hill belt, and Nawalparasi representing terai belt were selected (see Table 3.1).

Table 3.1 Sample Size for Sindhupalchok, Parbat, and Nawalparasi

Description	Sindhupalchok	Parbat	Nawalparasi	Total
Total number of microenterprises	1274	920	1007	3201
Estimated sample size	199	144	157	500
Final sample size	203	145	166	515

Around three years, after starting a business, is generally considered as the maturity period of a microenterprise. This study also considered the microenterprises that were begun before July 2010 and were active until the date of the survey, as the respondents of the study. A list of the micro-entrepreneurs was obtained from the MEDEP office records. The micro-entrepreneurs in the three districts were further stratified per enterprise type, caste/ethnicity, and gender. After stratifying the microenterprises into different strata, a proportionate-to-size sampling method was adopted to determine the final respondents for the study. Appendix A presents the stratified sampling frame for Sindhupalchok, Parbat, and Nawalparasi districts. Finally, a random number generating function in the Microsoft Excel program, =RANDBETWEEN(bottom,top), was run to obtain a particular respondent from the total list of micro-entrepreneurs.

3.4.2 Operational Definition

An operational definition refers to the operationalization of a concept. It provides a clear and detailed measure of the variable. In other words, it describes exactly how the variables are measured in a particular study. In quantitative research, the variables must be operationalized in order to obtain the data. Table 3.2 presents the operational definition of the variables used in this study.

Table 3.2 Operational Definition of the Variables

Variables	Operational definition
Microenterprise performance	Microenterprise performance is the main dependent variable of the study. Microenterprise performance refers to the multidimensional measures of the enterprise performance in terms of profit growth, employment growth, sales growth and asset growth of the microenterprise in the last one year. A recall method was used to obtain the data on the growth of these proxy measures (see Table 3.3).
Entrepreneur-related factors	<ul style="list-style-type: none"> - Entrepreneur-related factors refer to gender, age, educational attainment, experience, managerial skills, need for achievement, need for autonomy, internal locus of control, calculated risk-taking, creative tendency, and managerial foresight. - Gender is a dummy variable that refers to the gender of micro-entrepreneurs, particularly being male micro-entrepreneurs with reference to their female counterparts. - Age refers to the current age (in years) of the micro-entrepreneur. - Educational attainment refers to the level of education completed (in years) by the micro-entrepreneur. - Experience is a dummy variable referring to whether the micro-entrepreneur had experience before starting the current

Table 3.2 (Continued)

Variables	Operational definition
	<p>microenterprise.</p> <ul style="list-style-type: none"> - Managerial skills refer to the managerial skills of the entrepreneur. The items discussed by Viciano (2007) were adapted to measure the managerial skills of micro-entrepreneurs, which include the skill or the ability of an entrepreneur or manager to search and gather information, to identify opportunities, to deal with risks, to establish relationships and networks, to make decisions under uncertainty and ambiguity, leadership ability, and the ability to learn from experience (see Appendix B). - Need for achievement refers to the micro-entrepreneur's motivation oriented towards his/her achievement to become involved in the business. The widely-known scales developed by Caird and Johnson (1988) were adapted to measure this variable in the study (see Appendix B). - Need for autonomy refers to the micro-entrepreneur's motivation regarding his/her autonomy to become involved in the business. The widely-known scales developed by Caird and Johnson (1988) were adapted to measure this variable in this study (see Appendix B). - Internal locus of control refers to the micro-entrepreneur's personality trait concerning how confidently he or she seeks to exert control over life, draws on inner resources, and believes that it is up to him or her if he or she succeeds through his or her own efforts and hard work. The widely-known scales developed by Caird and Johnson (1988) were adapted to measure this variable (see Appendix B). - Calculated risk-taking refers to the micro-entrepreneur's nature

Table 3.2 (Continued)

Variables	Operational definition
Enterprise-related factors	<p>to seek information and expertise to evaluate if it is worth pursuing the opportunity that usually involves some risks. The widely-known scales developed by Caird and Johnson (1988) were adapted to measure this variable in the study (see Appendix B).</p> <ul style="list-style-type: none"> - Creative tendency refers to the micro-entrepreneur's imaginative approach to solving problems. The widely-known scales developed by Caird and Johnson (1988) were adapted here (see Appendix B). <p>Enterprise-related factors refer to the enterprise age, enterprise size, enterprise sector, and initial financial constraint.</p> <ul style="list-style-type: none"> - Enterprise age refers to the age of the microenterprise. This variable was measured in terms of years since establishment. - Enterprise size refers to the size of the microenterprise. This variable was measured in terms of the value of the assets in the microenterprise. - The enterprise sector of the microenterprise refers to manufacturing/production, and the service or business types of microenterprises. This factor was further operationalized into a dummy variable: DVPRODUCTION. DVPRODUCTION represents the microenterprise belonging to the manufacturing/production sector with reference to the service or business sector. - Initial financial constraint refers to the financial constraint that micro-entrepreneur had in initiating the microenterprise. This factor was further operationalized into a dummy variable: DVFCONST. DVFCONST indicates that the microenterprise had an initial financial constraint with

Table 3.2 (Continued)

Variables	Operational definition
Environment-related factors:	<p>reference to not having an initial financial constraint.</p> <p>Environment-related factors refer to the family business environment, social network, and task environment.</p> <ul style="list-style-type: none"> - Family business environment is a dummy variable referring to having a family business environment (where the micro-entrepreneurs had parents with a similar business) with reference to having no similar family business environment (started a new business). - Social network refers to the extent of the social network/capital or business networks or formal/informal network of the micro-entrepreneur, such as a network with suppliers, customers, financial institutions, social institutions, family, and relatives. The items discussed by Viciano (2007) were adapted to measure this variable in this study (see Appendix B). - Task environment represents the changing business environment around the enterprise. This factor was assessed in terms of the entrepreneur's perceived task environment in three dimensions: environmental dynamism, environmental heterogeneity, and environmental hostility. The scales developed by Miller and Friesen (1982) were adapted to measure this variable (see Appendix B).
Managerial foresight	<p>Managerial foresight in this study refers to the behavior of the micro-entrepreneur in reviewing past experience, seeing and analyzing present contingencies and the preferred future state, and thereby developing a sustainable course of actions. The scales developed by Amstutz (2011) were adapted to measure this variable in the study (see Appendix B).</p>

3.4.3 Measurement and Instruments

3.4.3.1 Scale Construction

A construct is an “abstract idea, underlying theme, or subject matter that one wishes to measure using survey questions” (Lavrakas, 2008). The constructs are also known as latent variables. They are measured using a certain set of questions, which are also called manifest or observed variables. In this study, the items used to measure each construct were taken from the review of the related literature or widely-known studies. It is to be noted that considering contextual relevance, the respondents’ level of understanding, and the results of the reliability analysis (Cronbach alpha) after the pre-test, the scales taken from other studies were revised (some items were removed or re-written or re-coded). This section describes the constructs, items, and scales used to measure the construct and its sources.

1) Measuring the Dependent Variable

Microenterprise performance is the main dependent variable of the study. As noted in the literature, microenterprise performance can be measured in terms of the average annual growth rate of employment, profit, sales, and assets. Table 3.3 presents the framework used to obtain the data on different dimensions of microenterprise performance from the micro-entrepreneurs.

Table 3.3 Measuring Level and Performance of MEs: Level and Growth Rate of Employment, Profit, Sales, and Assets of Microenterprises

ME Performance Measures	Level		Growth Rate
	2068 (April 2011-March 2012)	2069 (April 2012-March 2013)	
Employment (No. of people working)			
Profit (In NRs)			
Sales (In NRs)			
Assets (In NRs)			

2) Measuring the Independent Variables

As noted in the literature, the study includes entrepreneur-, enterprise-, and environment-related factors as the independent factors determining the microenterprise performance. Some of these factors such as perceived managerial skill, need for achievement, need for autonomy, creative tendency, calculated risk taking and internal locus of control, managerial foresight, environmental dynamism, environmental heterogeneity, environmental hostility, and social network, are the constructs or latent or hidden factors, and are measured by other observed or manifest variables. The study has adapted the items developed or suggested or discussed by several scholars in the field of entrepreneurship. The perceived managerial skills and social network of micro-entrepreneurs were measured by adapting the items discussed by Viciano (2007). The entrepreneurial motivation and enterprising or personality traits were measured by adapting the items suggested by Caird and Johnson (1988). Managerial foresight was measured by adapting the items suggested by Amstutz (2011). Last, the entrepreneur's perception towards the task environment was measured by adapting the items suggested by Miller and Friesen (1982). The original scales were pre-tested and modified as per the requirement of the study need and context. Appendix B presents a list of the constructs and respective items used in the study.

3.4.3.2 Pre-Test

In survey method research, pretesting the questionnaire or survey schedule is very crucial. This is done in order to ensure the clarity of the questions used in the schedule. It helps to make the questionnaire/survey schedule more specific, detailed, and friendly to the respondents so that data that are more accurate can be collected from the respondents. The respondents of the pre-test should be similar to the sample of the study (Pant, 2009). In the case of this study, a pretesting of the survey schedule was conducted with 25 micro-entrepreneurs in the study area (Parbat district) and the reliability of the scales was tested before finalizing the survey schedule for final data enumeration. The questions or items taken from other studies to measure the constructs or hidden factors were revised after the pre-test.

3.4.3.3 Validity

Validity refers to the extent to which the concept truly measures what it was intended to measure (Pant, 2009). It determines the correctness and truthfulness of the research results. There are three types of validity: content validity, construct validity, and criterion-related validity. Content validity refers to the adequacy of the measures to the concept. Construct validity refers to the appropriateness of a specific measuring device or procedure to measure the theoretical concept. It is often discussed in terms of two types: convergent validity (general agreement among the ratings) and discriminate validity (the unrelated measures should not be related). Criterion-related validity refers to the accuracy of the measurement (Pant, 2009). The scales used in this study were based on related theories and well-known empirical studies. Moreover, factor analysis was run to derive the latent variables in the study.

1) Factor Analysis

“Factor analysis is an interdependence technique whose primary purpose is to define the underlying structure among the variables in the analysis” (Hair, Black, Babin, & Anderson, 2010: 94). It helps with data summarization and data reduction. There are two types of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA refers to the inductive strategy of determining the factor structure by examining the correlations between the variables. On the other hand, CFA refers to the deductive strategy, which aims to determine whether the hypothesized model fits the empirical data (Meyers, Gamst, & Guarino, 2006).

A strong conceptual foundation, measure of sampling adequacy (MSA), multivariate normality, absence of the identity matrix, loadings are the key assumptions of factor analysis (Meyers, et al., 2006; Hair et al., 2010; Tabachnick & Fidell, 2013). The Kaiser-Meyer-Olkin (KMO) measure is examined for sampling adequacy, and Bartlett’s test of sphericity is examined for multivariate normality and the absence of an identity matrix. A KMO measure greater than .7 ensures that the sampling that is moderately adequate and greater than .5 is useful for conducting the factor analysis. Bartlett’s test of sphericity significant at $<.05$ and confirms multivariate normality and the absence of the identity matrix. Moreover, factor loadings are examined to confirm the usefulness of the observed items for the factor.

Opinions on the criteria of the loadings to be interpreted vary among the scholars. A greater loading indicates a better measure of the factor. Tabachnick and Fidell (2013: 654), well-known scholars of multivariate statistics in their latest book entitled “Using Multivariate Statistics,” stated, “as a rule of thumb, only variable with loadings of .32 and above are interpreted.”

In this study, some of these factors, such as perceived managerial skill, need for achievement, need for autonomy, creative tendency, calculated risk taking and internal locus of control, managerial foresight, and social network, are the latent factors that were measured by the observable or manifest variables. Descriptive statistics were produced to examine the distribution of the observed variables, and correlation matrices were produced to examine the correlation among them. Maximum likelihood was the method of the factor extraction. Regression factor scores were produced to derive the construct or latent variable. The KMO measure was examined for sampling adequacy for factor analysis, and Bartlett’s test of sphericity was examined for multivariate normality and the absence of the identity matrix so that the usefulness of the observed variables for the factor analysis could be confirmed. Moreover, the factor loadings were examined to confirm the usefulness of the observed items for the factor. The observed items having factor loadings less than .32 were excluded from the factor and the factor analysis was re-run to produce the factor score to be used in the study.

(1) Factor Analysis of Need for Achievement

Need for achievement is one of the entrepreneurial motivational factors that tend to determine microenterprise performance. This study has adapted the observable items developed by Caird and Johnson (1988) to measure the level of need for achievement (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being greater than five implied that the micro-entrepreneurs tended to agree to some extent that their motivation towards being a micro-entrepreneur was needed for achievement. The skewness and kurtosis statistics being within minus one

to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.4 presents the factor loadings of the observed items and relevant statistics for the factor analysis. The KMO measure being greater than .7 ensured that the sampling was moderately adequate for conducting the factor analysis. Similarly, the Bartlett test of sphericity being significant at <.05 confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of all the observed items for the factor (see Table 3.4).

Table 3.4 Factor Matrix for Need for Achievement

Observable items	Factor loadings
When I am faced with a challenge I think more about the results of succeeding than the effects of failing.	.666
I get up early, stay late or skip meals if I have a deadline for some work that needs to be done.	.661
I like challenges that stretch my abilities and get bored with things I can do quite easily.	.627
I find it difficult to switch off from work completely.	.626

Note: KMO statistics = .735, Bartlett Test of Sphericity: $\chi^2= 423.568$, df. 6, $p<.001$;
Variance explained = 56.18%; Extraction Method: Maximum Likelihood;
Factor Scores Method: Regression

(2) Factor Analysis of Need for Autonomy

Need for autonomy is one of the entrepreneurial motivational factors that tend to determine microenterprise performance. This study has adapted the observable items developed by Caird and Johnson (1988) to measure the level of need for autonomy (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being greater than five indicated that the micro-entrepreneurs tended to agree to some extent that their motivation towards being a micro-entrepreneur was need for autonomy. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.5 presents the factor loadings of the observed items and relevant statistics for the factor analysis. The KMO measure being greater than .5 ensured that the sampling was useful for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at <.05 confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all observed items confirmed the usefulness of the observed items for the factor (see Table 3.5).

Table 3.5 Factor Matrix for Need for Autonomy

Observable items	Factor loadings
I usually do what is expected of me and follow instructions carefully.	.707
At work, I often take over projects and steer them my way without worrying about what other people think.	.577
I rarely need or want any assistance and like to put my own stamp on work that I do.	.500

Note: KMO statistics = .632 Bartlett Test of Sphericity: $\chi^2 = 171.475$, df. 3, $p < .001$;
 Variance Explained = 56.735%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression

(3) Factor Analysis of Creative Tendency

Creative tendency is one of the entrepreneurial personality traits that tend to determine microenterprise performance. This study has adapted the observable items developed by Caird and Johnson (1988) to measure the level of the creative tendency of micro-entrepreneurs (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five indicated that the micro-entrepreneurs tended to agree to some extent that they had a creative tendency. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.6 presents the factor loadings of the observed items and relevant statistics for the factor analysis of creative tendency. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.6).

Table 3.6 Factor Matrix for Creative Tendency

Observable items	Factor loadings
Sometimes people find my ideas unusual.	.649
Sometimes I have so many ideas that I feel pressurized.	.540
Other people think that I'm always making changes and trying out new ideas.	.528
I prefer to be quite good at several things rather than very good at one thing.	.495

Table 3.6 (Continued)

Observable items	Factor loadings
I like to spend time with people that have different ways of thinking.	.320

Note: KMO statistics = .737 Bartlett Test of Sphericity: $\chi^2= 263.681$, df. 10, $p<.001$;
 Variance Explained = 40.77%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression

(4) Factor Analysis of Calculated Risk Taking

Calculated risk taking is one of the entrepreneurial personality traits that tend to determine microenterprise performance. This study has adapted the observable items developed by Caird and Johnson (1988) to measure the level of calculated risk taking of micro-entrepreneurs (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five implied that the micro-entrepreneurs tended to agree to some extent that they had calculated risk-taking entrepreneurial traits. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.7 presents the factor loadings of the observed items and relevant statistics for the factor analysis of calculated risk taking. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.7).

Table 3.7 Factor Matrix for Calculated Risk Taking

Observable items	Factor loadings
Before I make a decision I like to have all the facts no matter how long it takes.	.644
If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it.	.607
I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy.	.603
Before making an important decision I prefer to weigh the pro's and con's fairly quickly rather than spending a long time thinking about it.	.574
I like to test boundaries and get into areas where few have worked before.	.546
If there is a chance of failure I would rather not do it.	.445
I like to start interesting projects even if there is no guaranteed of payback for the money or time I have to put in.	.401

Note: KMO statistics = .791 Bartlett Test of Sphericity: $\chi^2 = 673.028$, df. 21, $p < .001$;
 Variance Explained = 54.85%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression

(5) Factor Analysis of Internal Locus of Control

Internal locus of control is one of the entrepreneurial personality traits that tend to determine microenterprise performance. This study has adapted the observable items developed by Caird and Johnson (1988) to measure the

level of internal locus of control among micro-entrepreneurs (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five indicated that the micro-entrepreneurs tended to agree to some extent that they had an internal locus of control kind of entrepreneurial traits. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.8 presents the factor loadings of the observed items and relevant statistics for the factor analysis of internal locus of control. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.8).

Table 3.8 Factor Matrix for Internal Locus of Control

Observable items	Factor loadings
I try to accept that things happen to me in life for a reason.	.742
When I make plans I nearly always achieve them.	.717
I get what I want from life because I work hard to make it happen.	.688
For me, getting what I want is a just reward for my efforts.	.560
People's failures are rarely the result of their poor judgment.	.472
Being successful is a result of working hard; luck has little to do with it.	.463

Table 3.8 (Continued)

Observable items	Factor loadings
Capable people that fail to become successful have not usually taken chances when they have occurred.	.456

Note: KMO statistics = .773 Bartlett Test of Sphericity: $\chi^2 = 964.199.028$, df. 21, $p < .001$; Variance Explained = 60.215%; Extraction Method: Maximum Likelihood; Factor Scores Method: Regression

(6) Factor Analysis of Managerial Foresight

Managerial foresight is one of the entrepreneurial factors that tend to determine microenterprise performance. This study has adapted the observable items developed by Amsteus (2011) to measure the level of managerial foresight in micro-entrepreneurs (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The results showed that around 40 percent of the plans of the micro-entrepreneurs had to be revised within two years or in other words, around 60 percent of the plans stretched for at least two years into the future; some of the parts of the objectives had to be revised within two years or in other words most of the objectives stretched for at least two years into the future; around 20 percent of the time was spent on analyzing facts related to the past; and some of the plans were analyzed in detail. However, the micro-entrepreneurs were neutral in using the facts related to the past in decision making, meaning that they neither agreed nor disagreed about examining the data that had anything to do with the past. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.9 presents the factor loadings of the observed items and relevant statistics for the factor analysis of managerial foresight. The KMO

measure being around .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.9).

Table 3.9 Factor Matrix for Managerial Foresight

Observable items	Factor loadings
How big a part of the objectives you have as a micro-entrepreneur has to be revised within 2 years into the future?	.827
What percentage of the plans that you create as a micro-entrepreneur has to be revised within 2 years into the future?	.588
How many of the plans you make as a micro-entrepreneur do you analyze in detail?	.484
To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?	-.402
What percentage of the time that you work as a manager/entrepreneur do you spend analyzing facts that relate to the past?	.355

Note: KMO statistics = .696 Bartlett Test of Sphericity: $\chi^2= 374.002$, df. 10, $p<.001$;
 Variance Explained = 43.365%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression

(7) Factor Analysis of Managerial Skills

Managerial skills are one of the entrepreneurial factors that tend to determine microenterprise performance. This study has included the items

of managerial skills as discussed by Viciano (2007) (see Appendix B). Factor analysis was run to derive factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five implied that the micro-entrepreneurs tended to agree to some extent that they had managerial skills. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.10 presents the factor loadings of the observed items and relevant statistics for the factor analysis of managerial skills. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.10).

Table 3.10 Factor Matrix for Managerial Skills

Observable items	Factor loadings
To what extent do you agree that you are good in establishing relationships/networks?	.769
To what extent do you agree that you are good in identifying microenterprise business opportunities?	.732
To what extent do you agree that you are good in dealing with microenterprise-related risks?	.731
To what extent do you agree that you are good in making decisions under uncertainty while doing microenterprise business?	.728

Table 3.10 (Continued)

Observable items	Factor loadings
To what extent do you agree that you are good in searching and gathering microenterprise-related information?	.694
To what extent do you agree that you are good in learning from experience?	.623

Note: KMO statistics = .875 Bartlett Test of Sphericity: $\chi^2= 1209.286$, df. 15, $p<.001$;
 Variance Explained = 59.07%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression

(8) Factor Analysis of Environmental Dynamism

Environmental dynamism is one of the environment-related factors that tend to determine microenterprise performance. This study has adapted the observable items developed by Miller and Friesen (1982) to measure the perception of micro-entrepreneurs toward environmental dynamism (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five or greater than four indicated that the micro-entrepreneurs tended to agree to some extent that the task environment was dynamic. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.11 presents the factor loadings of the observed items and relevant statistics for the factor analysis of environmental dynamism. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix.

The factor loadings being greater than or equal to .32 for all the observable items confirmed the usefulness of these observed items for the factor (see Table 3.11).

Table 3.11 Factor Matrix for Environmental Dynamism

Observable items	Factor loadings
It is very difficult to forecast the demand and consumer tastes of the microenterprise products/services.	.799
It is very difficult to predict the actions of the competitors.	.794
The microenterprise products/services are becoming obsolete very fast.	.735
The production/services technology of my microenterprise are to be changed very often to fit the market environment.	.685
I must change the marketing practices of my microenterprise products and services to keep up with the market and competitors.	.649

Note: KMO statistics = .827 Bartlett Test of Sphericity: $\chi^2 = 1047.597$, df. 10, $p < .001$; Variance Explained = 63.06%; Extraction Method: Maximum Likelihood; Factor Scores Method: Regression

(9) Factor Analysis of Environmental Heterogeneity

Environmental heterogeneity is one of the environment-related factors that tend to determine microenterprise performance. This study has adapted the observable items developed by Miller and Friesen (1982) to measure the perception of micro-entrepreneurs toward environmental heterogeneity (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around five indicated that the micro-entrepreneurs tended to agree to some extent that the task environment was heterogeneous. The skewness and

kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.12 presents factor loadings of the observed items and relevant statistics for the factor analysis of environmental heterogeneity. The KMO measure being greater than .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at <.05 confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observable items confirmed the usefulness of these observed items for the factor (see Table 3.12).

Table 3.12 Factor Matrix for Environmental Heterogeneity

Observable items	Factor loadings
The nature of the competition varies highly.	.867
Market dynamism and uncertainty vary highly.	.804
Customer's buying habit varies highly.	.785
The microenterprise business environment is very diversified.	.571

Note: KMO statistics = .773 Bartlett Test of Sphericity: $\chi^2= 891.864$, df. 6, $p<.001$;
Variance Explained = 68.19%; Extraction Method: Maximum Likelihood;
Factor Scores Method: Regression

(10) Factor Analysis of Environmental Hostility

Environmental hostility is one of the environment-related factors that tend to determine ME performance. This study has adapted the observable items developed by Miller and Friesen (1982) to measure the perception of micro-entrepreneurs toward environmental heterogeneity (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and

bivariate association between the observed items. The mean statistics of the first observed item being around five indicated that the micro-entrepreneurs tended to agree to some extent that the market environment did not threaten the survival of their enterprise; however, they did experience the threat of tough price competition. The mean statistics of next three observed items being around four implied that micro-entrepreneurs had a neutral opinion regarding the high threats of competition in quality, diminishing market for products, and scarce supply of labor or raw materials. The last observed item, having mean statistics around three, denoted that micro-entrepreneurs disagreed to some extent on the high threats of government interference. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.13 presents the factor loadings of the observed items and relevant statistics for the factor analysis of environmental hostility. The KMO measure being around .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, the Bartlett test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.13).

Table 3.13 Factor Matrix for Environmental Hostility

Observable items	Factor loadings
Dwindling/diminishing market for products presents a high threat	.806
Competition in microenterprise product/service quality presents a high threat.	.775
Scarce supply of labor/material presents a high threat	.702
Tough price competition presents a high threat	.664
Government interference presents a high threat	.649

Note: KMO statistics = .782 Bartlett Test of Sphericity: $\chi^2= 1094.964$, df. 10, $p<.001$;
Variance Explained = 61.392%; Extraction Method: Maximum Likelihood;
Factor Scores Method: Regression

(11) Factor Analysis of Social Networks

The social network is also one of the environment-related factors that tend to determine microenterprise performance. This study has adapted the observable items for social network of micro-entrepreneurs as discussed by Viciano (2007) (see Appendix B). Factor analysis was run to derive the factor from the set of observed items.

Before running the factor analysis, descriptive and correlation statistics were produced to examine the distribution of the variable and bivariate association between the observed items. The mean statistics of all the observed items being around or more than five implied that the micro-entrepreneurs tended to agree to some extent, or more, that they had a good relationship in the social network. The skewness and kurtosis statistics being within minus one to plus one confirmed the acceptable level of normality of the observed items. The correlation matrix showed that the observed items also had a significant correlation among them (see Appendix C).

Table 3.14 presents the factor loadings of the observed items and relevant statistics for the factor analysis of social network. The KMO measure being around .7 ensured moderate sampling adequacy for conducting the factor analysis. Similarly, Bartlett's test of sphericity being significant at $<.05$ confirmed the multivariate normality and the absence of the identity matrix. The factor loadings being greater than or equal to .32 for all the observed items confirmed the usefulness of these observed items for the factor (see Table 3.14).

Table 3.14 Factor Matrix for Social Network

Observable items	Factor loadings
Strength of the relation/tie-up with friends	.871
Strength of the relation/tie-up with relatives	.856
Strength of the relation/tie-up with neighbors	.844
Strength of the relation/tie-up with family members	.775
Strength of the relation/tie-up with financial institutions	.699
Strength of the relation/tie-up with social institutions	.674
Strength of the relation/tie-up with public agencies	.628
Strength of the relation/tie-up with customers	.438
Strength of the relation/tie-up with suppliers	.360

Note: KMO statistics = .864 Bartlett Test of Sphericity: $\chi^2= 2848.421$ df. 36, $p<.001$;
 Variance Explained = 69.325%; Extraction Method: Maximum Likelihood;
 Factor Scores Method: Regression.

3.4.3.4 Reliability

As with validity, the reliability of the measurement device is also equally important in social science research. Reliability refers to the consistency of the measurement device in producing the same result at different points of time. Pant (2009) stated that reliability refers to how accurately measurement scores are reproduced with repeated measurements of the same scale. There are different methods of testing reliability: Cronbach's alpha, test-retest reliability, alternative-form reliability, and split-half reliability. The Cronbach alpha statistics if greater than $>.60$ indicates an acceptable level, $>.70$ indicates a good level, and $>.90$ indicates an excellent level of reliability of the scales for measuring the construct.

In this study, the reliability of the internal consistency of the scales used in the pre-test was tested through the Cronbach alpha value in SPSS. Table 3.15 presents the items used to form a construct along with the respective Cronbach alpha value. The Cronbach alpha value being greater than $.6$ confirmed the reliability of the scale used in the study at an acceptable level (see Appendix D for the detailed statistics used for the reliability analysis).

Table 3.15 Results of the Reliability Analysis of the Scales (N = 25).

Items	Cronbach alpha ()
Managerial skills	.934
Managerial foresight	.735
Social network	.916
Need for achievement	.731
Need for autonomy	.651
Creative tendency	.709
Calculated risk taking	.692
Internal locus of control	.778
Environmental dynamism	.745
Environmental heterogeneity	.648
Environmental hostility	.787

Moreover, in addition to the pre-test, the test of construct validity, and reliability, the data enumerators were oriented toward how to collect the data from the field/respondents. They were trained to be explicit and keep an open mind regarding the socio-cultural context, and the norms and values in a particular area. The interviewees were informed in advance about the objectives of the survey and were asked for verbal consent for the data. The respondents were encouraged to ask any questions if they were not clear about answering, and they were assured about the confidentiality of their responses.

3.4.4 Data-Collection Methods

3.4.4.1 Primary Data Collection

The first-hand data collected by the researcher as per the requirement of the study are called primary data. For the purpose of this study also, after pretesting the structured survey schedule, the face-to-face survey method was adopted to collect the primary quantitative data from the micro-entrepreneurs. Face-to-face survey is the

oldest method of primary data collection and yields the highest response rates (Newcomer and Triplett, 2004: 265).

3.4.4.2 Secondary Data Collection

In addition to the primary quantitative data, the study also used secondary data in the analysis. The secondary data were obtained from the office of the Micro-Enterprise Development Program, Kathmandu, Nepal.

3.4.5 Data Management

The primary data obtained from the surveys with the help of the structured survey schedule were scrutinized, coded, recoded, or reversed where necessary and entered into the statistical computer package (Statistical Package for Social Sciences - SPSS).

After entering the data into the SPSS program, a number of steps were employed for further data management and analysis. The basic assumptions of statistics were examined. Violation of any of the assumptions of statistics in the data was considered a serious threat to drawing a reliable inference. Every variable in the study was confirmed for non-violation of statistical assumptions. To confirm the non-violation of the statistical assumptions, the following steps were followed:

3.4.5.1 Handling Missing Data and Outliers

Missing data refers to the unavailability of valid values in one or more variables. It is a challenge for a researcher to address the problem of missing data. The presence of missing data, from a practical standpoint, arises from the problem of the reduction of sample size, and from a substantive perspective, non-random missing data could be the problem of biased statistical results (Hair et al., 2010).

In the case of this study, since a face-to-face survey was conducted, missing data of the non-response type were not expected much. However, frequency distribution tables were produced to check the missing cases in the dataset. The procedural errors were corrected by re-checking and correcting the data from the survey questionnaire. There were very few genuinely missing cases found in the dataset, and these were replaced by the mean value of the available data.

Outliers refer to the extremely high or low values that are substantially different from other values in a particular variable. The presence of outliers, from a

practical standpoint, can have many effects on empirical analysis. However, the outliers from the substantive perspective must be viewed in light of how representative they are of the population (Hair et al., 2010). The outliers were checked using box plots, stem and leaf techniques, scatter plots, and so on. The outliers found in the data were checked to see if they were due to a procedural error. The procedural errors were corrected by re-checking and correcting the data from the survey schedule. The genuine outliers were replaced by the nearest smaller value.

3.4.5.2 Normality

Normality is one of the most basic assumptions of statistical analysis. It refers to the normal distribution of the continuous or numerical variables. Hair et al. (2010: 71) stated, "If the variation in the normal distribution is sufficiently large, all resulting statistical tests are invalid, because normality is required to use the F and t statistics." Univariate normality is usually examined using histograms, skewness and kurtosis statistics, the Kolmogorov-Smirnov test, and the Shapiro-Wilk test. The normal distribution of the data in the histogram is expected to have a bell shape curve, and or the skewness and kurtosis statistics within the range of minus one to plus one (-1 to +1) to ensure the non-violation of univariate normality, which is a conservative type of rule of thumb. However, the range of minus two to plus two (-2 to +2) is also a widely-accepted range of skewness and kurtosis statistics to consider the normal distribution of variables. Furthermore, the statistical significance of the Kolmogorov-Smirnov test and Shapiro-Wilk test at a $p < .001$ indicates a possible bivariate normality violation (Hair et al., 2010).

In this study, the univariate normality of the data was examined through the histograms with a normal curve, and skewness and kurtosis statistics. The data ensured the skewness and kurtosis statistics mostly within the range of minus one to plus one (see 4.1 Univariate Analysis). Moreover, the multivariate normality of the data was examined, and non-violation of the assumption was ensured through Normal-PP plot, the histogram of the standardized residuals, and scatter plots (see Appendix E).

3.4.5.3 Homoscedasticity

The assumption of homoscedasticity suggests that quantitative dependent variable, have equal levels of variability across a range of predictor

variables (numerical and categorical variables). Hair et al. (2010: 74) mentioned, “Homoscedasticity is desirable because the variance of the dependent variable being explained in the dependence relationships should not be concentrated on only a limited range of independent values.” Violation of this assumption results in heteroscedasticity. This can be examined through scatterplots. In a scatterplot, it is seen as elliptical distribution points. In multiple regression, the equal variance is assumed among the regression standardized residuals. The scatterplot of the regression standardized residuals and regression standardized predicted values, showing the majority of the residuals distributed in a rectangular form with the pattern of almost equal difference below and above the horizontal straight line from zero, ensures that the assumption of homoscedasticity is acceptable. If heteroscedasticity is identified, the transformation of the respective variables into LOG or SQRT or INVERSE may help to solve the problem.

In this study, as multiple regression is the main method of analysis, homoscedasticity was examined, and non-violation of the assumption was ensured through the scatter plot of regression standardized residuals and regression standardized predicted values (see Appendix E).

3.4.5.4 Linearity

Linearity refers to a linear relation between the variables used in the study. Linearity can be of two types: bivariate and multivariate linearity. The bivariate linearity assumption is examined through bivariate scatterplots. Meyers et al. (2006: 69) stated, “Variables that are both normally distributed and linearly related to each other will produce scatter plots that are oval shaped or elliptical.” The multivariate linearity assumption can be examined through the scatter plot of the regression-standardized residuals and regression standardized predicted values, where the plot showing the residuals in a linear pattern below and above the horizontal straight line from zero ensures non-violation of the assumption of multivariate linearity. If the violation of the linearity assumption is detected, the transformation of the respective variables into LOG or SQRT or INVERSE may help to solve the problem.

In this study also, the bivariate linearity and multivariate linearity were examined, and non-violation of the assumption was ensured through the bivariate

scatterplots, and the scatter plot of the regression-standardized residuals and regression standardized predicted values respectively (see Appendix E).

3.4.5.5 Multicollinearity

Multicollinearity refers to a correlation between the independent variables in the study. In multiple regression, the violation of multicollinearity assumption indicates a very strong correlation between the independent variables in the model that is not assumed to exist. The correlation matrix of the independent variables is commonly used to observe this problem. The Pearson correlation coefficient being $>.75$ indicates problem of multicollinearity. Moreover, the tolerance value of all variables being less than $.1$ or the VIF (Variance Inflation Factor) statistics being >10 also indicates a problem of multicollinearity (Hair et al., 2010). If a problem is detected, the independent variables with high correlation can be combined, or one of the variables can be removed from the model as well.

In this study also, the assumption of multicollinearity was examined, and non-violation of the assumption was ensured through the correlation matrix and VIF and tolerance statistics (see 4.2.9 Correlation Analysis and 4.3 Multivariate Inferential Analysis).

3.4.5.6 Independence of Error

In regression it is assumed that “the predicted value is not related to any other prediction” (Hair et al., 2010:185). In other words, in statistical analysis, the errors or residuals are assumed to be independent of each other. Independence of the error is also widely known as a lack of autocorrelation. The independence of the error or autocorrelation can be measured Durbin-Watson statistics (Tabachnick & Fidell, 2013). Durbin-Watson statistics that are greater than one and less than three indicate an acceptable range of autocorrelation of errors or residuals, therefore ensuring the non-violation of the assumption of independence of error. The Durbin-Watson statistics presented in the summary results of the regression tables confirmed the non-violation of the independence of error or lack of autocorrelation assumption in this study (see 4.3 Multivariate Inferential Analysis).

3.4.6 Methods of Data Analysis

In this study, the quantitative data have been analyzed in three steps: univariate analysis, bivariate analysis, and multivariate inferential analysis.

3.4.6.1 Univariate Analysis

Descriptive statistics are used to describe the phenomenon being studied. They are commonly used to describe only, but cannot be used for the generalization and prediction. In this study, the univariate analysis has been used to describe the demographics of the micro-entrepreneurs and microenterprises using the frequency or percentage distribution, minimum, maximum, mean, standard deviation, skewness, kurtosis and so on of the respective variables (see 4.1 Univariate Analysis).

3.4.6.2 Bivariate Analysis

Bivariate analysis of the data refers to the analysis of the relationship between two variables. It provides a basic picture of the association among the variables. This study has examined the bivariate association between the variables through cross tabulation, chi-square test, t-test and Pearson's correlation analysis (see 4.2 Bivariate Analysis).

3.4.6.3 Multivariate Inferential Analysis

Multivariate inferential statistics are used to make an inference about a large population from the observation of the sample representing the population. These statistics are used to generalize and forecast or make a prediction. In this study, for the multivariate inferential analysis, multiple regressions and path analysis were run to examine the direct and indirect effects of each independent variable on the microenterprise performance. Multiple regression is useful to identify the factors affecting the dependent variable. Since microenterprise performance is multidimensional or consisting four dimensions—profit growth, sales growth, asset growth, and employment growth—multiple regression was run for each dimension. A robust analysis of the effects of the independent variables on the microenterprise performance was carried out by comparing the results among different dimensions of the performance. After running the multiple regression and obtaining the required regression beta coefficients, path analysis was conducted to examine the direct and indirect or mediating effects of the various entrepreneur-, enterprise-, and

environment-related factors on microenterprise performance through the managerial foresight variable.

3.5 Qualitative Methods

Qualitative methods refer to “the techniques associated with the gathering, analysis, interpretation, and presentation of narrative information” (Teddlie & Tashakkori, 2009: 6). It is guided by the constructivist paradigm, which suggests that “researchers individually and collectively construct the meaning of the phenomena under investigation” (Teddlie & Tashakkori, 2009: 6). Unlike the quantitative research method, the qualitative research method focuses on processes, understanding, and beliefs. This method fits best the exploration of detailed information on the phenomenon of interest.

In the context of this study, the qualitative methods have been used only to supplement the quantitative results with more detailed qualitative information and evidence, thus linking the quantitative results to the context.

3.5.1 Data-Collection Methods and Instruments

3.5.1.1 Primary Data Collection

In this study, apart from employing the questionnaire survey to enumerate the quantitative data, some case studies were collected and focus group discussions and interviews were also conducted to obtain the qualitative data useful for the purpose of this study. The qualitative data were collected in two stages. In the first stage, some useful case studies were collected, and some focus group discussions and interviews were conducted during the questionnaire survey. The objective of collecting the case studies and or conducting focus groups discussions and interviews during the questionnaire survey was to obtain overall qualitative information and or specific evidence on microenterprise performance. The second stage of obtaining qualitative information was conducted after the preliminary analysis of the quantitative data. The main objective of the obtaining qualitative information in the second stage was to explore the contextual relevance and rationale of the findings of the quantitative data. The preliminary results were presented and discussed with

microenterprise development program facilitators and in the groups of micro-entrepreneurs. Each method and instrument of qualitative data collection is briefly described below.

1) Case Studies

Case studies provide much richer information on why and how change occurs. Case studies also help to test counter-factual reasons (or rival explanations) for changes in key variables and to investigate complex or unexplained phenomena: “The advantage of case studies is that researchers who utilize them can deal with the reality behind appearances, with contradictions and dialectical nature of social life, as well as with a whole that is more than the sum of its parts” (Sjoberg, Williams, Vaughan, & Sjoberg, 1991 quoted in Sokolovsky, 1996: 282).

In the context of this study, the researcher himself collected a number of mini case studies representing different types of enterprises such as agro-based, forest-based, service-based, and so on in three districts (Sindhupalchok, Parbat and Nawalparasi), each representing an ecological region; namely, mountain, hill and terai/plain region. The micro-entrepreneurs were informed about the objectives of the case study and were asked for their verbal consent in advance. The participants were also asked for their permission to record an interview for the case studies on tape; thus, the interviews were recorded by voice recorder. Micro-entrepreneurs were asked to briefly tell their life history, including their demographics such as their name, gender, age, education, family background; what their life was like before joining the microenterprise development program; why they started the microenterprise; what the process was; how the microenterprise has helped them in their family; what the performance of the microenterprise was over time; what challenges they have faced in the business; and what they think and how they feel about the microenterprise development program. The useful mini case studies were included to provide richer information in the discussion of the quantitative results in the study.

2) Focus Group Discussions (FGDs)

A focus group refers to “a group of individuals selected and assembled by researchers to discuss and comment, from personal experience, on the research subject” (Pant, 2009). Similarly, Goldenkoff (2004) mentioned that “a focus group is a form of qualitative research where a small number of participants (typically

six to ten) sharing certain similar social or demographic attributes informally discuss a particular topic under the study guidance of a trained moderator.”

For the purpose of this study, FGDs were conducted in two rounds by the researcher himself with micro-entrepreneurs and microenterprise development program facilitators and the members of District Microenterprise Groups Associations (DMEGA) in the study area. The first round of FGDs was conducted during the questionnaire survey. The main objectives of the first round of FGDs were to discuss the performance of microenterprises and their challenges in the particular context, for instance, how the microenterprises are performing, what kind of microenterprises are successful, and what the challenges of microenterprises are in the particular context.

The second round of FGDs was conducted after producing the preliminary results of the study. The main objective of the second round of FGDs was to discuss the contextual rationale of certain quantitative findings of the study. For instance, the existing literature has reported the higher performance of male-owned enterprises over those that are female-owned, but the quantitative results of this study indicated contrasting results, such as the higher performance of female-owned microenterprises over male-owned; higher performance of the microenterprises that had initial financial constraints over those that did not have such constraints, and so on. The results nullified the proposed quantitative hypothesis and conventional thinking. Therefore, in the second-round visit to the field, in order to explore what the reason could be behind such contrasting results in the particular context, the preliminary results of the study were presented and discussed in the FGDs. The useful information obtained from the FGDs was then used to supplement the discussion of the quantitative results with a qualitative explanation and considering their relevance to the ground reality.

Each FGD consisted of seven or more micro-entrepreneurs. The participants in the FGDs were asked about their availability and if it was convenient to take part in the discussions. They were informed about the objectives of the discussions and were asked for their verbal consent in advance. They were also ensured about the confidentiality of the information provided during the discussion. Taking permission from the participants, the discussions were recorded with a voice

recorder and were conducted in the study area and were facilitated by the researcher himself. A facilitation guide was developed to make the FGD more efficient and effective in terms of obtaining the required information. The facilitator initiated the issues for discussion as per their scope in the research.

3) Interviews

One-to-one interview with open-ended questions is one of the most commonly used instruments to collect qualitative data in the qualitative research method. It allows subjects or respondents to focus on the issues of greatest importance to them (Barbour, 2008). It helps researchers to obtain detailed information about how an individual thinks, feels, or perceives a particular phenomenon of interest.

For the purpose of this study, the interviews were conducted in two rounds by the researcher himself with micro-entrepreneurs and microenterprise development program facilitators such as coordinators and or chairpersons and/or the staff of the District Microenterprise Groups Associations (DMEGA) in the study area. The first round of interviews was conducted during the primary data collection. The main objectives of the first-round interview were to explore detailed information on the kinds of microenterprises, processes of microenterprise development, and the performance of microenterprises and their challenges in the particular context, for instance, what kinds of microenterprises there are, how the microenterprises were created and facilitated, how the microenterprises performed and what the challenges of the microenterprises were in the particular context. The first round of interviews with the coordinators, chairpersons, committee members, and the staff of DMEGA also helped to obtain key information about the overall situation of the microenterprises in the district and to explore useful case studies.

The second round of interviews was conducted after producing the preliminary results of the study. The main objective of the second round was to explore the contextual rationale of certain quantitative findings of the study. Therefore, in the second-round visit to the field, to explore what could be the reason behind such contrasting results in the particular context, the preliminary results of the study were presented and discussed with the chairpersons, and coordinator or staff of the DMEGA in the study area. The useful information obtained from the interviews

was used to supplement the discussion of the quantitative results with a qualitative explanation and considering their relevance to the ground reality.

The interviewees were asked about their availability and whether it was convenient for them to take part in the interview. They were also informed about the objectives of the interview and were ensured about the confidentiality of the information provided by them during the interview. Taking permission from the interviewees, the interviews were recorded with a voice recorder. In some special cases such as interviews with some Madheshi (Tharu/Sahani) micro-entrepreneurs, due to the constraints of language, a language interpreter or translator was used.

3.5.1.2 Secondary Data Collection

In addition to the qualitative primary data, the study has also used some qualitative secondary data for the analysis. The microenterprise policies of the government and international organizations, published and unpublished reports and documents, and agency records maintained by the MEDEP were collected and incorporated in the analysis and discussion as required.

3.5.2 Methods of Data Analysis

The data collected through the qualitative methods such as case studies, focus group discussions (FGDs), and interviews were used to triangulate the quantitative results to some extent and to supplement the discussion of the quantitative results with much richer information. The qualitative information has enriched the discussion of results on issues such as what the level and growth of the microenterprise performance were, what the factors were that determined the microenterprise performance or why some factors had significant effects on the microenterprise performance and why others did not, and why the results contrasted with the findings of previous studies. The information gathered from the qualitative methods provided supporting evidence and contextual explanations for the quantitative results.

3.6 Ethical Considerations

Great effort was made to maintain the ethical issues of social research. The respondents were informed about the purpose of the study and verbal consent by the respondents was ensured before collecting the data. Although predetermined respondents were used for the enumeration of the data, the participation of the respondent was still voluntary. If the respondent was not comfortable in participating in the research, he or she did not need to take part or continue with the process. After collecting the data, the respondents were informed about the data that they provided and were provided an opportunity to edit out any data or information that they did not want to share. The personal data provided by the respondents were kept highly confidential and were used for the purpose of this study and or for academic purpose only.

3.7 Chapter Summary

This chapter presented a detailed description of the research methods used in the study. Starting with a basic introduction of the research methods, the chapter described the research design used in the study, the unit of analysis, and the quantitative and qualitative methods. Regarding the quantitative methods, the chapter described the population, sample size, sampling frame, the operational definitions of the variables, measurements and instruments, scale construction, the pretest results, the ensuring of the validity and reliability of the scales used in the study, the data-collection methods, the data management process and techniques, and the methods of the data analysis. Regarding the qualitative methods, the chapter described the data-collection methods and methods of the data analysis. Last, in the last part, the chapter described the ethical issues considered and managed during the research process.

CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

Analysis of the data refers to the process of transforming data into useful information. It comprises of tabulating data, performing statistical analysis, and drawing inferences (Pant, 2009). The quantitative data in this study were analyzed in multiple stages that included univariate analysis, bivariate analysis, and multivariate inferential analysis.

4.1 Univariate Analysis

Univariate analysis in this study includes the demographic profile of the respondents based on gender, caste/ethnicity, previous experience, family environment, enterprise sector, enterprise category, ecological belt; level and growth of employment, profit, sales and asset in 2068 and 2069; and level of growth and growth rate of employment, profit, sales, and assets of microenterprise.

4.1.1 Demographic Profile of the Respondents

Demographic profile provides the basic background information of the respondents of the study such as gender, age, caste/ethnicity, education and so on. Table 4.1 presents the basic demographics of the respondents and the concerned microenterprises of the study based on gender, age, caste/ethnicity, education, experience, initial financial constraint, family environment, enterprise sector, enterprise categories, and ecological belts. Of the total samples (N = 501), more than two third were female respondents (67.90 percent). Similarly, a large majority of the respondents were in the 30 to 49 year age group (68.8 percent), followed by 50-59 years (14 percent), less than 30 years (12.80 percent), and 60 years and above (4.40 percent). The majority of the respondents had completed a primary level of education only (55.30 percent) followed by the secondary level (27.90 percent) and the master

level (12.80 percent). The respondents with a bachelor's degree education appeared to be the least among all (0.60 percent). Of the total sample, the respondents belonging to Janajati consisted the highest percentage (49.70 percent), followed by Brahmin (24.94 percent) and Dalit (21.15 percent), and Muslim and others (4.20 percent). The majority of the total respondents (63.30 percent) did not have previous experience working in similar enterprises. Similarly, the majority of the respondents had non-traditional or totally new business in the family (58.10 percent). The majority of the respondents (63.30 percent) experienced a financial constraint in starting the microenterprises.

Similarly, table 4.1 also presents the data on the sectors of the enterprises. The great majority of the respondents were from the manufacturing sector (82.0 percent). The share of business or service-sector enterprises consisted of less than one fifth of the total sample (18.0 percent). The types of microenterprises were also categorized as agro-based enterprises, forest-based enterprises, artisan-based enterprises, service-based enterprises, and tourism-based enterprises. Among the different categories of microenterprises, a large majority of the total respondents were from agro-based enterprises (61.68 percent) followed by forest-based (14.17 percent), artisan-based (13.37 percent), service-based (6.39 percent), tourism-based (2.99 percent) and other kinds of enterprises (1.40 percent).

Regarding the distribution of the samples according to ecological belt, among the total respondents of the study, the highest percentage of the respondents were from the mountain region (40.12 percent) followed by the terai (31.74 percent) and hill region (28.14 percent) (see Table 4.1).

Table 4.1 Demographic Profile of the Respondents (N = 501)

Variables	Categories	Percent
Gender	Female	67.90
	Male	32.10
Age group	Less than 30 years	12.80
	30 - 39 years	36.30
	40 - 49 years	32.50
	50 - 59 years	14.00
	60 years and above	4.40
Level of education	Primary level	55.30
	Secondary level	27.90
	Higher secondary level	3.40
	Bachelor level	0.60
Caste/ethnicity	Master level	12.80
	Dalit	21.15
	Janajati	49.70
	Brahmin/Chhetri	24.95
Previous experience	Muslim and Others	4.20
	Had previous experience	36.70
Initial financial constraint	Did not have previous experience	63.30
	Did not have financial constraint	31.3
Family environment	Had financial constraint	68.7
	A new business	58.10
Enterprise sector	Traditional occupation/parents have similar business	41.90
	Service/business	18.00
	Manufacturing/production	82.00
Enterprise category	Agro-based	61.68
	Artisan-based	13.37
	Forest-based	14.17
	Service-based	6.39

Table 4.1 (Continued)

Variables	Categories	Percent
	Tourism-based	2.99
	Others	1.40
Ecological belt	Mountain (Sindhupalchok)	40.12
	Hill (Parbat)	28.14
	Terai (Nawalparasi)	31.74

Source: Field Survey 2013.

4.1.2 Level and Growth of Employment, Profit, Sales, and Assets in 2068 and 2069

Exploring the level of employment, profit, sales and assets was one of the specific objectives of the study. The level of average annual employment, profit, sales and assets in 2068 and 2069 were enumerated from the micro-entrepreneurs. Table 4.2 presents the basic descriptive results of the level of employment, profit, sales and assets of the microenterprises in the study year 2068 and 2069. The results show that there was no change in the minimum level of employment in 2068 or 2069. This implies that every microenterprise has at least one employee, who is usually the micro-entrepreneur himself. The maximum level of employment in 2068 was 22, and that increased to 35 in 2069. Such a large number of employment in a microenterprise might be due to some group enterprises where a large number of members work together. The average employment level also increased from 2068 to 2069 by around nine percent. In 2068, the average employment level in each microenterprise was 1.70, which increased to 1.85 in 2069. The large difference in the maximum and average level of employment indicated a huge difference in the level of employment among the microenterprises. The standard deviation statistics of employment level for the year 2069 being higher than the mean value also confirmed that there was a huge difference in the level of employment among microenterprises. Similarly, the deviation having increased in 2069 from 2068 further denotes that the employment growth was not uniform among the microenterprises.

Regarding the level of profit, there was a positive change in it from 2068 to 2069. However, like employment, there was a huge deviation in the level of profit among the microenterprises. The minimum amount of profits in 2068 was 350 Nepalese rupees (NRs), while the maximum in the same year was 1,050,000 NRs. Similarly, the minimum amount of profits in 2069 increased to 600 NRs while the maximum amount increased to 18,000,000 NRs. The average annual profit increased by around 52 percent between 2068 and 2069. The average annual profit in 2068 was 40,194.47 NRs, which in 2069 increased to 61,047.23 NRs (see Table 4.2). As with employment level, the standard deviation being higher than the mean value indicated a huge difference in the level of profit among the microenterprises. Similarly, the increased deviation also indicated that the change in the level of profit was not uniform among the microenterprises.

As the level of profit, the level of sales of the goods and services of microenterprises also increased over the time. The minimum amount of the annual sales in 2068 was 600 NRs and that increased to 900 NRs in 2069. Similarly, the maximum amount of the annual sales in 2068 was 2,625,000 NRs and that increased to 4,500,000 in 2069. The level of sales also increased by around 43 percent between 2068 and 2069. The average annual sales in 2068 was 79,980.48 NRs and increased to 114,152.60 NRs in 2069 (see Table 4.2). As with the level of employment and profit, the statistics on the standard deviation being higher than the mean value for both years indicated a huge difference in the level of sales among the microenterprises. Similarly, the increasing value of standard deviation indicated that the variation in the level of sales was also increasing over the time.

Table 4.2 also presents an increase in the level of assets over the period. The minimum amount of the total assets in a microenterprise was 500 NRs, which increased to double that amount in 2069. The maximum amount of the total assets in a microenterprise, in 2068, was 1,000,000 NRs, which increased to 1,100,000 NRs in 2069. The average annual amount of the assets also increased by around 15 percent. In 2068, the average annual amount of the assets in a microenterprise was 31471.06 NRs and that increased to 36017.84 NRs in 2069. Like other variables, the level of asset was also found to have a huge variation among the microenterprises. The standard deviation statistics for both the years 2068 and 2069 was higher than the

mean value of the respective years. The increasing deviation for assets also indicated an increasing difference in the assets among the microenterprises.

From the descriptive results of the level of employment, profit, sales, and assets in 2068 and 2069, it can be concluded that the levels of employment, profit, sales, and assets increased between 2069 and 2069; however, the increment had a noticeable variation among the microenterprises (see Table 4.2). A huge variation is not good from a policy perspective, because it might cause an increase in income inequality in the future. In other words, a large variation in the performance among microenterprises indicates a large difference between the best performer and the average performer. This points out that there is space and potential as well for average performers to improve in their performance towards best performers.

Table 4.2 Level of Employment, Profit, Sales, and Assets in 2068 and 2069 (N=501)

Variables	Min	Max	Mean	Growth in	SD
Employment 2068	1.00	22.00	1.70		1.66
Employment 2069	1.00	35.00	1.85	8.82	2.07
Profit 2068	350.00	1050000.00	40194.47		65641.13
Profit 2069	600.00	1800000.00	61047.23	51.88	113046.30
Sales 2068	600.00	2625000.00	79980.48		146957.22
Sales 2069	900.00	4500000.00	114152.60	42.73	242023.45
Asset 2068	500.00	1000000.00	31471.06		79952.30
Asset 2069	1000.00	1100000.00	36017.84	14.45	82089.80

Source: Field Survey 2013.

Furthermore, to examine the significance of the growth of the employment, profit, sales, and assets of indicated microenterprises over the period (2068 and 2069), a paired-samples T test was conducted. The employment variables even after data transformation were found to violate the normal distribution, which is the most basic assumption of a T test; therefore, they were excluded from the test. To ensure the normal distribution of the variables, other variables such as profit, sales, and assets were transformed into log using LOG10(). The skewness and kurtosis statistics being

within the range of plus minus two ensured an acceptable range of normal distribution of the variable (see Table 4.3).

The paired mean differences for profit, sales, and assets being positive and the T test being highly significant for all the variables confirmed that the microenterprises included in this study exhibited significant growth in performance (see Table 4.3). This means that the average microenterprises increased their level of profit, sales, and assets significantly over the period.

Table 4.3 Growth of Profit, Sales, and Assets of Microenterprises

Pairs	Variables (log)	Mean	Std. Deviation	Skew	Kurt	Paired mean difference	t
Pair 1	Profit 2069	4.4809	.51878	-.179	.658	.14279	13.380***
	Profit 2068	4.3381	.50201	-.423	.772		
Pair 2	Sales 2069	4.7554	.50693	-.118	.677	.12139	11.921***
	Sales 2068	4.6340	.48825	-.261	.891		
Pair 3	Asset 2069	4.2984	.41940	.369	1.562	.10009	8.842***
	Asset 2068	4.1983	.44781	.373	1.549		

Note: N = 501; *** p<.001; Skew: Skewness statistics; Kurt: Kurtosis statistics

4.1.3 Descriptive Results of Level of Growth of Employment, Profit, Sales, and Assets

The growth of employment, profit, sales, and assets provides a picture of the basic level of performance of enterprises. The average annual growth in this study was computed from the average annual employment, profit, sales, and assets of 2068 and 2069. Table 4.4 presents the descriptive results of the level of growth of employment, profit, sales, and assets among microenterprises in the study area. The study found positive growth of the average annual growth of employment, profit, sales, and assets. The average annual growth of employment level between the study years was 0.1517. Similarly, the average annual growth of profit, sales, and assets was

20,852.76 NRs, 34,172.12 NRs, and 4,546.78 NRs respectively. This means that the microenterprises increased their profit, sales and assets over the period. The amount of growth of sales being relatively higher than profit and assets indicated that the volume of sales of the microenterprise goods and services was increasing more than profits and assets. However, the standard deviation being greater than the mean value of all the variables (employment, profit, sales, and asset growth) indicated a serious variation in the level of growth among the microenterprises. The increasing variation also points out the problem of increasing inequality over the years among the micro-entrepreneurs.

Table 4.4 Level of growth of Employment, Profit, Sales, and Assets between 2068 and 2069 (N = 501)

Variables	Min.	Max.	Mean	Std. Dev.
Employment growth level	-9.00	13.00	0.15	1.01
Profit growth level	-388000.00	750000.00	20852.76	66227.31
Sales growth level	-700000.00	1875000.00	34172.12	119553.44
Assets growth level	-720000.00	320000.00	4546.78	49777.09

Source: Field Survey 2013.

4.1.4 Descriptive Results of Dependent Variable: Growth Rate of Employment, Profit, Sales, and Assets

As the main objective of the study was to identify the factors determining ME performance, ME performance was considered as the main dependent variable; therefore, measuring ME performance was very vital to this study. As noted in the literature, ME performance can be measured in terms of the average annual growth rate of employment, profit, sales, and assets. More specifically, in this study the average annual growth rate of employment, profit, sales, and assets was computed as the growth rate between 2068 and 2069 (Nepalese year system – 2068 = April 2011 to March 2012 and 2069 = April 2012 to March 2013). The growth rates were computed using the following formula.

$$G_r = \left[\frac{X_t - X_{t-1}}{X_{t-1}} \right] \times 100 \quad \dots\dots\dots (1)$$

where G_r refers to the growth rate, X refers to the variable such as employment, profit, sales, and assets, and t refers to the time (year).

For example, X_t = average annual profit of 2069 (10,000NRs) and X_{t-1} = average annual profit of 2068 (7,000NRs).

$$G_r = \left[\frac{10000 - 7000}{7000} \right] \times 100$$

$$G_r = 42.85\%.$$

Table 4.5 presents the descriptive statistics of the average annual growth rate of the employment, profit, sales, and assets of the microenterprises. The average annual employment growth rate was 15.06 percent. The employment growth rate among the microenterprises ranged from a negative growth rate of -90.00 percent to 500.00 percent. The average annual profit growth rate was 70.04 percent. The profit growth rate also varied from a negative rate of -86.75 percent to 3260.00 percent. The average annual sales growth rate was 55.59 percent. The sales growth rate also varied from a negative growth rate of -93.33 percent to 1795.83 percent. The average annual asset growth rate was 63.35 percent. The asset growth rate also varied from a negative growth rate of -90.48 percent to 3900.00 percent. Among the average annual growth rate of employment, profit, sales and assets, on average, the MEs were having the highest growth rate of profit (70.04 percent) followed by assets (63.35 percent), sales (55.59 percent), and employment (15.06 percent). However, the standard deviation statistics being greater than the mean value indicated a noticeable threat of the variation in the annual employment, profit, sales, and asset growth rates among the microenterprises (see Table 4.5).

Table 4.5 Average Annual Growth Rate of Employment, Profit, Sales, and Assets
(N= 501)

Variables	Min.	Max.	Mean	S.D.
Employment growth rate	-90.00	500.00	14.06	47.76
Profit growth rate	-86.75	3260.00	70.04	209.34
Sales growth rate	-93.33	1795.83	55.59	152.80
Assets growth rate	-90.48	3900.00	63.35	264.40

Source: Field Survey 2013.

Moreover, considering the larger standard deviation value than the mean value and the violation of the basic assumption of normality by the original growth rate variables, the employment growth rate, profit growth rate, sales growth rate, and asset growth rate were further adjusted for the purpose for the study. To adjust the variables and fit in the multivariate models, the variables were transformed into LOG or SQRT or INVERSE. Due to the nature of the variables, including negative growth rate or zero growth rate, the direct transformation was mathematically unacceptable. Therefore, the variables were adjusted with a minimum value plus one on the original data, for example, $X = X + (X_{\text{Min}}) + 1$. Therefore, all of the data could be in positive numbers; thus further transformation if necessary was possible.

After the adjustment, the variables, except for employment growth rate, were found to have a normal distribution. The employment growth rate even after adjusting was found to be highly skewed towards the right. None of the data transformation technique (LOG, SQRT, INVERSE) could solve the problem of the basic normal distribution of the employment growth variable. The outlier analysis showed that all of the values other than zero were extreme values or outliers, and therefore had to be replaced with the closest value; that is, the zero itself. If the outliers were replaced with a zero, the employment variable would not vary anymore. Therefore, the employment variable was dropped from the list of dependent variable in the regression and/or correlation analysis.

After adjusting the variables as discussed in the preceding paragraph, the deviation in the growth rate of employment, profit, sales and assets seemed to decrease to less than the mean value of the standard deviation (see Table 4.6). This implies that after adjustment, the distribution of the variables, except for employment growth rate, had improved toward normal distribution. Moreover, the Skewness and Kurtosis statistics for all of the growth rate variables (except for the employment growth rate, which was not going to be used in the multivariate inferential analysis) being within the range of minus one to plus one (rule of thumb to check the normality of the variables) confirmed the non-violation of the normality assumption (see Table 4.6).

Table 4.6 Descriptive Results of the Dependent Variables after Adjustment (N=501)

Variables	Min.	Max.	Mean	S.D.	Skewness		Kurtosis	
					Stat.	S.E.	Stat.	S.E.
Employment growth rate	1.00	591.00	105.06	47.76	5.11	0.11	43.11	0.22
Profit growth rate	21.08	237.99	130.67	50.26	0.62	0.11	0.16	0.22
Sales growth rate	31.83	221.00	130.66	42.00	0.40	0.11	0.24	0.22
Assets growth rate	31.48	191.48	116.25	37.91	0.46	0.11	0.30	0.22

Source: Field Survey 2013.

4.1.5 Descriptive Results of the Quantitative Independent Variables

The study included both qualitative and quantitative variables in the analysis. The qualitative variables refer to the categorical variables such as gender: male and female, the enterprise sector: manufacturing/production, service/business, and so on; and the quantitative variables refer to the numerical variables such as educational attainment (years of schooling), profit growth rate, sales growth rate, asset growth rate, and so on.

Table 4.7 presents the descriptive statistics of the quantitative variables used in the study. The respondents of this study were aged 18 to 73 years. The average age of

the respondents was 40 years. A large majority of the respondents were 30 to 50 years old. The study included the respondents from those that had not had a formal education to those that had completed a master's degree (17 years of schooling). The average year of educational attainment of the respondents was four years, with the majority having schooling of one to eight years (see Table 4.7).

Managerial skills, need for achievement, need for autonomy, creative tendency, calculated risk taking, internal locus of control, managerial foresight, environmental dynamism, environmental heterogeneity, environmental hostility, and social network are the factors derived from the set of items. Therefore, the average score of the variables was zero (see Table 4.7).

The microenterprises included in the study ranged from three years to 16 years old. The average age of the microenterprise was around seven years with the majority within four to ten years. Enterprise size (measured in terms of the equivalent amount of the assets in 2068) ranged from around 500NRs to 60,000NRs. The average amount of the enterprise assets as a proxy measure of enterprise size was 20852.30NRs with a majority within the range of around 5000NRs to 35000NRs (see Table 4.7).

Moreover, the Skewness and Kurtosis statistics for all of the quantitative independent variables being within the range of minus one to plus one (rule of thumb to check the normality of the variables) confirmed the non-violation of the normality assumption (see Table 4.7).

Table 4.7 Descriptive Results of the Quantitative Independent Variables (N = 501)

Variables	Min.	Max.	Mean	S.D.	Skewness		Kurtosis	
					Stat.	S.E.	Stat.	S.E.
Age	18.00	73.00	40.15	9.98	0.52	0.11	0.31	0.22
Educational attainment	0.00	17.00	4.18	3.86	0.67	0.11	-0.73	0.22
Managerial Skills	-3.24	1.79	0.00	0.93	-0.13	0.11	0.00	0.22

Table 4.7 (Continued)

Variables	Min.	Max.	Mean	S.D.	Skewness		Kurtosis	
					Stat.	S.E.	Stat.	S.E.
Need for achievement	-3.16	1.51	0.00	0.86	-0.32	0.11	0.07	0.22
Need for autonomy	-3.10	1.66	0.00	0.80	-0.34	0.11	0.25	0.22
Creative tendency	-2.85	1.90	0.00	0.81	-0.44	0.11	0.22	0.22
Calculated risk taking	-2.87	1.83	0.00	0.87	-0.43	0.11	0.57	0.22
Internal locus of control	-3.57	1.63	0.00	0.90	-0.39	0.11	0.45	0.22
Managerial foresight	-2.47	2.75	0.00	0.88	0.02	0.11	0.05	0.22
Enterprise age	3.00	16.00	7.38	3.37	0.77	0.11	-0.13	0.22
Enterprise size	500.00	60000.00	20852.30	15757.23	0.98	0.11	0.43	0.22
Environmental dynamism	-2.98	1.83	0.00	0.93	-0.25	0.11	-0.40	0.22
Environmental heterogeneity	-2.68	1.70	0.00	0.94	-0.39	0.11	-0.49	0.22
Environmental hostility	-2.21	2.17	0.00	0.92	0.04	0.11	-0.65	0.22
Social Network	-3.06	1.51	0.00	0.96	-0.44	0.11	-0.40	0.22

Source: Field Survey 2013.

4.2 Bivariate Analysis of the Data

Bivariate analysis of the data refers to the analysis of the relationship between two variables. It provides a basic picture of the association among the variables. Cross tabulation, chi-square test, t-test and Pearson's correlation analysis are some of the common examples of bivariate analysis. In this study, the bivariate association of the independent variables with the level of average annual growth of employment, profit, sales, and assets and their growth rate, and managerial foresight, are discussed below.

4.2.1 Gender and Level of Employment, Profit, Sales, and Asset Growth

The central thesis of gender is that the socio-cultural orientation tends to determine the different aspect of the life of a person. The literature suggested that the growth level of microenterprises also varies according to the gender of the entrepreneur.

Table 4.8 demonstrates the descriptive statistics on the gender-wise average annual growth level of employment, profit, sales and assets in the microenterprises. The average annual growth in the level of employment, profit, sales, and assets in the microenterprises owned by females was relatively lower than that of their male counterparts. The average annual employment growth in the female-owned microenterprises was less than half of the male-owned microenterprises (0.10 vs. 0.26). Similarly, the male-owned microenterprises also had more than double average annual profit growth than female-owned microenterprises (32014.33 NRs vs. 15567.43 NRs). In the same way, the male-owned microenterprises also had around double average annual sales and asset growth than the female-owned microenterprises (51346.63 vs. 26039.49 and 7356.80 vs. 3216.16 respectively). This implies that male micro-entrepreneurs have an advantage of socio-cultural orientation over female micro-entrepreneurs. However, the standard deviation being greater than the mean value points out that the annual growth in the level of employment, profit, sales and assets was not uniform. There was a huge variation in the growth of these variables among the micro-entrepreneurs.

Table 4.8 Gender and Level of Employment, Profit, Sales, and Asset Growth

Gender	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Female (N=340)	Min.	-2.00	-388000.00	-183000.00	-600000.00
	Max.	2.00	550000.00	740000.00	100000.00
	Mean	0.1000	15567.43	26039.49	3216.16
	S.D.	.40	50376.82	67181.41	34714.63
Male (N=161)	Min.	-9.00	-29582.00	-700000.00	-720000.00
	Max.	13.00	750000.00	1875000.00	320000.00
	Mean	0.26	32014.33	51346.63	7356.80
	S.D.	1.67	90247.96	186187.29	71958.12

Source: Field Survey 2013.

4.2.2 Caste/Ethnicity and Level of Employment, Profit, Sales, and Asset Growth

Caste/ethnicity refers to the social stratification of the population. The caste/ethnic system in Nepal is very diverse and complex. The population census for 2011 identified 126 caste/ethnic groups in Nepal. Among all caste/ethnic groups, Chhetri is the largest caste/ethnic group (16.6 percent; 4,398,053) followed by Brahman-Hill (12.2 percent; 3,226,903), Magar (7.1 percent; 1,887,733), Tharu (6.6 percent; 1,737,470), Tamang (5.8 percent; 1,539,830), Newar (5 percent; 1,321,933), Kami (4.8 percent; 1,258,554), Musalman (4.4 percent; 1,164,255), Yadav (4 percent; 1,054,458) and Rai (2.3 percent; 620,004) respectively (Central Bureau of Statistics, 2012). Traditionally, they have different cultures and occupations. However, the caste/ethnicity in Nepal is often broadly categorized as Dalit, Janajati, Brahmin/Chhetri, and Muslim/Christian and others.

Table 4.9 presents broad caste/ethnic groups-wise descriptive results for the level of annual employment, profit, sales and asset growth. Among all caste/ethnic groups, Janajati held the highest growth level of employment (0.27) followed by Dalit

(0.13) and Brahmin/Chhetri (0.08). The employment growth among Muslims and others appeared to be negative growth (-0.67). The microenterprises owned by Muslim and other caste/ethnic groups had the highest level of profit and sales growth (42722.91NRs and 61269.10NRs), followed by Brahmin/Chhetri (21856.68NRs and 46588.51NRs), Janajati (21452.69NRs and 33118.82NRs), and Dalit (13926.88NRs and 16636.16NRs). In the case of average annual asset growth, Brahmin/Chhetri appeared to perform the best among all (8837.07NRs), followed by Janajati (4404.41NRs) and Dalit (1899.99NRs). The level of average annual asset growth among Muslim and other caste/ethnic groups appears to be negative (-5942.41NRs). The higher profit and sales growth but lower employment and asset growth tells that Muslim and other caste/ethnic groups are much more efficient in managing microenterprises and taking the benefit of the available resources than other caste/ethnic groups in Nepal. This might have happened due to the business culture of Muslims. In Nepal, the Muslim men and women both actively do involve in different kinds of businesses; therefore having better business skills than Brahmin/Chhetri, Janajati and Dalit caste/ethnic groups. However, the negative asset growth of asset among the Muslim and other groups is a threat to future performance. Moreover, the standard deviation statistics of all the variables across all caste/ethnic groups being greater than the mean value indicated a serious threat of a noticeable variation in the average annual employment, profit, sales, and assets among the microenterprises of different caste/ethnic groups.

Table 4.9 Caste/Ethnicity and Level of Employment, Profit, Sales, and Asset Growth

Caste/ Ethnicity	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Dalit (N = 106)	Min.	-3.00	-30000.00	-70000.00	-600000.00
	Max.	5.00	265000.00	200000.00	320000.00
	Mean	0.13	13926.88	16636.16	1899.99
	S.D.	.69111	37521.74	31487.03	67593.61

Table 4.9 (Continued)

Caste/ Ethnicity	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Janajati (N = 249)	Min.	-1.00	-157378.00	-700000.00	-720000.00
	Max.	13.00	550000.00	740000.00	250000.00
	Mean	0.27	21452.69	33118.82	4404.41
	S.D.	1.01700	51210.20	93874.61	51162.35
Brahmin/ Chhetri (N = 125)	Min.	-2.00	-388000.00	-183000.00	-30000.00
	Max.	2.00	750000.00	1875000.00	150000.00
	Mean	0.08	21856.68	46588.51	8837.07
	S.D.	0.41	83053.90	176850.74	23438.05
Muslim and Others (N = 21)	Min.	-9.00	-4000.00	0.00	-190000.00
	Max.	2.00	747264.00	990704.00	30644.07
	Mean	-0.67	42722.91	61269.10	-5942.41
	S.D.	2.82	161884.95	213438.21	42723.84

Source: Field Survey 2013.

4.2.3 Enterprise Sector and Level of Employment, Profit, Sales, and Asset Growth

Enterprise sector refers to the service, business, and manufacturing or production sectors. Service sector refers to the enterprises such as repairing, tailoring, and so on that provide the services. Business sector refers to the enterprises that are engaged in a business such as buying and selling goods such as vegetable, clothes, art and crafts, and so on. For the purpose of this study, considering certain common characteristics of the business and service sectors in microenterprises, such as tailoring, including both selling new clothes, tailoring clothes brought by the customers and repairing old clothes as well, and so on, these two sectors have merged as the service/business sector. The manufacturing or production sector refers to the production enterprises that convert raw materials into finished goods using a

particular technology and labor to meet the requirements of the customers, for example, bamboo-crafting, bio-briquette, and so on.

Table 4.10 illustrates the descriptive statistics of the annual growth level of employment, profit, sales, and asset growth. The average annual employment and profit growths in the manufacturing or production sector were relatively higher than those of the service/business sector (0.18 vs. 0.01 and 21,416.71 NRs vs. 18,277.39 NRs respectively). However, the average annual sales growth in the service or business sector was higher than in the manufacturing or production sector (48540.80NRs vs. 31025.70NRs respectively). This implies that in the service or business sector, despite a greater increase in the sales, the profits are lower than in the manufacturing or production sector. The microenterprises in the manufacturing or production sector seemed to be more profitable than in the service or business sector. In the case of the average annual asset growth, the service or business sector microenterprises seemed to have a negative growth in assets. This might be due to the effect of some old assets provided by the ME development program not functioning well. Sometimes, the micro-entrepreneurs, either due to loss in the previous enterprise or seeing higher profit in the new enterprise, also switch to a slightly different new enterprises that requires fewer assets. In contrast, in the context of the manufacturing sector, the average annual growth of the asset was also increasing. However, the standard deviation statistics of all the variables in both sectors being greater than the mean value indicated a serious threat of a noticeable variation in the average annual employment, profit, sales, and assets among the microenterprises of different sectors.

Table 4.10 Microenterprise Sector and Level of Employment, Profit, Sales, and Asset Growth

Enterprise sector	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Service/business (N = 90)	Min.	-3.00	-388000.00	-106000.00	-720000.00
	Max.	1.00	235200.00	740000.00	100000.00

Table 4.10 (Continued)

Enterprise sector	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Manufacturing (N = 411)	Mean	0.01	18277.39	48540.80	-1414.71
	S.D.	0.44	63709.15	101742.72	78405.37
	Min.	-9.00	-30000.00	-700000.00	-600000.00
	Max.	13.00	750000.00	1875000.00	320000.00
	Mean	.18	21416.71	31025.70	5852.22
	S.D.	1.09	66828.19	122996.84	40959.88

Source: Field Survey 2013.

4.2.4 Ecological Belt and Level of Employment, Profit, Sales, and Asset Growth

Ecological belts refer to geographic variations. Nepal has a huge geographical variation across the country. There are three major ecological belts; namely the mountain, hill and terai belt. The terai belt refers to the plain land area of the southern part of the country bordering India. The mountain belt is to the north of the country bordering the Tibet region of China. The hill belt is in the middle of the country. All of the belts extend from the east to the west of the country. The ecological variation also represents a variation in socio-cultural values, economic activities and opportunities, resources, and so on, therefore influencing the growth of the level of employment, profit, sales, and assets.

Table 4.11 depicts the ecological belt-wise descriptive statistics of the growth of the level of employment, profit, sales, and assets of the microenterprises. Among the three ecological belts, the average annual employment growth appears to be the highest in the terai belt (Mean = 0.21) followed by the mountain (Mean = 0.14) and hill (Mean = 0.11). The terai belt maintains the highest in average annual profit growth as well (Mean = 30,779.21NRs) followed by the hill (Mean = 18,309.93NRs) and mountain (Mean = 14,784.28NRs) belts. In the same way, the average annual

sales growth of terai was also the highest (Mean = 48,358.38NRs) followed by the mountain (Mean = 30,409.20NRs) and hill (Mean = 23,539.01NRs) belts. In the case of the average annual growth of assets, the mountain belt appeared to hold the highest growth (Mean = 9,602.50NRs) followed by the terai belt (Mean = 3,308.70NRs). The growth of assets appeared to be negative in the hill belt (Mean = -1,264.16NRs). The negative growth of the assets of microenterprises in the hill belt might be a threat to the future of the microenterprises operating in the hill area. However, the standard deviation statistics of all the variables across all three belts being greater than the mean value indicated a serious threat of a noticeable variation in the average annual employment, profit, sales, and assets among the microenterprises in the regions.

Table 4.11 Ecological Belts and Level of Employment, Profit, Sales, and Asset Growth

Ecological belts	Stat.	Employment growth level (No.)	Profit growth level (NRs)	Sales growth level (NRs)	Asset growth level (NRs)
Mountain (Sindhupalchok) (N = 201)	Min.	0.00	-388000.00	-183000.00	-38000.00
	Max.	13.00	750000.00	1875000.00	320000.00
	Mean	0.14	14784.28	30409.20	9602.50
	S.D.	1.05	67235.79	144525.68	34240.80
Hill (Parbat) (N = 141)	Min.	0.00	-30000.00	-70000.00	-600000.00
	Max.	1.00	550000.00	200000.00	100000.00
	Mean	0.11	18309.93	23539.01	-1264.16
	S.D.	0.31	53762.03	50334.63	53016.53
Terai (Nawalparasi) (N = 159)	Min.	-9.00	-157378.00	-700000.00	-720000.00
	Max.	5.00	747264.00	990704.00	150000.00
	Mean	0.21	30779.21	48358.38	3308.70
	S.D.	1.30	73788.43	127375.91	61661.85

Source: Field Survey 2013.

4.2.5 Gender-Wise Microenterprise Performance and Managerial

Foresight

Gender, as described in 2.4.1.1, determines the access to socio-economic opportunities, thus influencing various aspects of the life of a person. With reference of the influence of gender, micro-entrepreneurs, their performance, and managerial foresight may not be an exception. Table 4.12 demonstrates the descriptive results of the mean difference of profit, sales, asset growth, and managerial foresight between male and female micro-entrepreneurs. The descriptive results show that the performance of female micro-entrepreneurs compared to male counterparts was better. The average annual profit, sales, and asset growth rate of female micro-entrepreneurs were relatively higher than those of the male micro-entrepreneurs. However, the growth rates, despite being slightly different, were not found to be significantly different ($p > .10$).

Regarding the gender difference in managerial foresight, male micro-entrepreneurs, although not statistically highly significant, seem to have relatively greater managerial foresight than their female counterparts (0.10 vs. -0.05 respectively). The gender difference regarding managerial foresight appeared to be marginally significant ($t = 1.662$, $p < .10$; see Table 4.12). The reason behind the gender difference in managerial foresight could be the difference in socio-cultural values and opportunities that treats males and females differently. In the Nepalese context, men tend to have relatively greater opportunities of access to education, skills, and mobility, and the limited access to these might have caused female micro-entrepreneurs to have less managerial foresight.

Table 4.12 Gender-Wise Difference on Profit, Sales, Asset Growth Rate, and Managerial Foresight

Gender	Statistics	Profit growth rate	Sales growth rate	Asset growth rate	Managerial foresight
Female (N = 340)	Min.	21.08	31.83	31.48	-2.47
	Max.	237.99	221.00	191.48	2.75
	Mean	131.01	132.29	117.95	-0.05
	S.D.	51.05	43.84	38.34	0.87
Male (N = 161)	Min.	21.08	31.83	31.48	-1.87
	Max.	237.99	221.00	191.48	2.36
	Mean	129.93	127.20	112.67	0.10
	S.D.	48.69	37.73	36.83	0.89
T		.224	1.267	1.459	1.662
Sig.		.823	.206	.145	.097

Source: Field Survey 2013.

4.2.6 Experience-Wise Microenterprise Performance and Managerial Foresight

Experience plays a vital role in human life. Humans learn from experience. It guides the decisions and activities of a person. The literature suggests that the previous experience of an entrepreneur is a part of the human capital that tends to influence the decisions in the present. Micro-entrepreneurs are not an exception. Experience may influence the micro-entrepreneur's managerial foresight and have a direct or indirect influence on the performance of his or her microenterprise. Table 4.13 illustrates the descriptive results of previous experience and the average annual growth rate of profit, sales and assets, and managerial foresight. The micro-entrepreneurs that had prior experience working in similar business had a relatively higher rate of average annual profit growth than those that did not have such experience. In contrast, the sales and asset growth rate of the micro-entrepreneurs without prior experience appeared to be relatively greater than that of the experienced

micro-entrepreneurs. The greater profit growth rate with lower sales and asset growth points out the efficiency and effectiveness of businesses with micro-entrepreneurs with prior experience because sales and asset growth are the means only, while the end purpose of doing business is greater profit. However, the difference was not observed to be statistically significant ($p > .10$).

Surprisingly, the micro-entrepreneurs without prior experience tended to have greater managerial foresight than those with prior experience (0.09 vs. -0.15, $t = 2.890$, $p < .01$; see Table 4.13). The reason behind such surprising results might be due to oversight by experienced entrepreneurs or over confidence in the business resulting in less worry about the future of the business. The entrepreneurs with prior experience might have fewer worries about the future, thus, resulting in lower managerial foresight than the non-experienced micro-entrepreneurs.

Table 4.13 Previous Experience and Profit, Sales, and Asset Growth Rate and Managerial Foresight

Previous experience	Statistics	Profit growth rate	Sales growth rate	Asset growth rate	Managerial foresight
No (N = 317)	Min.	21.08	31.83	31.48	-2.47
	Max.	237.99	221.00	191.48	2.75
	Mean	130.26	132.50	116.94	0.09
	S.D.	50.37	44.49	39.88	0.88
Yes (N = 184)	Min.	21.08	31.83	31.48	-2.11
	Max.	237.99	221.00	191.48	2.36
	Mean	131.36	127.48	115.07	-0.15
	S.D.	50.21	37.23	34.32	0.86
T		-.235	1.290	.534	2.890
Sig.		.814	.206	.593	.004

Source: Field Survey 2013.

4.2.7 Enterprise Sector-wise Microenterprise Performance and Managerial Foresight

The literatures suggests that the level of performance of enterprises tends to vary according to the sector of the enterprises. Similarly, managerial foresight also may vary according to the enterprise sector. Table 4.14 presents the descriptive results of the enterprise sector-wise difference of the annual growth rate of profit, sales and assets, and managerial foresight. The microenterprises in the service or business sector were found to perform better in terms of profit growth rate and sales growth rate than the manufacturing or production sector. The average annual growth rate of the service or business sector microenterprises was relatively greater than that of the manufacturing or production sector. Similarly, the sales growth rate of the service or business sector microenterprises was more than that of the manufacturing or production sector. In contrast, the manufacturing or production sector microenterprises were found to perform better in terms of asset growth rate. The asset growth rate of the manufacturing or production sector microenterprises was also five percent higher than that of the service or business sector. The reason behind such contrasting results in asset growth between the service or business sector and the manufacturing or production sector was that the manufacturing or production sector normally requires more investment in assets than the service or business sector. Every unit of increase in production may require a certain unit increase in assets as well, whereas the service or business sector may provide more services with the same level of assets.

The managerial foresight in this context appears to correlate with the profit and sales growth rate. The service or business sector micro-entrepreneurs were found to have relatively higher managerial foresight (0.11) than the micro-entrepreneurs from the manufacturing or production sector (-0.03). However, the mean differences on profit, sales and asset growth rate, and managerial foresight were not found to be statistically significant ($p > .10$; see Table 4.14).

Table 4.14 Enterprise Sector and Profit, Sales, and Asset Growth Rate and Managerial Foresight

Enterprise sector	Statistics	Profit growth rate	Sales growth rate	Asset growth rate	Managerial foresight
Service/business (N = 90)	Min.	21.08	31.83	31.48	-1.79
	Max.	237.99	221.00	191.48	2.21
	Mean	132.79	136.30	111.70	0.11
	S.D.	53.61	43.34	34.18	0.74
Manufacturing (N = 411)	Min.	21.08	31.83	31.48	-2.47
	Max.	237.99	221.00	191.48	2.75
	Mean	130.20	129.42	117.25	-0.03
	S.D.	49.55	41.66	38.64	0.91
t		.442	1.408	1.260	1.334
Sig.		.659	.160	.208	.183

Source: Field Survey 2013.

4.2.8 Initial Financial Constraint, Microenterprise Performance, and Managerial Foresight

Financial capital is very crucial for starting an enterprise. In the lack of enough initial financial capital, it is difficult to start an enterprise. Micro-entrepreneurs, as in the context of this study are those that were living below the poverty line before starting the enterprise, might have faced initial financial constraints in starting their business. Scholars argue that financial constraints may affect investment negatively, the capability of the self-employed people, and the survival and growth of the enterprise. Table 4.15 depicts the difference in the average annual profit, sales, and asset growth rate and managerial foresight between the micro-entrepreneurs that experienced initial financial constraints and those that did not have such constraints.

The study revealed a significantly higher average annual profit and sales growth rate among the micro-entrepreneurs that had initial financial constraint than

those that did not have such constraint ($p < .05$). However, the case of the asset growth was different. The asset growth rate among the micro-entrepreneurs that did not have initial financial constraints, although not statistically significant, was relatively higher than that of those that had financial constraints. As with the average annual profit and sales growth rate, the micro-entrepreneurs that had initial financial constraints were found to have significantly greater managerial foresight than those that did not have such constraint (0.13 vs. -0.28, $t = -4.997$, $p < .000$; see Table 4.15). The reason behind such surprising results on profit, sales growth rate, and managerial foresight among those that had initial financial constraints could be the greater carefulness of these entrepreneurs. Since they had a limitation in financial capital for starting their business, they might have been more careful in the investment in assets and might have sought larger sales and bigger profits from the business. Similarly, since they had initial financial constraints in starting their business, they might have taken out a loan to start it; thus, they had to be more careful and apply more effort to gain higher profit.

Table 4.15 Initial Financial Constraints in Starting Business and Profit, Sales, and Asset Growth Rate and Managerial Foresight

Initial financial constraints	Stat.	Profit growth rate	Sales growth rate	Asset growth rate	Managerial foresight
Did not have financial constraints (N = 157)	Min.	21.08	31.83	31.48	-2.47
	Max.	237.99	221.00	191.48	2.75
	Mean	121.57	124.29	118.97	-0.28
	S.D.	46.17	41.54	33.34	0.84
Had financial constraints (N = 344)	Min.	21.08	31.83	31.48	-2.11
	Max.	237.99	221.00	191.48	2.36
	Mean	134.82	133.56	115.01	0.13
	S.D.	51.55	41.95	39.80	0.86
t		-2.755	-2.303	1.085	-4.997
Sig.		0.006	0.022	0.279	0.000

Source: Field Survey 2013.

4.2.9 Family environment, Microenterprise Performance, and Managerial Foresight

Microenterprises are family-based enterprises. The family environment determines the entrepreneurship culture at home. It can provide several types of tangible and intangible support to a person to start and run a business in a competitive way, thereby influencing the enterprise's performance and managerial foresight.

Table 4.16 presents the bivariate results of family environment, and ME performance measures and managerial foresight. The results revealed a relatively higher average annual profit growth rate among the micro-entrepreneurs that continued the family occupation or whose parents also were engaged in a similar business in the family than those that started a new enterprise. In contrast, the sales growth rate among the new business starters was relatively higher than those that continued the family occupation or whose parents also were in a similar business in the family. The asset growth rate seemed to be almost the same among both.

Regarding the difference in the managerial foresight between the micro-entrepreneurs that continued the family occupation or whose parents also were in a similar business in the family and that started a new business, the new business starters were found to have a significantly higher level of managerial foresight than those that continued the family occupation or whose parents also were engaged in a similar business in the family (0.07 vs. -0.10, $t = 2.061$, $p > .05$, See Table 4.16). The reason behind the higher managerial foresight among the new business starters could be the calculated risk-taking nature of the individuals before and during the business. The person that starts a very new business tends to be more careful than those that simply continue the traditional occupation or whose parents are also doing a similar business, therefore resulting in higher managerial foresight.

Table 4.16 Family Environment and Profit, Sales, and Asset Growth and Managerial Foresight

Family environment	Statistics	Profit growth rate	Sales growth rate	Asset growth rate	Managerial foresight
A new business (N = 291)	Min.	21.08	31.83	31.48	-2.47
	Max.	237.99	221.00	191.48	2.36
	Mean	128.75	131.50	116.28	0.07
	S.D.	49.31	44.83	41.84	0.89
Traditional occupation/ parents have similar business (N = 210)	Min.	21.08	31.83	31.48	-1.93
	Max.	237.99	221.00	191.48	2.75
	Mean	133.33	129.49	116.21	-0.10
	S.D.	51.54	37.82	31.77	0.85
t		-1.007	.528	.020	2.061
Sig.		.314	.598	.984	.040

Source: Field Survey 2013

4.2.10 Correlation Analysis

Correlation refers to the association between two variables that vary simultaneously. Correlation analysis examines the nature of the relationship between two quantitative variables. The correlation could be of three types: positive correlation, negative correlation, and no correlation. The correlation coefficient ranges from minus one to plus one. A negative correlation coefficient inclining towards minus one indicates a negative correlation between the variables, such as age and eye vision. In contrast, a positive correlation coefficient inclining towards plus one indicates a positive correlation between the variables, such as age and illness. A zero correlation coefficient indicates no relationship between the variables. Pearson's correlation coefficients were computed to examine the relationship between the variables, and also indicated the strength of the relationship. Despite varying opinions

on the range of the coefficient and the associated strength of the relationship among the researchers, usually a correlation coefficient from 0.8 to 1.0 is considered as a very strong relationship. Similarly, a correlation coefficient between 0.6 and 0.8 is considered as a strong relationship, 0.4 and 0.6 as a moderate relationship, 0.2 and 0.4 as a weak relationship, and 0.0 and 0.2 as a very weak relation or no relationship.

Table 4.17 demonstrates the correlation matrix of the quantitative variables used in the study. The correlation matrix shows a relatively weak positive relationship of age of micro-entrepreneurs with enterprise age only ($r = 0.281, p < .01$), but a weak negative relationship with educational attainment ($r = -.290, p < .01$), managerial skills ($r = -.089, p < .05$), environmental dynamism ($r = -.125, p < .01$), environmental heterogeneity ($r = -.200, p < .01$) and environmental hostility ($r = -.135, p < .01$). The age of micro-entrepreneurs did not seem to have a significant relationship with the dependent variables: profit, sales and asset growth rate.

The educational attainment of micro-entrepreneurs appeared to have a weak positive relationship with managerial skills ($r = 0.218, p < .01$), need for achievement ($r = 0.104, p < .05$), calculated risk taking ($r = 0.141, p < .01$), internal locus of control ($r = 0.166, p < .01$), managerial foresight ($r = 0.165, p < .01$), enterprise age ($r = 0.113, p < .05$), enterprise size ($r = 0.137, p < .01$), environmental dynamism ($r = 0.120, p < .01$), environmental heterogeneity ($r = 0.128, p < .01$), and social network ($r = 0.182, p < .01$) (see Table 4.17). Educational attainment did not seem to have a significant relationship with the dependent variables: profit, sales and asset growth rate. However, since it had an association with other independent variables such as managerial foresight, there is a probability of it having an indirect association with the dependent variables through managerial foresight.

Likewise, managerial skills, apart from having a weak positive relationship with educational attainment, had a significant moderate positive relationship with creative tendency ($r = .467, p < .01$) and sales growth rate ($r = .463, p < .01$), and a weak positive relationship with need for achievement ($r = .385, p < .01$), need for autonomy ($r = .320, p < .01$), calculated risk taking ($r = .336, p < .01$), internal locus of control ($r = .343, p < .01$), enterprise size ($r = .109, p < .05$), environmental dynamism ($r = .267, p < .01$), environmental heterogeneity ($r = .302, p < .01$), environmental hostility ($r = .100, p < .05$), social network ($r = .349, p < .01$), and profit growth rate ($r = .345,$

$p < .01$) (see Table 4.17). The significant positive relationship between managerial skills and profit growth rate and sales growth rate indicated the probability of having a positive influence of managerial skills on profit and sales growth rate.

Need for achievement, apart from having a weak positive relationship with managerial skills and educational attainment, also had a strong significant positive relationship with need for autonomy ($r = .603, p < .01$), and internal locus of control ($r = .627, p < .01$), a moderate positive relationship with calculated risk-taking ($r = .542$) and social network ($r = .504, p < .01$), and a weak positive relationship with creative tendency ($r = .323, p < .01$), enterprise age ($r = .114, p < .05$), environmental dynamism ($r = .201, p < .01$), and environmental heterogeneity ($r = .184, p < .01$) (see Table 4.17). The micro-entrepreneurs that were more achievement oriented did not seem to have a significant relationship with the dependent variables: profit, sales and asset growth rate.

Need for autonomy, apart from having a moderate positive relationship with need for achievement and a weak positive relationship with managerial skills, also had a moderate positive relationship with calculated risk taking ($r = .533, p < .01$), internal locus of control ($r = .514, p < .01$), and profit growth rate ($r = .405, p < .01$), and a weak positive relationship with creative tendency ($r = 0.358, p < .01$), environmental dynamism ($r = .146, p < .01$), and environmental heterogeneity ($r = .158, p < .01$). However, it had a weak negative relationship with managerial foresight ($r = -.137, p < .01$) and social network ($r = -.117, p < .01$) (see Table 4.17). The micro-entrepreneurs that were more achievement oriented did not seem to have a significant relationship with the dependent variables: sales and asset growth rate. However, a significant association with managerial foresight indicated that the need for autonomy might have had an indirect association with the dependent variables through managerial foresight.

The creative tendency trait of micro-entrepreneurs apart from having a moderate positive association with managerial skills and a weak positive association with the need for achievement and need for autonomy, also had a moderate positive relationship with social network ($r = .431, p < .01$). The creative micro-entrepreneurs seemed to have a greater social network. Similarly, creative tendency has a weak positive association with traits such as calculated risk taking ($r = .343, p < .01$) and

internal locus of control ($r = .312, p < .01$), and environmental dynamism ($r = .289, p < .01$), environmental heterogeneity ($r = .356, p < .01$), environmental hostility ($r = .197, p < .01$), profit growth rate ($r = .325, p < .01$), sales growth rate ($r = .236, p < .01$), and asset growth rate ($r = .164, p < .01$). However, creative tendency was found to have a weak negative association with managerial foresight ($r = -.146, p < .01$) (see Table 4.17). More interestingly, a significant positive relationship with the dependent variables such as profit growth rate, sales growth rate and asset growth rate, and a significant negative relationship with managerial foresight, indicated different kinds of effects of the creative tendency on the dependent variables: profit, sales and asset growth rates.

Calculated risk-taking, apart from having a moderate positive correlation with need for achievement and need for autonomy and a weak positive correlation with educational attainment and managerial skills, had a strong positive correlation with environmental dynamism ($r = .601, p < .01$), a moderate positive relationship with internal locus of control ($r = .419, p < .01$), and a weak positive relation with social network ($r = .152, p < .01$), managerial foresight ($r = .098, p < .05$) and enterprise age ($r = .253, p < .01$). However, it had a weak negative relationship with environmental heterogeneity ($r = -.115, p < .01$) (see Table 4.17). Calculated risk taking did not have a direct significant association with the dependent variables such as profit, sales and asset growth rate. However, a significant positive association with managerial foresight, which was a mediating variable in the model, indicated that calculated risk taking also may have had an indirect association with profit, sales, and asset growth rates.

Likewise, internal locus of control, apart from having a strong positive relationship with need for achievement and calculated risk taking, a moderate positive relationship with need for autonomy and a weak positive relationship with age, educational attainment, managerial skills, and creative tendency, also had a moderate positive relationship with social network ($r = .504, p < .01$), and a weak relationship with enterprise age ($r = .113, p < .05$), enterprise size ($r = .128, p < .01$), environmental dynamism ($r = .237, p < .01$), and environmental heterogeneity ($r = .305, p < .01$) (see Table 4.17). However, it had a weak negative relationship with profit growth rate ($r = -.108, p < .05$, See Table 4.17). This indicated that the micro-entrepreneurs with higher

internal locus control seemed to have a lower profit growth rate. However, internal locus of control did not seem to have a significant relationship with other dependent variables such as sales and asset growth rates.

Managerial foresight, apart from having a weak positive association with educational attainment and a weak negative association with entrepreneurial traits, such as the need for autonomy, creative tendency, and calculated risk-taking, also had a weak positive association with enterprise size ($r = .118$, $p < .01$). Nevertheless, managerial foresight had a weak negative association with environmental dynamism ($r = -.222$, $p < .01$), environmental heterogeneity ($r = -.147$, $p < .01$), environmental hostility ($r = -.327$, $p < .01$) and social network ($r = -.160$, $p < .01$) (see Table 4.17). Moreover, managerial foresight did not seem to have a direct significant relationship with dependent variables such as profit, sales, and asset growth rates. The association between several entrepreneur-, enterprise-, and environment-related factors and managerial foresight, and the association between managerial foresight and the measures of microenterprise performance, indicated that managerial foresight as a mediating variable in the path models could mediate the effects of other factors on microenterprise performance.

Enterprise age apart from having a weak positive association with the micro-entrepreneurs' age, educational attainment, and some personality traits such as the need for achievement trait, calculated risk taking, and internal locus of control, also has a weak positive association with enterprise size ($r = .251$, $p < .01$; see Table 4.17). This indicated that the older enterprises were bigger in size, as well, and they had more assets than younger enterprises. The association with personality traits such as the need for achievement indicated that the need of the microenterprise to achieve something more among the older micro-entrepreneurs was greater than with their younger counterparts. Similarly, the older micro-entrepreneurs also seemed to have a higher tendency of calculated risk taking and were more self-guided than their younger micro-entrepreneurs. However, enterprise age did not seem to have a significant association with profit, sales, or asset growth rate.

Enterprise size, despite having a weak positive association with educational attainment, managerial skills, internal locus of control and managerial foresight, also appeared to have a weak negative relationship with asset growth rate ($r = -.271$,

$p < .01$; see Table 4.17). This indicated that the bigger micro-enterprises were not investing more in assets or the smaller microenterprises were investing more in assets than the bigger microenterprises. The enterprise size did not seem to have a significant relationship with profit or sales growth rates. However, as it had a significant relationship with managerial foresight, which was a mediating variable in the study, the effects of enterprise size on the microenterprise performance could have been mediated by the managerial foresight variable, thereby resulting in with an indirect association with these variables.

Environmental dynamism, besides having a weak positive association with educational attainment, managerial skills, and personality traits such as the need for achievement, need for autonomy, creative tendency, calculated risk taking, and Internal locus of control, and a weak negative association with the micro-entrepreneurs' age and managerial foresight, also had a strong positive association with environmental heterogeneity ($r = .694$, $p < .01$), a moderate positive association with environmental hostility ($r = .554$, $p < .01$), and a weak relationship with social network ($r = .325$, $p < .01$) (see Table 4.17). It did not seem to have a significant association with profit, sales and asset growth rates. However, since it had a significant association with managerial foresight, its relationship with profit, sales, and asset growth rates could have been mediated by the managerial foresight variable, thus having an indirect association with these variables.

Environmental heterogeneity, apart from having a significant positive association with educational attainment, managerial skills, and personality traits, and environmental dynamism, and a significant negative association with the micro-entrepreneurs' age and managerial foresight, also had a significantly moderate positive relationship with environmental hostility ($r = .537$, $p < .01$) and a weak positive relationship with social network ($r = .369$, $p < .01$) (see Table 4.17). This indicates that a more heterogeneous task environment is more dynamic and hostile, as well. However, the heterogeneous task environment did not seem to have a significant association with profit, sales, or asset growth rate. Since environmental heterogeneity had a significant correlation with managerial foresight, its relationship with profit, sales, and asset growth rates could have been mediated by the managerial foresight variable, thus having an indirect association with profit, sales, and asset growth rates.

Environmental hostility, apart from having a significantly positive relationship with managerial skills, creative tendency, environmental dynamism, and environmental heterogeneity, and a negative association with the micro-entrepreneur's age and managerial foresight, had a weak positive association with social network ($r = .110$, $p < .01$; see Table 4.17). It did not seem to have a significant association with profit, sales or growth rates. Like some other variables, as it also had a significant association with managerial foresight, its relationship with profit, sales, and asset growth rates could have been mediated by the managerial foresight variable, thus having an indirect association with these variables.

Social network, apart from having a significant positive association with educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, calculated risk taking, internal locus of control, environmental dynamism, environmental heterogeneity, and environmental hostility, and a significant negative association with managerial foresight, also had a weak positive relationship with sales ($r = .160$, $p < .01$) and asset growth rates ($r = .119$, $p < .01$) (see Table 4.17). This indicated that a stronger relationship with the entities of social network such as suppliers, customers, public agencies, social institutions, financial institutions, family members, relatives, friends, and neighbors had higher sales and asset growth rates. However, the social network did not seem to have an association with profit growth. This implies that the stronger social network may not necessarily ensure a higher profit from the microenterprises.

As mentioned above, profit, sales, and asset growth rates were the measures of the microenterprise performance. These variables, besides having a positive or negative association with many other independent variables, as discussed above, also had an association among themselves. The profit growth rate seemed to have a strong positive relationship with the sales growth rate ($r = .652$, $p < .01$), and a weak positive association with the asset growth rate ($r = .197$, $p < .01$). Similarly, the sales growth rate also seemed to have a weak positive correlation with the asset growth rate ($r = .253$, $p < .01$) (see Table 4.17). The significant positive correlations among profit, sales, and asset growth rates, indicated that these variables also had an association among themselves, and therefore could be considered as observables of microenterprise performance.

Table 4.17 Correlation Matrix for the Variables Included in the Study

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	1																		
2	-.290**	1																	
3	-.089*	.218**	1																
4	-.022	.104*	.385**	1															
5	-.007	.016	.294**	.537**	1														
6	-.013	-.005	.467**	.323**	.365**	1													
7	-.044	.141**	.336**	.542**	.471**	.343**	1												
8	-.058	.166**	.343**	.627**	.456**	.312**	.601**	1											
9	-.012	.165**	-.025	-.048	-.154**	-.146**	-.115**	-.075	1										
10	.281**	.113*	.039	.114*	.030	-.014	.095*	.113*	.023	1									
11	.056	.137**	.109*	.083	.013	-.008	.020	.128**	.118**	.251**	1								
12	-.125**	.120**	.267**	.201**	.155**	.289**	.152**	.237**	-.222**	-.026	-.013	1							
13	-.200**	.182**	.302**	.184**	.140**	.356**	.253**	.305**	-.160**	-.033	-.007	.694**	1						
14	-.135**	.073	.100*	.032	.062	.197**	.084	.057	-.327**	.046	.053	.554**	.537**	1					
15	-.067	.128**	.463**	.504**	.563**	.431**	.419**	.504**	-.147**	-.059	-.033	.325**	.369**	.110**	1				
16	-.023	-.020	.345**	-.070	-.112*	.325**	-.018	-.108*	.049	-.009	.012	-.008	.048	-.011	.053	1			
17	-.050	.023	.349**	-.022	-.047	.236**	.067	-.020	.078	.011	-.044	.011	.069	.001	.160**	.652**	1		
18	-.004	-.020	.054	.046	.082	.164**	.007	-.015	.073	.051	-.271**	.059	.032	.032	.119**	.197**	.253**	1	

Note: * $p < .05$, ** $p < .01$; 1) age, 2) educational attainment, 3) managerial skills, 4) need for achievement, 5) need for autonomy, 6) creative tendency, 7) calculated risk taking, 8) internal locus of control, 9) managerial foresight, 10) enterprise age, 11) enterprise size, 12) environmental dynamism, 13) environmental heterogeneity, 14) environmental hostility, 15) social network, 16) profit growth rate, 17) sales growth rate, and 18) asset growth rate

4.3 Multivariate Inferential Analysis

Multivariate analysis refers to the statistical technique used to analyze data involving more than one variable. Inferential analysis refers to the analysis conducted to test the hypothesis. Hence, multivariate inferential analysis refers to testing hypotheses using more than one variable in the model. Multiple regression, Analysis of Variance (ANOVA), Multivariate Analysis of Variance (MANOVA), path analysis, Structural Equation Modeling (SEM), and so on are some of the forms of multivariate analysis widely used in statistical data analysis in social science research.

This study also has run a set of multiple regressions to test hypotheses related to entrepreneur-, enterprise-, and environment-related factors and their effects on microenterprise performance measured in terms of profit, sales, and asset growth rates. Similarly, a multiple regression model was run to identify the factors determining managerial foresight, which is a mediating variable in the framework of the study.

As multiple regression is the main technique of inferential analysis used in this study, non-violation of the basic assumptions such as normality, linearity, homoscedasticity, multicollinearity, and independence of error or lack of autocorrelation were ensured before the final analysis of the regression results.

The summary of regression results includes the predicting variables, unstandardized coefficients (B), standardized coefficients (Beta/ β), T statistics, Significance (p value) of T, collinearity statistics (Tolerance and Variance Inflation Factor/VIF), R^2 , adjusted R^2 , F statistics, significance (p value) of F, and Durbin Watson Statistics. Predicting variables refer to the entrepreneur-, enterprise-, and environment-related factors that are likely to influence the dependent variables such as profit growth rate, sales growth rate, asset growth rate, and managerial foresight. Unstandardized coefficients (B) refer to the regression coefficients that are not standardized and can be used to interpret the effect of a particular independent variable in terms of per unit change on the dependent variable. For example, if the unstandardized coefficient (B) of years of schooling as an effect on per capita income (in NRs) is 1,200.00, the coefficient can be interpreted that a year increase in the years of schooling of the respondents tended to increase their per capita income by

1,200.00NRs. The unstandardized coefficients cannot be directly used to compare the effects of different independent variables.

Standardized coefficients (Beta/) are the standard values that are comparable with each other. T statistics indicate the strength of the predictor. They can be used to point out which variable is the strongest predictor in the model influencing the dependent variable. The significance value (also known as p value) refers to the level of significance of the association between a particular predictor and dependent variable; thus, it was used to test the hypothesis. The rejection or non-rejection of the hypotheses was tested at different levels such as $p < .001$, $p < .01$, $p < .05$, $p < .10$. The hypotheses in social sciences, particularly in economics, finance, and so on, where all the variables are basically quantitative or interval scale, are often tested at the $p < .05$ level, however, considering the qualitative nature of some of the variables in social science, the level of significance is also analyzed at $p < .10$ as the marginal level of significance.

R^2 in multiple regression refers to the variability of the dependent variable explained by the predictors included in the model. Adjusted R^2 is also similar to R^2 . The difference between R^2 and adjusted R^2 is that the R^2 is likely to be inflated by the number of predictors in the model, which is adjusted in the adjusted R^2 . Adjusted R^2 is generally preferred over R^2 . Opinions vary on the acceptable range of R^2 . R^2 tends to be influenced by nature of the sample, sample size, research design, and so on. Reisinger (1997) in his study observed a smaller R^2 with a larger sample size and smaller numbers of regressors, cross-sectional studies, and studies with primary data. The R^2 was found to be bigger with smaller sample sizes and a larger number of regressors, time series studies, and studies with secondary data. Figueiredo Filho, Silva and Rocha (2011) stated that R^2 tends to be strongly influenced by the variance across the sample, and it does not guarantee a 'good fit model'. Scott and Wild (1991: 121 quoted in Figueiredo Filho, 2011: 63) argued that "the use of R^2 is particularly inappropriate if the models are obtained by different transformations of the response scale." Similarly, King (1986: 677 quoted in Figueiredo Filho, 2011: 64) argued that "if your goal is to get a big R^2 , then your goal is not the same as that for which regression analysis was designed." The debate on the significance of the R^2 value suggests that there is no such minimum size of R^2 required for a model to be

considered as a good model. Some published research has R^2 values even less than 0.10.

F statistics and the associated level of significance (p value) indicate the significance of the regression model fit. Collinearity statistics (Tolerance and Variance Inflation Factor/VIF) indicate the collinearity between the predictors in multiple regression. The tolerance statistics $>.2$ or VIF statistics less than five indicate the non-violation of multicollinearity assumption. The Durbin Watson statistic is used to test the independence of error or lack of autocorrelation assumption of multiple regression. It ranges from zero to four, where two indicates the perfect independence of error or absence of autocorrelation, and a value less than two indicates a positive correlation between the errors or residuals and greater than two indicates a negative correlation between the errors or residuals. The Durbin-Watson statistic between one and three indicates an acceptable range of the independence of error or lack of autocorrelation. More specifically, Field (2009: 220-221) stated that, as a very conservative rule of thumb, the Durbin-Watson statistic values less than one or greater than three are definitely cause for concern.

After identifying the factors determining managerial foresight and microenterprise performance, a path model was computed using the standardized multiple regression beta coefficients of the respective variables to identify the direct and indirect effect of the entrepreneur-, enterprise- and environment-related factors on the microenterprise performance through managerial foresight. The results of the multivariate inferential analysis of factors determining microenterprise performance in terms of profit growth rate, sales growth rate and asset growth rate, and managerial foresight, and their direct and indirect effects on the microenterprise performance are discussed below.

4.3.1 Factors Determining the Profit Growth Rate of Microenterprises

Profit growth rate is also one of the measures of ME performance that has been used as one of the dependent variables in this study. The literature suggested that several entrepreneur-, enterprise-, and environment-related factors determine enterprise performance. In order to identify the factors determining the profit growth

rate of microenterprises, a set of entrepreneur-, enterprise-, and environment-related factors were included in the multiple regression model.

Table 4.18 presents a summary of the multiple regression results. The results show that entrepreneur- and enterprise-related factors determine the profit growth rate. These factors explain around 28 percent of the total variance of profit growth rate of microenterprises (Adjusted $R^2 = .279$, $F = 10.671$, $p < .000$).

Among several entrepreneur-related factors included in the first regression model, managerial skills had the strongest positive influence on profit growth rate ($\beta = .386$, $t = 8.054$, $p < .001$) followed by creative tendency ($\beta = .353$, $t = 7.405$, $p < .001$). The results show that the micro-entrepreneurs that had higher manager skills such as having greater skills in searching and gathering enterprise related information, identifying business opportunities, dealing with risk and adverse situations, establishing relationship with customers and suppliers, making decisions under uncertainty, and learning from experiences tended to have a higher rate of profit growth in the microenterprise. Similarly, the micro-entrepreneurs that were more versatile and creative, for example preferring to be quite good at several things rather than very good at one thing, having many ideas, thinking out of the box, trying new ideas, preferring different ideas and different ways of thinking also tended to have a significantly higher profit growth rate of microenterprises. However, other entrepreneur-related factors such as need for autonomy ($\beta = -.194$, $t = -4.004$, $p < .001$) and internal locus of control ($\beta = -.170$, $t = -2.924$, $p < .01$) were found to have a negative influence on profit growth (see Table 4.18). This implies that the micro-entrepreneurs that preferred their own way rather than thinking much about what others thought, did not seek assistance from others, and though that they did things as expected of them, tended to have a significantly lower profit growth rate of their microenterprise. In the same way, the micro-entrepreneurs that had a greater tendency to believe in themselves, considering achievement as the reward for their own efforts, accepting that the things happened for a reason, recognizing the need of hard work and not luck for success, and so on, tended to have a lower profit growth rate of their microenterprise.

Other entrepreneur-related factors—gender, age, educational attainment, previous experience, need for achievement, calculated risk-taking, and managerial

foresight—did not seem to have significant effects on the profit growth rate of microenterprises. This means that there is no significant difference on the profit growth rate between males and females, the more educated or less educated, older or younger, experienced or inexperienced, more or less oriented towards the need for achievement, more or less calculated risk-takers and having more or less managerial foresight.

Regarding the effects of the enterprise-related factors on the profit growth rate of microenterprises, the initial financial constraint was found to have a significantly positive effect on it ($\beta = .118$, $t = 2.913$, $p < .01$; see Table 4.18). This means that the microenterprises that experienced financial constraints in the beginning had relatively higher profit growth rate than those that did not have such financial constraints. However, other enterprise-related factors such as enterprise age, size and sector were not found to have direct significant effects on the profit growth rate of microenterprises. In the same way, in the case of the effect of the environment-related factors also, the study did not observe their direct significant effects on the profit growth rate of microenterprises (see Table 4.18).

Table 4.18 Regression Results for Profit Growth Rate

Predicting variables	Unstandardized Coefficients	Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Beta			Tolerance	VIF
(Constant)	120.203		10.055	.000		
Entrepreneur-related factors						
Gender	-6.752	-.063	-1.412	.159	.729	1.372
Age	-.034	-.007	-.144	.886	.653	1.531
Educational attainment	-.432	-.033	-.701	.484	.644	1.553
Previous experience	2.791	.027	.532	.595	.568	1.761

Table 4.18 (Continued)

Predicting variables	Unstandardized	Standardized	T	Sig.	Collinearity	
	Coefficients	Coefficients			Tolerance	VIF
	B	Beta				
Managerial Skills	20.857	.386***	8.054	.000	.628	1.594
Need for achievement	-4.235	-.073	-1.290	.198	.456	2.193
Need for autonomy	-12.140	-.194***	-4.004	.000	.613	1.631
Creative tendency	21.789	.353***	7.405	.000	.635	1.575
Calculated risk taking	.256	.004	.085	.932	.527	1.899
Internal locus of control	-9.433	-.170**	-2.924	.004	.429	2.333
Managerial foresight	1.420	.025	.576	.565	.776	1.288
Enterprise-related factors						
Enterprise age	.447	.030	.702	.483	.793	1.260
Enterprise size	4.765E-006	.001	.036	.971	.850	1.177
Enterprise sector	2.907	.022	.571	.568	.952	1.050
Initial financial constraint	12.795	.118**	2.913	.004	.876	1.142
Environment-related factors						
Family environment	.501	.005	.091	.928	.489	2.043
Environmental dynamism	-4.252	-.079	-1.373	.170	.440	2.272

Table 4.18 (Continued)

Predicting variables	Unstandardized	Standardized	T	Sig.	Collinearity	
	Coefficients	Coefficients			Tolerance	VIF
	B	Beta				
Environmental heterogeneity	-.016	.000	-.005	.996	.408	2.449
Environmental hostility	-.386	-.007	-.137	.891	.540	1.852
Social Network	-2.786	-.053	-1.027	.305	.534	1.871

Note: N=501; ⁺p<.01, ^{*}p<.05, ^{**}p<.01, ^{***}p<.001; R² = .308, Adjusted R² = .279; F = 10.671, p<.001; Durbin Watson Statistics = 1.840

4.3.2 Factors Determining the Sales Growth Rate of Microenterprises

Sales growth rate is also one of the measures of the microenterprise performance that has been used as one of the dependent variables in this study. The literature depicts that several entrepreneur-, enterprise- and environment-related factors determine the enterprise performance. In order to identify the factors determining the sales growth rate of microenterprises, a set of entrepreneur-, enterprise-, and environment-related factors were included in the multiple regression model.

Table 4.19 is a summary of the multiple regression results. The results show that some entrepreneur-, enterprise-, and environment-related factors determined the sales growth rate. These factors explain 19.4 percent of total variance of sales growth rate of microenterprises (Adjusted R² = .194, F = 7.012, p<.000).

Among the several entrepreneur-related factors included in the regression model, gender, managerial skills, need of achievement, need for autonomy, creative tendency, internal locus of control and managerial foresight were found to have significant effects on the sales growth rate of microenterprises. Among all significant entrepreneur-related factors, managerial skill was the strongest factor influencing the sales growth rate, followed by creative tendency, need for autonomy, need for

achievement, managerial foresight, internal locus of control, and gender. Managerial skills had a significant positive effect on the sales growth rate ($\beta = .375, p < .001$). This implies that, like profit growth rate, the micro-entrepreneurs that had higher manager skills such as having greater skills in searching and gathering enterprise related information, identifying business opportunities, dealing with risk and adverse situations, establishing relationship with customers and suppliers, making decisions under uncertainty and learning from experiences tended to have a higher rate of sales growth in their microenterprises. Similarly, the creative tendency also had a significant positive effect on the sales growth rate ($\beta = .163, p < .01$). This means that as with profit growth rate, the micro-entrepreneurs that were more versatile and creative, for example preferring to be quite good at several things rather than very good at one thing, having many ideas, thinking out of the box, trying new ideas, and preferring different ideas and different ways of thinking, also tended to have a significantly higher sales growth rate of their microenterprise. In the same way, managerial foresight was also found to have a significant positive effect on sales growth rate ($\beta = .091, p < .05$; see Table 4.19). This indicates that the micro-entrepreneurs that were more oriented towards future, planned for the future, analyzed the facts related to present or future plans in detail rather than the past tended to have a higher sales growth rate than otherwise.

Some of the entrepreneur-related factors such as need for achievement ($\beta = -.138, p < .05$) and need for autonomy ($\beta = -.121, p < .05$) were found to have a significant negative association with sales growth rate of microenterprises. The negative association of the need for achievement with sales growth rate indicated that the micro-entrepreneurs that liked more challenges than easy things, that worked hard to accomplish the work within the deadline, loved to be at work, and thought about success rather than failure if any challenge appeared on the way, tended to have a lower sales growth rate. In the same way, the negative association between the need for autonomy and sales growth rate also indicated that the micro-entrepreneurs that preferred their own way rather than thinking much about what others thought, did not seek for assistance from others, and thought that they did things as expected of them tended to have a significantly lower sales growth rate of microenterprises. Moreover, internal locus of control ($\beta = -.108, p < .10$) and gender (being male, $\beta = -.083, p < .10$;

see Table 4.19) were also found to have marginally significant influences on sales growth rate. The negative association between the internal locus of control and sales growth rate implies that the micro-entrepreneurs that had a greater tendency of believing in themselves, considered achievement as the reward for their own efforts, accepted that things happened for a reason, recognized the need of hard work and not luck in success, and so on tended to have a lower sales growth rate of microenterprises. The negative association of gender (being male) signifies that the female-owned microenterprises have higher sales growth rate than those owned by males. However, the study did not find significant effects of age, educational attainment, previous experience or calculated risk-taking traits of the micro-entrepreneurs on the sales growth rate.

Regarding the effects of enterprise-related factors on the sales growth rate, the initial financial constraint was found to have a significant positive effect on it for the microenterprises ($\beta = .087$, $p < .05$; see Table 4.19). This implies that the microenterprises that faced initial financial constraints had a higher sales growth rate than those that did not have such a constraint. However, other enterprise-related factors such as enterprise size, age of enterprise, and sector of enterprise did not seem to have a significant effect on the sales growth rate of the microenterprises.

Regarding the environment-related factors, the social network was the only factors which was found to have a marginally significant positive association with sales growth rate ($\beta = .103$, $p < .10$; see Table 4.19). This signifies that the micro-entrepreneurs that had better relations with suppliers, customers, public agencies, financial institutions, social institutions, family members, friends, relatives and neighbors tended to have a higher sales growth rate than otherwise. Other environment-related factors such as task environment and family environment did not appear to have a significant effect on the sales growth rate of the microenterprises.

Table 4.19 Regression Results for Sales Growth Rate

Predicting variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Beta			Tolerance	VIF
(Constant)	133.106		12.600	.000		
Entrepreneur-related factors						
Gender	-7.447	-.083 ⁺	-1.762	.079	.729	1.372
Age	-.073	-.017	-.351	.726	.653	1.531
Educational attainment	-.446	-.041	-.820	.413	.644	1.553
Previous experience	-2.063	-.024	-.445	.657	.568	1.761
Managerial Skills	16.938	.375 ^{***}	7.402	.000	.628	1.594
Need for achievement	-6.727	-.138 [*]	-2.319	.021	.456	2.193
Need for autonomy	-6.307	-.121 [*]	-2.354	.019	.613	1.631
Creative tendency	8.432	.163 ^{**}	3.243	.001	.635	1.575
Calculated risk taking	2.805	.058	1.054	.292	.527	1.899
Internal locus of control	-5.037	-.108 ⁺	-1.767	.078	.429	2.333
Managerial foresight	4.334	.091 [*]	1.988	.047	.776	1.288
Enterprise-related factors						
Enterprise age	.836	.067	1.486	.138	.793	1.260
Enterprise size	.000	-.072	-1.644	.101	.850	1.177
Enterprise sector	-3.071	-.028	-.683	.495	.952	1.050
Initial financial constraint	7.900	.087 [*]	2.036	.042	.876	1.142

Table 4.19 (Continued)

Predicting variables	Unstandardized	Standardized	t	Sig.	Collinearity	
	Coefficients	Coefficients			Statistics	
	B	Beta			Tolerance	VIF
Environment-related factors						
Family environment	.991	.012	.203	.839	.489	2.043
Environmental dynamism	-3.730	-.082	-1.363	.174	.440	2.272
Environmental heterogeneity	-.876	-.020	-.310	.756	.408	2.449
Environmental hostility	2.099	.046	.845	.398	.540	1.852
Social Network	4.510	.103 ⁺	1.882	.060	.534	1.871

Note: N=501; ⁺p<.01, *p<.05, **p<.01, ***p<.001; R² = .226, Adjusted R² = .194; F = 7.012, p<.001; Durbin Watson Statistics = 1.904

4.3.3 Factors Determining the Asset Growth Rate of Microenterprises

As with profit growth rate and sales growth rate, asset growth rate was one of the measures of the microenterprise performance used as the dependent variable in this study. The literature depicts that several entrepreneur-, enterprise- and environment-related factors determined enterprise performance. In order to identify the factors determining the asset growth rate of the microenterprises, the set of entrepreneur-, enterprise-, and environment-related factors were included in the multiple regression model.

Table 4.20 presents a summary of the multiple regression results. The results show that some entrepreneur-, enterprise- and environment-related factors determined the asset growth rate. These factors explained 12.5 percent of the total variance of the asset growth rate of microenterprises (Adjusted R² = .125, F = 4.581, p<.000).

Among the several entrepreneur-related factors included in the regression model for asset growth rate, only two factors, creative tendency and managerial foresight, were found to have significant effects on the asset growth rate. Between the two factors, managerial foresight had a stronger influence than creative tendency and had a significant positive effect on asset growth rate ($\beta = .179$, $p < .001$; see Table 4.20). This implies that the micro-entrepreneurs that were more oriented towards the future, planned for the future, analyzed the facts related to present or future plans in detail rather than the past tended to have a higher asset growth rate than otherwise.

Similarly, the creative tendency trait of the micro-entrepreneurs also had a significant positive effect on the asset growth rate ($\beta = .162$, $p < .01$; see Table 4.20). This signifies that the micro-entrepreneurs that were more versatile and creative, for example preferring to be quite good at several things rather than very good at one thing, having many ideas, thinking out of the box, trying new ideas, preferring different ideas and different ways of thinking also tended to have a significantly higher asset growth rate of their microenterprises. However, other entrepreneur-related factors such as gender, age, educational attainment, previous experience, managerial skills, need for achievement, need for autonomy, calculated risk taking and internal locus of control did not appear to have significant effects on the asset growth of the microenterprises.

Regarding the effects of enterprise-related factors, enterprise age and enterprise size were found to have significant effects on asset growth rate. Enterprise age had a positive effect on asset growth rate ($\beta = .158$, $p < .01$). This means that the older enterprises had a higher asset growth rate. On the other hand, enterprise size had a significant negative effect on asset growth rate ($\beta = -.302$, $p < .001$), which implies that the bigger microenterprises had a lower asset growth rate. Other enterprise-related factors such as the sector of the enterprise and initial financial constraints did not seem to have a significant effect on the asset growth rate of the microenterprises.

Among the environment-related factors, social network was the only factor having a significant effect on the asset growth rate of the microenterprises. The social network had a significant positive effect on asset growth rate ($\beta = .123$, $p < .05$, see Table 4.20). This means that the micro-entrepreneurs that had stronger relations with suppliers, customers, public agencies, financial institutions, social institutions, family

members, friends, relatives and neighbors tended to have a higher asset growth rate than otherwise. Other environment-related factors such as task environment and family environment did not appear to have significant effects on the asset growth rate of the microenterprises.

Table 4.20 Regression Results for Asset Growth Rate

Predicting variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Beta			Tolerance	VIF
(Constant)	119.526		12.036	.000		
Entrepreneur-related factors						
Gender	-4.599	-.057	-1.158	.248	.729	1.372
Age	-.039	-.010	-.196	.844	.653	1.531
Educational attainment	-.024	-.002	-.047	.963	.644	1.553
Previous experience	-1.574	-.020	-.361	.718	.568	1.761
Managerial Skills	-.336	-.008	-.156	.876	.628	1.594
Need for achievement	-.278	-.006	-.102	.919	.456	2.193
Need for autonomy	3.401	.072	1.351	.177	.613	1.631
Creative tendency	7.544	.162**	3.086	.002	.635	1.575
Calculated risk taking	-2.818	-.065	-1.127	.260	.527	1.899
Internal locus of control	-2.878	-.069	-1.074	.283	.429	2.333
Managerial foresight	7.720	.179***	3.767	.000	.776	1.288
Enterprise-related factors						

Table 4.20 (Continued)

Predicting variables	Unstandardized	Standardized	t	Sig.	Collinearity	
	Coefficients	Coefficients			Statistics	
	B	Beta			Tolerance	VIF
Enterprise age	1.777	.158**	3.358	.001	.793	1.260
Enterprise size	-.001	-.302***	-6.657	.000	.850	1.177
Enterprise sector	4.253	.043	1.006	.315	.952	1.050
Initial financial constraints	-2.528	-.031	-.693	.489	.876	1.142
Environment-related factors						
Family environment	1.716	.022	.374	.709	.489	2.043
Environmental dynamism	1.557	.038	.605	.546	.440	2.272
Environmental heterogeneity	-3.089	-.076	-1.164	.245	.408	2.449
Environmental hostility	3.085	.075	1.322	.187	.540	1.852
Social Network	4.847	.123*	2.151	.032	.534	1.871

Note: N=501; ⁺p<.01, *p<.05, **p<.01, ***p<.001; R² = .160, Adjusted R² = .125;

F = 4.581, p<.001; Durbin Watson Statistics = 1.991

4.3.4 Factors Determining Managerial Foresight

Managerial foresight refers to the behavior of a manager (Amsteus, 2008). In the context of micro-entrepreneurs, a micro-entrepreneur plays both roles, of an entrepreneur and a manager. Therefore, in this study, managerial foresight refers to the aspect of the managerial foresight of micro-entrepreneurs. For example, the micro-entrepreneurs that were more oriented towards the future, planned for the future, analyzed the facts related to present or future plans in detail rather than the past, and so on tended to have higher managerial foresight.

Regarding managerial foresight, scholars have discussed the direct and mediating association between managerial foresight and enterprise performance. The literature has identified the significant association between managerial foresight and enterprise performance (Slaughter, 1996; Jannek & Burmeister, 2007; DaCosta et al., 2008; Antia et al., 2010; Yuan et al., 2010; Amsteus, 2011). Similarly, scholars have also discussed some of the antecedents that influence managerial foresight, such as environmental conditions, formal systems, training programs, need of skills, education, business awareness, business experience, technology, networks, and so on (Edelman 1992; Anderson, 1997; Slaughter 1997; Mackay & McKiernan, 2004; Amsteus, 2011) and have suggested that enterprise performance is determined by several entrepreneur-, enterprise-, and environment-related factors. In order to identify the factors determining the managerial foresight of microenterprises, the set of entrepreneur-, enterprise-, and environment-related factors were included in the multiple regression model.

Table 4.21 presents a summary of the multiple regression results showing the effect of several entrepreneur-, enterprise-, and environment-related factors on managerial foresight. The results show that some entrepreneur-, enterprise- and environment-related factors determined managerial foresight. These factors explained 19.3 percent of the total variance of asset managerial foresight of micro-entrepreneurs (Adjusted $R^2 = .193$, $F = 7.301$, $p < .000$).

Among the several entrepreneur-related factors included in the regression model for managerial foresight, educational attainment and need for achievement were found to have a significant association with managerial foresight. The results revealed that the educational attainment of micro-entrepreneurs had a significant positive effect on managerial foresight ($\beta = .143$, $p < .01$), meaning that the micro-entrepreneurs with higher educational attainment had greater managerial foresight. Similarly, the need for achievement also had a significant positive association with managerial foresight ($\beta = .127$, $p < .05$). This implies that the micro-entrepreneurs that liked more challenges than easy things, that worked hard to accomplish the work within the deadline, loved to be at work, and thought about success than failure if any challenge appeared on the way tended to have greater managerial foresight. The need for autonomy also appeared to have a marginally significant negative effect on

managerial foresight ($\beta = -.088, p < .10$; see Table 4.21). This means that the micro-entrepreneurs that usually had such personality traits as doing what was expected of them and following instructions carefully, often taking over projects and doing them in their own way, not seeking assistance, and so on, tended to have lower managerial foresight. Other entrepreneur-related factors such as gender, age, previous experience, managerial skills, creative tendency, calculated risk taking, and internal locus of control did not appear to have a direct significant association with managerial foresight.

Regarding the effect of enterprise-related factors on managerial foresight, initial financial constraints and enterprise size were found to have significant effects on managerial foresight. The initial financial constraint had a significant positive effect on managerial foresight ($\beta = .150, p < .001$), meaning that the micro-entrepreneurs whose microenterprises had constraints of financial capital resources in the beginning seemed to have greater managerial foresight than those whose microenterprises did not have such constraints. Similarly, enterprise size also had a significant positive association with managerial foresight ($\beta = .086, p < .05$; see Table 4.21). This implies that the micro-entrepreneurs that owned relatively bigger microenterprises had greater managerial foresight. However, other enterprise-related factors such as enterprise age and enterprise sector did not appear to have a significant association with managerial foresight.

Among the environment-related factors, environmental hostility and social network were found to have a negative association with managerial foresight. Environmental hostility had a significant negative effect on managerial foresight ($\beta = -.286, p < .001$). This means that the micro-entrepreneurs whose microenterprises had a greater environmental threat to their survival, tough price competition, tough product and or service-quality competition, a diminishing market for products, scarce supply of labor or materials, and high government interference had relatively lower managerial foresight. Similarly, the social network also had a significant negative association with managerial foresight ($\beta = -.133, p < .05$; see Table 4.21). This suggests that the micro-entrepreneurs that had stronger relations with suppliers, customers, public agencies, financial institutions, social institutions, family members, friends, relatives and neighbors tended to have relatively lower managerial foresight.

However, other environment-related factors such as environmental dynamism, environmental heterogeneity, and family environment did not appear to have a significant association with managerial foresight.

Table 4.21 Regression Results for Managerial Foresight

Predicting variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Beta			Tolerance	VIF
(Constant)	-.277		-1.257	.210		
Entrepreneur-related factors						
Gender	.104	.055	1.174	.241	.731	1.368
Age	-.001	-.013	-.254	.799	.653	1.531
Educational attainment	.032	.143**	2.876	.004	.655	1.527
Previous experience	-.145	-.079	-1.493	.136	.571	1.753
Managerial Skills	.030	.032	.630	.529	.628	1.592
Need for achievement	.129	.127*	2.138	.033	.460	2.172
Need for autonomy	-.096	-.088 ⁺	-1.722	.086	.617	1.621
Creative tendency	-.012	-.011	-.225	.822	.635	1.575
Calculated risk taking	-.079	-.079	-1.425	.155	.529	1.891
Internal locus of control	-.038	-.040	-.645	.519	.429	2.331
Enterprise-related factors						
Enterprise age	-.003	-.013	-.283	.777	.794	1.260
Enterprise size	4.809E-006	.086*	1.988	.047	.857	1.167
Enterprise sector	-.046	-.020	-.494	.621	.953	1.050

Table 4.21 (Continued)

Predicting variables	Unstandardized	Standardized	t	Sig.	Collinearity	
	Coefficients	Coefficients			Statistics	
	B	Beta			Tolerance	VIF
Initial financial constraints	.285	.150***	3.551	.000	.899	1.112
Environment-related factors						
Family environment	-.064	-.036	-.631	.528	.490	2.041
Environmental dynamism	-.083	-.088	-1.453	.147	.442	2.262
Environmental heterogeneity	.084	.089	1.423	.155	.410	2.439
Environmental hostility	-.272	-.286***	-5.387	.000	.573	1.746
Social Network	-.121	-.133*	-2.427	.016	.541	1.849

Note: N=501; ⁺p<.01, *p<.05, **p<.01, ***p<.001; R² = .224, Adjusted R² = .193; F = 7.301, p<.001; Durbin-Watson Statistics = 1.112

4.3.5 Path Analysis of the Effects of the Predictors on Sales Growth Rate

Sewall Wright developed the technique of path analysis to study the direct and indirect effects of the predictors on the dependent variable (Pedhazur, 1982: 580). Wright (1921 quoted in Pedhazur, 1982: 580) further argues that “in cases in which the causal relations are uncertain, the method can be used to find the logical consequences of any particular hypothesis in regard to them.”

The present path analysis focused on the predictors of the sales growth rate of the microenterprises. The entrepreneur-related factors (gender, age, educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, calculated risk-taking and internal locus of control, and managerial foresight), enterprise-related factors (enterprise age, enterprise size, enterprise sector

and initial financial constraint), and environment-related factors (family environment, environmental dynamism, environmental heterogeneity and environmental hostility, and social network) were configured into the hypothesized path model as shown in Figure 2.1 Two sets of ordinary multiple regression analyses were performed to evaluate the model.

The variance of sales growth rate was significantly predicted from the set of entrepreneur-, enterprise-, and environment-related factors ($R^2 = .226$, adjusted $R^2 = .194$, $F = 7.012$, $p < .001$). The study revealed that among the factors included in the model, the entrepreneur-related factors: gender, managerial skills, need for achievement, need for autonomy, managerial foresight and creative tendency, and the enterprise-related factor: initial financial constraint, were the significant predictors of sales growth rate ($p < .05$). Similarly, some other entrepreneur-related factors: gender and internal locus of control, the enterprise-related factor: enterprise size, and the environment-related factor: social network, were the marginally significant predictors ($p < .10$) of the sales growth rate of the microenterprises (see Table 4.22).

The variance of managerial foresight was significantly predicted from the set of entrepreneur-, enterprise-, and environment-related factors ($R^2 = .224$, adjusted $R^2 = .193$, $F = 7.301$, $p < .001$). The study revealed that among the factors included in the model, the entrepreneur-related factors: educational attainment and need for achievement; the enterprise-related factor: initial financial constraint; and the environment-related factors: environmental hostility and social network were the significant predictors of managerial foresight ($p < .05$). Similarly, one of the entrepreneur-related factors and one of the enterprise-related factors—need for autonomy and enterprise size respectively—were marginally-significant predictors ($p < .10$) of managerial foresight (see Table 4.22).

The path coefficients for the complete model are displayed in Figure 4.1 and are summarized in Table 4.22 under direct effects. The path model illustrates that the predictors such as gender, managerial skills, internal locus of control, creative tendency and managerial foresight had a direct effect on the sales growth rate. The need for autonomy, need for achievement, initial financial constraint, and social network had both direct and indirect effects on the sales growth rate. However, educational attainment, enterprise size, and environmental hostility seemed to have

only indirect effects on the sales growth rate. Moreover, managerial foresight besides its direct effect on sales growth rate also appeared to mediate the effects of other predictors on the sales growth rate of the microenterprises (see Figure 4.1).

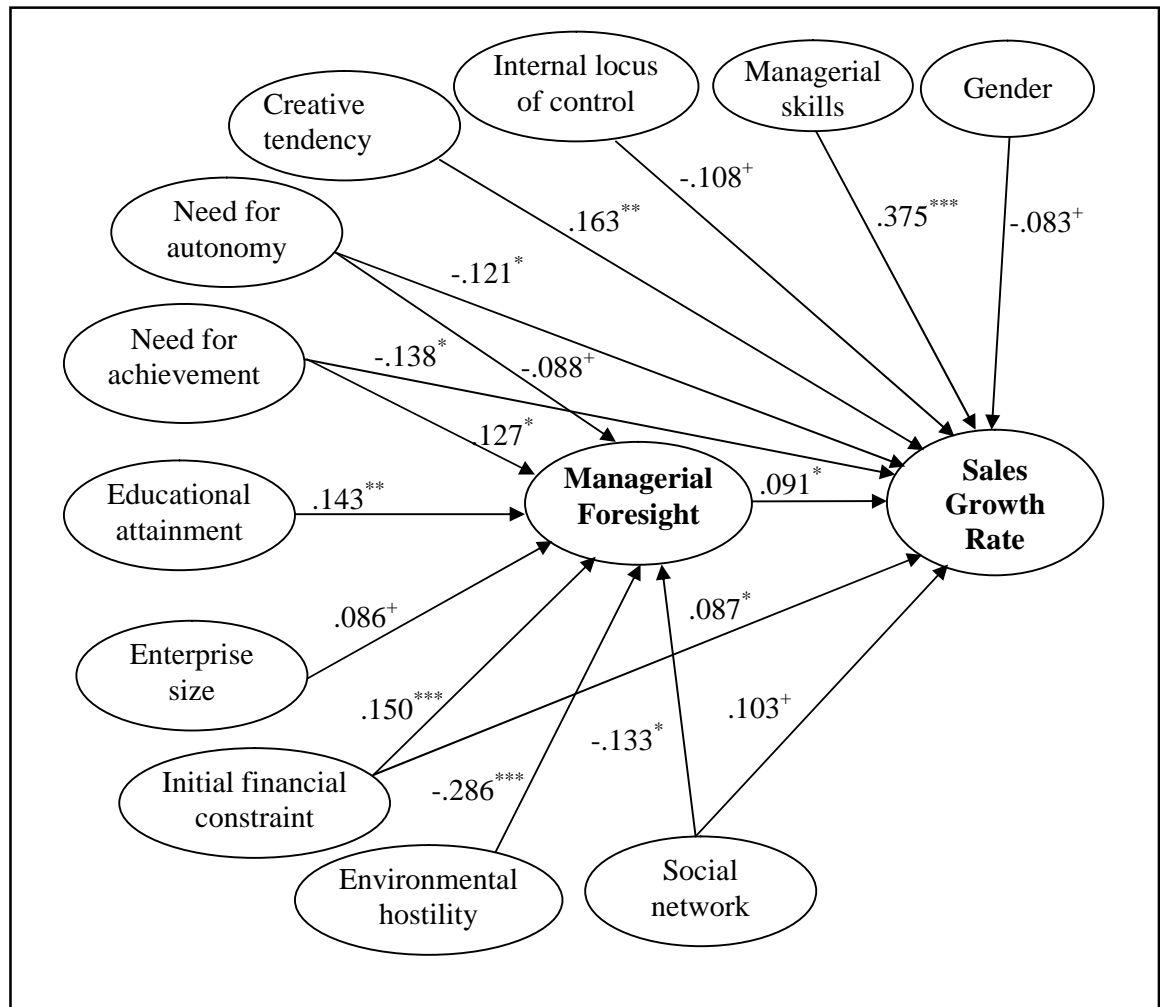


Figure 4.1 A Path Model for Sales Growth Rate

Note: N=501; ⁺p<.01, *p<.05, **p<.01, ***p<.001

As can be seen in Table 4.22, the predictors included in the path model for sales growth rate account for 19.4 percent of the variance in the sales growth rate of the microenterprises. Managerial foresight was found to have significant mediating effects of several antecedents on sales growth rate. The effects of need for

achievement, enterprise size, initial financial constraint and social network on sales growth rate were significantly mediated by managerial foresight; thus, these variables tended to have significant direct and indirect effects on the sales growth rate of the microenterprises. Table 4.22 presents the direct and indirect causal effects of the predictors.

Among several entrepreneur-related factors, the entrepreneurial traits related factors such as the need for achievement and need for autonomy were found to have both direct and indirect effects on the sales growth rate of the microenterprises. Need for achievement, despite having direct negative effects on the sales growth rate of microenterprises, had significant positive effects on them through managerial foresight. This is perhaps one of the very interesting results of the path model. It was very interesting to see that need for achievement had a direct negative effect ($\beta = -0.138$, $p < .05$) but an indirect positive effect on the same variable ($\beta = 0.012$, $p < .05$; see Table 4.22). This implies that the microenterprises owned by the micro-entrepreneurs that were more achievement oriented, or in other words that liked challenges, worked hard to get the things done within the deadline, found it difficult to switch off from work completely and thought more about the results of succeeding than the effects of failing, and if they possessed more foresight, tended to have a higher sales growth rate. These micro-entrepreneurs might plan for the future rather than for the present only, and they might always increase sales at the cost of immediate return but for long-term benefit and sustainability, thus leading towards higher sales growth rate. On the other hand, if the micro-entrepreneurs that were more oriented towards the need for achievement and lacked foresight, then they might want immediate benefits or return than the benefits or returns in the future. They might not plan for the future in much detail, thus resulting in relatively a lower sales growth rate.

Need for autonomy had both a direct and indirect negative effect on sales growth rate ($\beta = -0.121$, $p < .05$, $\beta = -0.008$, $p < .10$ respectively). This means that the microenterprises owned by the micro-entrepreneurs that usually did what was expected of them, often took over projects and steered them their way without worrying about what other people thought, rarely needed or wanted any assistance

from others, wanted to put their own stamp on the work that they did, and so on tended to have relatively lower managerial foresight and sales growth rate.

Among the enterprise-related factors included in the model, initial financial constraint was found to have both direct and indirect effects on effect sales growth rate of effect microenterprises. Initial financial constraint, apart from having a significantly positive direct effect on sales growth rate ($\beta = 0.087$, $p < .05$), also had a significantly positive indirect effect on effect sales growth rate of effect microenterprises through managerial foresight ($\beta = 0.014$, $p < .001$; see Table 4.22). This signifies that the microenterprise that had a financial constraint in the beginning tended to more foresight-full and thus had a significant positive effect on effect sales growth rate.

Regarding the environment-related factors, social network, although marginally significant, was the only factor having both direct and indirect effects on the sales growth rate of the microenterprises. Social network, despite having a marginally significant positive effect on sales growth rate ($\beta = 0.103$, $p < .10$), also had significantly-negative effects on sales growth rate through managerial foresight ($\beta = -0.012$, $p < .05$). This implies that the micro-entrepreneurs that had a stronger relationship with suppliers, customers, public agencies, financial institutions, social institutions, relatives, friends, family members, and neighbors had lower managerial foresight, and therefore, indirectly influencing the sales growth rate of the microenterprise negatively.

Educational attainment, enterprise size, and environmental hostility, since they had an association with managerial foresight only, seemed to have only indirect effects on the sales growth rate. Educational attainment appeared to have a significant positive effect on the sales growth rate of the microenterprises through managerial foresight ($\beta = 0.013$, $p < .01$; see Table 4.22). This means that the entrepreneurs with higher educational attainment had higher managerial foresight and thus a higher sales growth rate. Similarly, enterprise size also had an indirect positive effect on sales growth rate through managerial foresight ($\beta = 0.008$, $p < .05$; see Table 4.22). This implies that the owners of the microenterprises that were bigger in size, if they were more foresight-full, these microenterprises had a higher sales growth rate. The more foresight-full micro-entrepreneurs might plan more for the future than only for the

present, and they might tend to increase sales at the cost of immediate return, but for long-term benefit and sustainability, thus leading to a higher sales growth rate. On the other hand, if the owners of bigger microenterprises lacked foresight, then they might want immediate benefits or returns rather than benefits or returns in the future. Further, they might not plan for the future in much detail, thus resulting in a lower sales growth rate. Consequently, only having a bigger microenterprise is not enough to have higher sales, but the micro-entrepreneur needs to have greater managerial foresight.

Environmental hostility seemed to have a significant negative effect on the sales growth rate of the microenterprises ($\beta = -0.026$, $p < .05$; see Table 4.22). This signifies that the microenterprises that were operating in a highly competitive threatening market regarding the product, service quality, price, supply of labor, raw materials, and government interference tended to have a lower sales growth rate.

Table 4.22 Direct and Indirect Causal Effects of Predicting Variables on Sales Growth Rate

Predicting variables	Causal effects		
	Direct	Indirect	Total
Managerial foresight (Adjusted $R^2 = .193$, $F = 7.301$, $p < .001$)			
Entrepreneur-related factors			
Gender	0.055		0.055
Age	-0.013		-0.013
Educational attainment	.143**		0.143
Previous experience	-0.079		-0.079
Managerial skills	0.032		0.032
Need for achievement	.127*		0.127
Need for autonomy	-.088+		-0.088
Creative tendency	-0.011		-0.011
Calculated risk taking	-0.079		-0.079
Internal locus of control	-0.04		-0.04

Table 4.22 (Continued)

Predicting variables	Causal effects		
	Direct	Indirect	Total
Enterprise-related factors			
Enterprise age	-0.013		-0.013
Enterprise size	.086 [*]		0.086
Enterprise sector	-0.02		-0.02
Initial financial constraints	.150 ^{***}		0.15
Environment-related factors			
Family environment	-0.036		-0.036
Environmental dynamism	-0.088		-0.088
Environmental heterogeneity	0.089		0.089
Environmental hostility	-.286 ^{***}		-0.286
Social network	-.133 [*]		-0.133
Sales growth (Adjusted R² = .194, F = 7.012, p<.001)			
Entrepreneur-related factors			
Managerial foresight	0.091 [*]	---	0.091
Gender	-0.083 ⁺	0.005	-0.078
Age	-0.017	-0.001	-0.018
Educational attainment	-0.041	0.013 ^{**}	-0.028
Previous experience	-0.024	-0.007	-0.031
Managerial Skills	0.375 ^{***}	0.003	0.378
Need for achievement	-0.138 [*]	0.012 [*]	-0.126
Need for autonomy	-0.121 [*]	-0.008 ⁺	-0.129
Creative tendency	0.163 ^{**}	-0.001	0.162
Calculated risk taking	0.058	-0.007	0.051
Internal locus of control	-0.108 ⁺	-0.004	-0.112
Enterprise-related factors			
Enterprise age	0.067	-0.001	0.066
Enterprise size	-0.072	0.008 [*]	-0.064

Table 4.22 (Continued)

Predicting variables	Causal effects		
	Direct	Indirect	Total
Enterprise sector	-0.028	-0.002	-0.030
Initial financial constraints	0.087 [*]	0.014 ^{***}	0.101
Environment-related factors			
Family environment	0.012	-0.003	0.009
Environmental dynamism	-0.082	-0.008	-0.090
Environmental heterogeneity	-0.020	0.008	-0.012
Environmental hostility	0.046	-0.026 ^{***}	0.020
Social network	0.103 ⁺	-0.012 [*]	0.091

Note: N=501; ⁺p<.01, ^{*}p<.05, ^{**}p<.01, ^{***}p<.001

4.3.6 Path Analysis of the Predictors of Asset Growth Rate

The path analysis under this section focused on the predictors of the asset growth rate of the microenterprises. The entrepreneur-related factors (gender, age, educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, calculated risk taking and internal locus of control, and managerial foresight), enterprise-related factors (enterprise age, enterprise size, enterprise sector and initial financial constraint), and environment-related factors (family environment, environmental dynamism, environmental heterogeneity and environmental hostility, and social network) were configured into the hypothesized path model as shown in Figure 2.1. Two sets of ordinary multiple regression analyses were performed to evaluate the model.

The variance of the asset growth rate was significantly predicted from the set of entrepreneur-, enterprise-, and environment-related factors ($R^2 = .160$, adjusted $R^2 = .125$, $F = 4.581$, $p < .001$). The study revealed that among the factors included in the model for the asset growth rate, the entrepreneur-related factors: creative tendency, need for achievement, need for autonomy and managerial foresight; the enterprise-related factors: enterprise age and initial financial constraints and enterprise size; and

the environment-related factors: social network and environmental hostility were the predictors of the asset growth rate of the microenterprises ($p < .05$). Similarly, the variance of managerial foresight was significantly predicted from the set of entrepreneur-, enterprise- and environment-related factors ($R^2 = .224$, adjusted $R^2 = .193$, $F = 7.301$, $p < .001$). Among the factors included in the model for managerial foresight, the entrepreneur-related factors: need for achievement and educational attainment; the enterprise-related factors: enterprise size and initial financial constraint; and the environment-related factors: environmental hostility and social network were significant predictors ($p < .05$); and one of the entrepreneur-related factors, the need for autonomy, was a marginally-significant predictor ($p < .10$) of the managerial foresight of the micro-entrepreneurs. The significant association between managerial foresight and sales growth, and with the entrepreneur-, enterprise- and environment-related factors indicated that the factors included in the models, besides having significant direct effects, also had significant indirect effects on the asset growth rate of the microenterprises.

The path coefficients for the complete model are displayed in Figure 4.2 and are summarized in Table 4.23 under direct effects. The path model demonstrates that the predictors—creative tendency, managerial foresight and enterprise age—had significant direct effects on asset growth rate. Similarly, enterprise size and social network had both direct and indirect effects on asset growth rate, and educational attainment, need for achievement, need for autonomy, initial financial constraint, and environmental hostility had only indirect effects on the sales growth rate of the microenterprises (see Figure 4.2).

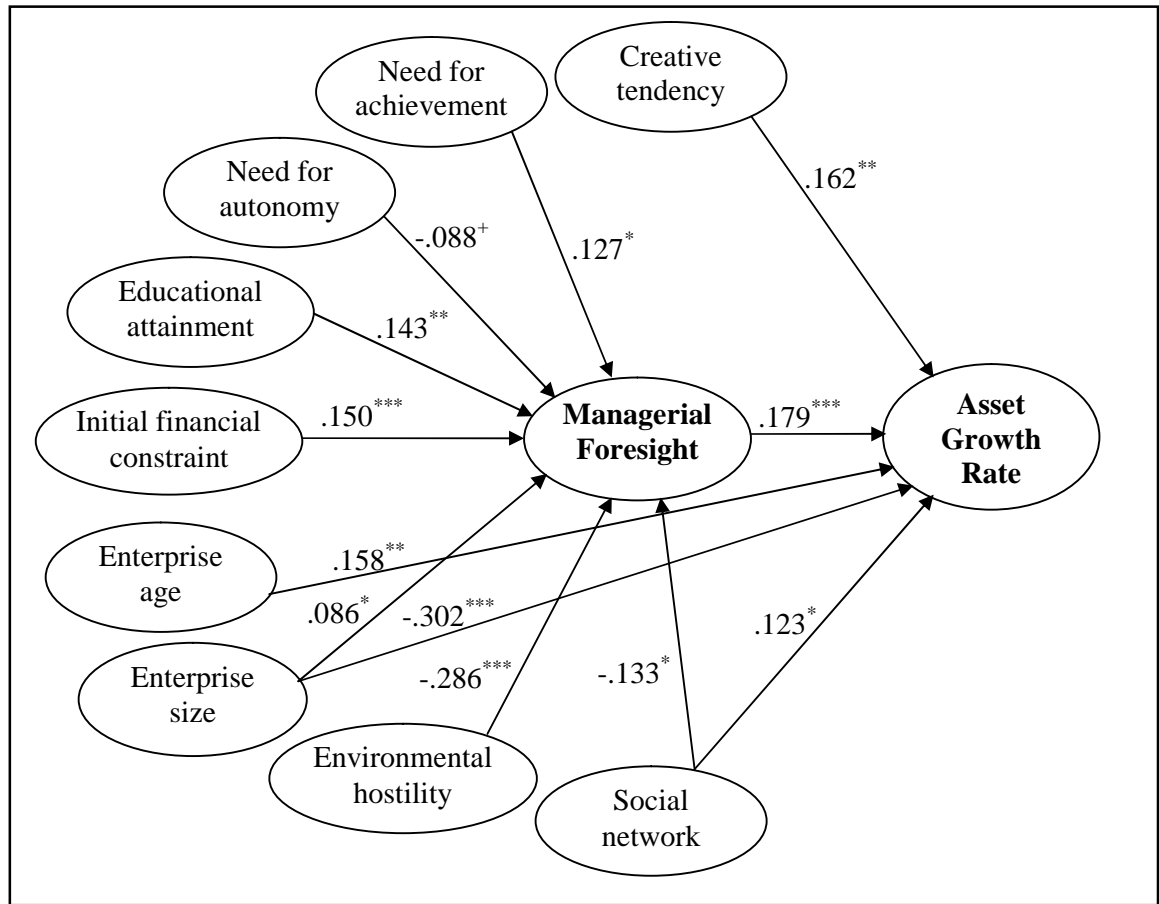


Figure 4.2 A Path Model for Asset Growth Rate

Note: N=501; ⁺p<.01, *p<.05, **p<.01, ***p<.001

As can be seen in Table 4.23, the predictors included in the path model for asset growth rate accounted for 12.5 percent of the variance in the asset growth rate of the microenterprises. The study revealed that managerial foresight had significant mediating effects on asset growth rate. Furthermore, the effects of enterprise size and social network on asset growth rate, apart from their direct effect on asset growth rate, were significantly mediated by managerial foresight; thus, these variables had also indirect effects on the asset growth rate of the microenterprises.

Table 4.23 presents the direct and indirect causal effects of the predictors on the asset growth rate of the microenterprises. Among several entrepreneur-related factors, creative tendency and managerial foresight had direct effects on the asset

growth rate of the microenterprises. Educational attainment and need for achievement, although they did not have a direct effect on the asset growth rate of the microenterprises, appeared to have indirect positive effects on asset growth rate through managerial foresight ($\beta = 0.026$, $p < .01$ and $\beta = 0.023$, $p < .05$; see Table 4.23). The results imply that the micro-entrepreneurs that had higher educational attainment had higher managerial foresight thereby indirectly influencing asset growth rate positively. Similarly, the micro-entrepreneurs that were more achievement oriented or in other words that liked challenges, worked hard to get the things done within the deadline, found it difficult to switch off from work completely and thought more about the results of succeeding than the effects of failing, and if they possessed greater foresight, had a higher asset growth rate. The reason behind this could be that these micro-entrepreneurs might plan more for the future than only for the present, and they might increase their assets at the cost of immediate returns but for long-term benefit and sustainability, thus leading to a higher asset growth rate. On the other hand, if the micro-entrepreneurs that were more oriented towards need achievement but lacked foresight, they might want immediate benefits or returns than benefits or returns in the future. They might not plan the future in much detail and might not invest in an asset, thus resulting in a lower asset growth rate.

However, the need for autonomy was found to have a marginally-significant negative, indirect effect on asset growth rate. This means that the microenterprises owned by the entrepreneurs that usually did what was expected of them, followed instructions carefully, often took over projects and steered them their way without worrying about what other people thought, rarely needed or wanted any assistance from others, liked to put their own stamp on the work that they did, and so on tended to have less managerial foresight and thus had a relatively lower asset growth rate.

Among the enterprise-related factors included in the model, enterprise size was the only factor having both a direct and indirect effect on the asset growth rate of the microenterprise. Enterprise size, despite having a significant direct negative effect on the asset growth rate of microenterprises ($\beta = -0.302$, $p < .001$), also had a significant indirect positive effect on asset growth rate through managerial foresight ($\beta = 0.015$, $p < .05$; see Table 4.23). This result seems very interesting, where the same predictor has opposite effects on the same variable in two different conditions. This implies that

if the owners of the microenterprises that are bigger in size have greater foresight, these microenterprises will have a higher asset growth rate. Micro-entrepreneurs with more foresight might plan more for the future than only for the present, and they might tend to increase assets at the cost of immediate returns, but for long-term benefit and sustainability, thus leading to a higher asset growth rate. On the other hand, if the owners of bigger microenterprises lack foresight, then as in the case of the need of achievement-oriented micro-entrepreneurs, they also might want immediate benefits or returns than benefits or returns in the future; they also might not plan with much detail for the future, thus resulting in a lower asset growth rate.

Likewise, other enterprise-related factors such as enterprise age had a direct effect on asset growth rate ($\beta = 0.158$, $p < .01$), and initial financial constraint appeared to have only an indirect effect on the asset growth rate of the microenterprises through managerial foresight ($\beta = 0.027$, $p < .001$; see Table 4.23). The indirect positive effect of initial financial constraint on asset growth rate signified that the microenterprise, which had a financial constraint in the beginning appeared to have greater foresight and this thus had a significant positive effect on asset growth rate. The reason behind the significant positive indirect effect of initial financial constraint on the asset growth rate could be because the owners of these microenterprises that had such financial constraint were more conscious and careful about the future due to their experience of financial constraint in the past. They might have learnt from the prior experiences and made more detailed plans for future benefits and sustainability rather than only immediate benefits, therefore leading to a higher asset growth rate. On the other hand, the owners of the microenterprises that did not have such financial constraint might not have been very conscious or worried about the future. Because of their financial strength or financial security, they might have had higher confidence in adapting another business in the future even if the current enterprise failed. Therefore, they might have focused more on benefits or returns at present rather than investing in assets, thus resulting in relatively lower managerial foresight and asset growth rate of the microenterprises.

Regarding environment-related factors, social network was the only factor having both direct and indirect effects on the asset growth rate of the microenterprises. Social network, despite having direct positive effects on asset

growth rate ($\beta = 0.123$, $p < .05$), had negative effects on asset growth rate through managerial foresight ($\beta = -0.024$, $p < .05$; see Table 4.23). This implies that the micro-entrepreneurs that had a stronger relationship with suppliers, customers, public agencies, financial institutions, social institutions, relatives, friends, family members and neighbors had less managerial foresight, therefore indirectly influencing the asset growth rate of the microenterprise negatively. This was also an interesting result of this study. The reason behind this could be a similar reason to its effect on sales growth rate, such as the confidence of the micro-entrepreneurs in the social network. These microenterprises might be getting an advantage from their relations in the social network, and the quality of these relations might have influenced their confidence; therefore, they may not worry much about the future, thereby affecting asset growth rate negatively through managerial foresight. These micro-entrepreneurs would have achieved a higher asset growth rate if they could also plan for the future in a more detailed way.

Similarly, environmental hostility, since it had an association with managerial foresight only, appeared to have only indirect effects on asset growth rate. Environmental hostility had a significant negative effect on the asset growth rate of microenterprises ($\beta = -0.051$, $p < .001$; see Table 4.23). However, other task-environment related factors, such as environmental dynamism and environmental heterogeneity, were not found to have significant effects on asset growth rate (see Table 4.23).

Table 4.23 Direct and Indirect Causal Effects of the Predicting Variables on Asset Growth Rate

Predicting variables	Causal effects		
	Direct	Indirect	Total
Managerial foresight (Adjusted $R^2 = .193$, $F = 7.301$, $p < .001$)			
Entrepreneur-related factors			
Gender	0.055		0.055
Age	-0.013		-0.013

Table 4.23 (Continued)

Predicting variables	Causal effects		
	Direct	Indirect	Total
Educational attainment	0.143 ^{**}		0.143
Previous experience	-0.079		-0.079
Managerial skills	0.032		0.032
Need for achievement	0.127 [*]		0.127
Need for autonomy	-0.088 ⁺		-0.088
Creative tendency	-0.011		-0.011
Calculated risk taking	-0.079		-0.079
Internal locus of control	-0.040		-0.040
Enterprise-related factors			
Enterprise age	-0.013		-0.013
Enterprise size	0.086 [*]		0.086
Enterprise sector	-0.020		-0.020
Initial financial constraints	0.150 ^{***}		0.150
Environment-related factors			
Family environment	-0.036		-0.036
Environmental dynamism	-0.088		-0.088
Environmental heterogeneity	0.089		0.089
Environmental hostility	-0.286 ^{***}		-0.286
Social Network	-0.133 [*]		-0.133
Asset growth (Adjusted R² = .125, F = 4.581, p<.001)			
Entrepreneur-related factors			
Managerial foresight	0.179 ^{***}	---	0.179
Gender	-0.057	0.010	-0.047
Age	-0.010	-0.002	-0.012
Educational attainment	-0.002	0.026 ^{**}	0.024
Previous experience	-0.020	-0.014	-0.034
Managerial Skills	-0.008	0.006	-0.002

Table 4.23 (Continued)

Predicting variables	Causal effects		
	Direct	Indirect	Total
Need for achievement	-0.006	0.023 [*]	0.017
Need for autonomy	0.072	-0.016 ⁺	0.056
Creative tendency	0.162 ^{**}	-0.002	0.160
Calculated risk taking	-0.065	-0.014	-0.079
Internal locus of control	-0.069	-0.007	-0.076
Enterprise-related factors			
Enterprise age	0.158 ^{**}	-0.002	0.156
Enterprise size	-0.302 ^{***}	0.015 [*]	-0.287
Enterprise sector	0.043	-0.004	0.039
Initial financial constraints	-0.031	0.027 ^{***}	-0.004
Environment-related factors			
Family environment	0.022	-0.006	0.016
Environmental dynamism	0.038	-0.016	0.022
Environmental heterogeneity	-0.076	0.016	-0.060
Environmental hostility	0.075	-0.051 ^{***}	0.024
Social Network	0.123 [*]	-0.024 [*]	0.099

Note: N=501; ⁺p<.01, ^{*}p<.05, ^{**}p<.01, ^{***}p<.001

4.3.7 Analysis of the Robustness of the Predictors of ME Performance

With the aim of identifying relatively stronger predictors of the microenterprise performance, a robustness analysis of the predictors of microenterprise performance was performed. Table 4.24 presents the direct and indirect effects of the predictors on profit, sales, and asset growth rates, and managerial foresight, level of significance and the respective 't' statistics. The 't' statistics point out the strength of the predictor in the model.

The summary of the regression results for the measures of the microenterprise performance shows that entrepreneur-related factors were the strongest factors to

influence the microenterprise performance, followed by enterprise-related factors and environment-related factors. Among the 20 factors included in the regression models to examine their influence on the different measures of the microenterprise performance, 13 factors were identified to have direct and or indirect effects on microenterprise performance. Among the factors having a significant influence on microenterprise performance, eight were entrepreneur-related factors: gender, educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, internal locus of control, and managerial foresight. Four of the entrepreneur-related factors were the first four strongest predictors: creative tendency, managerial skills, need for autonomy, and managerial foresight.

Creative tendency, having significant direct positive effects on all of the measures of the microenterprise performance—profit, sales, and asset growth rates—was the most robust predictor among all the factors determining ME performance. It was the second strongest predictor among all the predictors determining profit growth rate ($\beta = .353$, $p < .001$, $t = 7.405$), second strongest for sales growth rate ($\beta = .163$, $p < .01$, $t = 3.243$), and fourth strongest for asset growth rate ($\beta = .162$, $p < .01$, $t = 3.086$; see Table 4.24) of microenterprises. Creative tendency was the only predictor that had significant positive effects on all the measures of ME performance. It can be concluded that the micro-entrepreneurs that were more versatile and creative, for example, preferring to be quite good at several things rather than very good at one thing, having many ideas, thinking out of the box, trying new ideas, and preferring different ideas and different ways of thinking, also tended to exhibit significantly higher microenterprise performance.

Managerial skill, having significant direct positive effects on the profit and sales growth rates of the microenterprises, was the second strongest variable determining microenterprise performance. It was the first strongest factor determining the profit growth rate ($\beta = .386$, $p < .001$, $t = 8.054$) and the sales growth rate of the microenterprises ($\beta = .375$, $p < .001$, $t = 7.402$; see Table 4.24). However, it did not seem to have a significant influence on asset growth rate. It can be concluded that the micro-entrepreneurs that had higher manager skills, such as having greater skills in searching and gathering enterprise-related information, identifying business opportunities, dealing with risk and adverse situations, establishing a relationship with

customers and suppliers, making decisions under uncertainty, and learning from experience tended to exhibit relatively higher microenterprise performance.

The need for autonomy having significant direct and/or indirect negative effects on the profit, sales, and asset growth rates of microenterprises was the third strongest factor determining ME performance. It was the third strongest factor determining profit growth rate ($\beta = -0.194$, $p < .001$, $t = -4.004$) and sales growth rate ($\beta = -0.121$, $p < .05$, $t = -2.354$). Moreover, the need for autonomy, although marginally significant, had an indirect effect on asset growth rate through managerial foresight ($\beta = -0.016$, $p < .10$; see Table 4.24). It can be concluded that the micro-entrepreneurs that preferred their own way rather than thinking much about what others thought, did not seek assistance from others, and thought that they did things as expected of them tended to have relatively lower microenterprise performance.

Managerial foresight, having significant positive effects on the sales and asset growth rates of the microenterprises, was the fourth strongest factor determining the microenterprise performance. It was the second strongest predictor of asset growth rate ($\beta = .179$, $p < .001$, $t = 3.767$) and the sixth strongest predictor of sales growth rate ($\beta = .091$, $p < .05$, $t = 1.988$; see Table 4.24). Moreover, managerial foresight also mediated the effects of other predictors on the sales and asset growth rates. It can be concluded that the micro-entrepreneurs with greater managerial foresight or in more simple words, the micro-entrepreneurs that were more oriented towards the future, planned for the future, analyzed the facts related to present or future plans in detail rather than the past tended to have relatively higher microenterprise performance.

Initial financial constraint, having a significant direct effect on the profit growth rate, direct and indirect effects on the sales growth rate, and indirect effects on the asset growth rate, was in the fifth position among the strongest predictors of the microenterprise performance. It was the fifth strongest predictor of profit growth rate ($\beta = .118$, $p < .01$, $t = 2.913$) and sales growth rate ($\beta = .087$, $p < .05$, $t = 2.036$) and had significant indirect positive effects on the sales growth rate ($\beta = .014$, $p < .001$) and asset growth rate ($\beta = .027$, $p < .001$; see Table 4.24) through managerial foresight. It can be concluded that the owners of the microenterprises that had financial constraints in the beginning phase tended to have greater managerial foresight, therefore resulting in relatively higher microenterprise performance.

Social network, having significant direct and indirect effects on the sales and asset growth rates, was in the sixth position among the strongest predictors of the microenterprise performance. It was the fourth strongest direct predictor of asset growth rate ($\beta = .122$, $p < .05$, $t = 2.130$) and the seventh strongest predictor of sales growth rate ($\beta = .103$, $p < .10$, $t = 1.882$). However, social network also had significant indirect negative effects on had sales growth rate ($\beta = -.012$, $p < .05$) and asset growth rate ($\beta = -.024$, $p < .05$; see Table 4.24) through managerial foresight. It can be concluded that the micro-entrepreneurs that had a stronger relationship with suppliers, customers, public agencies, financial institutions, social institutions, family members, relatives, friends, neighbors, and so on, tended to influence the microenterprise performance positively, but negatively through managerial foresight.

Enterprise size, having direct effects on had sales and asset growth rates, was in the seventh position among the strongest predictors of the microenterprise performance. It was the strongest predictor of asset growth rate ($\beta = -.302$, $p < .001$, $t = -6.657$). Enterprise size also had significant indirect positive effects on the sales growth rate ($\beta = .008$, $p < .05$) and asset growth rate ($\beta = .015$, $p < .05$; see Table 4.24) through managerial foresight. It can be concluded that generally bigger microenterprises have a lower growth rate, but if the owners have greater managerial foresight, bigger enterprises also can have a higher sales and asset growth rates, therefore leading to higher microenterprise performance.

Internal locus of control, having significant direct effects on profit and sales growth rates, was in the eighth position among the strongest predictors of the microenterprise performance. It was the fourth strongest predictor of had profit growth rate ($\beta = -.170$, $p < .01$, $t = -2.924$) and the eighth strongest predictor of had sales growth rate ($\beta = -.108$, $p < .10$, $t = -1.767$; see Table 4.24). It can be concluded that the micro-entrepreneurs that had a greater tendency of believing in themselves, considered achievement as the reward for their own efforts, accepted that things happened for a reason, recognized the need of hard work and not luck in success, and so on tended to exhibit relatively lower microenterprise performance.

Need for achievement, having significant direct and indirect effects on had sales growth rate and an indirect effect on had asset growth rate, was in the ninth position among the strongest predictors of microenterprise performance. It was the

fourth strongest direct predictor of had sales growth rate ($\beta = -.138$, $p < .05$, $t = -2.319$). It also had significant indirect positive effects on had sales growth rate ($\beta = .012$, $p < .05$) and asset growth rate ($\beta = .023$, $p < .05$; see Table 4.24) through managerial foresight. It can be concluded that the micro-entrepreneurs that liked more challenges than easy things, that worked hard to accomplish the work within the deadline, loved to be at work, and thought about success rather than failure if any challenge appeared on the way, tended to have lower microenterprise performance. However, if these micro-entrepreneurs were equipped with greater managerial foresight, they tended to achieve higher microenterprise performance.

Enterprise age, having a significant positive effect on asset growth rate, was in the tenth position among the strongest predictors of the microenterprise performance. It was the third strongest predictor of had asset growth rate ($\beta = .158$, $p < .01$, $t = 3.358$; see Table 4.24). It can be concluded that the older microenterprises had relatively higher performance.

Among the environment-related factors, environmental hostility was the only factor having effects on microenterprise performance. Environmental hostility having significant indirect effects on had sales and asset growth rates was in the eleventh position among the strongest predictors of microenterprise performance. It had significant indirect negative effects on had sales growth rate ($\beta = -.026$, $p < .001$) and asset growth rate ($\beta = .051$, $p < .001$; see Table 4.24) through managerial foresight. It can be concluded that the microenterprises threatened by a diminishing market for products, competition in products, series quality and prices, scarce supply of labor and raw materials, and government interference tended to have a lower sales growth rate but higher asset growth rates. This implies that the micro-entrepreneurs in such an environment invested more in enterprise assets than in the cost of sales growth.

Educational attainment, having significant indirect effects on had sales and asset growth rates, was in the twelfth position among the strongest predictors of the microenterprise performance. It had significant indirect positive effects on had sales growth rate ($\beta = .013$, $p < .05$) and asset growth rate ($\beta = .026$, $p < .001$; see Table 4.24) through managerial foresight. It can be concluded that the micro-entrepreneurs that had higher educational attainment had greater managerial foresight, therefore leading to higher microenterprise performance.

Last, gender, having a marginally significant effect on had sales growth rate only ($\beta = -.083$, $p < .10$, $t = 1.762$; see Table 4.24), was in the thirteenth position among the strongest predictors of the microenterprise performance. It can be concluded that the microenterprises owned by female micro-entrepreneurs had relatively higher performance than their male counterparts.

Nevertheless, other factors that were assumed to have effects on microenterprise performance, such as the micro-entrepreneur's age, previous experience, the calculated risk-taking traits of the entrepreneur, enterprise sector, environmental dynamism and environmental heterogeneity, and family environment were not found to have significant effects on microenterprise performance in Nepal.

Table 4.24 Direct and Indirect Effects of Predictors on Profit, Sales, and Asset Growth Rates

Predicting variables	Profit Growth Rate		Sales Growth Rate			Asset Growth Rate			Managerial foresight	
	Direct		Direct	Indirect	Direct	Indirect	Direct	Direct		
	()	t	()	t	()	()	t	()	t	
Entrepreneur-related factors										
Gender	-.063	-1.412	-.083 ⁺	-1.762	0.005	-.057	-1.158	0.010	.055	1.174
Age	-.007	-.144	-.017	-.351	-0.001	-.010	-.196	-0.002	-.013	-.254
Educational attainment	-.033	-.701	-.041	-.820	0.013 ^{**}	-.002	-.047	0.026 ^{**}	.143 ^{**}	2.876
Previous experience	.027	.532	-.024	-.445	-0.007	-.020	-.361	-0.014	-.079	-1.493
Managerial Skills	.386 ^{***}	8.054	.375 ^{***}	7.402	0.003	-.008	-.156	0.006	.032	.630
Need for achievement	-.073	-1.290	-.138 [*]	-2.319	0.012 [*]	-.006	-.102	0.023 [*]	.127 [*]	2.138
Need for autonomy	-.194 ^{***}	-4.004	-.121 [*]	-2.354	-0.008 ⁺	.072	1.351	-0.016 ⁺	-.088 ⁺	-1.722
Creative tendency	.353 ^{***}	7.405	.163 ^{**}	3.243	-0.001	.162 ^{**}	3.086	-0.002	-.011	-.225
Calculated risk taking	.004	.085	.058	1.054	-0.007	-.065	-1.127	-0.014	-.079	-1.425

Table 4.24 (Continued)

Predicting variables	Profit Growth Rate		Sales Growth Rate			Asset Growth Rate			Managerial foresight	
	Direct		Direct	Indirect	Direct	Indirect	Direct	Direct		
	()	t	()	t	()	()	t	()	t	
Internal locus of control	-.170**	-2.924	-.108 ⁺	-1.767	-0.004	-.069	-1.074	-0.007	-.040	-.645
Managerial foresight	.025	.576	.091*	1.988	---	.179***	3.767	---	---	---
Enterprise-related factors										
Enterprise age	.030	.702	.067	1.486	-0.001	.158**	3.358	-0.002	-.013	-.283
Enterprise size	.001	.036	-.072	-1.644	0.008*	-.302***	-6.657	0.015*	.086*	1.988
Enterprise sector	.022	.571	-.028	-.683	-0.002	.043	1.006	-0.004	-.020	-.494
Initial financial constraints	.118**	2.913	.087*	2.036	0.014***	-.031	-.693	0.027***	.150***	3.551
Environment-related factors										
Family environment	.005	.091	.012	.203	-0.003	.022	.374	-0.006	-.036	-.631
Environmental dynamism	-.079	-1.373	-.082	-1.363	-0.008	.038	.605	-0.016	-.088	-1.453

Table 4.24 (Continued)

Predicting variables	Profit Growth Rate		Sales Growth Rate			Asset Growth Rate			Managerial foresight	
	Direct		Direct	Indirect	Direct	Indirect	Direct	Direct		
	()	t	()	t	()	()	t	()	t	
Environmental heterogeneity	.000	-.005	-.020	-.310	0.008	-.076	-1.164	0.016	.089	1.423
Environmental hostility	-.007	-.137	.046	.845	-0.026***	.075	1.322	-0.051***	-.286***	-5.387
Social Network	-.053	-1.027	.103 ⁺	1.882	-0.012*	.123*	2.151	-0.024*	-.133*	-2.427
R ²	.308		.226			.160			.224	
Adjusted R ²	.279		.194			.125			.193	
F	10.671		7.012			4.581			7.301	
Sig.	.000		.000			.000			.000	
Durbin-Watson	1.840		1.904			1.991			1.112	

Note: N=501; ⁺p<.01, * p<.05, ** p<.01, *** p<.001

4.4 Chapter Summary

The chapter presented a detailed description and analysis of the data. The data have been presented and analyzed in three stages: univariate analysis, bivariate analysis, and multivariate inferential analysis. The univariate analysis demonstrated the demographic profile of the respondents, the results of the level and growth of the measures of the microenterprise performance such as employment, profit, sales and asset, and the descriptive results of the quantitative independent variables. The bivariate analysis of the data included the bivariate results of the independent and dependent variables included in the study, such as cross tabulation, t-test, correlation, and so on. The multivariate inferential analysis presented the results of the multiple regressions and path analysis. This section is primarily focused on identifying the factors determining the performance of microenterprises in Nepal. The direct and indirect effects of the determinants were examined, and an analysis of the robustness of the predictors of microenterprise performance was presented. The succeeding chapter, chapter six, provides a thorough discussion and explanation of the results with the support of theoretical perspectives, previous empirical findings, and contextual relevance.

CHAPTER 5

RESULTS AND DISCUSSION

Microenterprise development is one of the widely-discussed poverty reduction strategies in contemporary development discourses. In the context of Nepal, microenterprise development was introduced as an antipoverty strategy by the government of Nepal with special technical and financial support from various international organizations in the late 1990s, to increase the income of the households living below the poverty line through self-employment and consequently reduce rural poverty in the country. Until now, out of a total of 75 districts, the microenterprise development program has been implemented in 36 districts across the country. The program has created over fifty thousand micro-entrepreneurs among the people living below the poverty line with more than two-thirds female micro-entrepreneurs.

With reference to the performance of poverty reduction strategies, the existing literature, despite some admirable performance in some cases, also commented on their poor performances in some cases. The microenterprise development strategy also, apart from some success stories, is not very far from criticism. Critics are of the view that MEs are not as successful as they are purported to be. In the case of Nepal, very few studies have been conducted in the field of microenterprise. Most of the studies have focused on assessing the impacts of MEs. Some studies have reported the positive impacts of microenterprises in improving the livelihood of the people. Meanwhile, some other studies have reported that not all microenterprises are as successful as they were expected to be, have not created as much employment opportunities as others, are not able to repay the installment of the credit; have not been able to gain the optimum benefit of the occupation, and so on. The variation in the success of microenterprises reported by the existing studies in Nepal and across the world encouraged the researcher to explore why some microenterprises are successful and why others are not or why some microenterprises perform better than others, or what determines the performance of microenterprises or vice versa.

With the objective of exploring the potential factors associated with microenterprise performance, an extensive review of the literature was carried out. The literatures on the factors associated with enterprise performance or its success depicted that the factors related to the background characteristics of the micro-entrepreneur himself or herself: gender, age, education, managerial skill, entrepreneurial motivation and/or personality traits and managerial foresight; those related to the characteristics of the microenterprise: enterprise age, enterprise size, financial constraint and enterprise sector; and those related to the environment: family environment, task environment, and social network, tended to determine the microenterprise performance.

In this context, using the primary data collected employing a structured survey schedule from over five hundred micro-entrepreneurs stratified by gender, caste/ethnicity, enterprise categories, and randomly sampled across three districts, Sindhupalchok, Parbat and Nawalparasi, representing mountain, hill, and terai belts respectively, this study has explored the demographics of the micro-entrepreneurs and microenterprises, the level and growth of the microenterprise performance, and has identified the factors determining the microenterprise performance in Nepal. The major results of the study are discussed below.

5.1 Microenterprises Performance

The performance of microenterprises was primarily assessed through the level and growth rates of employment, profits, sales, and assets. The level of average annual employment, profit, sales, and assets in 2068 and 2069 were enumerated from the micro-entrepreneurs. The study revealed that the level of employment, profit, sales and assets have been increasing over the period. The level of average annual employment among micro-entrepreneurs increased from 1.70 to 1.85 between 2068 and 2069. Similarly, the level of average annual profit also increased from 40,194.47 NRs to 61,047.23 NRs, sales from 79,980.48 NRs to 114,152.60 NRs, and assets from 31,471.06 NRs to 36,017.84 NRs during the respective years.

Apart from quantitative analysis, with the objective of triangulating the findings and supplementing the quantitative results with much richer information and

evidence, a couple of focus-group discussions were conducted, some mini-case studies were collected, and the context was observed by the researcher himself. With reference to the microenterprise performance, the mini-case studies collected during the data collection also provided some supporting evidence for the quantitative findings. For instance, Mr. Santa Bahadur Bogati, 23 years, a resident of Sindhukot-4, Sindhupalchok (Mountain belt), currently studying for a Bachelor of Education, is one of the micro-entrepreneurs supported by the microenterprise development program. Mr. Bogati described the support of MEDEP, microenterprise performance, and the challenges of his microenterprise in the following:

Producing leather products is our traditional family occupation. I got one week training of entrepreneurship development (Training of Potential Entrepreneurs and Training of Starting Entrepreneurs, commonly known as ToPEToSE), and six months training of using modern machines to make the shoes in 2063/064. After completing the trainings, with the objective of producing better quality leather products, MEDEP also provided some modern machines to refine the leather. Out of six members in our family, two members are involved full-time in the enterprise for eight months a year. The enterprise in 2068 had the sales of around 100,000 NRs that increased by almost 50 percent in 2069 (around 150,000 NRs.) increasing the profit from around 30,000 to 50,000 NRs annually. However, the enterprise has been facing some challenges. The products are often exported to the foreign market. It is mostly dependent on the intermediaries, who often take a huge margin between the producer and consumers. We get very less but consumers pay a huge price. We are afraid, if the consumers are discouraged to purchase our products due to the high price in the market charged by the intermediaries.

Furthermore, besides the performance of microenterprises in terms of employment or profit or sales or asset growth, the study revealed a further advanced dimension of microenterprise performance. This dimension of performance could be

at the impact level of microenterprises. The growth in the employment or profit or sales or assets was found to have several effects on the livelihood of the family members of the micro-entrepreneurs, as Mr. Bogati disclosed in the following statement:

Microenterprise has improved the livelihood of our family significantly. Earlier, we had hard times to manage the family livelihoods for around five to six months. However, after the trainings and technological support from the MEDEP, we have been able in managing the livelihood for the whole year.

Similarly, Mr. Nandalal Neupane, 57 years old and living in Gaidakot-2, Nawalparasi (terai belt), also shared similar life experiences. Mr. Neupane, originally a resident of Palpa district, along with his wife and four children, migrated to Gaidakot-2, Nawalparasi approximately three decades ago. He had only 1,700 NRs in his pocket when he migrated to a new district with the aim of starting the business. He started a small teashop at Gaidakot. However, the teashop did not run well. He did not have much income from it to support his family. He could not even afford the house rent; thus, they lived on the roadside, but did not stop the business. Due to the financial problem, he could not enroll his four children in school at the proper time. Mr. Neupane received an opportunity to participate in the entrepreneurship development and three-month bamboo-crafting training provided by the MEDEP. Mr. Neupane described his experience in the following:

After the training from microenterprise development program, I started bamboo rack making enterprise with the initial investment of a small amount of less than 1,000 NRs. Saving the income from the microenterprise itself and taking some loans, I gradually increased the investment in this enterprise. The employment, production, sales and profit from the enterprise has been gradually increasing over the period. Currently, around seven to nine people including three to four of our family members work regularly in this enterprise. These days,

after paying the wages to the employees, we earn around 200,000 – 300,000 NRs annually. Three or four years ago, the earning was around 50,000 – 100,000 NRs.

Mr. Neupane is very happy with the achievement of this business and has no guilt for leaving Palpa, although he had very hard times in the early days after migrating to Nawalparasi. He has planned to extend this business to other parts of the country. He proclaimed, “A constant commitment and willingness in business leads to success.”

In the same way, Ms. Jasmaya Pun, 33 years, a resident of Parbat district (hill belt), also shared her experience with a microenterprise business. She participated in six months of allo-processing and weaving, and entrepreneurship development training, provided by the MEDEP in 2056 and 2057 BS, and started an allo-processing and weaving enterprise at Kusma, Parbat. Allo fiber is extracted from *AlloSisnu*, a species of the giant stinging nettle *Girdardiniadiversifolia*, which is a perennial, wild plant that grows at an altitude of between 900 and 2,500 meters above sea level (MEDEP website). Regarding her experiences of microenterprise business, Ms. Pun stated the following:

Before involving in the microenterprise business, we had a very hard time in our life in the rural. We did not have our own land. We used to work as labors to earn our daily livelihoods. After starting the enterprise, I started earning by myself. I saved some money and even helped my husband go abroad (Saudi) to work and earn more, so that we could have a better life in the future. I am happy from this enterprise. The total sales in a year from the enterprise is around 800,000 - 900,000 NRs. From the business, I earn around 15,000 - 16,000 NRs monthly. With this income, I have been able to somehow manage to enroll my daughter in a private school for her education. My income from this business is increasing every year. Around two years ago, my monthly income was around 10,000 NRs only. I am

very happy in involving in this business and thankful to the microenterprise development program for all kinds of supports.

However, the study also observed an increase in the variation in the growth of employment, profit, sales, and asset growth among microenterprises (see Table 4.2). A large variation in the performance among microenterprises indicated a large difference between the best performers and the least performers. From a policy perspective, a large variation in the performance may not be desirable, since it may lead to income inequality in the future. In another aspect, it also points out that there is space and potential as well for the least and average performers to improve their performance towards the best performers.

From the above discussion, it can be concluded that the level and growth of the performance of microenterprises was increasing over the period. However, the issue of increasing variation in the growth of employment, profit, sales, and asset growth among the microenterprises needs to be addressed carefully. Furthermore, the study, apart from the level and growth of employment, profit, sales, and assets of the microenterprises, also revealed some other dimensions of performance, such as the effects of the microenterprises on the livelihoods of the families.

5.2 Entrepreneur-Related Factors Determining Microenterprise Performance

The entrepreneur-related factors in this study refer to the entrepreneur's personal background characteristics, such as gender, age, educational attainment, managerial skills, entrepreneurial motivation and personality traits, and managerial foresight. The entrepreneur-related factors (being male, higher age, higher educational attainment, having more experience, and greater managerial skills greater need for achievement, greater need for autonomy, higher calculated risk-taking behavior, higher internal locus of control and greater creative tendency, and greater managerial foresight) were hypothesized to have positive effects on microenterprise performance. The direct and indirect effects of these factors on the measures of the microenterprise performance such as profit, sales, and asset growth rates were examined through

multiple regression and path analysis. Among the entrepreneur-related factors included in the study, gender, educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, internal locus of control, and managerial foresight were found to have significant direct and or indirect effects on the microenterprise performance. Each entrepreneur-related factor as a determinant of the microenterprise performance is discussed below.

5.2.1 Gender as a Determinant of Microenterprise Performance

Gender is recognized as one of the aspects of culture that determines the roles, responsibilities, access to opportunities, and behaviors of a person. The relationship between the gender of the managers or owners and business performance is complex but still appears to be significant (Rosa et al., 1996). The previous studies by Rosa et al. (1996), Liedholm (2002), Okurut (2008), Kim and Zhan (2011) and so on, observed the relatively lower performance of female entrepreneurs compared to male entrepreneurs. Male-owned microenterprises, compared to female-owned ones, were hypothesized to have higher performance. However, this study has revealed a contrasting association between gender and microenterprise performance, and has rejected the hypothesis. Gender as a predictor in this study appeared to have a marginally-significant effect on microenterprise performance. The study observed that the microenterprises owned by females, although marginally significant, were found to have a relatively higher sales growth rate than those owned by their male counterparts. This result nullified the conventional thinking about male-owned enterprises performing better than female-owned enterprises. The result partly supported the findings of a follow-up study carried out by Johnson and Storey for the period of 1985 to 1988, where the authors noted female-owned businesses were more stable in terms of profitability and performance than male-owned ones (quoted in Rosa et al., 1996: 464). In the context of this study, the reason behind the better performance of female-owned microenterprises in Nepal could be the hardworking nature of the female micro-entrepreneurs, the favorable intersection of family or household based and agro-based enterprises for females, and the focus of the microenterprise development program. The microenterprises have attracted females more than males, as they are family-based enterprises. The family or the household is

the main domain of females. The majority of the microenterprises initiated in the rural areas are agro-based. Agriculture is the main economic domain of females in Nepal. The intersection of family-based and agro-based enterprises signifies the favorable domain for Nepalese rural women to utilize their knowledge and experience, thus performing better than their male counterparts.

Similarly, females are more dependent on the microenterprises. For males, the microenterprise is part-time work. They always look for better work opportunities, and therefore do not concentrate fully on the microenterprise, but for most of the females, the microenterprise is a big opportunity. They devote their full effort to strengthening the enterprise, and this results in relatively better performance. For instance, Ms. Dhanmaya Sunar, currently the President of DMEGA, Nawalparasi, is a micro-entrepreneur supported by the ME development program, argued the following:

Many female micro-entrepreneurs are single women. They have had a very hard time to survive in the past. They have no other supports. Microenterprise has become a big opportunity and only the way to earn livelihoods for these women. Therefore, they work hard to get success in the business.

Furthermore, Ms. Sharmila Nepal, Coordinator, DMEGA, Sindhupalchok stated the following in this connection:

Microenterprises require a small amount of investment. For females, a small amount is also a big amount. They put their full effort to get the return from the business. On the other hand, males are not that serious in microenterprises due to a little income from the business. They are more responsible for the household expenditures; they are involved in other works as well. Therefore, the microenterprises owned by female micro-entrepreneurs seem to have a relatively higher performance.

5.2.2 Micro-entrepreneur's Age as a Determinant of Microenterprise Performance

Several scholars have reported the significant effects of the entrepreneur's age on the performance of firms/enterprises. For instance, Hoad and Rosko (1964 quoted in Box et al., 1995), Hisrich and Brush (1984), Birley and Norburn (1987), and Box et al. (1994) in their studies observed a positive significant association of the entrepreneur's age with firm performance. On the other hand, some scholars such as Stam et al. (2008) reported a negative effect of the age of the entrepreneurs on the firm's performance. For the purpose of this study, the age of the micro-entrepreneurs was hypothesized to have a positive association with microenterprise performance. However, this study revealed that there was no such significant association. This result rather supported the findings of Davidsson and Honig (2003), who argued that the insignificant association between age and enterprise performance might be because of providing fewer incentives for entrepreneurs older than 50 years to grow their business over this period.

Moreover, in the context of this study, the reason behind such an insignificant difference could be the nature of the business and some common characteristics between older and younger micro-entrepreneurs. Microenterprises are based on the household or family, local resources, local raw materials, local technology, and the local market. The income from the microenterprise is very small. The young entrepreneurs are more ambitious than the younger ones. They want to work for a better standard of life in the future, and therefore they always look for better opportunities, for example, going abroad for work. On the other hand, the older micro-entrepreneurs do not want to take risks. They want to be involved in some easygoing businesses. Therefore, they have different choices in enterprise selection. Mr. Bishwokarma, Enterprise Development Facilitator, Sindhupalchok, argued that old entrepreneurs want to become involve in traditional businesses such as raising a few goats that are not difficult or risky, but the young entrepreneurs always seek other opportunities and therefore do not put their full effort into the microenterprise. Hence, the age of the entrepreneur does not appear to have a significant effect on the microenterprise performance.

5.2.3 Educational Attainment as a Determinant of Microenterprise Performance

The resource-based view of the firm views “all assets, capabilities, organizational process, firm attributes, information, knowledge, etc. controlled by a firm that enable it to improve its efficiency and effectiveness” as resources (Barney, 1991). According to Barney (1991), educational attainment is a kind of valuable human capital resource that tends to influence firm performance. Previous studies by several scholars around the world, such as Hoad and Rosko (1964), Hisrich and Brush (1984), Birley and Norburn (1987), Davidsson (1989), Robinson and Sexton (1994), Mengistae (1998), Burke et al. (2002), Praag et al. (2005), Okurut (2008), Segal et al. (2010), and so on, have reported the positive effects of educational attainment on enterprise performance. For the purpose of this study, the education variable was hypothesized to have positive effects on the microenterprise performance. In this regard, the study did not find a direct effect of educational attainment on microenterprise performance. However, the study revealed an indirect positive effect of the educational attainment of micro-entrepreneur on the microenterprise performance (particularly on sales and asset growth rates) through managerial foresight. This implies that the micro-entrepreneurs that have higher educational attainment do have greater managerial foresight, therefore leading towards higher microenterprise performance. The indirect positive effect of educational attainment on the microenterprise performance supports the opinions of Andersorn (1997), Slaughter (1997) and Amesteus (2011). Andersorn (1997) prioritized education as one of the methods of strengthening foresight. Similarly, Slaughter (1997) stated that education could fortify the capacity to explore its future implications. Furthermore, Amesteus (2011) has reported a significant positive association between managerial foresight and firm performance.

5.2.4 Previous Experience a Determinant of Microenterprise Performance

Barney (1991) has categorized experience as one of the valuable human capital resources that affect enterprise performance. Segal et al. (2010) argued that the

human capital needed to enhance firm performance tended to arise from years of managerial experience in the same industry.

Previous studies have reported the significant effect of prior experience on the performance of firms (Davidsson, 1989; Box et al., 1994; Robinsson & Sexton, 1994; Box et al., 1995; Lee & Tsang, 2001; Praag et al., 2005; Okurut, 2008; Segal et al., 2010). For the purpose of this study, previous experience was hypothesized to have a positive effect on the microenterprise performance. However, this study did not find sufficient evidence to support the hypothesis or the previous findings. In other words, the results did not show the significant effects of previous experience on microenterprise performance. This might be due to the unique characteristics of the enterprises. Microenterprises are very small and family-based, use mostly local resources and local raw materials, and their market is based locally. Additionally, the micro-entrepreneurs selected for this study were rural people living below the poverty line and selected for the microenterprise development program. They might not vary much in terms of previous experience. Most of the micro-entrepreneurs might have had similar experiences, and therefore their previous experience might not have had a significant influence on the microenterprise performance.

5.2.5 Managerial Skill as a Determinant of Microenterprise Performance

As stated by Barney (1991), “all the assets, capabilities, organizational process, firm attributes, information, knowledge, etc. controlled by a firm that enable it to improve its efficiency and effectiveness” are resources. Managerial skill is also the capability of an entrepreneur to search and gather enterprise-related information, identify business opportunities, deal with enterprise related risks, establish relationship and network, make a decision under uncertainty, learn from experience, and so on (Veciana, 2007). Several scholars, such as Cooper et al. (1994), Chrisman et al. (1998), Newton (2001), Industry Canada (2003), Carmeli and Tishler (2006), Bourne and Franco-Santos (2010), and so on, observed a significant positive association between the skills of managers or entrepreneurs or CEOs and enterprise performance. For the purpose of this study, managerial skill was hypothesized to have a positive effect on the microenterprise performance. In line with the hypothesis or the results of previous studies, the results of this study also confirmed that the managerial

skills of micro-entrepreneurs have significant positive effects on the microenterprise performance, particularly on the profit and sales growth rates of microenterprises. In this regard, Newton (2001) stated that management skills are central to the process of innovation and thus key to higher performance. Similarly, Krizner's theory (1973) also argued that the alertness to information is very crucial for being a successful entrepreneur (quoted in Veciana, 2007) and therefore has a significant positive effect on microenterprise performance.

5.2.6 Entrepreneur's Motivation and Traits as Determinants of Microenterprise Performance

Increasingly, scholars in the field of entrepreneurship study believe that business growth and their performance are also determined by the entrepreneur's traits and motivational factors. Trait theory is one of the most popular theories explaining the psychological aspects of entrepreneurs. Collins and Moores's book (1964) is usually recognized as providing a base for trait theory, and explained the entrepreneurial world differently from the then-existing approaches (quoted in Veciana, 2007). Initially, entrepreneurial or personality traits and motivational factors were mostly used in relation to the study of the emergence or start-up of businesses. However, in later days, these factors have also been widely used with respect to entrepreneurial success (Rauch & Frese, 2000). Many scholars have identified several types of common psychological or entrepreneurial traits and motivational factors among successful entrepreneurs. Caird and Johnson (1988), for example, have developed a measure of enterprising traits (or entrepreneurial abilities) called the General Enterprise Tendency (GET), which consists of the need for achievement, locus of control, creative tendency, calculated risk-taking, and the need for autonomy. The measures developed by Caird and Johnson (1988) were adapted for the purpose of the study. The associations of entrepreneurial traits and motivational factors with microenterprise performance are discussed below.

5.2.6.1 Need for Achievement as a Determinant of Microenterprise Performance

Need for achievement is one of the motivational factors of an entrepreneur. Caird and Johnson (1988) argued that enterprising persons are highly

motivated, energetic, and have the capacity for hard work. Scholars such as McClland (1961), Carsruda et al. (1989), Babb and Babb (1992), Lee and Tsang (2001), Rauch and Frese (2007), and so on claimed that there is a positive significant effect of the need for achievement on firm performance. For the purpose of this study, the need for achievement was hypothesized to have a positive effect on the microenterprise performance. This study revealed an interesting association between these; the direct effect of the need of achievement (particularly on sales growth rate) was found to be negative, but the indirect effects through managerial foresight (on sales and asset growth rates) were found to be positive. This implies that the need for achievement does not always have a positive effect. In the absence of managerial foresight on the part of the micro-entrepreneurs, the need for achievement motivational factor may result in negative effects on the microenterprise performance. In other words, if the micro-entrepreneurs with a higher level of motivation of need for achievement if could improve managerial foresight, their microenterprise may perform better. Hence, the micro-entrepreneurs that like more challenges than easy things, that work hard to accomplish their work within the deadline, love to be at work, and think about success rather than failure if any challenge appears on the way have to be equipped with managerial foresight to achieve higher microenterprise performance.

5.2.6.2 Need for Autonomy as a Determinant of Microenterprise Performance

Need for autonomy is also one of the motivational factors of an entrepreneur that can affect the enterprise performance. Scholars have identified a significant association between the need for autonomy or non-monetary motivation and enterprise performance (Meredith et al., 1982; Veciana, 1989; Burke et al., 2002; Rauch & Frese, 2007). Veciana (1989) and Rauch and Frese (2007) have asserted a positive relationship between need for autonomy and business creation and success. For the purpose of this study, the need for autonomy was hypothesized to have a positive effect on ME performance. However, this study revealed very surprising and contrasting results with the hypothesized association and Rauch and Frese's previous claim. The study observed a negative effect of the need of autonomy on microenterprise performance (profit, sales, and asset growth rates). This means that

the microenterprises owned by the micro-entrepreneurs that usually do what is expected of them, often take over projects and steer them their way without worrying about what other people think, rarely need or want any assistance from others, want to put their own stamp on the work that they do, and so on, tend to have a relatively lower microenterprise performance. This might be due to the self-orientedness or individualistic characteristic of the entrepreneurs. These entrepreneurs seem not to be very worried about the effects of the surrounding environment on performance. The individuals that are not worried about what other people think and rarely need or want any assistance from others might not have good relations with the local people and organizations. They may not get support from the local people. Microenterprises are mostly based on local resources, local raw materials, and the local market. The access to these in the rural settings in Nepal seems to be highly dependent on the relations to the local people such as relatives, neighbors, local business houses, and so on. Therefore, the micro-entrepreneur's orientation towards the need for autonomy may affect the microenterprise business negatively.

Furthermore, another reason behind the negative effect of the need for autonomy regarding microenterprise performance could be a mismatch between the types of business and their personal characteristics. This characteristics, that is, the need for autonomy, indicates that these types of people are more individualistic rather than collective in their thinking. However, there are several community-based microenterprises as well, where they do business in groups. They share tools and techniques in groups and help each other. In such enterprises, team or group members need collective spirit toward work rather than individualistic interest; the entrepreneurs with a high level of individualistic interest might not fit in the group, thus resulting in lower microenterprise performance.

5.2.6.3 Creative Tendency as a Determinant of Microenterprise Performance

Creativity is central to the entrepreneurial process (Barringer & Ireland, 2006 quoted in Baldacchino, 2009), and creative ideas help to introduce innovative products or services, or deliver products or services in a new, more efficient way (Baldacchino, 2009). It brings something new, such as a new solution to the problem, a new method or device, etc., into existence (Okpara, 2007). Caird and

Johnson (1988) argued that enterprising persons are versatile, restless with ideas, have an imaginative approach to solving problems, and tend to see life in a different way to others. It helps entrepreneurs to develop ideas for the creation of new products and processes. Scholars such as Lumpkin and Dess (1996), Im and Workman (2004), and Okpara (2007), and so on have pointed out the positive effects of the creative tendency on firm performance. For the purpose of this study, creative tendency was hypothesized to have a positive effect on microenterprise performance. In the same way, the results of this study also confirmed the hypothesized relationship and the findings of previous scholars. The creative tendency was found to have a significant positive effect of microenterprise performance (with all of the measures—profit, sales, and asset growth rates). With reference to the effect of the creative tendency in the enterprise, Lumpkin and Dess (1996) argued that the growth of firms or creating new ventures requires an exercise of autonomy by strong leaders, unfettered teams, or creative individuals.

5.2.6.4 Calculated Risk Taking as a Determinant of Microenterprise Performance

Entrepreneurs tend to be opportunistic. They seek information and expertise to evaluate whether a particular risk is worth taking or not. They tend to test boundaries and get into the areas where few have worked before, invest time and money for their good ideas, do new things even if there is no guaranteed payback, and so on. Previous studies by Meredith et al. (1982), Rauch and Frese (2000), Gibb and Haar (2010), Boermans and Willebrands (2012), and so on have reported a positive association between calculated risk taking and enterprise performance. However, on the other hand, Bromiley (1991) and Naldi et al. (2007) observed a negative relationship between risk-taking behavior and firm performance. On the other hand, Zhao et al. (2010) in their meta-analytic review, did not find a significant association between risk-taking propensities as a separate dimension of personality and entrepreneurial performance. For the purpose of this study, calculated risk taking was hypothesized to have a positive effect on microenterprise performance. However, the study did not find any such significant effect. The result of this study rejected the hypothesized association between calculated risk taking and microenterprise performance. It rather seems to support the findings of the meta-analytic review by

Zhao et al. (2010). The reason behind there not being a significant association between calculated risk taking and microenterprise performance could be due to the absence of a risk-taking tendency among the micro-entrepreneurs. Every risk has a financial cost, and financial soundness is crucial for taking a risk. The micro-entrepreneurs in this study were groups living below the poverty line, and a large part of them had initial financial constraints (see Table 4.1). They therefore may not like to take risks, and rather prefer to seek support through microenterprise development programs. Similarly, Mr. Bishwokarma, EDF, DMEGA, Sindhupalchok, also argued that “Older micro-entrepreneurs want to involve in the low risk enterprises.” Therefore, the calculated risk-taking tendency might have appeared with no significant association with microenterprise performance.

5.2.6.5 Internal Locus of Control as a Determinant of Microenterprise Performance

Enterprising persons tend to believe that they have control over own destiny and make their own luck. They seek to exert control over their life, draw on inner resources, and believe that it is up to them if they succeed through their own efforts and hard work (Caird & Johnson, 1988). The literatures has pointed out a significant positive association between the internal locus of control of entrepreneurs and enterprise performance (Veciana, 1989; Evans & Leighton, 1989; Boone et al., 1996; Boone, Brabander, & Hellemans, 2000; Lee & Tsang, 2001). For the purpose of this study, internal locus of control was hypothesized to have a positive effect on the microenterprise performance. However, the results of this study have revealed a contrasting finding, thus rejecting the hypothesized effect. The study observed a significant negative relationship between internal locus of control and microenterprise performance (particularly on profit and sales growth rates). This implies that the microenterprises owned by the entrepreneurs that have a greater tendency to believe in themselves, consider achievement as the reward for their own efforts, accept that things happen for a reason, recognize the need of hard work and not luck in success, and so on tend to have a lower performance.

The reason behind such negative effects of the internal locus of control on the microenterprise performance could be a mismatch between the types of business and their personal characteristics. The internal locus of control-oriented

persons seem to be more self-confident, practical, hardworking, and so on. Therefore, they might have given less priority to the microenterprise business. Microenterprises are tiny family-based businesses. They have low investment; thus low return. A microenterprise business might be a part-time business for these persons. They might have been doing several other types of work from where they could get higher returns; therefore, the microenterprises owned by the micro-entrepreneurs with a higher internal locus of control might have had lower performance.

5.2.7 Managerial Foresight as a Determinant of Microenterprise Performance

Managerial foresight refers to the behavior of managers in analyzing present contingencies, desired future states, and courses of action a degree ahead in time to arrive at the desired future (Amsteus, 2008). Scholars have claimed the positive effects of managerial foresight on enterprise performance (Antia et al., 2010; Yuan et al., 2010; Amsteus, 2011). Managerial foresight in this study was also hypothesized to have a positive effect on microenterprise performance. The results of this study also confirmed the hypothesized association and the findings of previous studies. The study revealed that managerial foresight has a significant positive effect on microenterprise performance (particularly on sales and asset growth rates). With reference to the significance of managerial foresight in enterprises, Jannek and Burmeister (2007) argued that during the period of a changing business environment, resulting in the need of greater competitiveness and environmental dynamics, or when the entrepreneurs perceive their market to be increasingly competitive and dynamic, the need for the foresight requirement is assumed to be substantial.

Scholars have also discussed the mediating effects of managerial foresight. Other factors can also influence enterprise performance through managerial foresight. Anderson (1997) prioritized the need of skills, education, business awareness, technology, and networks to strengthen the foresight. Similarly, Slaughter (1997) argued that schools or education could fortify the capacity to explore future implications. Amsteus (2011) also suggested further research to identify the antecedents of foresight such as environmental conditions, formal systems, training programs, and so on. For the purpose of his study, managerial foresight was also

hypothesized to have an effect of other entrepreneur-, enterprise- and environment-related factors, and to mediate the effects of the factors on microenterprise performance. For instance, the entrepreneur-related factors: being male, higher age, higher educational attainment, more experience, and greater managerial skills, greater need for achievement, greater need for autonomy, higher calculated risk-taking behavior, higher internal locus of control and greater creative tendency; enterprise-related factors: higher age, bigger size, being manufacturing and trade, having lesser financial constraints; and environment-related factors: having family business environment, wider networks, more dynamic, hostile and heterogeneous task environment tended to have positive effects on managerial foresight. Similarly, managerial foresight tended to mediate the effects of also entrepreneur-, enterprise- and environment-related factors on the microenterprise performance positively.

In this regard, the results of this study also seem to support the hypothesis, previous thoughts, empirical findings, and the hypothesized effect of managerial foresight on microenterprise performance. The study revealed significant positive associations between educational attainment, also need for achievement, enterprise size and initial financial constraints, and managerial foresight, and a significant negative association between environmental hostility and social network, and managerial foresight. Very interestingly, the results of this study rejected the claim of Anderson (1997), that networks strengthen foresight. The study rather revealed a significant negative association between social network and managerial foresight. This implies that the micro-entrepreneurs that have stronger relations with suppliers, customers, public agencies, financial institutions, social institutions, family members, friends, relatives and neighbors tend to have lower managerial foresight. This could be due to the overconfidence of the micro-entrepreneurs in the relationships in the network; therefore, they do not worry much about the future, thus resulting in lower managerial foresight.

Moreover, managerial foresight also appeared to mediate the effects of also need for autonomy, social network, and environmental hostility negatively. With reference to the effect of also environment on enterprise performance, Ansoff (1991) argued that, in a turbulent environment, firms with foresight can perform better and take the advantage of the available market earlier and faster than others (Ansoff,

1991). His claim was rejected by the findings of this study. The study observed a significant negative association between environmental hostility and microenterprise performance. This means that the micro-entrepreneurs whose microenterprises have greater environmental threatening of survival, tough price competition, tough product and or service quality competition, a diminishing market for products, a scarce supply of labor or materials and high government interference have relatively less managerial foresight. The reason behind such negative effects of the environment on managerial foresight could be due to the help-seeking nature of the micro-entrepreneurs instead of preparing themselves to struggle in a hostile environment. Similarly, the environmental challenges are faced by many micro-entrepreneurs, not by an individual. Micro-entrepreneurs have constructed a system of groups or associations with who they can discuss and advocate their issues, such as MEGs (Micro-Entrepreneurs' Groups), MEGAs (Micro-Entrepreneurs' Group Associations), DMEGA (District Micro-Entrepreneurs' Group Association). DMEGAs also have business development consultants or enterprise development facilitators with whom the problems and challenges of the micro-entrepreneurs can be discussed. Therefore, in the hostile environmental context, the micro-entrepreneurs instead of preparing themselves to compete may seek consultation with others, thus resulting in less managerial foresight.

5.3 Enterprise-Related Factors Determining Microenterprise Performance

The enterprise-related factors in this study refer to enterprise age, enterprise size, enterprise sector, and initial financial constraints. The direct and indirect effects of these factors on the measures of microenterprise performance such as profit, sales and asset growth rates were examined through multiple regression and path analysis. The enterprise-related factors—higher age, bigger size, being in manufacturing or the production sector, and having fewer financial constraints—were hypothesized to have positive effects on the microenterprise performance. The study revealed that among the enterprise-related factors included in the study, except for enterprise sector, all other factors such as enterprise age, enterprise size, and initial financial constraints

appeared to have direct and or indirect significant effects on the microenterprise performance. All of the enterprise-related factors as determinants of microenterprise performance are discussed below.

5.3.1 Enterprise Age as a Determinant of Microenterprise performance

Literally, enterprise age refers to the years of the microenterprise operating since establishment. The practical meaning of enterprise age also concerns capital accumulation, extended business network, and so on. Previous studies have reported both positive and negative effects of enterprise age on enterprise performance. For instance, Stinchcombe (1964) and Mengistae (1998) observed a positive association between the age of the firm and firm efficiency or performance. On the other hand, some previous scholars such as Liedholm (2002), Loderer and Waelchli (2009), Gebreeyesus (2009), Wiklund et al. (2009), and so on reported a negative association between enterprise age and performance. However, Masakure et al. (2009) did not find a significant association between them.

For the purpose of this study, enterprise age was hypothesized to have positive effects on microenterprise performance. The results of this study also confirmed the proposed hypothesis and findings of Sinchcombe (1964) and Mengistae (1998). In other words, it rejected the findings of Liedholm (2002), Loderer and Waelchli (2009), Gebreeyesus (2009) and Wiklund et al. (2009). This study revealed that the enterprise age had a significant positive effect on microenterprise performance (particularly on asset growth rate). This implies that the performance of older microenterprises is higher than that of their younger counterparts. With reference to the positive effects of enterprise age, Majmdar (1997) argued that due to long experience, the older firms tend to enjoy the benefits of learning and thus enjoy superior performance. Similarly, Loderer and Waelchli (2009), pointing to Arrow (1962), Ericson and Packes (1995) and Jovanovic (1982), stated that the enterprises' age could help them become more efficient, as over a period of time firms observe and gain experience and learn from the observations and their own experiences, and therefore know how to do things better.

5.3.2 Enterprise Size as a Determinant of Microenterprise Performance

Economic theories argue that the increasing size of enterprises allows the incremental advantages for them because it enables them to gain leverage on the economics of scale and thereby attain greater profitability. Similarly, the relationship between profitability and size is likely to affect industrial concentration and have implications for returns to sales and monopoly power (Whittington, 1980). According to the oligopoly model of Reinhard (1983), the size of an enterprise is positively related to its ability to produce technologically-complicated products, which in turn leads to concentration. Such productions are unique and thus supplied by few competitors and, therefore, these firms are more profitable (quoted in Ramasamy et al., 2005). Previous studies have reported both positive and negative effects of size on enterprise performance. For instance, Penrose (1959), Hall and Weiss (1967), Majumdar (1997), Mengistae (1998) and Lee (2009) observed positive effects of enterprise size on performance. On the other hand, Liedholm (2002), Whittington (1980), Ramasamy et al. (2005) and Gebreeyesus (2009) found negative effects of enterprise size on performance. However, Poensgen and Marx (1985) and Capon et al. (1990) did not find a significant association between the enterprise size and performance. For the purpose of the study, enterprise size was hypothesized to have positive effects on the microenterprise performance.

The results of this study revealed a mixed type of association between enterprise size and enterprise performance. Enterprise size appears to have direct negative effects on microenterprise performance. This means that the bigger enterprises compared to the smaller ones have relatively lower performance. There might be several reasons behind such an association between the enterprise size and performance. As discussed above, the microenterprises used as the subjects of this study were initiated by the microenterprise development program to increase self-employment and income among the people living below the poverty line in Nepal. The micro-entrepreneurs that own relatively larger microenterprises might think that the income from the enterprise is enough for subsistence. Furthermore, they might not be supported by the microenterprise development program as much as the smaller microenterprises are supported by it, therefore leading to lower performance. In other words, the smaller microenterprises might have been supported more by the

microenterprise development program as the microenterprise development program is a program of poverty reduction; thus, smaller microenterprises end up with higher performance. However, the study also revealed indirect positive effects of enterprise size on the microenterprise performance. This implies that generally bigger microenterprises have relatively lower performance, but if the owners have greater managerial foresight, bigger enterprises also can have higher performance. This could be due to the business-for-subsistence nature of rural poor people. Similarly, the larger microenterprises are equipped with higher assets and investment capabilities as well, and therefore, if these micro-entrepreneurs have higher managerial foresight, they will experience higher microenterprise performance.

5.3.3 Initial Financial Constraints as a Determinant of Microenterprise Performance

Financial capital is one of the key resources that tend to determine the emergence and success of microenterprises. Praag et al. (2005: 36) argued that “Financial capital constraints might prevent entrepreneurs from creating buffers against random shocks, thereby affecting the timing of investments negatively. Moreover, capital constraints might debar entrepreneurs from the pursuit of more capital-intensive strategies.” Similarly, Cooper et al. (1994) also claimed the significant contribution of financial capital to enterprise performance. In the same way, Binks and Ennew (1996 quoted in Musso & Schiavo, 2008) reported a significant association between the expected future growth of the firm and higher perceived constraints. For the purpose of this study, having initial financial constraints was hypothesized to result in relatively lower microenterprise performance.

Surprisingly, the results of this study revealed the direct and indirect significant positive effects of initial financial constraint. This implies that the microenterprises that had financial constraints in the beginning had higher performance than those that did not have such financial constraints. This finding nullified the claims of some of the previous studies and rejected the hypothesized association. For example, Winler (1999) reported the negative effect of perceived credit constraint on innovation expenditure and overall investment, which consequently influences the firms’ performance. Similarly, Boermans and

Willebrands (2012: 1) also argued that “firms that are financially constrained cannot obtain loans from banks, hold little savings, under-invest, and show poor performance.”

There might be several reasons behind such a contrasting but interesting association between initial financial constraints and microenterprise performance. The nature of the microenterprise and the micro-entrepreneurs is quite different from the enterprises and the entrepreneurs argued by Praag et al. (2005) and many other scholars in different contexts across the world. In the context of this study, micro-entrepreneurs were the subjects of the study, and although they did not have such initial financial constraints or did not take credit, they were living below the poverty line. Many of them were facilitated by the MEDEP to start the business. They were in the business to survive rather than to accumulate capital and reinvesting the business regularly. They were not even financially capable of affording the capital-intensive technologies. Therefore, the study might have found different results.

Similarly, as discussed in the bivariate analysis section, another reason for the positive effects of initial financial constraint on the microenterprise performance could be the greater carefulness of the micro-entrepreneurs that had initial financial constraints. Many of the micro-entrepreneurs had taken out a loan to start the business, and even though it seems to be a small amount, it was a big burden on the rural poor. Due to the burden and fear of the loan, they might have put greater efforts into the business, thus realizing higher performance. Many studies on microfinance or micro-credit have also reported that the rate of repayment or loan recovery rate is significantly higher than the loans from other banks. For instance, the monthly updated statistics of February 2014 of Grameen Bank of Bangladesh presents an overall loan recovery rate of 97.33 percent. More specifically, the repayment of a microenterprise loan is also around 90 percent (Grameen Bank). This also indicates that those that are poor and do business on loan also tend to perform better and thus repay the loan.

Furthermore, another reason for the higher performance of the MEs that had initial financial constraints could be the nature of the poor, who do not want to take risks. A person experiencing initial financial constraints in starting a business is relatively poorer even among the micro-entrepreneurs that are already below the

poverty line. Poor people generally do not take financial risks. Mr. Bishwokarma, Enterprise Development Facilitator, DMEGA, Nawalparasi pointed out that the “poorer first see what kind of microenterprise is successful, then start the similar business;” therefore, there is almost no risk of a business collapse. These kinds of businesses, though they may not be very successful, have less chance of failure and thus exhibit relatively consistent performance.

Similarly, this study also revealed the significant indirect positive effects of initial financial constraints on the microenterprise performance through managerial foresight. This means that if the microenterprises that had initial financial constraints have higher managerial foresight, they tended to have higher performance (sales and asset growth rates). This might be because the owners of these microenterprises, who had such financial constraint, were more conscious of and careful about the future due to their experience of financial constraints in the past. They might have learnt from the experience and made more detailed plans for future benefits and sustainability rather than only immediate benefits, therefore leading to a higher sales growth rate. On the other hand, the owners of the microenterprises that did not have such financial constraints might not have been very conscious of or worried about the future. Because of their financial strength or financial security, they might have had higher confidence in becoming involved in another business if the current business failed in the future; therefore, they would focus more benefits or returns at present and this would result in relatively lower managerial foresight and lower performance of the microenterprises (sales and asset growth).

5.3.4 Enterprise Sector as a Determinant of Microenterprise Performance

Enterprise performance is also influenced by the sector in which the enterprises operate (Liedholm & Mead, 1998). Previous scholars such as Gebreyesus (2009) have argued that the firms in manufacturing or production sector are more likely to engage in innovative activities. The involvement in innovative activities may lead to better performance. Liedholm (2002) reported significantly greater enterprise growth of the manufacturing and service sectors than the trading sector. Between the manufacturing or production and service sectors, the service sector was found to have

greater enterprise growth. For the purpose of this study, the microenterprises in the manufacturing or production sector were hypothesized to have greater performance than those in the service or business sector.

The results of this study did not support the hypothesized association and the findings of the above studies. This study did not find such a significant effect of the enterprise sector on microenterprise performance. The reason behind such results could be due to certain similarities among the microenterprises. The microenterprises, despite performing different tasks in the different sectors, do not vary much in terms of settings, size or aims across the sectors. Microenterprises are family-based, local-resource and local market-based enterprises, initiated and supported by the microenterprise development program with the objective of increasing the self-employment and income of people living below the poverty line in Nepal. The greater possibility of the engagement of the manufacturing or production sector in innovation, as argued by Gebreyesus (2009), might not be applicable in the case of microenterprises. Many microenterprises that are operated by less educated, poor or disadvantaged or excluded groups of the population are mostly dependent on the guidance provided by the microenterprise development program rather than regular engagement in innovation. Innovation requires knowledge and has some risks. The micro-entrepreneurs were less educated (majority, 55 percent, had a primary level of education only; see Table 4.1). Similarly, as stated above, the poor people do not want to take risks, they rather prefer continuing the same activities in the business. On the other hand, the service or business sector in the context of microenterprises also includes traditional businesses such as tailoring. Both kinds of enterprises operate in the local market. Therefore, the level of performance may not vary much in terms of the sector of the microenterprises.

5.4 Environment-Related Factors Determining Microenterprise Performance

Entrepreneurs and enterprises have direct and indirect interactions with the environment. The effect of the environment seems to be unavoidable in terms of the enterprise's performance. The literature reported that the family environment, social

network, and the task environment are some of the key environment-related factors influencing enterprise performance. For the purpose of this study, the environment-related factors—having a family business environment, wider and stronger social networks, being more dynamic, and working in a hostile and heterogeneous task environment—were hypothesized to have positive effects on the microenterprise performance.

The results of the study revealed that among the environment-related factors included in the study, environmental hostility and social network had significant effects on the microenterprise performance. Other environment-related factors such as family environment, environmental dynamism, and environmental heterogeneity were not found to have significant effects on microenterprise performance. The results of these factors on the microenterprise performance observed in this study are discussed below.

5.4.1 Family Environment as a Determinant of Microenterprise Performance

Microenterprises are basically family-based enterprises. The family environment can have significant influences on their performance. The family environment can motivate, guide, and provide several tangible and intangible supports to a person to start and run a business in a competitive way. In the study of entrepreneurship, role theory explains some aspects of how the family environment influences an entrepreneur in starting a business and thereby surviving and being successful. According to the role theory of entrepreneurship, the entrepreneurship culture is crucial in the creation and success of new entrepreneurs or enterprises (Veciana, 2007). Veciana further mentioned that new entrepreneurs are more likely to emerge in the family environments in which there are or have been entrepreneurs.

Scholars have reported the significant positive effects of the family environment on enterprise performance. For example, Lentz and Leband (1990 quoted in Parker, 2004) observed a higher income of the self-employees that follow the parental occupation than non-followers. Similarly, Fairlie (2009) argued that when entrepreneurs work in the family business before starting their own, their businesses are likely to be 10 to 40 percent more successful than they would be otherwise.

Scherer et al. (1989) observed the significantly greater performance of the entrepreneurs with parental role models than those without parental role models. For the purpose of this study, having a traditional or parental enterprise with reference to a completely new enterprise was hypothesized to yield higher microenterprise performance.

However, this study did not find enough evidence to support the hypothesized effects or the results of the previous studies. This study did not find the significant effect of family environment in the microenterprise performance. This implies that there is no such significant difference between the traditional microenterprises or parental or family businesses and completely new microenterprises. There could be several reasons behind such results. In the context of microenterprises, along with the continuation of traditional or parental occupation, the enterprises also carry the traditional culture of doing a business. For instance, Lhakpa Sherpa, Member, DMEGA, Sindhupalchok said that “some of the traditional enterprises such as tailoring, leather processing and blacksmith, and so on in far rural Nepal still follow Bali-Pratha.” Bali-Pratha is a traditional form of bartering for services in the far rural communities, where the service providers provide some basic services such as repairing the clothes, shoes, sandals, weapons, and so on, to the community people, and collect food products such paddy, maize, millet, and so on, in the seasons from service consumers (also known as Bista). Bali-Pratha does not include the cash payment of the services provided by the entrepreneurs. The entrepreneurs might rather be exploited by providing low-quality goods, thus seeing less growth in the business.

Similarly, on the other hand, the new microenterprise, although it is a different enterprise from the traditional occupation of the family, has some dependence on local raw materials and resources. The microenterprise development program focuses on the locally-available raw materials and other resources. There are some common trainings such as entrepreneurship development trainings provided by the microenterprise development program for the micro-entrepreneurs before they start their business. The microenterprise development program focuses on modernizing the traditional occupations using new technologies as well. The traditional occupations are also given a new form and adopt new technologies. For example, processing leather is one of the traditional occupations of some of the micro-entrepreneurs in

Nepal. They had traditional technologies to process leather and produce leather goods such as wallet, belts, and so on; however, the microenterprise development program provided them with new technologies and training to process leather and to produce better-quality products. Hence, there might not be a significant difference between the traditional occupation or family microenterprises and the completely new business.

5.4.2 Social Network as a Determinant of Microenterprise Performance

Entrepreneurship and networks—the relationship between the entrepreneurs, suppliers, customers, banks, public or private agencies, family, friends, relatives, social institutions, etc.—have a strong relationship (Viciano, 2007). The network hypothesis in the business is that those entrepreneurs that can refer to a broad and diverse social network and that receive much support from their network are more successful (Bruderl & Preisendorfer, 1998). Most of the previous studies such as those by Aldrich et al. (1987), Johannisson (1988), Bruderl and Preisendorfer (1998), Mengistae (1998), (Shaw, 1999), Lee and Tsang (2001), Stam et al. (2008), Alam et al. (2011), and so on have reported positive effects of entrepreneur's network on enterprise performance. For the purpose of this study, the social network of the micro-entrepreneur was hypothesized to have positive effects on the microenterprise performance.

The results of this study also to some extent confirmed the hypothesized effects and findings of the previous studies. This study revealed significant direct positive effects of social network on ME performance (particularly on sales and asset growth). With reference to the positive effects of the entrepreneur's network on enterprise performance, Sanders and Nee (1996 quoted in Parker, 2004:74) opined that “the social relations may increase entrepreneurial success by providing instrumental supports, such as cheap labor and capital, productive information such as knowledge about customers, suppliers and competitors and psychological aid, such as helping the entrepreneur to weather emotional stress and to keep their business afloat.” Similarly, Johannisson (1988) also stated that the beginner or new inexperienced entrepreneurs needs support to create a personal network and to manage the enacted environment in the network.

However, this study also revealed indirect negative effects of the social network on the microenterprise performance (sales and asset growth rates)—meaning that the micro-entrepreneurs that have a stronger relationship with suppliers, customers, public agencies, financial institutions, social institutions, relatives, friends, family members and neighbors tend to have a lower managerial foresight, therefore, indirectly influencing the microenterprise performance negatively. This is also an interesting result of this study. The reason behind this could be the over-confidence of the micro-entrepreneurs in the social network. These microenterprises might be getting an advantage from the relations in the social network, and the quality of relations might have influenced their confidence and therefore they do not worry much about the future and this affects the effects of managerial foresight on the microenterprise performance negatively. These micro-entrepreneurs would have achieved higher microenterprise performance if they had strengthened their managerial foresight.

5.4.3 Task Environment as a Determinant of Microenterprise Performance

According to the adaptation perspectives of organization theory, environment affects the organization according to the ways in which the managers formulate their strategies, and make decisions and implement them; therefore, managers that scan the relevant environment for opportunities and threats, formulate strategic responses and adjust the organizational structure appropriately (Hannan & Freeman, 1977) tend to be more successful. Similarly, population ecology theory also assumes that “the environment determines the birth, growth, and death of new organizational forms or enterprises” (Veciana, 2007: 49). Likewise, according to contingency theory, environmental challenge is one of the contingencies that organizations have to deal with. An organization is dependent upon the environment for the resources needed to survive or grow (Donaldson, 1995: xvi). The environmental variables—dynamism, heterogeneity, hostility—are expected to relate positively to innovation (Miller & Friesen, 1982) and entrepreneurial activity (Miler, 1983), consequently affecting firm performance positively. This study included the perception of micro-entrepreneurs regarding environmental dynamism, environmental heterogeneity, and environmental

hostility as the task environment-related predictors of ME performance, as discussed below.

5.4.3.1 Environmental Dynamism as a Determinant of Microenterprise Performance

Environmental dynamism refers to instability and continuous social, political, technological, and economic changes (Wiklund et al., 2009). Environmental dynamism is expected to relate positively to innovation (Miller & Friesen, 1982) and entrepreneurial activity (Miler, 1983). The positive effects of environmental dynamism on innovation and entrepreneurial activity are expected to influence the enterprise performance positively. For the purpose of this study, the perceived environmental dynamism was hypothesized to have positive effects on the microenterprise performance. However, the results of the study did not find sufficient evidence to support the hypothesis. The study did not find significant effects of environmental dynamism on the microenterprise performance. The reasons behind such results could be due to the nature of the market environment for the microenterprise products. As the microenterprises are tiny, family-based rural enterprises, their market is not very large, and the rural micro-entrepreneurs do not have much feeling for competitiveness. They rather support each other to grow together. They might not realize that they must change the marketing practices of their microenterprise products and services to keep up with the market and competitors or their products will become obsolete very fast or they will have difficulty in predicting the actions of their competitors or in forecasting the demand and consumer tastes of their products and in changing their production services and technologies. Similarly, another reason could be lower educational attainment. The majority of the micro-entrepreneurs had completed only a primary level education (see Table 4.1); therefore, they lacked the ability to understand and perceive the environmental dynamism surrounding their business.

5.4 3.2 Environmental Heterogeneity as a Determinant of Microenterprise Performance

Environmental heterogeneity refers to the complexity of the environment. It is relatively easier for small firms to find and develop specific market niches in heterogeneous markets than in markets where demand is homogeneous

(Wiklund et al., 2009). Environmental heterogeneity is expected to relate positively to innovation (Miller & Friesen, 1982) and entrepreneurial activity (Miler, 1983). The positive effects of environmental heterogeneity on innovation and entrepreneurial activity are assumed to influence the enterprise performance positively. For the purpose of the study also, environmental heterogeneity was hypothesized to have a positive association with microenterprise performance. However, the results of the study did not find sufficient evidence to support the hypothesized association or the previous findings, and the study did not find significant effects of environmental heterogeneity on microenterprise performance. The reasons behind such results could be due to the nature of microenterprises and their market environment. The market of microenterprises may not be diversified very much, and the customers' buying habit and nature of the competition may not vary much, therefore resulting in insufficient evidence to claim significant effects on the microenterprise performance.

5.4.3.3 Environmental Hostility as a Determinant of Microenterprise Performance

Environmental hostility refers to the environment that creates threats to the firm, either through increased rivalry or decreased demand for the firm's products, which can seriously reduce the growth opportunities for a small firm (Wiklund et al., 2009). Environmental hostility is expected to relate positively to innovation (Miller & Friesen, 1982) and entrepreneurial activity (Miler, 1983). The positive effects of environmental hostility on innovation and entrepreneurial activity are assumed to influence enterprise performance positively. For the purpose of this study, environmental hostility was hypothesized to have positive effects on the microenterprise performance.

However, this study did not find sufficient evidence to support the hypothesized association or the arguments of previous scholars, and did not find the significant direct positive effects of environmental hostility on microenterprise performance. It rather revealed a contrasting finding in this regard. The perceived environmental hostility had indirect negative effects on microenterprise performance (particularly on sales and asset growth rates) through managerial foresight. With reference to the insignificant direct effects of environmental hostility on the microenterprise performance, the reasons behind such results could be somewhat

similar to the reasons for the insignificant effects of environmental dynamism on microenterprise performance. As the microenterprises are tiny, family-based rural enterprises, their market is not very large and they do not focus much on innovation. The rural micro-entrepreneurs are less educated; the majority had completed only a primary education (see Table 4.1) and they do not tend to compete much among themselves and work in groups. The micro-entrepreneurs have formed different groups such as the National Micro-entrepreneurs Federation Nepal (National level), the District Micro-Entrepreneur's Groups Association (District level), the Micro-Entrepreneur's Groups Association (VDC/Market Center level), the Micro-Entrepreneur Group (Settlement level) and so on. They support each other to grow together. They share their knowledge and experiences among themselves, and support each other. They might not feel much threat of tough price competition, threats of products or service quality competition, threats of a diminishing market, threats of a scarce supply of labor or raw materials, or threats of government interference in the market of their products and therefore experience no significant effects on the performance of their microenterprise.

On the other hand, with reference to the negative mediating effect of managerial foresight, the micro-entrepreneurs that have relatively higher managerial foresight might be afraid even more in a hostile environment. The micro-entrepreneurs with higher managerial foresight, if they perceive greater environmental hostility, tend to plan more for the future. In a hostile environment, those enterprises that cannot be innovative in advance to compete with the threats of price competition, product or service quality, a diminishing market, a scarce supply of labor and raw materials might not be able to survive. Innovation has both costs and risks. The micro-entrepreneurs were not highly educated (the majority attained only a primary level education; see Table 4.1) and did not have strong financial capability to invest in the present for the future. As discussed above, the micro-entrepreneurs, due to their financial constraint to survive, also did not tend to take much risk in the business (see Section 5.3.3). Therefore, the micro-entrepreneurs with relatively higher managerial foresight might start to look for other less-risky alternatives instead of planning for the future and strengthening themselves to compete in a hostile environment, thus

mediating the effect of perceived hostile environment negatively on the microenterprise performance.

5.5 Chapter Summary

This chapter presented a thorough discussion of the results of the multiple regressions and path analysis conducted in the preceding chapter – Chapter 4. All of the predictors included in the different models and their effects on the microenterprise performance (such as profit, sales and asset growth rates) were discussed and explained with the relevant theories, empirical findings of previous studies, and contextual relevance. The chapter basically focused on exploring the effect of the particular predictors included in the models and testing hypotheses, and discussed the results of the study with reference to the related theories, previous studies, and their results and contextual relevance or the reasons behind a particular kind of effect in the context of the study.

CHAPTER 6

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of the major findings, the discussion, and conclusions and recommendations. A brief summary of the major findings of the study is briefly described in section 6.1. The conclusions of the study are discussed in section 6.2. Section 6.3 presents the policy recommendations of the study, and 6.4 discusses the practical and theoretical contributions of the study. Last, section 6.5 states the direction for future research.

6.1 Summary of the Major Findings

Microenterprise development is one of the antipoverty strategies that aims to increase the income of the households living below the poverty line through self-employment and consequently reduce rural poverty in Nepal. Until now, the program has created over 51,000 micro-entrepreneurs and has generated employment for over fifty-two thousand people living below the poverty line, with more than two-thirds of women micro-entrepreneurs.

The existing literature on the performance of microenterprises, despite some admirable performances in some cases, also comments on their poor performance in some other cases. In the case of Nepal, some studies have reported positive impacts of microenterprises in improving the livelihood of the people, while some others have reported that not all microenterprises are as successful as they were expected to be; have not created as many employment opportunities as others; are not able to repay the instalment of the credit; are unable to gain the optimum benefit of the occupation, and so on. The variation in the success of microenterprises reported by the existing studies in Nepal and across the world encouraged the researcher to explore the causes

of why some MEs have performed better than others, or what determines the performance of MEs or vice versa.

In the aforementioned context of the study, using the primary data from 501 micro-entrepreneurs stratified by gender, caste/ethnicity, enterprise categories, and randomly sampled across three districts—Sindhupalchok, Parbat, and Nawalparasi representing mountain, hill and terai belts respectively—this study basically aimed to identify the factors determining ME performance. Moreover, to draw the inferences for main objectives, the study had a few specific objectives:

- 1) to investigate the socio-demographic and economic characteristics of micro-entrepreneurs and microenterprises
- 2) to explore the level and growth of employment, profit, sales, and assets of microenterprises as measures of microenterprise performance
- 3) to examine the effect of entrepreneur-, enterprise- and environment-related factors on microenterprise performance
- 4) to contribute to the microenterprise policy debate and the body of the entrepreneurship knowledge

The study adopted a mixed methods research design that included quantitative and qualitative research methods. The quantitative method was the main method of analysis in the research. The qualitative method was used to supplement the quantitative findings with much richer contextual information in the quantitative results discussion. Quantitative data were analyzed in three stages: univariate analysis, bivariate analysis and multivariate inferential analysis. Multiple regressions and path analysis were the main techniques used in multivariate inferential analysis. Mini qualitative case studies were used to explore the qualitative information for the study. The major findings of the study with reference to the respective objectives of the study are presented below.

With reference to the first objective of the study, “to investigate the socio-demographic and economic characteristics of micro-entrepreneurs and microenterprises,” the study found the following:

- 1) The majority of the micro-entrepreneurs were the female micro-entrepreneurs (67.90 percent).

2) A large majority of the micro-entrepreneurs were adults (30 to 49 years, 68.80 percent) followed by older (18 percent) and young adults (12.80 percent).

3) The majority of the micro-entrepreneurs had a primary level of education (55.30 percent) followed by secondary (27.90 percent), master (12.80 percent) and bachelor level (0.60 percent).

4) All most half of the micro-entrepreneurs belonged to Janajati (49.70 percent), followed by around a quarter to Brahmin/Chhetri (24.95 percent), a quintile to Dalit (21.15 percent), and rest to Muslim and other caste ethnic groups (4.20 percent).

5) The majority of the micro-entrepreneurs did not have special prior experience working in similar enterprises (63.30 percent).

6) For over half of the micro-entrepreneurs, the micro-enterprise business was a totally new business in the family (58.10 percent).

7) The majority of respondents had financial constraints in starting the microenterprises (68.70 percent).

8) A large majority of the micro-entrepreneurs were from the manufacturing or production sector (82.0 percent), followed by business- or service-sector enterprises.

9) A large majority of the micro-entrepreneurs were engaged in agro-based enterprises (61.68 percent) followed by forest-based (14.17 percent), artisan-based (13.37 percent), service-based (6.39 percent), tourism-based (2.99 percent) and other kinds of enterprises (1.40 percent).

With reference to the second objective of the study, “to explore the level and growth of employment, profit, sales and assets of MEs as measures of ME performance,” the study found that

1) The levels of employment, profit, sales, and asset had increased over the period.

2) The level of average annual employment among micro-entrepreneurs increased from 1.70 to 1.85 between 2068 and 2069 with a growth of around nine percent.

3) Similarly, the level of average annual profit also increased from 40,194.47 NRs to 61,047.23 NRs between 2068 and 2069 with a growth of around 52 percent.

4) The level of average annual sales increased from 79,980.48 NRs to 114,152.60 NRs between 2068 and 2069 with a growth of around 43 percent.

5) The level of average annual asset increased from 31,471.06 NRs to 36,017.84 NRs between 2068 and 2069 with a growth of around 15 percent.

6) Among employment, profit, sales and assets, profit had the highest percentage of growth followed by sales, assets and employment.

7) Despite the fact of increased performance, there was significant variation in the employment, profit, sales and asset growth among microenterprises.

With reference to the third objective of the study, “to examine the effect of entrepreneur-, enterprise- and environment-related factors on microenterprise performance,” the study found the following:

1) Among the entrepreneur-related factors included in the study,

(1) The microenterprises owned by female micro-entrepreneurs had relatively higher performance.

(2) The educational attainment of the micro-entrepreneurs influenced the microenterprise performance (sales and asset growth rates) positively through managerial foresight.

(3) The microenterprises owned by the micro-entrepreneurs with higher managerial skills or in other words, the micro-entrepreneurs that had relatively greater skills in searching and gathering enterprise related information, identifying business opportunities, dealing with risk and adverse situations, establishing relationship with customers and suppliers, making decisions under uncertainty, and learning from experiences tended to have higher performance (profit and sales growth rate).

(4) The microenterprises owned by the micro-entrepreneurs that were motivated more by need for achievement in the absence of managerial foresight appeared to have relatively lower performance (sales growth rate). In other words, these micro-entrepreneurs, if equipped with strengthened managerial foresight, exhibited higher performance (sales and asset growth rate).

(5) The microenterprises owned by the micro-entrepreneurs that were motivated more by need for autonomy exhibited relatively lower performance (profit and sales growth rates).

(6) The microenterprises owned by the micro-entrepreneurs with higher creative tendency had relatively higher performance (profit, sales and asset growth rates).

(7) The microenterprises owned by the micro-entrepreneurs that were dictated by own internal locus of control had relatively lower performance (profit and sales growth rate).

(8) The microenterprises owned by the micro-entrepreneurs with higher managerial foresight had relatively higher performance, or in other words, the microenterprises owned by the micro-entrepreneurs that were more oriented towards future, planned for the future, analyzed the facts related to present or future plans in detail rather than the past tended to exhibit relatively higher performance (sales and asset growth rates).

(9) The age and prior experience of the micro-entrepreneurs, and the calculated risk taking traits of the micro-entrepreneurs, did not appear to have significant effects on the microenterprise performance.

2) Among the enterprise-related factors included in the study,

(1) The older microenterprises owned by the micro-entrepreneurs with higher managerial foresight exhibited relatively higher performance (asset growth rate).

(2) The bigger microenterprises in the absence of managerial foresight in the owners had relatively lower performance.

(3) The microenterprises that experienced financial constraints in starting their business had relatively higher performance than those that did not have such constraints.

(4) The owners of microenterprises that had financial constraints in starting the business seemed to have relatively higher managerial foresight, and this affected the microenterprise performance positively.

(5) The enterprise sector did not appear to have a significant effect on microenterprise performance.

3) Among the environment-related factors included in the study,

(1) The microenterprises owned by the micro-entrepreneurs having a stronger social network generally exhibited higher performance. In other words, the microenterprises owned by the micro-entrepreneurs that had a stronger relationship with suppliers, customers, public agencies, financial institutions, social institutions, relatives, friends, family members, and neighbours generally experienced higher performance. However, if the social network resulted in overconfidence among the micro-entrepreneurs concerning the future of their business, this might result in a lower managerial foresight, thereby leading to relatively lower microenterprise performance.

(2) The micro-entrepreneurs that had a greater perceived environmental hostility tended to have relatively lower managerial foresight, thus experiencing relatively lower microenterprise performance (sales and asset growth rates). In other words, the micro-entrepreneurs that had greater perceived environmental hostility, if they could be equipped with higher managerial foresight, this would influence the microenterprise performance positively.

(3) Family environment, and perceived environmental dynamism and environmental heterogeneity, did not appear to have significant effects on the microenterprise performance.

The responses to the fourth objective of the study, “to make some specific policy recommendations,” and the fifth objective of the study, “to contribute in the microenterprise policy debates and body of the entrepreneurship knowledge,” are presented in section 6.3 and 6.4 of this chapter respectively.

6.2 Conclusions

Using the primary data enumerated from 501 randomly-sampled micro-entrepreneurs across three ecological belts in Nepal, the study primarily focused on identifying the determinants of the microenterprise performance. The study explored the socio-demographic and economic characteristics of micro-entrepreneurs and microenterprises, and the level and growth of employment, profit, sales and assets of microenterprises; and examined the effects of entrepreneur-, enterprise-, and

environment-related factors on the microenterprise performance. An integrated conceptual framework was developed after reviewing economic, organization and entrepreneurship related theories such as the resource-based view of the firm, the behavioural theory of the entrepreneur, trait theory, role theory, network theory, adaptation perspectives of organization theory, and population ecology theory, and the findings of empirical studies across the world.

The study revealed that female entrepreneurs run a large majority of the micro-entrepreneurs in Nepal. The average age of the micro-entrepreneurs was forty years, and the average education was below the primary level. A large majority of the microenterprises were from agro-based followed by forest-, artisan-, service-, tourism-based and others. The level and growth of employment, profit, sales and assets increased over the time and therefore the performance of the microenterprise increased over the period. However, the study also observed a noticeable variation in the growth of employment, profit, sales and assets among the microenterprises. The study further revealed that the entrepreneur-related factors: gender, educational attainment, managerial skills, need for achievement, need for autonomy, creative tendency, internal locus of control and managerial foresight; enterprise-related factors: enterprise age, enterprise size and initial financial constraints; and environment-related factors: environmental hostility and social network, were the key factors determining the microenterprise performance in Nepal. Managerial foresight also mediated the effects of several other factors, such as educational attainment, the need for achievement, the need for autonomy, enterprise size, initial financial constraints, environmental hostility and social network significantly. Hence, these factors are crucial in determining the microenterprise performance. However, other factors such as the entrepreneur's age, previous experience, calculated risk-taking, the enterprise sector, family environment, environmental dynamism, and environmental heterogeneity did not appear to have significant effects on the performance of the microenterprises.

Furthermore, apart from confirming various hypotheses of related theories and approaches, and the findings of previous research, the results of this study have also rejected several other hypotheses and previous findings. For instance, the findings have supported the resource-based view of the firm, behavioral theory, trait theory,

network theory, population ecology theory and adaptation perspective of organization theory to some extent, therefore establishing the significance of these theories and perspectives in micro-entrepreneurship, as well. Meanwhile, the findings also rejected the assumptions of role theory to some extent. This implies that role theory, despite being widely used in explaining many aspects of large or small-scale enterprises, may not be very applicable in the context of micro-entrepreneurship. Furthermore, the study has also nullified the conventional thinking on several factors and their effects on enterprise performance, e.g. gender and enterprise performance. In the present context of lacking a sound scientific and theoretical foundation for micro-entrepreneurship, the findings of this study are useful for future research.

6.3 Recommendations of the Study

The subjects of this study were the microenterprises that were initiated and or supported by the microenterprise development program in Nepal. The microenterprise development program is one of the anti-poverty strategies of the government that aims at increasing self-employment and income, and thereby consequently reducing poverty in the country. The study also aimed to make some specific policy recommendations for the Micro-Enterprise Development Program (MEDEP) and related policymakers. Hence, the study has made the following policy recommendations:

- 1) Despite the growth in employment, profit, sales and assets of microenterprises, the study observed a significant variation in the performance among microenterprises. This indicates a large difference between the best performer and the low and average performer. From a policy perspective, this may not be desirable, since it may lead to income inequality in the future. In another aspect, it also points out that there is space and potential as well for the low performers to improve their performance towards the best performers. Therefore, the study suggests that the microenterprise development program and related policymakers focus more on strengthening the weak microenterprises.

- 2) The study observed significant direct positive effects of managerial skills, managerial foresight, and creative tendency on the microenterprise

performance. This implies that an integrated comprehensive policy focusing on strengthening the managerial skills, managerial foresight, and creative tendency may help to improve the microenterprise performance. Therefore, the microenterprise development program and related policymakers are suggested to focus on strengthening the managerial skills, managerial foresight, and creativity on the part of the micro-entrepreneurs. Some new integrated comprehensive training packages that equip the micro-entrepreneurs with the skills of gathering microenterprise-related information, dealing with microenterprise-related risks, making decisions under uncertainty while conducting their microenterprise business, establishing relationships or networks, identifying microenterprise business opportunities, and being encouraged to try out the new ideas, versatility, and learning from their experience and so on may be developed and implemented.

3) The microenterprise development model that has been implemented in Nepal also has six components that include the social mobilization for enterprise development, entrepreneurship development, technical-skills development, access to micro-credit, access to appropriate technology, and marketing and business counseling. The study also suggests that the microenterprise development program conduct refreshers' courses on the essential components of the microenterprise development model on a regular basis so that the micro-entrepreneurs can be kept up to date on the changes in the knowledge, technologies, skills, and environment.

4) Considering the higher performance of the microenterprises that are bigger and older, the study suggests that the microenterprise development program, related policymakers, and the micro-entrepreneurs continue the microenterprise business as they are likely to perform better in the long-run, and invest more in the enterprises, as bigger microenterprises seem to have better performance.

5) Initial financial constraint was found to have a significant positive effect on the microenterprise performance. In other words, this implies that the microenterprises initiated in credit seem to be more successful. Therefore, the microenterprise development program and related policymakers are suggested to help provide more access of the poor to microcredit to start their microenterprise.

6) The study also revealed that successful microenterprises are owned by micro-entrepreneurs that have wider and stronger social networks. Therefore, the micro-entrepreneurs are encouraged to make their social network stronger and to expand their base of customers, suppliers, friends, relatives, neighbors, financial institutions, social institutions and public agencies. Furthermore, some programs, in order to strengthen the linkage between the micro-entrepreneurs and their customers, suppliers, financial institutions, social institutions, public agencies, and so on, can be initiated. For instance, micro-entrepreneurs could be encouraged and supported or facilitated to organize some special festivals of the microenterprise products and services at the local rural market and the urban market on a regular basis.

7) The study also observed a negative indirect effect of social network on the microenterprise performance through managerial foresight. This might be due to the over confidence in the social network, thus resulting in fewer worries about the future and consequently resulting in lower microenterprise performance. Therefore, the study suggests that the microenterprise development program initiate an awareness program or make the micro-entrepreneurs understand the significance of managerial foresight in relation to enterprise performance so that the micro-entrepreneurs having stronger and wider social networks also could benefit from the significant effect of managerial foresight.

8) The microenterprises operating in an atmosphere of higher-perceived environmental hostility were found to have relatively lower performance. The perceived hostile environment appeared to threaten the performance of the microenterprises. Therefore, the microenterprise development program and related policymakers are suggested to take some corrective measures to strengthen the micro-entrepreneurs to cope with environmental hostility.

9) Similarly, despite the appreciable effort of the microenterprise development program regarding the marketing and business counseling component, there are still several microenterprises (e.g., microenterprises producing leather goods - bags, purses, etc.) that lack a good and reliable social network with consumers and suppliers. They have to rely on intermediaries, and this has several costs. Therefore, the study suggests that the microenterprise development program and related

policymakers emphasize strengthening the micro-entrepreneur's direct or more convenient network with customers and suppliers.

10) Educational attainment, although it did not appear to have significant direct effects on the microenterprise performance, was found to have significant effects on managerial foresight, thus affecting the microenterprise performance indirectly through managerial foresight. This implies that managerial foresight mediates the effects of education on microenterprise performance. Therefore, in order to strengthen the managerial foresight of the micro-entrepreneurs and thereby influence the performance of the microenterprises positively in the future, the accessibility to education of the target groups of the microenterprise development program or the people living below the poverty line should be enhanced. Moreover, the strengthened managerial foresight may also fortify the positive effects of the need for achievement and enterprise size in relation to microenterprise performance and reduce their direct negative effects.

11) The study also noted that the microenterprises providing only part-time employment or the micro-entrepreneurs that were involved in several other activities tended to have relatively lower performance. Therefore, the study suggests the microenterprise development program to encourage the micro-entrepreneurs to apply their full effort or work full-time so that they can achieve higher performance of the microenterprises.

12) Last, the study has explored the profile of the more successful or higher-performing micro-entrepreneurs and microenterprises. The microenterprises owned by the micro-entrepreneurs that were female, had more years of education, higher managerial skills, higher managerial foresight, greater creative tendency, less motivational orientation toward the need for achievement, need for autonomy, and internal locus of control were relatively more successful or exhibited higher performance. Therefore, the study encourages the persons with these profiles to become involved in the microenterprise sector so that they can be more successful.

6.4 Contributions of the Study

The study has made some modest contributions to the microenterprise policy debate and the body of entrepreneurship knowledge. The contributions of the study are discussed below.

6.4.1 Practical Contribution

From the perspective of the practical contribution of the study, this study has a modest value for microenterprise-related policymakers and researchers. The study has explored the performance of microenterprises initiated under the ME development program by the government of Nepal with the financial and technical support from several international organizations with the objective of increasing self-employment and income and thereby reducing poverty. The study has also identified the key factors determining the performance of microenterprises in Nepal. Based on the results of the study, the study has made some specific policy recommendations that would help microenterprises achieve higher performance in the future.

Furthermore, micro-entrepreneurship is still a novel field for scientific research programmes. For the purpose of this study, an integrated conceptual framework was developed based on a rigorous review and discussion of economic-, organizational- and entrepreneurship-related theories and the findings of the previous studies. Similarly, the study has also assessed microenterprise performance from a multidimensional perspective. The integrated comprehensive framework and the multidimensional measures of microenterprises used in this study may also help the researchers in the field of micro-entrepreneurship to design their future research.

6.4.2 Theoretical Contribution of the Study

Micro-entrepreneurship is often categorized as small-scale entrepreneurship. However, it has some very peculiar characteristics and different objectives than other enterprises. Micro-entrepreneurship as a field of scientific research still lacks its own sound theoretical foundation. Most of the theories in the field of entrepreneurship are based on small- or medium- or large-scale enterprises. The integrated conceptual framework used in the study was designed based on a rigorous review of economic-,

organizational- and entrepreneurship-related theories such as Schumpeter's theory of economic development, the resource-based theory, personality trait theory, role theory, behavioural theory, network theory, and so on, and the findings of previous studies. Based on the theoretical and empirical review, several hypotheses were developed and tested.

The study, besides confirming some of the hypothesized associations, has also nullified several other hypotheses and observed some other interesting results that contrast with the conventional thoughts and findings of the previous studies. For example, role theory, which explains the role of family in the enterprise performance, seems inapplicable in the context of microenterprises; similarly, the conventional thinking on the role of gender in enterprise performance, for example male entrepreneurs having higher performance than female counterparts, appears to be nullified in this study.

Furthermore, the study of the managerial foresight aspect of the micro-entrepreneurs is a novel aspect in the field of micro-entrepreneurship. This study has examined the effects of managerial foresight in microenterprise performance and revealed significant mediating effects of managerial foresight on microenterprise performance. Hence, the study has explored the relevance of the theories developed based on small-scale, medium-scale, or large-scale enterprises in the context of micro-entrepreneurship and contributed some novel aspects to the study of micro-entrepreneurship; thus, the results of this study have made a modest contribution to the body of entrepreneurship knowledge and theories.

6.5 Direction for Future Research

Every study has some space to expand in the future. This study is also not free from this. The respondents for this study were the micro-entrepreneurs that were supported by the microenterprise development programme of the government of Nepal with special assistance from several international organizations. There might be several other microenterprises across the country not created and or supported under the microenterprise development program or that were supported by other organizations and programs. Future studies are suggested to focus on the self-initiated

microenterprises or the microenterprises supported by other organizations and programs. The nature of a self-initiating micro-entrepreneur may have different motivation and entrepreneurial traits than those initiated under a program with a particular goal, thus being influenced by different factors.

Moreover, the conceptual framework of this study was developed based on the existing related theories and empirical findings. The study has focused on examining the effects of the factors identified by the previous studies in the context of Nepal. The factors included in the study were limited to the available literature. There might be several other distinctive factors determining the microenterprise performance in different contexts. Therefore, the study further suggests that future studies to carry out qualitative studies exploring the distinctive factors determining microenterprise performance in a particular context.

6.6 Chapter Summary

This chapter presented a summary of the major findings and conclusions of the study, the contributions of the study, and directions for future research. The main purpose of the study, the population and sample respondents, the method of the research, sampling design, instruments, and the important findings of the study were concisely exhibited in the summary of the major findings. In the succeeding sections, the conclusions of the findings, policy recommendations, and the contributions of the study to the microenterprise policy debate and the body of entrepreneurship knowledge were presented. Last, the directions for future research were stated at the end.

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APPENDICES

APPENDIX A
STRATIFIED SAMPLING FRAME USED IN THE STUDY

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size
Sindhupalchok				
Agro based	Brahmin/Chhetri	Male	56	9
		Female	222	35
	Janajati/indigenous	Male	84	13
		Female	428	67
	Dalit	Male	27	4
		Female	95	15
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		912	142
	Forest based	Brahmin/Chhetri	Male	5
Female			3	1
Janajati/indigenous		Male	13	2
		Female	36	6
Dalit		Male	19	3
		Female	13	2
Others (Madhesi caste)		Male	0	0
		Female	0	0
Total			89	14
Artisan handicraft based		Brahmin/Chhetri	Male	2
	Female		34	5
	Janajati/indigenous	Male	8	1
		Female	51	8

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size	
	Dalit	Male	27	4	
		Female	49	8	
	Others (Madhesi caste)	Male	0	0	
		Female	1	1	
	Total		172	28	
	Service based	Brahmin/Chhetri	Male	0	0
			Female	4	1
		Janajati/indigenous	Male	5	1
			Female	31	5
		Dalit	Male	7	1
Female			38	6	
Others (Madhesi caste)		Male	0	0	
		Female	0	0	
Total			85	13	
Tourism based		Brahmin/Chhetri	Male	0	0
	Female		4	1	
	Janajati/indigenous	Male	2	1	
		Female	6	1	
	Dalit	Male	0	0	
		Female	0	0	
	Others (Madhesi caste)	Male	0	0	
		Female	0	0	
	Total		12	3	
	Others	Brahmin/Chhetri	Male	0	0
Female			2	1	

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size
	Janajati/indigenous	Male	0	0
		Female	2	1
	Dalit	Male	0	0
		Female	0	0
	Others (Madhesi caste)	Male	0	0
		Female	0	
	Total		4	2
Sub Total			1274	203
Parbat				
Agro based	Brahmin/Chhetri	Male	136	21
		Female	221	34
	Janajati/indigenous	Male	38	6
		Female	55	9
	Dalit	Male	39	6
		Female	86	13
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		575	89
Forest based	Brahmin/Chhetri	Male	12	2
		Female	12	2
	Janajati/indigenous	Male	4	1
		Female	37	6
	Dalit	Male	16	2
		Female	5	1
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		86	13

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size
Artisan handicraft based based total	Brahmin/Chhetri	Male	1	1
		Female	38	6
	Janajati/indigenous	Male	0	0
		Female	49	8
	Dalit	Male	31	5
		Female	71	11
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		190	30
	Service based	Brahmin/Chhetri	Male	21
Female			6	1
Janajati/indigenous		Male	7	1
		Female	5	1
Dalit		Male	1	1
		Female	0	0
Others (Madhesi caste)		Male	0	0
		Female	0	0
Total			40	7
Tourism based		Brahmin/Chhetri	Male	7
	Female		14	2
	Janajati/indigenous	Male	6	1
		Female	1	1
	Dalit	Male	0	0
		Female	0	0
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		28	4

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total	Sample
			Microenterprises	Size
Others	Brahmin/Chhetri	Male	0	0
		Female	0	0
	Janajati/indigenous	Male	0	0
		Female	0	0
	Dalit	Male	0	0
		Female	1	1
	Others (Madhesi caste)	Male	0	0
		Female	0	0
	Total		1	1
Sub Total			920	145
Nawalparasi				
Agro based	Brahmin/Chhetri	Male	47	7
		Female	57	9
	Janajati/indigenous	Male	177	28
		Female	109	17
	Dalit	Male	25	4
		Female	37	6
	Others (Muslims and other Madhesi caste)	Male	11	2
		Female	25	4
	Total		488	76
	Forest based	Brahmin/Chhetri	Male	6
Female			22	3
Janajati/indigenous		Male	45	7
		Female	106	17
Dalit		Male	9	1
		Female	23	4

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size	
	Others (Madhesi caste)	Male	2	1	
		Female	1	1	
	Total		214	35	
Artisan handicraft based	Brahmin/Chhetri	Male	1	1	
		Female	23	4	
	Janajati/indigenous	Male	11	2	
		Female	40	6	
		Dalit	Male	15	2
		Female	12	2	
	Others (Muslims and other Madhesi caste)	Male	3	1	
		Female	0	0	
	Total		105	18	
	Service based	Brahmin/Chhetri	Male	14	2
Female			21	3	
Janajati/indigenous		Male	15	2	
		Female	122	19	
Dalit		Male	3	1	
		Female	8	1	
Others (Muslims and other Madhesi caste)		Male	3	1	
		Female	3	1	
Total			189	31	
Tourism based		Brahmin/Chhetri	Male	1	1
	Female		0	0	
Others	Janajati/indigenous	Male	0	0	
		Female	5	1	
	Dalit	Male	0	0	
		Female	0	0	

APPENDIX A (Continued)

Enterprise Type	Caste/Ethnicity	Gender	Total Microenterprises	Sample Size
	Others (Muslims and other Madhesi caste)	Male	1	1
		Female	2	1
	Total		9	4
	Brahmin/Chhetri	Male	0	0
		Female	1	1
	Janajati/indigenous	Male	0	0
		Female	1	1
	Dalit	Male	0	0
		Female	0	0
	Others (Muslims and other Madhesi caste)	Male		0
		Female	0	0
	Total		2	2
Sub Total			1007	166
Grand Total			3201	514

APPENDIX B
MEASURING INDEPENDENT VARIABLES

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
Assessing Perceived Managerial Skills of Micro-entrepreneur (Adapted from Viciano, 2007)							
To what extent do you agree that you are good in searching and gathering microenterprise-related information?	1	2	3	4	5	6	7
To what extent do you agree that you are good in identifying microenterprise business opportunities?	1	2	3	4	5	6	7
To what extent do you agree that you are good in dealing with microenterprise-related risks?	1	2	3	4	5	6	7
To what extent do you agree that you are good in establishing relationships/network?	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
To what extent do you agree that you are good in making decisions under uncertainty while doing microenterprise business?	1	2	3	4	5	6	7
To what extent do you agree that you are good in learning from experiences?	1	2	3	4	5	6	7
Assessing Entrepreneurial Motivation and Enterprising or Personality Traits (Adapted from Caird and Johnson, 1988)							
1. Need for achievement							
I like challenges that stretch my abilities and get bored with things I can do quite easily.	1	2	3	4	5	6	7
I get up early, stay late or skip meals if I have a deadline for some work that needs to be done.	1	2	3	4	5	6	7
I find it difficult to switch off from work completely.	1	2	3	4	5	6	7
When I am faced with a challenge I think more about the results of succeeding than the effects of failing.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
2 .Need for Autonomy							
I tend not to like to stand out or be unconventional.	1	2	3	4	5	6	7
At work, I often take over projects and steer them my way without worrying about what other people think.	1	2	3	4	5	6	7
I rarely need or want any assistance and like to put my own stamp on work that I do.	1	2	3	4	5	6	7
I usually do what is expected of me and follow instructions carefully.	1	2	3	4	5	6	7
3. Creative Tendency							
I prefer to be quite good at several things rather than very good at one thing.	1	2	3	4	5	6	7
Sometimes I have so many ideas that I feel pressurized.	1	2	3	4	5	6	7
Sometimes people find my ideas unusual.	1	2	3	4	5	6	7
Other people think that I'm always making changes and trying out new ideas.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
I like to spend time with people that have different ways of thinking.	1	2	3	4	5	6	7
4. Calculated Risk Taking							
I like to test boundaries and get into areas where few have worked before.	1	2	3	4	5	6	7
If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it.	1	2	3	4	5	6	7
Before I make a decision I like to have all the facts no matter how long it takes.	1	2	3	4	5	6	7
I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy.	1	2	3	4	5	6	7
If there is a chance of failure I would rather not do it.	1	2	3	4	5	6	7
Before making an important decision I prefer to weigh up the pros and cons fairly quickly rather than spending a long time thinking about it.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
5. Locus of Control							
Capable people that fail to become successful have not usually taken chances when they have occurred.	1	2	3	4	5	6	7
For me, getting what I want is a just reward for my efforts.	1	2	3	4	5	6	7
People's failures are rarely the result of their poor judgment.	1	2	3	4	5	6	7
When I make plans I nearly always achieve them.	1	2	3	4	5	6	7
I try to accept that things happen to me in life for a reason.	1	2	3	4	5	6	7
Being successful is a result of working hard; luck has little to do with it.	1	2	3	4	5	6	7
I get what I want from life because I work hard to make it happen.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
Assessing Managerial Foresight of Micro-entrepreneur (Adapted from Amsteus, 2011)							
What percentage of the plans that you create as a micro-entrepreneur has to be revised within two years into the future?	100% 1	80% 2	60% 3	40% 4	20% 5	10% 6	0% 7
How big a part of the objectives you have as a micro-entrepreneur has to be revised within two years into the future?	All 1	Most 2	Many 3	Some 4	Few 5	Very few 6	None 7
What percentage of the time you work as a manager/ micro-entrepreneur do you spend analyzing facts that relate to the past?	0% 1	10% 2	20% 3	40% 4	60% 5	80% 6	100% 7
To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
How many of the plans you make as a micro-entrepreneur do you not analyze in detail?	All 1	Most 2	Many 3	Some 4	Few 5	Very few 6	None 7

APPENDIX B (Continued)

Items/Measures	Scale						
Assessing Social Network of Micro-entrepreneur (Adapted from Viciana, 2007)							
What is the strength of your relations or tie-up with suppliers?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with customers?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with public agencies?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with financial institutions?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with social institutions?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7

APPENDIX B (Continued)

Items/Measures	Scale						
What is the strength of your relations or tie-up with family members?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with friends?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with relatives?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7
What is the strength of your relations or tie-up with neighbors?	No relation 1	Very poor 2	Poor 3	Neither/ nor 4	Somewhat good 5	Good 6	Very good 7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
Assessing Micro-entrepreneur's Perception of the Task Environment (Adapted from Miller and Friesen, 1982)							
1. Environmental dynamism							
I must change the marketing practices of my microenterprise products and services to keep up with the market and competitors.	1	2	3	4	5	6	7
The microenterprise products/services are getting obsolete very fast.	1	2	3	4	5	6	7
It is very difficult to predict the actions of competitors.	1	2	3	4	5	6	7
It is very difficult to forecast the demand and consumer tastes of the microenterprise products/services.	1	2	3	4	5	6	7
The production/service technologies of my microenterprise are to be changed very often to fit the market environment.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
2. Environmental heterogeneity							
The microenterprise business environment is very diversified.	1	2	3	4	5	6	7
<i>To what extent do you agree that there is a huge difference amongst the products/services of your microenterprise with regard to the following?</i>							
The customer's buying habit varies highly.	1	2	3	4	5	6	7
The nature of the competition varies highly.	1	2	3	4	5	6	7
Market dynamism and uncertainty vary highly.	1	2	3	4	5	6	7
3. Environmental hostility							
The market environment does not pose any threat to the survival of my microenterprise.	1	2	3	4	5	6	7
<i>To what extent do you agree that the following challenges threat your microenterprise very highly?</i>							
Tough price competition presents a high threat.	1	2	3	4	5	6	7
Competition in microenterprise product/service quality presents a high threat.	1	2	3	4	5	6	7
Dwindling/diminishing market for products presents a high threat.	1	2	3	4	5	6	7

APPENDIX B (Continued)

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
Scarce supply of labor/material presents a high threat.	1	2	3	4	5	6	7
Government interference presents a high threat.	1	2	3	4	5	6	7

APPENDIX C

DESCRIPTIVE STATISTICS AND CORRELATION MATRIXES OF THE OBSERVED ITEMS USED IN THE FACTOR ANALYSIS

Need for Achievement				
Observed items	NEEDACH1	NEEDACH2	NEEDACH3	NEEDACH4
NEEDACH1	1			
NEEDACH2	.488 ^{***}	1		
NEEDACH3	.337 ^{***}	.388 ^{***}	1	
NEEDACH4	.393 ^{***}	.398 ^{***}	.489 ^{***}	1
Min	1	4	2	2
Max	7	7	7	7
Mean	5.39	5.76	5.74	5.66
SD	1.132	.906	1.062	1.047
Skewness	-.352	-.319	-.720	-.601
SE Skewness	.109	.109	.109	.109
Kurtosis	-.237	-.665	.491	.235
SE Kurtosis	.218	.218	.218	.218
Need for Autonomy				
Observed items	NEEDAUTO1	NEEDAUTO2	NEEDAUTO3	
NEEDAUTO1	1			
NEEDAUTO2	.289 ^{***}	1		
NEEDAUTO3	.354 [*]	.408 ^{***}	1	
Min	2	1	2	
Max	7	7	7	
Mean	5.56	5.04	5.32	
SD	1.026	1.385	.998	

APPENDIX C (Continued)

Observed items	NEEDAUTO1	NEEDAUTO2	NEEDAUTO3		
Skewness	-.569	-.718	-.268		
SE Skewness	.109	.109	.109		
Kurtosis	.188	.009	.001		
SE Kurtosis	.218	.218	.218		
Creative Tendency					
Observed items	CREATE N1	CREATE N2	CREATE N3	CREATE N4	CREATE N5
CREATEN1	1				
CREATEN2	.302 ^{***}	1			
CREATEN3	.293 ^{***}	.357 ^{***}	1		
CREATEN4	.279 ^{***}	.249 ^{***}	.355 ^{***}	1	
CREATEN5	.137 ^{**}	.162 ^{***}	.222 ^{***}	.177 ^{***}	1
Min	2	2	1	1	1
Max	7	7	7	7	7
Mean	5.45	5.42	5.13	5.06	4.65
SD	1.109	1.070	1.178	1.140	1.475
Skewness	-.524	-.477	-.341	-.763	-.611
SE Skewness	.109	.109	.109	.109	.109
Kurtosis	.107	.111	-.149	.868	-.200
SE Kurtosis	.218	.218	.218	.218	.218

APPENDIX C (Continued)

Managerial Foresight					
Observed items	MANFOR 1	MANFOR 2	MANFOR 3	MANFOR 4	MANFOR 5
MANFOR1	1.000				
MANFOR2	.518 ^{***}	1.000			
MANFOR3	.163 ^{***}	.263 ^{***}	1.000		
MANFOR4	-.198 ^{***}	-.307 ^{***}	-.260 ^{***}	1.000	
MANFOR5	.213 ^{***}	.393 ^{***}	.275 ^{***}	-.276 ^{***}	1.000
Min	1	1	1	1	1
Max	7	7	7	7	7
Mean	3.78	3.99	3.49	4.14	4.31
SD	1.239	1.119	1.143	1.238	1.361
Skewness	.404	.143	.485	-.126	.144
SE Skewness	.109	.109	.109	.109	.109
Kurtosis	-.302	-.251	-.237	-.048	-.500
SE Kurtosis	.218	.218	.218	.218	.218

APPENDIX C (Continued)

Environmental Dynamism					
Observed items	ENV DYN1	ENV DYN2	ENV DYN3	ENV DYN4	ENV DYN5
ENV DYN1	1				
ENV DYN2	.596***	1			
ENV DYN3	.517***	.539***	1		
ENV DYN4	.440***	.568***	.678***	1	
ENV DYN5	.429***	.510***	.524***	.569***	1
Min	1	1	1	1	1
Max	7	7	7	7	7
Mean	5.11	4.72	4.72	4.68	4.35
SD	1.350	1.459	1.384	1.395	1.692
Skewness	-.580	-.507	-.384	-.404	-.334
SE					
Skewness	.109	.109	.109	.109	.109
Kurtosis	.106	-.394	-.401	-.505	-.813
SE Kurtosis	.218	.218	.218	.218	.218

APPENDIX C (Continued)

Environmental Heterogeneity				
Observed items	ENVHET1	ENVHET2	ENVHET3	ENVHET4
ENVHET1	1			
ENVHET2	.562 ^{***}	1		
ENVHET3	.469 ^{***}	.664 ^{***}	1	
ENVHET4	.397 ^{***}	.614 ^{***}	.722 ^{***}	1
Min	1	1	1	1
Max	7	7	7	7
Mean	4.78	5.08	4.84	4.72
SD	1.430	1.252	1.405	1.400
Skewness	-.390	-.683	-.437	-.364
SE				
Skewness	.109	.109	.109	.109
Kurtosis	-.214	-.137	-.642	-.601
SE Kurtosis	.218	.218	.218	.218

APPENDIX C (Continued)

Environmental Hostility					
Observed items	ENVHOS1	ENVHOS2	ENVHOS3	ENVHOS4	ENVHOS5
ENVHOS1	1				
ENVHOS2	.712 ^{***}	1			
ENVHOS3	.472 ^{***}	.603 ^{***}	1		
ENVHOS4	.354 ^{***}	.463 ^{***}	.635 ^{***}	1	
ENVHOS5	.359 ^{***}	.439 ^{***}	.543 ^{***}	.574 ^{***}	1
Min	1	1	1	1	1
Max	7	7	7	7	7
Mean	4.65	4.35	3.90	3.86	3.20
SD	1.462	1.518	1.610	1.629	1.886
Skewness	-.357	-.171	.077	.045	.485
SE Skewness	.109	.109	.109	.109	.109
Kurtosis	-.790	-.774	-.982	-.950	-.986
SE Kurtosis	.218	.218	.218	.218	.218

APPENDIX C (Continued)

Social Network									
Observed	SOSNE	SOSNE	SOSNE	SOSNE	SOSNE	SOSNE	SOSNE	SOSNE	SOSNE
items	T1	T2	T3	T4	T5	T6	T7	T8	T9
SOSNET1	1								
SOSNET2	.444***	1							
SOSNET3	.373***	.500***	1						
SOSNET4	.378***	.402***	.710***	1					
SOSNET5	.228***	.414***	.628***	.752***	1				
SOSNET6	.177***	.345***	.409***	.530***	.534***	1			
SOSNET7	.265***	.315***	.478***	.541***	.552***	.722***	1		
SOSNET8	.299***	.295***	.455***	.499***	.474***	.677***	.784***	1	
SOSNET9	.282***	.320***	.481***	.540***	.491***	.621***	.752***	.801***	1
Min	3	3	1	1	1	1	1	1	3
Max	7	7	7	7	7	7	7	7	7
Mean	5.43	5.54	4.88	4.90	5.13	5.83	5.80	5.73	5.78
SD	1.058	.935	1.319	1.310	1.195	1.071	1.046	1.053	1.069
Skewness	-.272	-.488	-.445	-.480	-.395	-.930	-.793	-.579	-.542
SE									
Skewness	.109	.109	.109	.109	.109	.109	.109	.109	.109
Kurtosis	-.524	.172	-.114	.168	.149	.967	.516	-.046	-.712
SE									
Kurtosis	.218	.218	.218	.218	.218	.218	.218	.218	.218

Note: N = 501; ***p<.001, **p<.01, *p<.05; NEEDACH1: I like challenges that stretch my abilities and get bored with things I can do quite easily; NEEDACH2: I get up early, stay late or skip meals if I have a deadline for some work that needs to be done; NEEDACH3: I find it difficult to switch off from work completely; NEEDACH4: When I am faced with a challenge I think more about the results of succeeding than the effects of failing; NEEDAUTO1: At work, I often take over projects and steer them my way without worrying

APPENDIX C (Continued)

about what other people think; NEEDAUTO2: I rarely need or want any assistance and like to put my own stamp on work that I do; NEEDAUTO3: I usually do what is expected of me and follow instructions carefully; CREATEN1: I prefer to be quite good at several things rather than very good at one thing; CREATEN2: Sometimes I have so many ideas that I feel pressurized; CREATEN3: Sometimes people find my ideas unusual; CREATEN4: Other people think that I'm always making changes and trying out new ideas; CREATEN5: I like to spend time with people that have different ways of thinking; CALRISK1: I like to test boundaries and get into areas where few have worked before; CALRISK2: If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it; CALRISK3: Before I make a decision I like to have all the facts no matter how long it takes; CALRISK4: I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy; CALRISK5: If there is a chance of failure I would rather not do it; CALRISK6: Before making an important decision I prefer to weigh up the pro's and con's fairly quickly rather than spending a long time thinking about it; CALRISK7: I like to start interesting projects even if there is no guaranteed payback for the money or time I have to put in; INTLOC1: Capable people that fail to become successful have not usually taken chances when they have occurred; INTLOC2: For me, getting what I want is a just reward for my efforts; INTLOC3: People's failures are rarely the result of their poor judgment; INTLOC4: When I make plans I nearly always achieve them; INTLOC5: I try to accept that things happen to me in life for a reason; INTLOC6: Being successful is a result of working hard; luck has little to do with it; INTLOC7: I get what I want from life because I work hard to make it happen; MANFOR1: What percentage of the plans that you create as a micro-entrepreneur stretch on for at least 2 years into the future?; MANFOR2: How big a part of the objectives you have as a micro-entrepreneur stretch on for at least 2 years into the future?; MANFOR3: What percentage of the time you work as a

APPENDIX C (Continued)

manager/entrepreneur do you spend analyzing facts that relate to the past?;

MANFOR4: To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?;

MANFOR5: How much of the plans you make as a micro-entrepreneur do you analyze in detail?;

MANSKL1: To what extent do you agree that you are good in searching and gathering microenterprise related information?;

MANSKL2: To what extent do you agree that you are good in identifying microenterprise business opportunities?;

MANSKL3: To what extent do you agree that you are good in dealing with microenterprise-related risks?;

MANSKL4: To what extent do you agree that you are good in establishing relationships/network?;

MANSKL5: To what extent do you agree that you are good in making decisions under uncertainty while doing microenterprise business?;

MANSKL6: To what extent do you agree that you are good in learning from experience?;

ENVDYN1: I must change the marketing practices of my microenterprise products and services to keep up with the market and competitors;

ENVDYN2: The microenterprise products/services are getting obsolete very fast;

ENVDYN3: It is very difficult to predict the actions of the competitors;

ENVDYN4: It is very difficult to forecast the demand and consumer tastes of the microenterprise products/services;

ENVDYN5: The production/services technology of my microenterprise are to be changed very often to fit in the market environment;

ENVHET1: The microenterprise business environment is very diversified;

ENVHET2: The customer's buying habit varies highly;

ENVHET3: The nature of the competition varies highly;

ENVHET4: Market dynamism and uncertainty vary highly;

ENVHOS1: Tough price competition presents a high threat;

ENVHOS2: Competition in microenterprise product/service quality presents a high threat;

ENVHOS3: Dwindling/diminishing market for products presents a high threat;

ENVHOS4: Scarce supply of labor/material presents a high threat;

ENVHOS5: Government interference presents a high threat;

SOSNET1: Strength of the relation/tie-up with suppliers;

APPENDIX C (Continued)

SOSNET2: Strength of the relation/tie-up with customers; SOSNET3: Strength of the relation/tie-up with public agencies; SOSNET4: Strength of the relation/tie-up with financial institutions; SOSNET5: Strength of the relation/tie-up with social institutions; SOSNET6: Strength of the relation/tie-up with family members; SOSNET7: Strength of the relation/tie-up with friends; SOSNET8: Strength of the relation/tie-up with relatives; SOSNET9: Strength of the relation/tie-up with neighbors.

APPENDIX D

RESULTS OF THE RELIABILITY ANALYSIS OF THE SCALES

Items	Mean	SD	Cronbach Alpha ()
Managerial Skills			
To what extent do you agree that you are good in searching and gathering microenterprise-related information?	5.760	1.562	.934
To what extent do you agree that you are good in identifying microenterprise business opportunities?	5.600	1.354	
To what extent do you agree that you are good in dealing with microenterprise-related risks?	5.400	1.528	
To what extent do you agree that you are good in establishing relationships/network?	5.200	1.443	
To what extent do you agree that you are good in making decisions under uncertainty while doing microenterprise business?	5.080	1.412	
To what extent do you agree that you are good in learning from experience?	5.480	1.531	
Entrepreneurial Motivation and Enterprising or Personality Traits			
Need for Achievement			
I like challenges that stretch my abilities and get bored with things I can do quite easily.	5.240	1.363	.731
I get up early, stay late or skip meals if I have a deadline for some work that needs to be done.	4.360	1.381	

APPENDIX D (Continued)

Items	Mean	SD	Cronbach Alpha ()
I find it difficult to switch off from work completely.	4.520	1.159	
When I am faced with a challenge I think more about the results of succeeding than the effects of failing.	5.240	1.363	
Need for Autonomy			
I tend not to like to stand out or be unconventional.	6.040	.611	
At work, I often take over projects and steer them my way without worrying about what other people think.	5.960	.539	.651
I rarely need or want any assistance and like to put my own stamp on work that I do.	6.000	.707	
I usually do what is expected of me and follow instructions carefully.	5.800	.707	
Creative Tendency			
I prefer to be quite good at several things rather than very good at one thing.	5.160	1.313	
Sometimes I have so many ideas that I feel pressurized.	5.600	1.190	
Sometimes people find my ideas unusual.	5.480	.770	.709
Other people think that I'm always making changes and trying out new ideas.	4.880	.927	
I like to spend time with people that have different ways of thinking.	4.840	.851	

APPENDIX D (Continued)**Calculated Risk Taking**

I like to test boundaries and get into areas where few have worked before.	5.160	1.313	.692
If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it.	5.320	1.180	
Before I make a decision I like to have all the facts no matter how long it takes.	6.000	1.041	
I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy.	5.560	1.158	
If there is a chance of failure I would rather not do it.	5.640	1.551	
Before making an important decision I prefer to weigh up the pro's and con's fairly quickly rather than spending a long time thinking about it.	5.000	1.958	
I like to start interesting projects even if there is no guaranteed payback for the money or time I have to put in.	4.600	1.443	

Internal Locus of Control

Capable people that fail to become successful have not usually taken chances when they have occurred.	5.960	1.457	.778
For me, getting what I want is a just reward for my efforts.	5.800	1.915	
People's failures are rarely the result of their poor judgment.	5.640	1.578	
When I make plans I nearly always achieve them.	5.160	1.700	

APPENDIX D (Continued)

Items	Mean	SD	Cronbach Alpha ()
I try to accept that things happen to me in life for a reason.	5.520	.963	
Being successful is a result of working hard; luck has little to do with it.	5.920	.997	
I get what I want from life because I work hard to make it happen.	6.080	1.152	
Managerial Foresight			
What percentage of the plans that you create as a micro-entrepreneur has to be revised within two years into the future?	4.200	1.118	
How big a part of the objectives you have as a micro-entrepreneur has to be revised within two years into the future?	3.6400	1.076	
What percentage of the time you work as a manager/entrepreneur do you spend analyzing facts that relate to the past?	4.400	1.190	.735
To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?	4.560	.917	
How many of the plans you make as a micro-entrepreneur you do not analyze in detail?	3.440	.917	
Task Environment			
Environmental Dynamism			
I must change the marketing practices of my microenterprise products and services to keep up with the market and competitors.	5.000	1.384	.745

APPENDIX D (Continued)

Items	Mean	SD	Cronbach Alpha ()
The microenterprise products/services are getting obsolete very fast.	4.320	1.676	
It is very difficult to predict the actions of the competitors.	4.520	1.295	
It is very difficult to forecast the demand and consumer tastes of the microenterprise products/services.	4.480	1.295	
The production/services technologies of my microenterprise are to be changed very often to fit in the market environment.	4.2400	1.640	
Environmental Heterogeneity			
The microenterprise business environment is very diversified.	4.720	1.370	
The customer's buying habit varies highly.	4.960	1.136	
The nature of the competition varies highly.	4.680	1.435	.648
Market dynamism and uncertainty vary highly.	5.360	.995	
The market environment does not pose any threat to the survival of my microenterprise.	5.360	1.186	
Environmental Hostility			
Tough price competition presents a high threat.	4.840	1.573	
Competition in microenterprise product/service quality presents a high threat.	4.640	1.469	
Dwindling/diminishing market for products presents a high threat.	4.040	1.645	.787
Scarce supply of labor/material presents a high threat.	4.120	1.666	

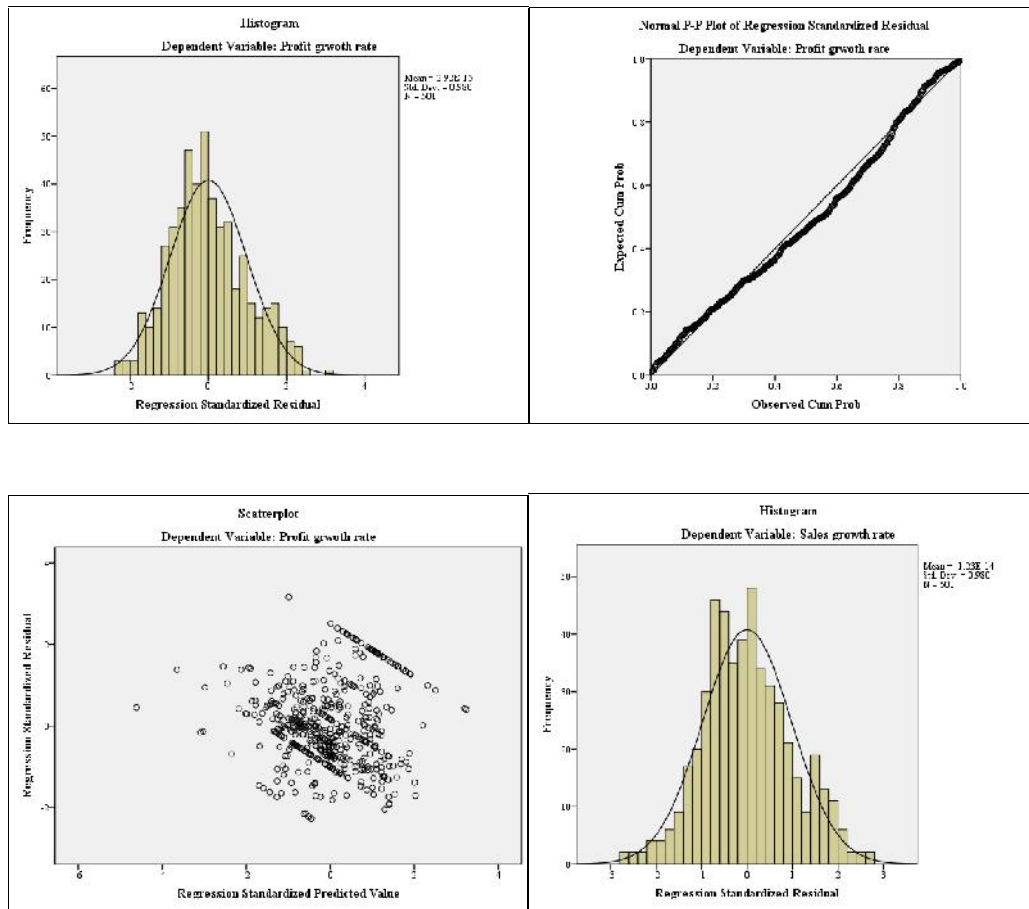
APPENDIX D (Continued)

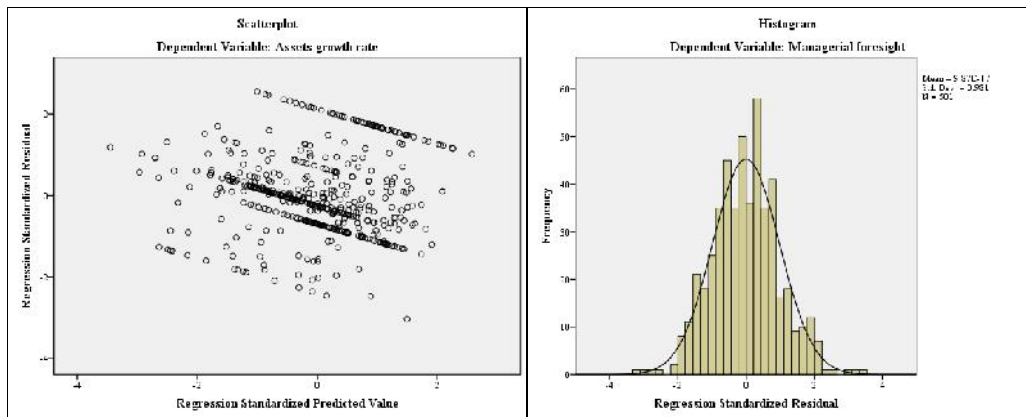
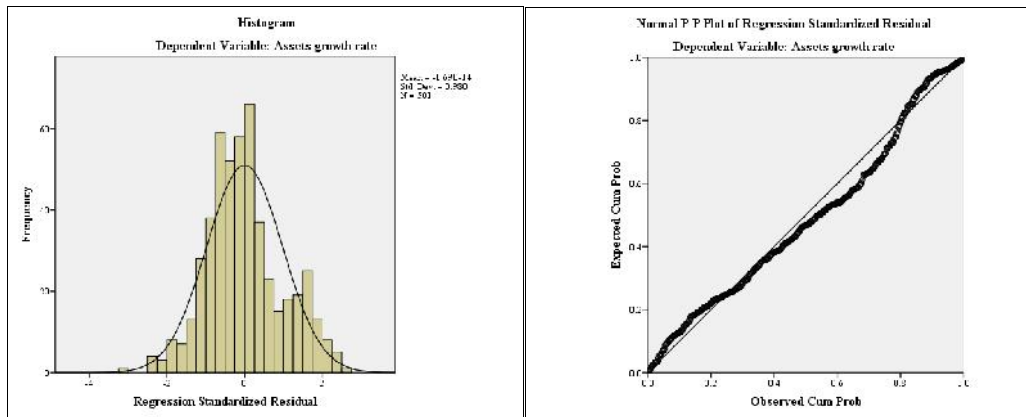
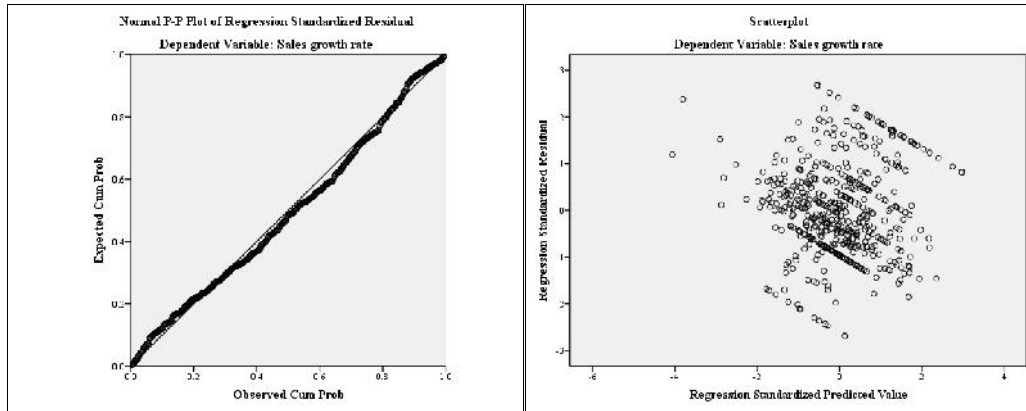
Items	Mean	SD	Cronbach Alpha ()
Government interference presents a high threat.	3.560	1.758	
Social Network			
What is the strength of the relation/tie-up with suppliers?	4.920	1.288	
What is the strength of the relation/tie-up with customers?	5.560	1.121	
What is the strength of the relation/tie-up with public agencies?	5.000	1.323	
What is the strength of the relation/tie-up with financial institutions?	4.880	1.201	
What is the strength of the relation/tie-up with social institutions?	5.280	1.137	.916
What is the strength of the relation/tie-up with family members?	5.960	1.060	
What is the strength of the relation/tie-up with friends?	5.920	1.187	
What is the strength of the relation/tie-up with relatives?	6.000	1.118	
What is the strength of the relation/tie-up with neighbors?	5.960	1.207	

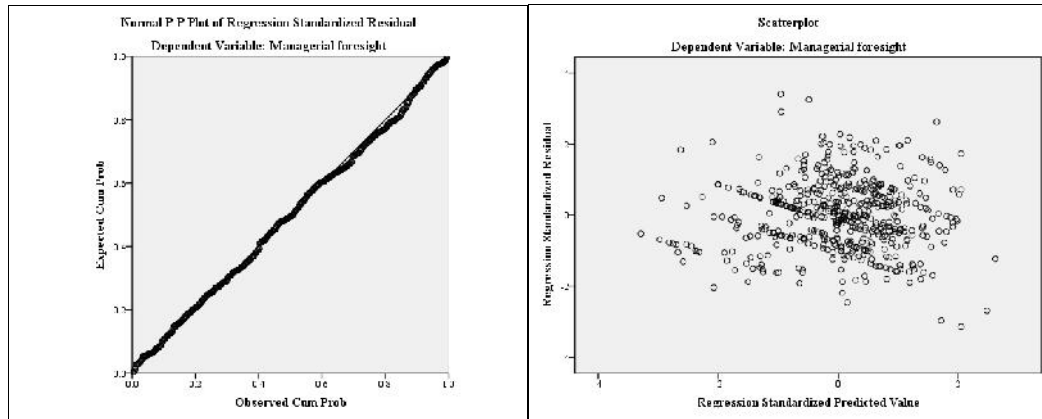
Note: N = 25

APPENDIX E

HISTOGRAMS, NORMAL PP PLOTS AND SCATTER PLOTS OF REGRESSION STANDARDIZED RESIDUALS







APPENDIX F

SURVEY QUESTIONNAIRE

This survey has been undertaken to carry out a research paper for the partial fulfillment of the requirements for the Degree of Philosophy of Development Administration from the Graduate School of Public Administration (GSPA), National Institute of Development Administration (NIDA), Bangkok, Thailand. Interviewees are assured that their responses in the interview will be strictly used for research purposes only. The interview may take around 30 minutes.

Name of the enumerator:.....

Date:.....

District: 1) Parbat, 2) Nawalparasi, 3) Sindhupalchowk

Rural Market Center (RMC).....

Respondent ID (RespID).....

Microenterprise No (SN - MEDEP Database).....

I. Personal and household description

1. Gender: [1] Male [2] Female
2. Age: [.....years]
3. Caste/ethnicity: [1] Brahmin/Chhetri [2] Janajati [3] Dalit
[4] Muslims [5] Other.....
4. Literacy (can read, write and perform basic calculation) [1] Illiterate [2] Literate
5. Years of formal education completed [.....years]
6. Duration of entrepreneurship-related training [.....months]
7. Did you have experience in similar microenterprise before? [1] Yes [2] No
8. Is doing business your family occupation? [1] Yes [2] No
9. Does your microenterprise have a relation with your family occupation?
[1] Continuation of parental/family business [2] Parents had similar business
[3] Totally new idea in the family

APPENDIX F (Continued)

II. Assessing the Managerial Skills of the Micro-Entrepreneur

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
To what extent do you agree that you are good in searching and gathering microenterprise-related information?	1	2	3	4	5	6	7
To what extent do you agree that you are good in identifying microenterprise business opportunities?	1	2	3	4	5	6	7
To what extent do you agree that you are good in dealing with microenterprise- related risks?	1	2	3	4	5	6	7
To what extent do you agree that you are good in establishing relationships/network?	1	2	3	4	5	6	7
To what extent do you agree that you are good in making decisions under uncertainty while doing microenterprise business?	1	2	3	4	5	6	7
To what extent do you agree that you are good in learning from experience?	1	2	3	4	5	6	7

APPENDIX F (Continued)

III. Assessing the Micro-Entrepreneur's Motivation and Enterprising Traits

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
1. Need for Achievement							
I like challenges that stretch my abilities and get bored with things I can do quite easily.	1	2	3	4	5	6	7
I get up early, stay late or skip meals if I have a deadline for some work that needs to be done.	1	2	3	4	5	6	7
I find it difficult to switch off from work completely.	1	2	3	4	5	6	7
When I am faced with a challenge I think more about the results of succeeding than the effects of failing.	1	2	3	4	5	6	7
2. Need for Autonomy							
I tend not to like to stand out or be unconventional.	1	2	3	4	5	6	7

APPENDIX F (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
At work, I often take over projects and steer them my way without worrying about what other people think.	1	2	3	4	5	6	7
I rarely need or want any assistance and like to put my own stamp on work that I do.	1	2	3	4	5	6	7
I usually do what is expected of me and follow instructions carefully.	1	2	3	4	5	6	7
3. Creative Tendency							
I prefer to be quite good at several things rather than very good at one thing.	1	2	3	4	5	6	7
Sometimes I have so many ideas that I feel pressurized.	1	2	3	4	5	6	7
Sometimes people find my ideas unusual.	1	2	3	4	5	6	7
Other people think that I'm always making changes and trying out new ideas.	1	2	3	4	5	6	7
I like to spend time with people that have different ways of thinking.	1	2	3	4	5	6	7

APPENDIX F (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
4. Calculated Risk Taking							
I like to test boundaries and get into areas where few have worked before.	1	2	3	4	5	6	7
If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it.	1	2	3	4	5	6	7
Before I make a decision I like to have all the facts no matter how long it takes.	1	2	3	4	5	6	7
I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy.	1	2	3	4	5	6	7
If there is a chance of failure I would rather not do it.	1	2	3	4	5	6	7
Before making an important decision I prefer to weigh up the pros and cons fairly quickly rather than spending long time thinking about it.	1	2	3	4	5	6	7

APPENDIX F (Continued)

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
I like to start interesting projects even if there is no guaranteed payback for the money or time I have to put in.	1	2	3	4	5	6	7
5. Locus of Control							
Capable people that fail to become successful have not usually taken chances when they have occurred.	1	2	3	4	5	6	7
For me, getting what I want is a just reward for my efforts.	1	2	3	4	5	6	7
People's failures are rarely the result of their poor judgment.	1	2	3	4	5	6	7
When I make plans I nearly always achieve them.	1	2	3	4	5	6	7
I try to accept that things happen to me in life for a reason.	1	2	3	4	5	6	7
Being successful is a result of working hard; luck has little to do with it.	1	2	3	4	5	6	7
I get what I want from life because I work hard to make it happen.	1	2	3	4	5	6	7

APPENDIX F (Continued)

IV. Assessing the Managerial Foresight of the Micro-Entrepreneur

Items/Measures	Scale						
What percentage of the plans that you create as a micro-entrepreneur has to be revised within two years into the future?	100% 1	80% 2	60% 3	40% 4	20% 5	10% 6	0% 7
How big a part of the objectives you have as a micro-entrepreneur has to be revised within two years into the future?	All 1	Most 2	Many 3	Some 4	Few 5	Very few 6	None 7
What percentage of the time you work as a manager/ micro-entrepreneur do you spend analyzing facts that relate to the past?	0% 1	10% 2	20% 3	40% 4	60% 5	80% 6	100% 7
To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
How many of the plans you make as a micro-entrepreneur you do not analyze in detail?	All 1	Most 2	Many 3	Some 4	Few 5	Very few 6	None 7

APPENDIX F (Continued)

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
To what extent do you agree that you as a micro-entrepreneur do not examine data that have anything to do with the past?	1	2	3	4	5	6	7
How many of the plans you make as a micro-entrepreneur you do not analyze in detail?	All	Most	Many	Some	Few	Very few	None
	1	2	3	4	5	6	7

V. Assessing the Social Network of the Micro-Entrepreneur

Items/Measures	Scale						
	No relation	Very poor	Poor	Neither/nor	Somewhat good	Good	Very good
What is the strength of your relations or tie-up with suppliers?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with customers?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with public agencies?	1	2	3	4	5	6	7

APPENDIX F (Continued)

Items/Measures	Scale						
What is the strength of your relations or tie-up with financial institutions?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with social institutions?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with family members?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with friends?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with relatives?	1	2	3	4	5	6	7
What is the strength of your relations or tie-up with neighbors?	1	2	3	4	5	6	7

APPENDIX F (Continued)

VI. Assessing the Micro-Entrepreneur's Perception of the Task Environment

Items/Measures	Scale						
	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Neutral 4	Somewhat Agree 5	Agree 6	Strongly Agree 7
1. Environmental Dynamism							
I must change the marketing practices of my microenterprise products and services to keep up with the market and competitors.	1	2	3	4	5	6	7
The microenterprise products/services are getting obsolete very fast.	1	2	3	4	5	6	7
It is very difficult to predict the actions of the competitors.	1	2	3	4	5	6	7
It is very difficult to forecast the demand and consumer tastes of the microenterprise products/services.	1	2	3	4	5	6	7
The production/service technology of my microenterprise have to be changed very often to fit the market environment.	1	2	3	4	5	6	7
2. Environmental Heterogeneity							
The microenterprise business environment is very diversified.	1	2	3	4	5	6	7
To what extent do you agree that there is a huge difference amongst the products/services of your microenterprise with regard to the following?							
The customer's buying habit varies highly/	1	2	3	4	5	6	7

APPENDIX F (Continued)

Items/Measures	Scale						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
The nature of the competition varies highly.	1	2	3	4	5	6	7
Market dynamism and uncertainty vary highly.	1	2	3	4	5	6	7
3. Environmental Hostility							
The market environment does not pose any threat to the survival of my microenterprise.	1	2	3	4	5	6	7
To what extent do you agree that the following challenges threaten your microenterprise very highly?							
Tough price competition presents a high threat.	1	2	3	4	5	6	7
Competition in microenterprise product/service quality presents a high threat.	1	2	3	4	5	6	7
Dwindling/diminishing market for products presents a high threat.	1	2	3	4	5	6	7
Scarce supply of labor/material presents a high threat.	1	2	3	4	5	6	7
Government interference presents a high threat.	1	2	3	4	5	6	7

APPENDIX F (Continued)**VII. Microenterprise-Related Data**

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1. When did you start your microenterprise? [.....years before]
 2. What is the type of your microenterprise? [1] Manufacturing [2] Service [3] Trading
[4] Other.....(mention if any)
 3. How many months a year does your microenterprise operate? [.....months]
 4. Did you have any financial constraints in starting your business? [1] Yes [2] No
 5. Have you ever taken out a loan to start/operate your microenterprise? [1] Yes [2] No
 6. What were the sources of financial capital for your microenterprise? (Multiple answers possible):
[1] Personal savings [2] Family [3] Relatives/Local merchants [4] Social institutions [5] Financial institutions
[6] Public agencies [7] Other.....(mention if any)
 7. How many financial and/or social institutions are you affiliated with? [.....]

APPENDIX F (Continued)**VIII. Microenterprise Performance**

ME Performance Measures	Level		Growth Rate
	2068 (April 2011 - March 2012)	2069 (April 2012 - March 2013)	
Employment (No. of people working)			
Profit (In NRs)			
Sales (In NRs)			
Microenterprise Assets (In NRs)			

IX. Satisfaction with Microenterprise Performance

Extremely dissatisfied	Very dissatisfied	Somewhat dissatisfied	Neither /nor	Somewhat satisfied	Very satisfied	Extremely satisfied
1	2	3	4	5	6	7

BIOGRAPHY

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ACADEMIC BACKGROUND

Master in Population, Gender and Development,
Pokhara University, Nepal (2005 – 2007).
Post Graduate Diploma in Computer Applications,
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Bachelor's Degree in Humanities,
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PRESENT POSITION

Lecturer, Population, Gender and Development, School
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EXPERIENCES

Teaching Population, Gender, Development, Research
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RECENT PUBLICATIONS

- Does Managerial Foresight Matter in Microenterprise Performance? Evidence from Nepalese Microenterprises. *International Journal of Humanities and Social Science*, 4(7), 2014.
- Impacts and Distributional Effects of Microenterprise Development Program in Nepal. *International Journal of Trends in Entrepreneurship*, 3(4), 2014.
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- Factors Affecting the Decision-making Role of Women in Household Management in Nepal. *NIDA Development Journal*, 53(2), 2013 (Co-author Prof. Dr. Indra P. Tiwari).

AWARDS RECEIVED

- Rastriya Shichhya Puraskar (National Education Award 2009), in recognition of the significant contribution in the education sector in the country, bestowed by Ministry of Education and Sports, Government of Nepal (2009).
- Nepal Vidhya Bhusan Padak, “Kha,” (Nepal Vidhya Bhusan Award “Kha”) in recognition of the highest score achievement in Master in Population, Gender and Development, bestowed by the President of Nepal (2009).
- Dean’s List Award, in recognition of an outstanding meritorious achievement in Master in Population, Gender and Development, bestowed by Pokhara University, Nepal (2009).
- Youth Ambassador for Peace Award – 2008, bestowed by Youth Federation for World Peace, Universal Peace Federation, Pokhara, Nepal.

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