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Micro and Small Enterprise Upgrading in the Philippines

The Role of the Entrepreneur, Enterprise, Networks and Business Environment

Aimée Hampel-Milagrosa

Micro and Small Enterprise Upgrading in the Philippines

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Bonn 2014

Studies / Deutsches Institut für Entwicklungspolitik
ISSN 1860-0468

Die deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available at http://dnb.d-nb.de.

ISBN 978-3-88985-640-1

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Foreword and Acknowledgements

This Philippine MSE Upgrading study is part of a three-country research project carried out by the Department of Competitiveness and Social Development of the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), a leading international think tank for development policy. All three country-case studies employed similar methodologies to compare the upgrading dynamics of MSEs in the Philippines, Egypt and India. The overarching research questions that guided the country-case studies are:

1. Why do some enterprises manage to upgrade while others do not?
2. How does the enterprise-upgrading process unfold?

The author is very grateful to the following individuals and agencies for supporting this Philippine MSE Upgrading study:

My research assistants Mary Fchel Estanislao in Luzon and Recarte Bacus in Mindanao;

the Philippine Department of Trade and Industry Bureau of Micro, Small and Medium Enterprise Development (DTI BMSMED) and the Trade and Micro, Small and Medium Enterprise Development Division (TMSMEDD) Region 11; and

the Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) Philippines / the Federal Ministry for Economic Cooperation and Development Philippines through its Private Sector Promotion Program (SMEDSEP), headed by Dr. Volker Steigerwald.

The author is indebted to Mrs. Ma. Christina B. Ramos, former president of the Food Processors Association of Davao (FPAD), Mr. Claro Arriola, former president of the Textile Mills Association of the Philippines (TMAP) and Mr. Joel Gaudia, president of the *Samahang Magsasapatos ng Pilipinas* (Association of Shoemakers in the Philippines) for their invaluable support in helping locate entrepreneurs for interviews.

In the course of the research, two presentations were made at the Asian Institute of Management in coordination with its Executive Director, Dr. Ronald U. Mendoza. In May 2013, the Institute for Small Scale Industries of the University of the Philippines Diliman hosted two workshops (in Manila

and Cebu) to discuss the project findings. The 20th UP President, Honorable Dr. Alfredo E. Pascual, graced the Manila event with his presence, while the UP Cebu College Dean, Atty. Liza D. Corro, welcomed the research team to Cebu. The author is grateful for our intellectual exchange.

Finally, the author is deeply grateful to Markus Loewe, Caroline Reeg and Tilman Altenburg for their helpful comments regarding the conceptualization, implementation and writing up of this Philippine MSE Upgrading study.

Bonn, May 2014 Aimée Hampel-Milagrosa

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Abbreviations

AFTA	ASEAN Free Trade Area
ASEAN	Association of Southeast Asian Nations
BAFPS	Bureau of Agricultural and Fisheries Product Standards
BDS	business development services
BETP	Bureau of Export Trade Promotion BFAD Bureau of Food and Drugs
BMSMED	Bureau of Micro, Small and Medium Enterprise Development
BSP	Bangko Sentral ng Pilipinas
CARG	compounded annual growth rate
CITEM	Center for International Trade Expositions and Missions COC Congressional Oversight Committee
DA	Department of Agriculture
DCCCI	Davao City Chamber of Commerce and Industry
DENR	Department of Environment and Natural Resources
DILG	Department of the Interior and Local Government
DOH	Department of Health
DOST	Department of Science and Technology
DOT	Department of Tourism
DTI	Department of Trade and Industry
DTRI	Dairy Training and Research Institute
EIA	Export Incentives Act
EO	Executive Order
EPZ	Export Processing Zones
FAME	Fashion Accessories Manufacturers and Exporters
F&L	footwear and leather
FDA	Food and Drugs Administration
FDC	Food Development Center

FDI	foreign direct investment
FGD	focus group discussions
FP	food processing
FPAD	Food Processors Association of Davao
GATT	General Agreements on Tariffs and Trade
GDP	gross domestic product
GMP	Good Manufacturing Practices
GVA	gross value added
GVC	global value chains
HACCP	Hazard Analysis Critical Control Points
HRD	human resources development
ICT	information and communications technology
IIA	Investment Incentive Act
ILO	International Labour Organization
ISO	International Standards Organization
ITDI	Industrial Technology Development Institute
LGU	local government unit
LTO	license to operate
Max	maximum
MFA	Multi-Fibre Agreement
Min	minimum
MSE	micro and small enterprises
MSME	micro, small and medium-sized enterprises
MSMED	Micro, Small and Medium Enterprise Development
MTDP	Medium Term Development Plan
NAMA	Non-Agricultural Market Access
NCR	National Capital Region
NERBAC	National Economic Research and Business Assistance Center

NMIS	National Meat Inspection Service
NSO FIES	National Statistics Office Family Income and Expenditure Survey
OTOP	One Town One Product
PASW	Predictive Analytic Software
PDDC	Product Development and Design Center of the Philippines
PEDP	Philippine Export Development Plan
PHP	Philippine peso
PTTC	Philippine Trade Training Center
RA	Republic Act
R&D	research and development
SBGFC	Small Business Guarantee and Finance Corporation
SETUP	Small Enterprise Technology Upgrading Program
SME	small and medium-sized enterprise
SMED	Small and Medium Enterprise Development Council
SPSS	Statistical Package for the Social Sciences
SSA	Sub-Saharan Africa
SSS	Social Security System
Std Dev	standard deviation
SULONG	SME Unified Lending Opportunities for National Growth
T&G	textiles and garments
TQM	Total Quality Management
UNDP	United Nations Development Programme
UPLB	University of the Philippines at Los Baños
WTO	World Trade Organization
WW II	World War II

Executive summary

In developing countries, micro and small enterprises (MSEs) comprise the largest part of the industrial fabric and are among the most important development agents in society. MSEs offer many millions of poor people around the world the possibility of earning money, training, work experience and employment. However, empirical evidence shows that most small enterprises never develop the business beyond a certain scale and only a small minority of them manages to upgrade to the next level of productivity, income and employment (Berner / Gomez / Knorringa 2008).

The pioneering research of Mead (1994) and Mead and Liedholm (1998) suggests that across developed and developing economies, most MSEs are stagnating with only a handful of them managing to grow to more 20 employees. In Sierra Leone, Bangladesh, Jamaica, Honduras, Thailand and Egypt, Liedholm and Mead (1987) found that only 1 per cent of enterprises with four workers or fewer managed to upgrade into the next size category. In Kenya, Cotter (1996) found that enterprise upgrading rates are either zero or so low that no policy intervention could remedy the situation. These findings indicate the need for targeted policy interventions supported by empirical evidence – especially to stimulate MSEs and harness the private sector's potential to be engines of economic growth in developing countries.

Using the Philippines as a country case, this study explores why only a few MSEs manage to grow to medium-size or large and why enterprise growth remains elusive for most micro and small firms. This project's overarching research questions are:

1. *Why* do some enterprises *succeed* in increasing productivity, income or number of employees while many others do not?
2. *What* are the critical *success factors* that facilitate increases in productivity, income or number of employees? What are the constraints to enterprise growth?
3. *How* exactly does the *process* of enterprise upgrading unfold?

This study of the Philippines is part of a three-country research project on enterprise upgrading conducted by the Department of

Competitiveness and Social Development of the German Development Institute. All three country-case studies employed similar methodologies to compare the upgrading dynamics of MSEs in the Philippines, Egypt and India. The Egyptian study was conducted by Markus Loewe and five members of the Egyptian Country Working Group (CWG) and colleagues from ECES, the Egyptian Center for Economic Studies (see Loewe et al. 2013). The CWG is part of the DIE training programme for young German postgraduates in development cooperation. The Indian study was conducted by Caroline Reeg in cooperation with the German Development Bank (KfW) and SIDBI, the Small Industries Development Bank of India (see Reeg 2013b). A synthesis of the three country-case studies has been published (see Hampel-Milagrosa / Loewe / Reeg 2013).

The Philippines is an excellent place to explore the dynamics of enterprise upgrading in Southeast Asia. According to the 2011 MSME Development Plan (MSMED Council 2011), MSEs comprise 99.3 per cent of all enterprises in the country, which makes them the source of most Filipinos' livelihoods. However, Philippine MSEs contribute only around 25 per cent of the country's total gross value added (GVA). This means that despite the number of MSEs in the private-sector ecosystem, because of their low productivity they do not significantly contribute to the economy. Yet many MSEs may be stagnating in their size categories because their owners lack the knowledge to upgrade the businesses. Exploring the dynamics of enterprise upgrading in the Philippines will not only shed light on the success factors for business growth but also provide insights about how these factors help the upgrading process.

Conceptual framework

There are several conflicting views about what the term enterprise 'upgrading' implies, as it is often used interchangeably with 'graduation'. Taking a more rigorous approach, the Philippine upgrading researchers, in coordination with the Egyptian and Indian researchers, used 'growth through innovation' to define and qualify the term. 'Upgraders' are considered to be the handful of exceptional entrepreneurs whose enterprises have managed to progress from micro and small into medium-sized enterprises during a specific period of time as a result of

the introduction of various innovation strategies. These strategies can involve product, process, ways-of-organizing, marketing, or new-markets innovations (for a more detailed explanation of the different trajectories through which innovation may occur, see Loewe et al. 2013).

To operationalize this definition for the Philippine study, we use a change in employee size (quantitative measure) to represent enterprise upgrading that can be traced to the introduction of any of the five kinds of innovation mentioned above (qualitative measure). For example, a small enterprise that manages to increase its employment to the medium-sized enterprise category within a span of 10 years by continuously increasing profits through bringing new products to the market is an example of an 'upgraded' enterprise.

An 'Onion Model' that schematically represents the four schools of thought on factors affecting enterprise upgrading was developed for this project (see Reeg 2013a). Caroline Reeg argues that the model for enterprise upgrading should contain four layers – representing the four strands of literature about firm growth. The first layer, consisting of literature that focuses on the entrepreneur – education, training, motivation and so on – as the sole force driving enterprise upgrading, is the core of the Onion Model. The second layer consists of research that points to enterprise and employee characteristics – including enterprise age, location and sector – as motivators for upgrading. The third layer relates to the strand of research that regards interactions of the entrepreneur and the enterprise with personal and professional networks as instigators of enterprise growth. The fourth and outermost layer refers to the quality of the business environment and how improvements in this layer will bring about enterprise upgrading. An excellent and detailed explanation of the Onion Model can be found in a DIE Discussion Paper that presents Reeg's work (Reeg 2013a).

The Onion Model guided the way we constructed the questionnaire and developed our strategy for collecting data in the Philippines.

Research methodology

Two rounds of data-gathering (each lasting about six weeks) were conducted *in situ* for the Philippine MSE Upgrading study. In the first

round upgraders were targeted; the second round focused on non-upgraders. Clusters of emerging manufacturing that had been identified by earlier research were used to choose the survey areas for upgraders. The Davao and Bukidnon areas in the south were selected as emerging clusters for food processing while the Marikina and Rizal areas in the north were selected as established clusters for footwear and leather. The manufacturing sites for textiles and handicrafts, particularly handwoven tropical fibres, are geographically dispersed, so for ease in sampling, we selected textiles and garments manufacturers located near the two sectors. In order to hold respondent location constant, the non-upgraders' survey areas were chosen in the same way as the upgraders.

The selection of sectors for the Philippine MSE Upgrading study was coordinated with the heads of the Egyptian and Indian country-case studies in order to obtain comparable results.

To investigate Philippine MSE upgrading, three questionnaires were developed, each designed for a different target group. The first questionnaire was developed for experts from academia, industry and business organizations. The second questionnaire was developed for medium-sized enterprises/upgraders. The third questionnaire was developed for non-upgraded MSE owners.

After encoding and transcribing the data, the final pooled sample consisted of 112 entrepreneurs – 21 upgraders and 91 non-upgraders. A total of 49 respondents came from the food processing (FP) sector, 32 from the footwear and leather (F&L) sector and 31 from the textiles and garments (T&G) sector. The sample consisted of 54 male, and 58 female, entrepreneurs.

Takeaways on Philippine MSE upgrading

The research findings disclose seven main takeaways. *First,* the entrepreneur has much more influence on enterprise upgrading than the literature suggests. The entrepreneur's education, attendance at business training sessions and seminars to update their knowledge and skills, and proactive search for information contribute to the success of the enterprise. Even if the entrepreneur is not the actual success factor, it is the entrepreneur who operationalizes the factor, initiates the activity

and makes changes happen. There is, however, an important *caveat* about making the entrepreneur central to upgrading: while these upgraders did indeed possess the necessary ingredients (e.g., education and networks) to drive enterprise growth, their success factors could have resulted from earlier opportunities.

Second, entrepreneurs create strategies based on a combination of success factors in order to upgrade. The success factors are either substitutes for elements that are lacking or complements to elements that are necessary for successful production/marketing.

Third, in order for the enterprise to upgrade, entrepreneurs must simultaneously overcome sector-specific and structural constraints. These two different types of constraints must be surmounted separately.

Fourth, intangible entrepreneur characteristics can be as significant as tangible factors in influencing the potential for enterprise upgrading. Across sectors, upgraders were observed to be strongly motivated to succeed personally and financially. They have visions for themselves and their businesses and set long-term goals for success. The drive to work intensively and productively – and not merely count the total number of hours worked – marks a major difference between successful and unsuccessful entrepreneurs.

Fifth, the importance of personal and professional networks in enterprise upgrading must not be overlooked. Both kinds of networks are significant – in their own ways – throughout the life of the business.

Sixth, conflicting policies for industrial development and international trade make it extremely difficult for enterprises to upgrade: the proper balance of protectionism and openness is necessary. It is hard to seamlessly blend a country's industrial development policy with its international trade policies, but increasing the competitiveness of domestic enterprises to prepare them for increasing globalization greatly helps.

Seventh, sometimes enterprise growth requires a complete overhaul of strategic approaches across all levels. Identifying constraints to enterprise growth is an essential first step for all entrepreneurs. Implementing all options, even if that requires reorganizing the whole production process and using all available networks, sets apart determined upgraders.

Policy directions

The study concludes with policy recommendations on issues that should be prioritized in the interest of increasing Philippine MSEs' upgrading potential while also taking into consideration the Philippine government's capacities and limitations.

Our research affirms the centrality of the entrepreneur for Philippine MSE upgrading. Characteristics such as the entrepreneurs' education and work experience in lead firms make the enterprise more likely to upgrade. Education and work experience provide the entrepreneur with the knowledge, skill and motivation needed to undertake activities or make critical decisions that further increase the business's upgrading chances, namely, investing in R&D and equipment, developing human resources (HRD) and innovative marketing strategies to expand markets and win new clients, as well as selecting the proper direction and timing for product-portfolio diversification.

The study also found, however, that upgraded Filipino enterprises were led by entrepreneurs with a wealth of opportunities. To start off, the opportunity to acquire quality education – which allows upgraded entrepreneurs to get exposure in lead firms and amass work experience – is not usual in the Philippines. Successful entrepreneurs are from families that had sufficient wealth or personal connections to help them upgrade. The inequality of opportunities begins with unequal access to quality education and perpetuates itself in various forms. Education at top-notch schools enables access to other networks and additional sources of finance. The entrepreneur's family wealth is also an excellent – and more importantly, an immediate – source of financial capital for pre-financing production, purchasing machines and participating in local and international trade fairs.

We know that MSE upgrading is steered by an entrepreneur with the knowledge, skills and motivation to create various strategies to substitute or complement the elements necessary for successful enterprise growth. With the entrepreneur central to MSE upgrading, and bearing in mind the perpetuation of inequality of opportunities in society, which general direction should Philippine policy-makers take? Our findings imply recommendations for three general policy directions.

First, because it is the entrepreneur who matters most in enterprise upgrading, policy-makers should aim to increase entrepreneurial capacity by increasing their knowledge and skills base. This can be achieved through generic policies such as improving access to quality education, making education compulsory and affordable for all, and reducing the quality gap between public and private educational institutions.

Second, our findings show that entrepreneurs must substitute missing elements or complement the existing but weak elements required for successful production/marketing. That is, the Philippine business environment does not really enable businesses to grow. But the government could help by streamlining administrative procedures and making registration cheaper, so as to make formalisation attractive to informal enterprises and remove the temptation for formal enterprises to skirt business-related formalities.

Third and finally, because the entrepreneur creates strategies using factors found at the four layers of the Onion Model, we see a need for a systemic approach to creating policy. Policy-makers should avoid focusing on one element – for example, "fixing" the business environment – and assuming that this will cure all lagging productivity.

Note that the recommended policy directions steer away from creating policies for Main Takeaways 4 (on the importance of intangible characteristics for upgrading) and 6 (on the compatibility of industrial and trade policies). Although intangible characteristics are important, it is difficult to recommend political action alone. Moreover, recommending more compatible industrial and trade policies is beyond the scope of this study. The appropriate combination of inward and outward-looking policies is always a function of coordinating the economy, the national government and international developments/agreements – and best left for specialised studies.

1 Introduction

In developing countries, micro and small enterprises (MSEs) make up the largest part of the industrial fabric, which makes them one of the most important development agents in society. Worldwide, MSEs offer the possibility of earning income, training, work experience and employment to millions of poor people. However, empirical evidence shows that most small enterprises never develop beyond a certain size and only a small minority manages to upgrade to the next level of productivity, income and employment (Berner / Gomez / Knorringa 2008).

Empirical evidence about rates of enterprise growth is grim. Pioneering research by Mead in 1994 and Mead and Liedholm (1998) suggests that across developing and developed economies, most MSEs are stagnating, with only a handful of them managing to grow to 20 employees. In Sierra Leone, Bangladesh, Jamaica, Honduras, Thailand and Egypt, Liedholm and Mead (1987) found that only 1 per cent of enterprises with four workers or fewer managed to upgrade to the next size category. Between 1990 and 1994, Mead (1994) observed the same phenomenon in five Sub-Saharan African countries: less than 20 per cent of enterprises with four workers or fewer managed to upgrade to the next enterprise size level. Worse, among the few enterprises in the sample that did manage to upgrade, most grew only marginally. Gichira (2001), examining the relationship between work skills and knowledge to upgrading, and Aghion et al. (2001), observing the relationship between competition and upgrading, found that in Sierra Leone, Botswana and Rwanda, only 20 per cent of upgraders had begun as micro enterprises. Cotter (1996) found zero upgrading rates among enterprises in Kenya – too low for any policy intervention to be effective.

Developing countries need targeted policy interventions to end MSE stagnation and harness the private sector's potential as an engine for economic growth. According to Liedholm (2002), research on the dynamics of enterprise growth has received little attention from academics, so there is hardly any economic theory in this area.

One reason is the methodological difficulty of conducting research. For example, researchers on enterprise growth must determine the proper method for collecting data. Two methods have commonly been used to generate data on the growth of small-scale industries in developing countries, namely, the 'multiple-visit' survey and the 'one-shot business'

survey. The multiple-visit survey involves repeatedly interviewing the same respondent/informant for a season, a year or a number of years to obtain accurate information. Liedholm and Mead (1987) and Mead and Liedholm (1998) used the multiple-visit approach for Sub-Saharan and North Africa, as well as Southeast Asia. The financial and logistical difficulties of repeating surveys have prevented subsequent studies capturing Liedholm and Mead's broad coverage. More recent studies have tended to use the one-shot business survey approach, which involves asking businesses if they had begun in the 'micro' category. Those that had increased their size to the next category – based on the number of workers – were considered to be 'upgraders'. Despite its limitations,[1] many authors prefer the one-shot method because of its ease and cost-effectiveness.

The one-shot business survey approach was used in the Philippine study to obtain respondents for upgraded enterprises. This study aims to explore various perspectives on enterprise upgrading and present an overview of why a few enterprises manage to upgrade when growth remains elusive for most small firms. The overarching research questions for this report are:

1. *Why* do some enterprises *succeed* in making progress while others do not?
2. *How* does the enterprise-upgrading *process* unfold?

The Philippine study is part of a three-country study on enterprise upgrading by the Department of Competitiveness and Social Development of the German Development Institute / Deutsches Institut für Entwicklungspolitik. The three studies used similar methodologies to explore and compare the dynamics of enterprise upgrading in the Philippines, Egypt and India. The Egyptian study was conducted by Markus Loewe, five members of the Egyptian Country Working Group (CWG) and ECES, the Egyptian Center for Economic Studies (see Loewe et al. 2013). The CWG is part of the DIE training programme for young German postgraduates in development cooperation. The Indian study was conducted by Caroline Reeg in cooperation with the German Development Bank (KfW) and SIDBI, the

1 Berner / Gomez / Knorringa (2008) stated that asking enterprises about their graduation history could hide high mortality rates among micro enterprise start-ups, which could amount to 80% in the first year alone. Liedholm (1991), however, advises using the one-shot strategy to gather data if only 'stock type' data is required. Stock type data are those that do not require intensive memory performance from the respondents – about the number and kind of workers, kinds of capital stock, labour hours, profit, income, output and sales – at the time of the survey.

Small Industries Development Bank of India (see Reeg 2013b). A paper synthesizing the three country-case studies is available (see Hampel-Milagrosa / Loewe / Reeg 2013).

The Philippines is well suited for exploring the dynamics of enterprise upgrading in Southeast Asia. According to the 2008 MSME Survey, MSEs comprise 99.3 per cent of all enterprises in the country: they provide livelihoods for most Filipinos. However, all the Philippine MSEs contribute only around 25 per cent of the country's total gross value added (GVA), which means that despite their abundance, MSEs contribute relatively little to the economy. Many MSEs may well be stagnating in their size categories, not knowing how to upgrade to the next size category. Exploring the dynamics of enterprise upgrading in the Philippines not only sheds light on the factors needed for successful business growth but also provides insight into how these factors are used to help the upgrading process unfold.

Following the introduction, the conceptual framework developed for the project, the Onion Model, is presented in Section 2. The background of the Philippine private sector is given in Section 3, with a focus on economic and policy environments for MSMEs. Section 4 presents the methodology and explains how the food processing, footwear and leather, and textiles and garments sectors were selected. Section 5 discusses the general factors for successful upgrading as well as specific findings in each sector about how some entrepreneurs successfully combined them and Section 6 presents policy implications from the research.

2 MSME Upgrading – a conceptual framework

This section presents the conceptual framework that was developed as a theoretical guide for the enterprise-upgrading research by drawing extensively on the excellent literature review prepared by Caroline Reeg (2013a) for the three-country MSE Upgrading project. It begins by clarifying the various meanings of enterprise upgrading and growth to arrive at a working definition for this study. Thereafter, four schools of thought on factors that influence enterprise upgrading, namely, entrepreneur characteristics, enterprise characteristics, networks (personal and professional) and the business environment, are united in the four-layered Onion Model. Through the data-gathering phase – shown in the questionnaires – and writing the final report, the Onion Model helped the author align the study findings

with the theory and literature on enterprise growth. Subsections attempt to show how the four schools of thought comprising the Onion Model could be simplified into factors that are internal and external to the firm.

2.1 MSE upgrading definitions

There are several conflicting views about what the term 'enterprise upgrading' implies because it is often used interchangeably with 'graduation'. Depending on the researcher, the process of enterprise graduation could be viewed as

Type 1) developing from a stagnant business with constant income, productivity and employment to a growing business that **increases its productivity, income or number of paid workers**;

Type 2) changing **from informal to formal** operations through business registration and compliance with all legal requirements; or

Type 3) implementing firm-level **innovations**.

Type 1, the evolutionary economics' growth-based view of enterprise upgrading, observes measurable indices. Enterprise upgrading is considered to be a developmental step from a stagnant business with declining income, productivity and employment to a growing business that constantly increases its income, productivity or number of paid workers. Liedholm (1991), Cotter (1996) and Mead and Liedholm (1998), as well as early pioneers of upgrading research, all support this definition. Such firm growth occurs for enterprises in both the informal and formal sectors. Most likely, however, as the enterprise's size and existence become more visible and require legal modes for transactions, the business will transition from the informal to the formal sector by becoming registered.[2]

Type 2 enterprise graduation specifically involves business registration as the enterprise changes from the informal to the formal sector. There are numerous studies on the formalisation phenomenon, many of which examine the benefits and disadvantages of formality and informality. A growing body of academic literature focuses on how an efficient regulatory business environment that supports firm growth can help firms leave the informal

2 Some businesses in the economy enter the small/medium-sized/large categories without passing through the micro stage.

economy and enter the formal mainstream (de Soto 1989; Djankov et al. 2002; Djankov / McLiesh / Ramalho 2006; Klein / Hadjimichael 2003).

Type 3 enterprise graduation, referring to innovation at the firm level, is inspired by Schumpeter's notions of "creative destruction" (Schumpeter 1911). Schumpeter considered that innovation could be achieved through qualitative improvements such as the introduction of new products, processes or methods of organizing production. Innovation can also be made through new markets and marketing strategies (Schmitz / Knorringa 2000) if the entrepreneur constantly searches, absorbs and exploits knowledge to create value that leads to higher returns and increased competitiveness. For this type of graduation, the firm must be faster than its market competitors so that it can capture innovation rents (Altenburg / Eckhardt 2006). This third definition has been used in several studies on industrial clusters and global value chains (Humphrey / Schmitz 2000; Schmitz 1995; Morrison / Pietrobelli / Rabellotti 2008).

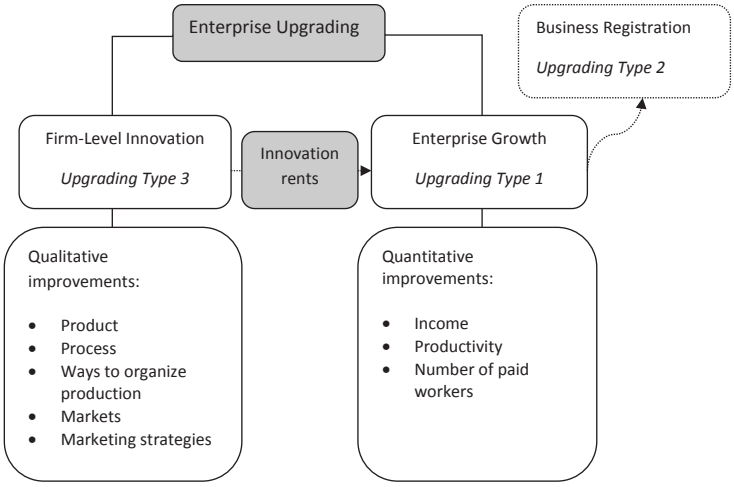
The Philippine upgrading research – in coordination with that in Egypt and India – took a more rigorous approach, using 'growth through innovation' as a simple two-pronged definition and qualification of the term.

'Upgraders' are considered to be the handful of exceptional entrepreneurs whose enterprises have managed to progress from micro and small to medium-sized enterprises during a specific period of time as a result of various innovation strategies. These could be:

- Product innovation – the creation of new products
- Process innovation – improvements in the way products are created
- Ways-of-organizing innovation – intentional increased efficiency of business operations
- Marketing innovation – implementation of a new marketing strategy
- New-markets innovations – selling in new markets

Such innovative measures reap 'innovation rents' – profits superior to what the competition earns in the same period. Such profit increase jumpstarts enterprise growth and leads to more employees, higher productivity and greater income (see Figure 1).

Figure 1: Conceptual framework for enterprise upgrading



Source: Modified from Reeg (2013a)

It is highly possible that innovation in itself does not cause enterprise growth. Fierce competition or weak property rights can lead to lower-than-expected rents and fail to provide the higher returns needed to cover innovation investments. This study is limited to the types of innovation that result in growth, where captured rents lead to measurable increases in profits, productivity, sales or number of employees.

The Philippine study uses the definition:

[E]nterprise upgrading entails qualitative improvements in products, processes and ways of organizing production (Schmitz / Knorringa 2000) *enabling the entrepreneur to capture innovation rents as a result of being faster than the competition* (Altenburg / Eckhardt 2006). *Capturing rents allows the entrepreneur to increase firm income, productivity or number of employees.*

Only with these types of increases is the enterprise considered to have 'upgraded'.

To operationalize this definition for the Philippine study, we used a quantitative change in the number of employees as a proxy for the manifestation of enterprise upgrading that results from introducing any of the five kinds of qualitative innovation mentioned above. For example, a small enterprise that steadily increased profits within a span of 10 years by introducing new products that allowed it to boost employment to the medium-sized enterprise category is an 'upgrader'. Section 4 includes a more thorough explanation of activities that qualify as innovative and the use of employment as a visible parameter for upgrading.

Figure 1 illustrates that at some point in the life of the business – especially when upgrading to the next size category – business registration becomes inevitable. This is because the enterprise begins to operate in bigger networks and get involved in transactions that require some sort of legal assurance.

What if enterprise upgrading doesn't result in more employees? Innovations such as new machines and technology may increase innovation rents but simultaneously result in lower employee numbers because of the diminished need for workers: enterprise size shrinks, violating the theoretical framework for upgrading that was suggested earlier. We assume that some increase in employee numbers from innovation and innovation rents is necessary before the saturation point is reached. Captured innovation rents must enable a firm to outgrow the old micro/small enterprise-size category and maintain its place in the new medium/large enterprise-size category. The concept of enterprise upgrading used here employs both qualitative (innovation) and quantitative (employee number) parameters to verify if upgrading has actually occurred.

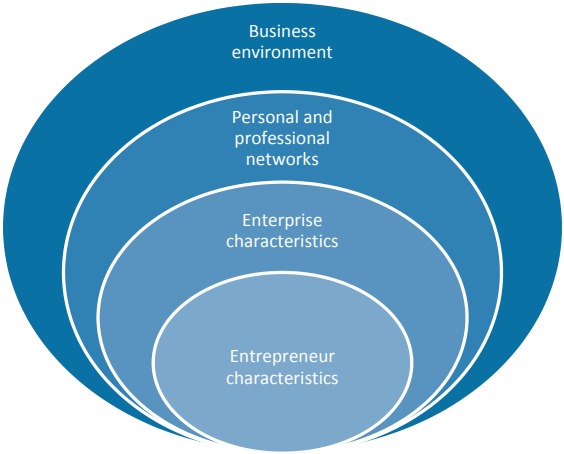
2.2 Determinants of enterprise upgrading

This section presents the four schools of thought regarding the factors that affect enterprise upgrading[3] as developed by Reeg (2013b) for the three-country project. Two schools of thought address internal characteristics of the entrepreneur and enterprise while two others address external factors – networks (personal and professional) and the business environment.

3 The complete text describing the factors and their interaction is found in Reeg (2013b).

When these four schools of thought on enterprise upgrading are combined, an onion pattern is discernable in their research focus and breadth of coverage. The resulting pattern is illustrated in an Onion Model in Figure 2, below.

Figure 2: Determinants of MSME upgrading – the Onion Model



Source: Reeg (2013b)

Each layer focuses on a certain aggregation level of enterprise upgrading. Studies focusing on the entrepreneur's education, training, motivation and so on, as the sole force driving enterprise upgrading are the core of the Onion Model. The second layer consists of research pointing to enterprise and employee characteristics, including enterprise age, location and sector as motivators for upgrading. The third layer pertains to research that considers that interactions of the entrepreneur with personal and professional networks instigate enterprise growth. The fourth and outermost layer points to the quality of the business environment and improvements in it as bringing about enterprise upgrading. Each layer is briefly discussed below.

2.2.1 Internal upgrading factors: entrepreneur and enterprise characteristics

At the core of the Onion Model are entrepreneur characteristics that are viewed as strongly influencing an enterprise's propensity to upgrade. Authors give the entrepreneur's age (Cortes / Berry / Ishaq 1987), gender (McPherson / Liedholm, 1996), education and work experience (Mead / Liedholm 1998; Eifert / Gelb / Ramachandran 2005), motivation (de Mel / McKenzie / Woodruff 2008) and risk-taking ability (Szirmai / Naude / Goedhuys 2011) as important factors for enterprise upgrading.

The Onion Model's second layer includes enterprise characteristics that influence upgrading such as age (Banerjee / Duflo 2000), location (Pyke / Becattini / Sengenberger 1990), sector (Mead / Liedholm 1998), formality (La Porta / Schleifer 2011), access to finance (McKenzie et al. 2011) and absorptive capacity (Cohen / Levinthal 1990).

2.2.1.1 Entrepreneur characteristics

Building on Schumpeter's (1911) description of the entrepreneur as an innovator who introduces "creative destruction" by combining totally new factors of production, this school of thought regards entrepreneur characteristics as engines of firm growth. Because new combinations often make current technologies or products obsolete, Schumpeter depicts entrepreneurs as heroes of economic development. In developing countries, where innovation is less dynamic than in developed ones, Hobday and Perini (2009) refer to this process as "creative imitation". Creative imitation occurs when imitators in developing countries understand how to apply an innovation in their particular market niche better than the people who created it.

The following sections identify and describe the entrepreneur characteristics that have been most salient in empirical studies in developing and developed countries: the entrepreneur's age, gender, education, work experience, motivation and risk-taking abilities.

Age. The relationship between the entrepreneur's age and propensity to upgrade is unclear. Using data from Colombia, Cortes / Berry / Ishaq (1987) argued that older entrepreneurs are unable or unwilling to expand their

businesses and suggested that younger individuals may be more willing to take risks and grow their businesses. Cortes is supported by a recent study in Sri Lanka where older business owners were found less likely to grow (de Mel / McKenzie / Woodruff 2008). On the other hand, McPherson (1996) found that the effect of age on enterprise upgrading in five Sub-Saharan African countries was inconsistent.

Gender. In several African countries and the Dominican Republic, Mead and Liedholm (1998) found that 61 per cent of MSEs are run and owned by women. Women's enterprises are usually informal micro-sized entities that operate in marginal sectors and local markets (Ramachandran 1993). According to the International Labour Organization (ILO), 80 per cent or more of 'homeworkers' in developing countries are women (ILO 2004). Some authors contend that female-led enterprises tend to grow more slowly than those run by males and are less likely to add employees (McPherson 1996, McPherson / Liedholm 1996; de Mel / McKenzie / Woodruff 2008). Mead and Liedholm (1998) found that employment in male-headed MSEs grows an average of 11 per cent each year, versus 7 per cent for female-headed MSEs.

Education. Higher educational levels are found to increase the entrepreneur's ability to cope with problems and seize opportunities that contribute to the firm's capacity to grow and innovate. Education has been linked to the entrepreneur's skills, motivation, self-confidence, problem-solving ability, commitment and discipline. Education is believed to enhance the individual's research and communication skills, foresight and imagination. Formal education is said to provide entrepreneurs with greater capacity to learn and absorb new information about production processes and product designs. Economies with higher percentages of well-educated employees have been found to exhibit higher rates of technological growth. Education is an investment in knowledge that increases the labour productivity and innovation prospects of firms (Tan / Batra 1995, Burki / Terrell 1998, Tan 2000).

Work experience. Scholars such as Mincer (1962) have long argued that practical on-the-job training is nearly as important as education. Parker (1995) found that Kenyan entrepreneurs that had worked at least seven years prior to starting small businesses grew faster than those without prior work experience. McPherson (1992, 1996) and Parker (1995) reported that entrepreneurs in Sub-Saharan Africa who had vocational training or had gained experience working in another business owned firms that grew much

faster than those owned by proprietors with no previous experience. Work experience has also been found to enhance professional and social networks that help with accessing financial resources, finding management advice and identifying business opportunities (Ramachandran / Ramnarayan 1993, Eifert / Gelb / Ramachandran 2005). Business contacts from previous jobs have been found to be helpful to high-growth entrepreneurs in Latin America and Asia (Kantis / Angelli / Koenig 2004).

Motivation. Berner / Gomez / Knorringa (2008) argue that the main reason enterprise upgrading does not occur in developing countries is because entrepreneurs lack the motivation to grow. Since most poor entrepreneurs in developing countries start businesses in order to survive (perhaps in response to unemployment), they have no particular entrepreneurial attitudes or goals. (Cotter 1996; Afenyadu et al. 1999, Wright 1999; Reynolds et al. 2005; and Olomi / Nilsson / Jaensson 2001) argue that if the business was primarily started to meet the family's economic needs and 'stabilize' its income, any resulting profits would probably be used to meet the family's needs: it will not be possible to accumulate wealth to expand the enterprise.

Risk-taking. De Mel / McKenzie / Woodruff (2008) found that successful Sri Lankan SME owners are more risk-averse than wage-labourers or self-employed people. This supports earlier research in the USA showing that first-time-opportunity entrepreneurs are more risk-averse than non-entrepreneurs such as wage-labourers. When asking *more general* questions about their willingness to take financial risks and risks in life, de Mel / McKenzie / Woodruff (2008) found SME owners to be the most willing – and wage-labourers the least willing – to take risks.

2.2.1.2 Enterprise characteristics

This school of thought considers that firm-level factors such as enterprise age, location, sector, formality, access to finance and absorptive capacity for knowledge are instrumental in enterprise upgrading.

Enterprise age. Empirical evidence from developed and developing countries has repeatedly shown that the employment growth rates of enterprises tend to decrease with enterprise age (Evans 1987; Parker 1995; McPherson 1996; Mead / Liedholm 1998). Jovanovic's (1982) "learning model" advanced the explanation that older enterprises grow more slowly

because managers have learnt their most efficient operational size. Older firms are also said to benefit from reputation effects, stable contracts and higher productivity (Banerjee / Duflo 2000). Enterprises are generally believed to go through intense processes of organizational learning, bureaucratization and structural change that eventually lead to the optimization of its productive performance. However, empirical evidence suggests that in developing countries it is the firm owners' ability to modernize their businesses and not the age of the firm that drives employment and productivity growth (Hyman 1988; Mead 1994; Mead / Liedholm 1998).

Location. Aside from age, the business location has also been mentioned as affecting the dynamics of enterprise growth. Agglomeration externalities suggest that firms in cities grow faster than those located in rural areas (Piore / Sabel 1984; Sabel 1989; Pyke / Becattini / Sengenberger 1990; Sengenberger / Loveman / Piore 1991; Pyke / Sengenberger 1992; Mead / Liedholm 1998). In particular, small firms that are closely located in 'clusters' are said to benefit from strong supplier and buyer relations and economies of scale and scope. This is supported by Liedholm (2002), who found that rural-based enterprises grow more slowly than their urban counterparts.

Sector. Firms in various sectors face different product demands and different costs, such as prices of inputs or the amount of competition, that affect their propensity to upgrade. For example, several scholars have found that 'trading' enterprises and retail shops are less inclined to upgrade than businesses in the manufacturing and service sectors (Mead / Liedholm 1998, de Mel / McKenzie / Woodruff 2008).

Formality. There is overwhelming evidence that being informal limits the ability of enterprises to grow. Low entry barriers and lower-level skills levels restrict informal entrepreneurs' economic engagement to low-return activities such as street vending and simple manufacturing (La Porta / Shleifer 2011). Informal enterprises have greater difficulty than their formal counterparts in accessing formal credit and assistance from law enforcement agencies and courts. After controlling firms' size, age and efficiency, Sleuwaegen and Goedhuys (2002) found that in Côte d'Ivoire formality (registration) positively affected firm growth.[4] They suggest that

4 Sleuwaegen and Goedhuys use an instrumental-variables approach to provide indicative evidence about the causality between registration and firm growth.

formal firms are more efficient because they access a larger pool and variety of production factors and suppliers.

Access to finance. A study in Kenya based on a random sample of 225 MSEs indicated that credit access is not a significant determinant of firm performance and that enterprise growth might actually be driven by other factors (Akoten / Sawada / Otsuka 2006). In Ghana, Fafchamps et al. (2011) found that the injection of credit positively affected profits for both female and male micro-entrepreneurs. However, they also found that credit alone does not stimulate growth for women whose initial profits are below the median, and that in-kind grants more strongly affect business profits than cash. They confirm that since women's incomes are often used to generate income for the household, profits are less likely to be reinvested in business activities. These results indicate that finance and capital are a primary constraint for some groups of micro entrepreneurs and that the way that funding is provided affects business profits.

Absorptive capacity. Absorptive capacity describes the ability of a firm to identify, evaluate and exploit external knowledge for commercial ends (Cohen / Levinthal 1990; Zahra / George 2002; Lane / Lubatkin 1998). Absorptive capacity is usually measured by a firm's investment in R&D and HRD. Firms that invest a lot in R&D and have a well-educated workforce have proven to be more innovate and productive (Storey 1994). Most MSEs have limited technical capabilities and use mature or traditional technologies; they largely replicate business activities in the vicinity. They are too small to have separate R&D units and do not actively seek innovations, learning instead by doing; their absorptive capacity levels are quite low and result from their daily operations (McCormick 1997; Knorringa 1999; McCormick 1999; Nadvi 1999). Qualitative studies in the 1990s showed that clustered firms with foreign linkages exhibit higher levels of absorptive capacity and were able to develop technological capabilities that helped traditional production clusters survive and upgrade (Bell / Albu 1999).

2.2.2 External upgrading factors: networks and the business environment

This section addresses the remaining two outer layers of the Onion Model, namely, networks (personal and professional) and the business environment. Networks are the third layer. A wealth of literature suggests that interfirm

and interpersonal networking is significant for enterprise creation and growth (Granovetter 1982; Johannisson / Nilsson 1989).

The business environment is the fourth layer of the Onion Model. Many studies indicate that the business environment's overall quality is the key determinant of the likelihood that MSEs in a country will upgrade (Djankov et al. 2002; Acemoglu / Johnson / Robinson 2002; Rodrik 2005)

2.2.2.1 Personal and professional networks

In general, there are two types of networks: personal (or social) networks, such as family and/or friends, and professional (or business) networks, such as those between a firm and its buyers, suppliers or competitors. While professional networks seem to be important for small and medium-sized enterprises, micro entrepreneurs rely on personal networks to start and grow their businesses. This section examines how mechanisms in personal and professional networks help or hinder MSEs with regard to growth constraints.

Personal networks. In developing countries where market failures are prevalent, strong social networks constitute the major source of finance, advice and support for micro- and small entrepreneurs. Social capital that is based on family relations and kinship provides a cushion against hard times, especially when the state is incapable of providing basic services. If formal institutions such as courts or regulatory bodies are absent or weak, strong social bonds can help regulate business transactions. Informal institutions and elements of social capital, such as trust and reciprocity, reduce transaction costs and ensure contract enforcement.

Chan's study (2001) on the Chinese *guanxi* networks showed how a common code of conduct, values and norms reduces risk and uncertainty for Chinese entrepreneurs. Romijn (1997) described the positive effects of strong social networks in Pakistan, where social networks of agricultural firms foster cooperation to develop and improve technology in the Punjab. Social relations are crucial for coping with the increased complexities and insecurities that accompany entrance into foreign markets and expansion into new product lines (Chan / Chiang 1994, Chan 2001).

For the individual entrepreneur, social ties can be a liability as well as an asset, presenting various drawbacks for economic development (Hobday /

Perini 2009). For example, studies in Kenya, Zimbabwe and Nigeria show how embeddedness in socially and politically rigid production networks can either limit or promote entrepreneurial innovation (Sverrisson 1993; Meagher 2010). The entrepreneurs' families' requests for profit distribution is found to be a common growth barrier for small-scale businesses in Africa and Asia, especially among women entrepreneurs (Geertz 1978; Meagher 2010).

Professional networks. Individual firms foster horizontal and vertical linkages to other firms. Horizontal linkages describe the relations between similar firms, while vertical linkages describe a firm's forward and backward linkages with buyers and suppliers. Both types of linkages are found to influence a small enterprise's propensity to upgrade.

Horizontal professional linkages. A collective approach taken by firms lowers the transactions costs incurred by an individual enterprise. Clustering strategies help small enterprises overcome common entry and growth barriers, such as limited access to information, technology, inputs, markets, information, specialised skills, credit and external services. Geographical agglomeration – in clusters – not only improves and broadens access to production factors, but also enhances small-scale producers' economic visibility for foreign direct investment (FDI) or global buyers that might choose to source from the clusters (Marshall 1920; Rabellotti / Schmitz 1997; Schmitz 1998; Visser 1999; Humphrey / Schmitz 2000; McCormick 1997; McCormick 1999; Tewari 1999; Conley / Udry 2005; Giuliani / Bell 2005; Lane / Lubatkin 1998).

While coordination among firms can produce positive network externalities, it can also foster healthy competition. The collective efficiency perspectives formulated by Schmitz (Schmitz 1995; Schmitz 1998) highlight the importance of *competition effects* to stimulate innovative capacities and long-term competitiveness, which is supported by several case studies in which enterprise efficiency and innovative capacity are driven by collaborative and competitive relations within clusters (Humphrey / Schmitz 1996; Rabellotti / Schmitz 1997; Schmitz 1998; Knorringa 1999, Nadvi 1999; Rabellotti 1999; Tewari 1999).

Vertical professional linkages. Vertical linkages enhance firm growth and innovation through access to resources and markets, and also foster individual learning. Firms with vertical linkages can access markets directly, work as subcontractors for larger firms and sell their finished products to domestic

agents, wholesalers or foreign agents. While many small companies depend on local and domestic markets, some internationally oriented MSMEs supply larger firms or global buyers with finished products or specialist materials. Contracts with larger firms or global buyers normally offer a stable flow of orders, which reduces the costs and risks of smaller firms accessing and entering new (international) markets (Humphrey / Schmitz 2000; Aw 2002; Schmitz / Knorringa 2000). Global buyers can invest in new technologies and provide capital for their suppliers. The vertical integration of local clusters in global value chains (GVCs) provides opportunities for local producers to learn from global lead firms (Gereffi 1999). In this context, integration in GVCs is not only a way of participating in global production networks with access to resources and distant markets, but is also seen as a "school" for suppliers (Pietrobelli / Rabellotti 2004; Schmitz / Knorringa 2000).

2.2.2.2 Business environment

The business environment encompasses the factors that provide the context and conditions in which businesses are embedded. Macro-economic, trade and industrial policies, the tax regime and the government's general attitude towards the private sector and micro-, small and medium-sized enterprises shape business opportunities. The overall business environment must stimulate investments for both small and large firms (Beck / Demirguc-Kunt 2006; North / Smallbone 2000). There are three aspects to the business environment: economic stability, market competition and the regulatory business environment.

Economic stability. Enterprises tend to grow and upgrade during periods of economic stability because a stable economy provides a framework for improved performance (Liedholm 2002). In developing countries, the small-scale sector was found to grow during economic downturns and contract during economic booms (ibid.; Berner / Gomez / Knorringa 2008), which indicates that most of the self-employed are probably 'survival entrepreneurs' who move into formal employment (probably in larger enterprises) as soon as the possibility arises. It is to be expected that any MSEs that are motivated to upgrade would experience growth opportunities during economic booms (Pisani / Pagán 2004).

Market competition. Increased market competition leads to improved efficiency, productivity and growth (Porter 1990; Porter 1998). The constant entry and exit of enterprises into and out of markets underlies a dynamic screening process for a more productive and innovative use of resources in which businesses initiate change and innovation through their new products. Competition can also have an adverse effect on enterprise upgrading. In markets in developing countries, large profits are needed to maintain high rates of investment in product development and technological catching-up. Competition can negatively impact on demands for investment and lead to price wars and subsequent slumps in profits (Singh 2002). Aghion et al. (2005) showed that there is a U-shape relationship between competition and innovation: both very high and very low levels of competition are bad for growth and enterprise upgrading.

Regulatory business environment. The Doing Business report (World Bank 2011) suggested that enterprises face an array of regulatory and institutional constraints to their business activities. Regulatory policies in most developing countries were described as burdensome, complex and, in some cases, opportunities to exact bribes. Informal small firms with little capital and few savings cannot afford to formalise and therefore continue to be excluded from public services and formal credit markets (Klein / Hadjimichael 2003; Beck / Demirguc-Kunt / Maksimovic 2005; Beck / Demirguc-Kunt 2006). Regulation is mostly seen as a costly deterrent for firms that aim to formalise or scale up productive activities (de Soto 1989). Therefore, governments should concentrate on ensuring a stable and simple regulatory regime, introduce a fast, low-cost procedure to register businesses, create more flexible regulations regarding employment and reduce corporate taxes (Klapper 2006; Klapper / Laeven / Rajan 2006; Klapper / Lewin / Delgado 2010; World Bank 2011).

The above discussion shows that a range of factors influences firms' upgrading potential. These factors can arise internally from entrepreneur or enterprise characteristics or externally – from networks or the business environment. A simple, powerful axiomatic truth is that factors influencing enterprise upgrading do not occur alone but rather in combinations. This is supported by the empirical findings presented in the next section.

3 The policy environment and MSE performance

The policy environment is a critical element that determines the performance and upgrading potential of MSEs. This section presents the policy environment and performance of MSEs in the Philippines, where as the following paragraphs show, their performance is still lagging despite a supportive policy environment for MSE development.

3.1 Philippine MSE policy environment

MSEs in the Philippines have had a very favourable policy environment for enterprises to increase productivity and upgrade. Perhaps the most crucial legislation in support of MSMEs is RA 9501, otherwise known as the 'Magna Carta for Micro Small and Medium Enterprises (MSMEs)'. Presented to parliament in 1991 and approved in 2008, RA 9501 acknowledges SMEs' role in creating employment and economic growth and providing a self-sufficient industrial framework for the country. The Magna Carta for MSMEs announced the State's support for developing MSMEs with all available means.

There have been six important changes in the SME policy environment since the Magna Carta for MSMEs was passed in 2008. First, the Micro Small and Medium Enterprise Development Council (MSMED Council) was established, based on the earlier Small and Medium Enterprise Development Council (SMED) that had been created through RA 6977 and amended by RA 8289. Second, in cooperation with the Department of Trade and Industry (DTI), the MSMED Council was made responsible for developing the Micro, Small and Medium Enterprise Development Plan, a six-year plan that feeds into the Philippine Medium Term Development Plan (MTDP). Third, the Small Business Guarantee and Finance Corporation (SBGCF) was created and charged with implementing comprehensive policies and programs to assist MSMEs in all areas including finance and information services, training and marketing.

The fourth important change was that the government designated every second week of July as 'Micro Small and Medium Enterprise Week' and authorized the Bureau of Micro, Small and Medium Enterprises (BMSMED) and DTI to organize activities to promote MSMEs. Presidential Awards for Outstanding MSMEs are intended to increase citizens' awareness of the

primacy of small businesses in nation-building and personal empowerment. Fifth, to reiterate the State's commitment to promote and develop MSMEs, the Congressional Oversight Committee on Micro, Small and Medium Enterprise Development (COC MSMED) was established that was composed of several representatives from the Senate and House. Sixth and most importantly, the Magna Carta ordered all lending institutions – as defined by the *Bangko Sentral ng Pilipinas (BSP)* – to make at least 8 per cent of their total loan portfolio available for MSEs and MSME credit.

The Department of Trade and Industry is the main coordinator for the development of Philippine MSMEs. DTI offices, line offices and regional centres support MSMEs' various business needs. The DTI provides training and designates field business counselors to assist entrepreneurs with their finance, marketing, technology and HDR needs. The Small Enterprise Technology Upgrading Program (SETUP) of the Federal Department of Science and Technology is largely responsible for primary technology-related support to entrepreneurs. The Product Development and Design Center of the Philippines (PDDC) is the main address for assistance with product packaging.

Other government research institutions (sometimes affiliated with State universities) are responsible for providing entrepreneurs with the latest knowledge regarding product development: the Industrial Technology and Development Institute, Technology Application and Promotion Institute, Metals Industry Research and Development Center, Forest Products Research and Development Institute, Philippine Textile Research Institute, Packaging Research and Design Center of the Philippines, Bureau of Food and Drugs (Food and Drug Administration), Bureau of Product Standards and Food Development Center.

Since 2008, several support programmes for SMEs have been launched. One recent SME support programme is 'One Town One Product (OTOP)', which encourages each city and municipality to develop products for which they have the competitive advantage. OTOP is linked to regional offices of the Department of Trade and Industry that provide credit and product development support. In 2003, under OTOP's auspices, the SBGCF established the SME Unified Lending Opportunities for National Growth (SULONG) lending programme, in which government financial institutions collaborate.

The 2005/2007 Philippine Export Development Plan (PEDP) identified wearables, marine and aquatic products, food products, home furnishings and giftwares among the national clusters selected for development. The PEDP is implemented by the DTI and the Center for International Trade and Exposition Mission (CITEM), which promotes access to international markets for Philippine products. Other agencies that assist export-oriented entrepreneurs are: the Product Development and Design Center (PDDC), that helps to improve product quality and competitiveness; the Philippine Trade Training Center (PTTC), that provides training in export-import management; and the Bureau of Export Trade Promotion (BETP), that enhances the capabilities of exporters to create quality export commodities (Aldaba 2008). Domestically, the DTI also organizes the biannual 'Manila FAME International', an international exposition that features locally designed furniture, gifts, housewares and fashion accessories.

3.2 Philippine MSE performance

The dismal performance of Philippine SMEs is shown by the large share of MSEs and their small contribution to GVA, as well as the country's low rank in several Doing Business indicators.

In 1993, the Magna Carta for Micro Small and Medium Enterprises (RA 9501) and the National Statistics Office (NSO) established the official classification of MSMEs in the Philippines based on asset size and employee size:

Table 1: MSME classification in the Philippines

	Asset Size (PHP millions)	Employment
Micro	<3	1–9
Small	3.001–15	10–99
Medium	15.001–100	100–199
Large	>100	>200

Source: MSMED Council (2011)

According to the classification, any enterprise with an asset size of less than three million Philippine pesos or PHP (not including titled land) or fewer than 10 employees is considered a 'micro enterprise'. A 'small enterprise' employs between 10 and 99 workers and has an asset size between PHP three and 15 million. 'Large enterprises' have over PHP 100 million in assets (excluding land) and more than 200 employees.

By this definition, most of the enterprises in the country fall into the first two categories: micro and small. Indeed, like many other countries, in terms of the number of business establishments, the Philippine private sector is largely dominated by micro, small and medium-sized enterprises. Large enterprises – all in manufacturing – are the exception, comprising just 0.4 per cent of the total number of businesses in the country (Paderanga 2011). Table 2 shows the MSME profile of the Philippines.

Table 2: Philippine MSME profile (2006 and 2008)

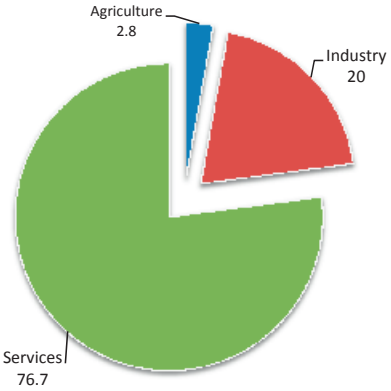
	Total	Micro	Small	Medium	Large	Only MSMEs
2008 Number of enterprises	761,409	697,077	58,292	3,067	2,973	758,436
Distribution (%)		91.6	7.7	0.4	0.4	99.6
2008 Employment	5,544,590	1,663,382	1,314,065	418,058	2,149,085	3,395,505
Distribution (%)		30.0	23.7	7.5	38.8	61.2
2006 Value added (in million pesos)	2,108,546	103,918	431,340	216,685	1,356,603	751,943
Distribution (%)	100	4.9	20.5	10.3	64.3	35.7
2006 Value added per worker (pesos)	380,289	62,474	328,248	518,313	631,247	221,452
Large enterprises (%)		9.9	52.0	82.1		

Source: MSMED Council 2011

In 2008, 761,409 enterprises were officially registered in the Philippines, 91.6 per cent in the 'micro' category. That year, MSMEs comprised 99.6 per cent of all businesses in the country. According to the Micro Small and Medium Enterprise Development Plan of the MSMED Council (2011), in 2008 MSMEs employed 61.2 per cent of private-sector employees. The rest were employed in large enterprises. Thus, in terms of employment, MSEs dominate employment opportunities for Filipinos.[5]

In terms of value added, the situation is reversed. According to 2006 data, micro and small enterprises contributed only 5 per cent and 20 per cent, respectively, of total value added to the economy; large enterprises contributed over 64 per cent. Predictably, productivity among MSMEs in terms of value added per worker is the lowest. The sectoral distribution of Philippine MSMEs is shown in Figure 3.

Figure 3: Distribution of small and medium-sized enterprises by sector (%)



Agriculture (total 2.8)
Agriculture, hunting and forestry (2.2)
Fishery (0.6)

Industry (total 20)
Manufacturing (17.4)
Construction (1.5)
Utilities (1.3)
Mining and quarrying (0.2)

Services (total 76.7)
Wholesale and retail trade (29.2)
Hotels and restaurants (12.3)
Education (9.9)
Finance (8.0)
Real estate and rentals (7.1)
Transport, storage and communications (3.5)
Other (6.6)

Source: Paderanga 2011

5 This macro-employment structure is reminiscent of the "missing-middle phenomenon" in which the base and top of the employment pyramid consist of those employed by micro/small enterprises and large enterprises, respectively.

Over three-quarters of all Philippine MSMEs are service-oriented, 20 per cent are in industry and nearly 3 per cent are in agriculture. Nearly 30 per cent of all MSMEs are in wholesale and retail trade, followed by manufacturing and hotels/restaurants at 17.4 and 12.3 percent, respectively (MSMED Council 2011).

According to the MSMED Council, 68.3 per cent of all Philippine MSMEs are on the northernmost island of Luzon, 17.6 per cent are in Mindanao in the south and the rest are located in the Visayas group of islands in the middle of the archipelago. MSEs are distributed relatively evenly across the country while medium and large enterprises are mainly in the National Capital Region on Luzon (ibid.).

The World Bank's annual Doing Business report indicates how well the private sector of a country is faring compared with how enabling the business environment is for private-sector growth. The Doing Business report for 2013, entitled "*Smarter Regulations for Small and Medium Enterprises",* covers 10 regulatory areas in 185 countries. Table 3 (below) shows how the Philippines compares with other Asian countries in 10 Doing Business indicators. The last row in Table 3 contains each country's rankings in 'Ease of Doing Business'.

Table 3: Doing Business 2013 ranking of the Philippines and selected Asian economies

Topic rankings for 2013	Philippines	Thailand	India	Vietnam	Lao PDR	Cambodia
Starting a business	161	85	173	108	81	175
Dealing with construction permits	100	16	182	28	87	149
Getting electricity	57	10	105	155	138	132
Registering property	122	26	94	48	74	115

Table 3 (cont.): Doing Business 2013 ranking of the Philippines and selected Asian economies						
Topic rankings for 2013	**Philippines**	**Thailand**	**India**	**Vietnam**	**Lao PDR**	**Cambodia**
Getting credit	129	70	23	40	167	53
Protecting investors	128	13	49	169	184	82
Paying taxes	143	96	152	138	126	66
Trading across borders	53	20	127	74	160	118
Enforcing contracts	111	23	184	44	114	142
Resolving insolvency	165	58	116	149	185	152
Ease of Doing Business rank	138	18	132	99	163	133
Source: World Bank 2013						

In terms of the general 'Ease of Doing Business', the Philippines ranked ahead of Lao PDR but behind Thailand, India, Vietnam and Cambodia. In terms of the 'Starting a Business' indicator, which examines regulations surrounding business registration and is relevant for many informal micro enterprises, at 161 out of 185 countries, the Philippines was ahead of India and Cambodia but behind Thailand, Vietnam and Lao PDR.

Access to finance, a critical issue for most small business start-ups, is also quite heavily regulated in the Philippines: the country ranked 129 out of 185 countries in the 'Getting Credit' indicator. Despite being bordered by water, which makes trade logistics more difficult, and a notoriously corrupt national customs bureau, the country ranked 53 out of 185 countries in the 'Trading Across Borders' indicator.

Comparing the Philippines with its East Asian neighbours, the 2013 report showed that it performed significantly worse than *all* other East Asian countries across *all* Doing Business indicators.

Despite the multitude of Philippine policies in support of MSEs, their performance leaves a lot to be desired. The 2008 Magna Carta for MSMEs led to major changes in the institutional support structure for small businesses – new councils and programs were created, and finance made available. However, MSME contribution to GVA remains chronically small. In terms of the 'Ease of Doing Business', the Philippines has consistently ranked low in several indicators – and failed to inspire domestic and international investors.

The country needs to learn how MSEs can stop stagnating and firm productivity can be increased so as to upgrade to the next category size. The Philippine Upgrading study, which explored the factors that would help micro and small firms boost productivity and contribute significantly to the economy, is presented in Section 4.

4 Methodology of the Philippine MSE upgrading study

This section presents the methodology used in the Philippine MSE Upgrading study and clarifies how the study evolved a methodology adapted to the Philippine setting while maintaining a collaborative atmosphere with the two other country-case studies. The study's data management and methods of analysis are also discussed.

The Philippine MSE Upgrading study is part of a three-country research project that explores factors influencing the upgrading of MSEs and investigates how the upgrading process of enterprises unfolds. The three case countries are the Philippines, Egypt and India. Although the latter two countries presented varying macro-level characteristics, the principal investigators maintained comparability across the three countries by consciously:

- selecting sectors common to at least two countries;
- applying the same purposive sampling method to select respondents (see 4.2);

- employing a standard questionnaire before adapting it to each country; and
- following similar qualitative methodologies for data analysis – to a certain extent[6] (see Questionnaires and Data Management in 4.3).

In an ideal world, enterprise upgrading should be researched longitudinally[7] because of the evolving nature of enterprise upgrading. However, the three studies followed an exploratory qualitative approach in gathering information in the Philippines, Egypt and India for four reasons. First, reliable panel data on micro enterprise development do not exist in these three countries. The informal character of these enterprises and the resulting blurred boundaries between economic activities in the business and the entrepreneur's household make it hard to establish a good panel. Second, although the principal investigators could have adopted a quantitative survey approach, this would not have established the nature of the relationship(s) between two explanatory variables. Such an approach can associate independent variables with other variables but has no explanatory power. The recognition that enterprise development is a process that is dependent on combinations of internal and external factors contributed to the choice of an explorative approach. Third, in quantitative designs it is difficult to incorporate 'soft' variables – the entrepreneur's motivation, the internal quality of enterprises, the capacity and skills of the employees and so on – that the research team views as crucial for upgrading. Fourth, an exploratory qualitative design allows the respondents to give 'richer' answers and helps capture determinants that could easily be missed by other methods.

Unlike previous research on enterprise upgrading that began with a large sample of MSEs that were later divided into dynamic versus non-dynamic firms, this study used purposive sampling to identify successful upgraders that evolved out of the MSE segment and became medium-sized. This methodology has two advantages. First, it captures the medium-sized firms that were so successful that they grew out of the sample; second, the approach need not cast a very wide net in order to grasp the few upgraders.

6 All three studies used qualitative and explorative methodologies but the Egyptian study also included econometric tests from the World Bank Enterprise Survey.

7 Following the methodologies of Liedholm and Mead, as explained in Section 1.

4.1 Survey area and sector selection

This section touches on the use of the concept of emerging clusters as a criterion for selecting the survey areas, and shows how the selection of sectors developed organically once emerging clusters had been identified.

The survey areas for Philippine upgraders were determined by using what earlier research had identified as emerging clusters of manufacturing in the country. Thus, the Davao and Bukidnon areas in the south were selected as emerging clusters for food processing (Albert et al. 2011) while the Marikina and Rizal areas in the north were selected as established clusters for footwear and leather (Sutherland et al. 2005). Davao is located in Region XI Southern Mindanao and Bukidnon is in Region X Northern Mindanao. Marikina is a city in the National Capital Region (NCR); Rizal is a city in Region IV Southern Tagalog.

Manufacturing sites for textiles and handicrafts, particularly handwoven tropical fibres, are geographically dispersed, according the Philippine Board of Investments (2009). For sampling ease, textiles and garments manufacturers were selected near the two surveyed sectors.

In the first round of data-gathering,[8] Davao (XI Southern Mindanao) and Bataan (Region III Central Luzon) were selected for the tourism sector. (See the Philippines map in Figure 4.)

To keep the respondent location constant, the survey areas for non-upgraders in the second round of the survey were selected with reference to the first round's choice of upgraders.

To maintain comparability across the three countries in the MSE Upgrading project, a decision was made to select sectors that overlap. Thus, the Egyptian MSE Upgrading study that was conducted by Markus Loewe with five students of the German Development Institute's 48th postgraduate course covered the food processing, textiles and garments, and information and communications technology (ICT) sectors, and the Indian SME Upgrading study conducted by Caroline Reeg covered the ICT, footwear and leather, and textiles and garments sectors.

8 Two rounds of data-gathering – of upgraders and non-upgraders – were made for the project. This is explained in detail in the next section.

Figure 4: Map of the Philippines

Source: Courtesy of the University of Texas Libraries, University of Texas at Austin (www.lib.utexas.edu)

4.2 Respondent selection

Two rounds of data-gathering were conducted for the Philippine Upgrading study, the first of which targeted 'upgraders' while the second focused on 'non-upgraders'. Upgraders were identified according to quantitative and qualitative criteria explained in Section 2.1. To operationalize the definition of upgraders, the following rule of thumb was observed:

'Upgraders' are medium-sized enterprises that, at the time of the interview, had successfully increased and maintained their employee size from <5 (for micro enterprises) or 6 to 10 employees (for small enterprises) to an employee size of 11 to 99 employees (a medium-sized enterprise) between 2000 and the end of 2011. The increase in employee size should have resulted from a verifiable innovation activity initiated by the firm in terms of product, process, business operations, marketing strategies or new markets. A verifiable increase in the number of employees must have been brought about by a verifiable firm-level innovation activity in order for an enterprise to be defined as an 'upgrader'.

To compare the study's size categorizations with the official Philippine enterprise size categorizations drawn up by the Magna Carta for MSMEs, see Table 4 below.

Table 4: Philippine enterprise-size categorization by asset and number of employees

Enterprise size	By assets* (PHPs)	By number of employees*	As defined in study
Micro	Up to 3,000,000	1–9	1–5
Small	3,000,001–15,000,000	10–99	6–10
Medium	15,000,001–100,000,000	100–199	11–99
Large	>100,000,000	>200	>100

Source: Small and Medium Enterprise Development (SMED) Council Resolution No. 01 Series of 2003 (16 Jan. 2003)

The size categorization used in the Philippine upgrading study clearly deviates from the size categorization used by the Philippine government,

which results in the following distribution of MSMEs: micro enterprises – 91.4 per cent (710,822); small enterprises – 8.2 per cent (63,529); and medium-sized enterprises – 0.4 per cent (3,006). Not only does such a distribution misrepresent Philippine MSME reality, but it also dramatically reduces the population pool for the study. To more closely reflect Philippine MSME reality, the present study defined micro enterprises as having 1 to 5 regular employees, small enterprises with 6 to 10 employees, medium-sized enterprises with 11 to 99 employees and large enterprises more than 100 employees.

The first round of interviews in February/March 2012 targeted only upgraded enterprises. Three methods were used to obtain the respondent population of medium-sized upgraders for the first survey round. *First*, agency officers from the BMSMED, DTI, Center for International Trade Expositions and Missions (CITEM), Department of Tourism (DOT), National Economic Research and Business Assistance Center (NERBAC), and manufacturers' associations and chambers of commerce and industry at the national and regional levels were approached for a list of enterprises from the food processing, footwear and leather, textiles and garments, and tourism sectors. These are referred to as 'near-to-representative' lists. *Second*, during interviews and focus group discussions (FGDs) with heads of manufacturers' associations, requests were made for other organization members who might agree to be interviewed. Industry and academic experts' interviews were also used as sources for the names and contact details of other entrepreneurs; these are referred to as 'recommendations'. *Third*, company registries (using the yellow pages) were consulted for possible upgraders, and *fourth*, the method of "walking the street"[9] was also used.

The second round of interviews – focused on non-upgraders – was made two months after the first, from June to July 2012. The lag in data-gathering resulted from restructuring the questionnaire to integrate salient findings from upgraders (in the first round). The lack of respondents from the tourism sector in the first data-gathering round led us to exclude this sector and focus on the three other industries. In the second round, only entrepreneurs in the food processing, footwear and leather, and textiles and garments sectors were interviewed.

9 Quite simply, interviewing entrepreneurs with shops along the street

Obtaining the respondent population for non-upgraded micro- and small enterprises for the second round of surveys required more resourcefulness. Knowing that non-upgraders in the Philippines tend to be smaller[10] and somewhat less formal,[11] the study not only used the list provided by official sources from the first round, but also interviewed enterprise owners in the street – the informal own account operators that do not appear on any list of enterprises. The various purposive sampling methods and final 150 respondents are shown in Table 5.

Table 5: Purposive sampling methods and number of respondents

Method	Number of respondents
Company registries and other representative lists	7
Nearly representative lists (yellow pages)	-
Recommendations by experts, business associations or lead firms in sector	19
"Walking the street" (especially in geographic clusters)	124
Total	150

Source: Author

The decision to use lists from government offices, personal referrals from heads of associations and referrals from industry and academic experts, and "walking the street" to obtain the respondent population for the first and second round of interviews affected the results. The population pool of upgraders is not representative because it specifically targeted medium-sized enterprises that had grown from micro or small employee size, while lists from concerned government agencies might have been incomplete and referrals from key persons probably led to interviews with other entrepreneurs

10 Less than 10 employees, but most are micro enterprises with fewer than five employees including the owner

11 They either lack work and operating – or health and sanitation, environmental or other permits.

in that person's network. The population pool of non-upgraders is also not representative because of the purposive nature of the sample selection.

It is important to keep these biases in mind while reading this report. However, the study's qualitative focus allowed very significant elements of Philippine enterprise upgrading to be captured that could not have been acquired through a broad, sweeping, randomized sampling survey. The data includes vivid stories, and critical decisions and turning points in the lives of enterprises that add a lot to the survey. This is an amalgamation of these rich sources.

As a final data-gathering strategy, in-depth interviews were conducted with experts from the food processing, footwear and leather, and textiles and garments sectors to clarify issues that had come to light during the interview process. We sought experts' perspectives on developmental issues in the sector and policy suggestions. The following section describes the questionnaire used in the interviews as well as the methods of analysis.

4.3 Questionnaires and data management

Three questionnaires were developed for three different target groups. The first questionnaire was for interviewing experts from academia, industry and business-related organizations. Seven questions were formulated to objectively assess a sector's performance (whether it had grown, stagnated or declined); to identify recent trends in the sector, such as an increased demand for exports, inflow of new technology, more competition and less government attention; and to identify business types that recently had been more successful in upgrading than others. Experts were asked to enumerate the challenges and opportunities for enterprises in their sector and identify the major factors that hinder upgrading. Interviews with experts also sought recommendations for policies to help Philippine enterprises upgrade. The last part of the experts' interview was designed to get personal recommendations for upgraders who were willing to speak with the principal investigator.

The second questionnaire was developed for medium-sized enterprises that had upgraded. Using categories developed in the theoretical framework, the two-page questionnaire consists of quantitative and qualitative questions: 1) Upgrading and enterprise characteristics, 2) Open questions about drivers

of innovation, 3) Entrepreneur characteristics, 4) Networks and 5) Business environment.

The first part of the questionnaire was intended to ascertain if the respondent actually was an upgrader. To achieve this, an 'Enterprise past' and 'Enterprise present' approach was adopted in categories such as *initial versus current* manufactured products, number of employees, markets, number of owners and other business activities. In an attempt to capture other quantitative proxies for upgrading, respondents were asked, *"In which other ways did the enterprise grow – aside from employment numbers?"* But it was impossible to obtain accurate entrepreneur estimates of the value of profits, delivery vehicles and machines added to the enterprise as a result of its growth. The closest easily attainable proxy for growth was a change in size of the production area. But since not all respondents consistently referred to this parameter, the investigators decided to focus on employee numbers. Entrepreneurs were also asked to name which innovation type had stimulated growth and to trace its source.

In the second part of the questionnaire, 'Open questions about drivers of innovation', the entrepreneur could compare the company's success to that of other enterprises. This section serves as the operationalization of the Onion Model (see Section 2.2). Respondents were asked to identify specific factors – at the enterprise, entrepreneur, networks and business environment levels – that were key to their success and upgrading. Each of these specific factors was discussed in depth with the entrepreneur to learn how they were used and if they were combined with other factors to overcome constraints. Then respondents were asked to rank each layer of the Onion Model according to its importance to the upgrading process.

The remaining three parts of the entrepreneurs' questionnaire were about entrepreneur characteristics, the use and usefulness of personal and professional networks for upgrading, and the quality of the business environment (infrastructure, corruption, politics, security, financial and political stability, access to finance and business development services (BDS), as well as the density and quality of laws and business regulations).

The third questionnaire was developed for non-upgraded MSEs. Although it was just one page, its structure resembles the four layers of the Onion Model elaborated in the theoretical framework. Three sections are closely modelled on the results of the first round of data-gathering with upgraded entrepreneurs: 1) Entrepreneur and enterprise characteristics, 2) Innovation

and 3) Upgrading and constraints. Like the upgraders' questionnaire, the non-upgraders' questionnaire began with *initial versus current* manufactured products and the number of employees, markets locations and number of owners – in order to establish if there had been significant measurable increases in terms of firm performance since its founding. Entrepreneurs were asked, *"In what other ways have you grown since start-up?"* and if they could attribute that growth to any innovations.

The non-upgrader questionnaire was largely patterned after the initial results of the first round of surveys with upgraders. The logic behind this was to enable us to investigate whether constraints that were identified by upgraders were also confronted by non-upgraders. These constraints include access to finance, educated and skilled labour, markets, information and so on. The non-upgrader questionnaire also covered salient points that were not included in the upgrader questionnaire but were found to be relevant for MSEs: formality, financial dependents and specific aspects of personal networks.

After the two rounds of field surveys in the Philippines, all data were first encoded in MS Excel and then migrated to SPSS (Statistical Package for the Social Sciences, now called PASW, Predictive Analytic Software) and Stata. Qualitative parts of the interview were encoded in MS Word and then migrated to NVivo for further analysis. The analytic methods used in this study include frequencies and t-tests, as well as the collation and comparison of statements and process tracing.

5 Findings on SME upgrading in the Philippines

This section on the findings of the Philippine MSE Upgrading study has six parts. It begins with information about characteristics of the pooled sample and provides an overview of cross-sectoral characteristics in 5.2. The next three parts present our basic findings: 5.3 for the food processing sector, 5.4 for footwear and leather and 5.5 for textiles and garments. Comparisons of upgrader and non-upgrader attributes, financial capitalization, markets, growth trajectories, innovation activities and success factors/constraints to upgrading are made for each sector, which ends with a discussion about how upgraders use success factors to overcome challenges to upgrading. The section closes with a summary of constraints and upgrading strategies common to all three sectors.

5.1 Sample composition

The initial pooled sample consisted of a total of n=50 upgraders and n=100 non-upgraders. After the tourism sector was removed from the study, the total number of upgraders dropped to n=42. After preliminary tests, we also removed enterprises older than 12 years from the pooled sample so we could clearly distinguish the growth of upgraded and non-upgraded enterprises in a certain period. This resulted in a final sample population of n=112, with n=21 for upgraders and n=91 for non-upgraders (see Table 6).

Table 6: Descriptive characteristics of upgraders and non-upgraders

Variable	Upgraders n= 21 observations				Non-upgraders n=91 observations			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Entrepreneur characteristics								
Age	47.95	13.17	28	80	43.53	11.26	21	74
Highest level of education (in years)	3.10***	0.63	1	4	1.89***	0.74	1	3
Further training (1=Yes, 0=No)*	0.76***	0.44	0	1	0.24***	0.43	0	1
Wage-work experience (1=Yes, 0=No)	0.71*	0.46	0	1	0.49*	0.50	0	1
Same-sector experience? (1=Yes, 0=No)	0.57	0.51	0	1	0.38	0.49	0	1
Gave a bribe (1=Yes, 0=No)	0.33***	0.48	0	1	0.90***	0.28	0	1
Family already in business? (1=Yes, 0=No)	0.86***	0.36	0	1	0.26***	0.44	0	1

Table 6 (cont.): Descriptive characteristics of upgraders and non-upgraders								
Variable	**Upgraders n= 21 observations**				**Non-upgraders n=91 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Membership in trade association or chamber (1=Yes, 0=No)	0.81***	0.40	0	1	0.06***	0.23	0	1
Number of dependents	3.90	4.55	0	20	4.03	1.88	0	10
Other businesses (1=Yes, 0=No)								
• At start-up	0.29***	0.46	0	1	0.04***	0.21	0	1
• At interview	0.48***	0.52	0	1	0.04***	0.21	0	1
Sole owner of enterprise (1=Yes, 0=No)								
• At start-up	0.57***	0.51	0	1	0.94***	0.23	0	1
• At interview	0.43***	0.51	0	1	0.94***	0.23	0	1
Reinvests in business (1=Yes, 0=No)	0.90**	0.30	0	1	0.64**	0.48	0	1
Finds personal relations helpful to business (1=Yes, 0=No)	0.90***	0.30	0	1	0.39***	0.49	0	1
Finds business relations helpful to business (1=Yes, 0=No)	0.95***	0.22	0	1	0.44***	0.48	0	1

Table 6 (cont.): Descriptive characteristics of upgraders and non-upgraders								
Variable	**Upgraders n= 21 observations**				**Non-upgraders n=91 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Dependents affect profits (1=Yes, 0=No)	0.09***	0.30	0	1	0.66***	0.48	0	1
Involved in some kind of charity work (1=Yes, 0=No)	0.67***	0.48	0	1	0.10***	0.30	0	1
Actively searches for information (1=Yes, 0=No)	0.90***	0.30	0	1	0.37***	0.49	0	1
Enterprise characteristics								
Age of enterprise (in years)	6.14	3.41	1	12	4.67	3.79	0	12
Formally registered at start-up (1= Yes, 0=No)	0.76***	0.44	0	1	0.15***	0.36	0	1
Number of employees								
• At start-up	6.90***	12.53	1	60	0.96***	1.08	0	4
• At interview	30.19***	31.87	6	150	1.25***	1.59	0	10
Financial capitalization (0=own capital, 1=not own capital)								
• At start-up	1.48	0.93	1	4	1.56	1.00	1	4

Table 6 (cont.): Descriptive characteristics of upgraders and non-upgraders								
Variable	**Upgraders n= 21 observations**				**Non-upgraders n=91 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
• At interview	1.57	1.21	1	4	1.27	0.88	0	4
Business location at start-up (0=at home, 1=not at home)	1.29*	0.46	1	2	1.53*	0.50	1	2
Major market supplied (0=local/ within city, 1=not local/outside of city)								
• At start-up	1.62***	1.02	1	4	1.02***	0.14	1	2
• At the time of the interview	3.24***	0.77	1	4	1.04***	0.21	1	2
Source: Author								
* Got business-related further training, attended workshops and seminars (beyond highest educational level achieved) *, **, *** indicate 10%, 5% and 1% significance level, respectively								

The following sections describe the results of non-paired t-tests conducted between upgraders and non-upgraders.

Entrepreneur characteristics

Although there was no difference in the average age of entrepreneurs, significantly more respondents from the upgrader group had higher educational levels and wage-work experience (3.0 and 0.71, respectively) than from the non-upgrader group (0.93 and 0.49, respectively). The educational level of upgraders equals an average of 14 years' schooling culminating in a Bachelor's degree. Although neither group had had any

work experience in their sector, more upgraders than non-upgraders have attended business-related training programmes, seminars and workshops to increase their knowledge base and improve their skills. Both respondent types stated in field interviews that they didn't have the necessary background for the sector when they opened their businesses. Significantly more upgraders that non-upgraders have obtained further training.

Another interesting point is that although no significant difference existed between upgraders and non-upgraders in terms of the number of dependents, significantly more non-upgraders said that their number of dependents negatively affected profits. Upgraders did not complain of the negative impact of dependents on their businesses.

The more successful entrepreneurs – aside from already being business-oriented – seem to surround themselves with business-minded people. Aside from having family members who had businesses, most entrepreneurs belonged to trade associations or chambers, and significantly more upgraders than non-upgraders operated other businesses (at start-up and at the time of the interview).

The variable 'Reinvests' stands for respondents who apply business profits to the business. Unlike buying ingredients or replacing items used in production to keep production rolling, 'reinvesting' is strategically saving earnings from the business to purchase an item (machine, gadget or utensil) with the objective of increasing or improving production. Significantly more upgraders than non-upgraders strategically reinvested their income in the enterprise.

In terms of networks, it was expected that despite disparities in enterprise size, there would be no difference between how social and business networks helped the enterprise to grow. However, significantly more upgraders than non-upgraders found personal and professional relations helpful for growing their businesses. The role of networks in enterprise upgrading, a cornerstone of the research, will be discussed in greater detail for each sector.

In terms of the incidence of bribery, although both respondent types have been confronted with this form of corruption at one time or another, more non-upgraders than upgraders had bribed a government authority. Non-upgraders mostly referred to police officers' 'collection activities' while upgraders referred to agents at local government units who 'collect unofficial payments'.

More non-upgraders than upgraders were the sole owners of their enterprises at start-up and the interview, that is, unsuccessful enterprises continued to be sole proprietorships for 12 years while successful enterprises became partnerships in the same time span. Finally, more upgrader respondents than non-upgraders were involved in some kind of charitable activity.

Enterprise characteristics

Although there was no difference in the average age of enterprises, at start-up more upgraded enterprises were formally registered than non-upgraded enterprises. Moreover, although there was no difference in the sources of financial capitalization between upgraders and non-upgraders at start-up and the interview, more upgraders had expanded from local/regional into national markets in 12 years. Although both types of enterprises began at home, upgraders had hired more employees during the start-up phase (6.90 versus 0.96) and increased their total workforces over 12 years (30.19 versus 1.25). In contrast, non-upgraders barely increased their workforces in that period.

Gender

The sample pool consisted of 54 males and 58 females. Seven male respondents were upgraders and 47 were non-upgraders. Of the female respondents, 14 were upgraders and 44 non-upgraders.

Food processing and textiles and garments are feminized sectors – judging by the number of respondents in the sample. Only one of the 11 upgraded respondents in food processing is male; all six upgraded respondents in textiles and garments are female. The opposite is true for footwear and leather where all the upgraded respondents were male. Qualitative evidence indicates that selection of the business sector correlates with gender but this was not substantially tested.

Attitudes about borrowing money for capitalization starkly differed between genders. Across all sectors, no upgraded females had borrowed money or wanted to borrow money for business start-up and continuation; male entrepreneurs were not against using borrowed money for enterprise operations.

The study was not designed to examine whether gender is correlated with the propensity to upgrade, and therefore is not explored in this report.

Summing up

There were **no significant differences** between upgraders and non-upgraders regarding entrepreneur age, sector experience, number of dependents, enterprise age and sources of financial capitalization (at start-up and interview).

There was a **weak difference** between upgraders and non-upgraders in terms of previous formal employment (wage-work) and business location at start-up.

There was a **significant difference** between upgraders and non-upgraders in terms of reinvesting profits in the business.

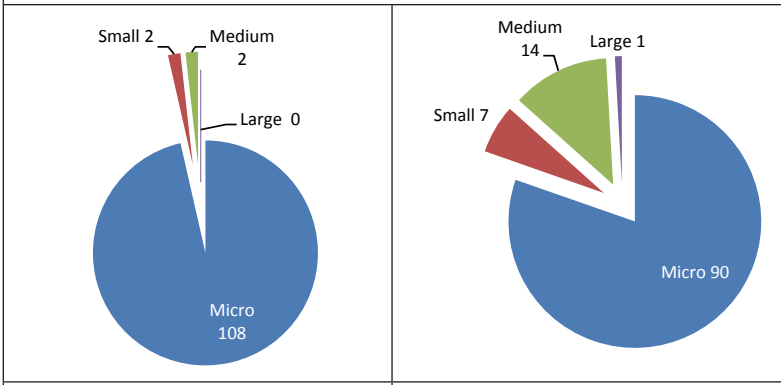
There were **very significant differences** between upgraders and non-upgraders in terms of educational levels, participation in business-related training programmes/seminars/workshops, incidences of bribery, business-minded family members, memberships in trade associations, owning other businesses (at start-up and interview), solely owning the enterprise (at start-up and interview), finding personal and professional relations helpful for business, how dependents affect profits, and involvement in charitable activities. There were also very significant differences between upgraders and non-upgraders regarding formal registration at start-up, number of employees (at start-up and interview), major market supplied (at start-up and interview), and the search for business-related information.

With regard to gender distribution, there are many more female than male entrepreneurs in the food processing and textiles and garments sectors. Evidence suggests that female entrepreneurs are more risk averse to borrowing money than male entrepreneurs.

Enterprise size. Figure 5 shows the distribution of respondents based on the study's employee-size categorization at business start-up and at the interview (2012).

A total of 108 of 112 businesses were founded as micro enterprises (between 1 and 5 employees). Two enterprises were small (6 to 10 employees) and another two were medium-sized (11 to 99 employees). No businesses were large at start-up. In 2012, 90 enterprises were still 'micro'; the number of small enterprises had increased to seven. There were 14 medium-sized enterprises and one large business (with more than 100 employees) in the sample pool.

Figure 5: Distribution of respondents by enterprise size (at start-up and interview)



At start-up | *At interview in 2012*

Source: Author

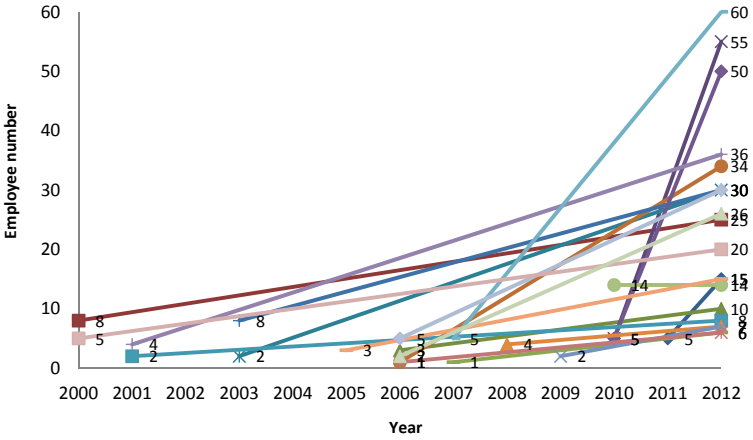
The data shows that both of the enterprises that started small had become medium-sized businesses by 2012. One of the two medium-sized enterprises had upgraded to large; another had not increased its workforce and remained medium-sized. All other medium-sized enterprises were upgrades from the 'micro' category.

Employee size. Figures 6 and 7 show the employment structures of upgraders and non-upgraders at start-up and in 2012. Graph values exclude the enterprise owner/founder.

Two striking differences were observed between upgraders and non-upgraders in terms of employee structure: Several non-upgraded enterprises exhibited no changes in employee structure from start-up until 2012, while some non-upgraded enterprises shrunk after start-up.

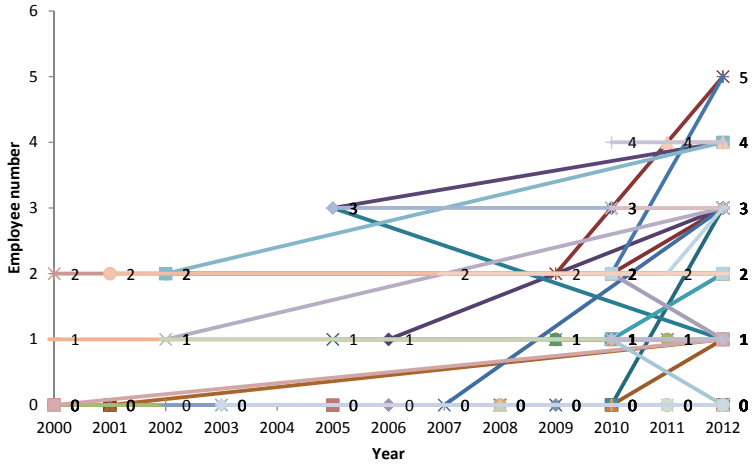
Absolute and Compounded Annual Growth Rate (CAGR). Table 7 shows the absolute and compounded annual growth rates of enterprises (upgraders versus non-upgraders) in percentages based on employee structures at start-up and in 2012.

Figure 6: Employee structures of upgraders (at start-up and interview)



Source: Author

Figure 7: Enterprise growth trajectories of non-upgraders (employee size)



Source: Author

Table 7: Absolute and average growth rates of upgraders and non-upgraders (employee size)								
Variable	**Upgraders n= 21 observations**				**Non-upgraders n=91 observations**			
	Median	**Std Dev**	**Min**	**Max**	**Median**	**Std Dev**	**Min**	**Max**
Absolute growth (%)	2424	2193	50	5500	30	101	-200	600
CAGR (%)	30.71	18.66	9.58	45.5	0.72	2.82	0	16.1
Source: Author								

As expected, the upgrader group exhibited high growth rates in absolute and compounded average terms whereas non-upgraders generally exhibited lower values for both variables.

Innovation activities. Since enterprise upgrading is not only manifested through the increase in workforce size but also in terms of qualitatively innovative changes, we also studied verifiable improvements in products, processes and ways of organizing production. The research identified five types of innovation:

1. Product (*Did you create new products?*)
2. Process (*Did you improve the process of creating your products?*)
3. Ways of organizing business operations (*Did you make business operations – other than product creation – more efficient?*)
4. Marketing (*Did you implement a new marketing strategy?*)
5. New markets (*Did you find new markets for your product?*)

Table 8 presents the five types of innovation elaborated in this study and the corresponding mean scores of upgrader and non-upgrader respondents.

In all types of innovation explored by the study – product, process, ways, marketing and new markets – upgraders attempted to innovate more than non-upgraders. A *significant* difference in *product* innovation is observed between upgraders and non-upgraders; the differences between the two

Table 8: Types of innovation by upgraders and non-upgraders								
Variable	**Upgraders n= 21 observations**				**Non-upgraders n=91 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Types of innovation								
Product	0.81**	0.40	0	1	0.47**	0.50	0	1
Process	0.76***	0.44	0	1	0.30***	0.46	0	1
Ways of operating	0.90***	0.30	0	1	0.08***	0.27	0	1
Marketing	0.71***	0.46	0	1	0.16***	0.37	0	1
New market	0.71***	0.46	0	1	0.23***	0.42	0	1
Source: Author								
*, **, *** indicate 10%, 5% and 1% significance levels, respectively								

groups regarding all other types of innovation are statistically *very significant*. The various colourful and insightful innovation activities are described in detail later in this paper.

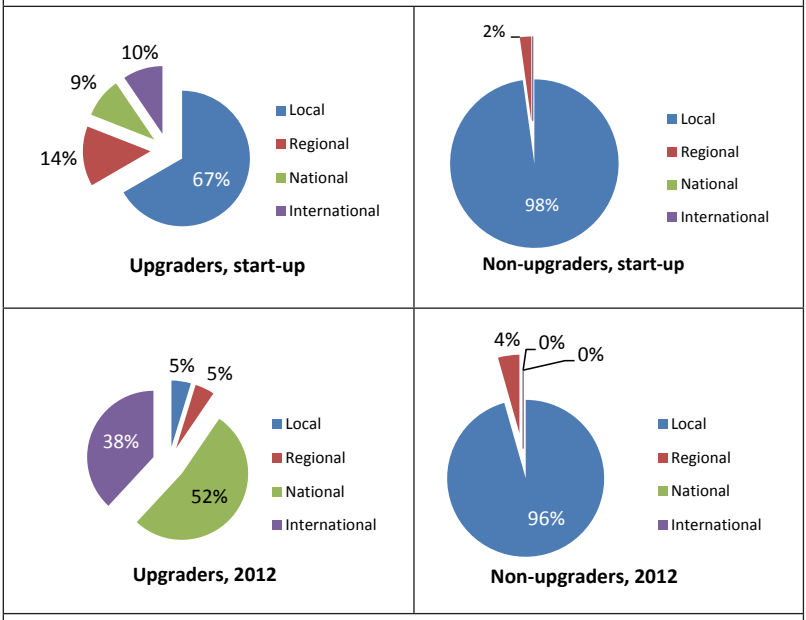
Market orientation. Figure 8 presents the market orientation of upgraders and non-upgraders – in addition to the statistical differences in market orientation shown in Table 5 – and shows how the main markets of both groups evolved from start-up until the time of the interview. The respondents were asked to identify the *widest/farthest* markets that they supply. They explained that when they supply a wider market they also supply the smaller market under it.

At start-up most enterprises were oriented to 'local markets', meaning the city that supplies most, if not all, of the production. Around 67 per cent (14 of 21) of upgraders and 98 per cent of non-upgraders (89 of 91) exclusively supplied local markets at start-up. At start-up, 23 per cent of upgraders (7 of 21) were already selling at regional, national or international markets as

compared with only 2 per cent (2 of 91) of non-upgraders who distributed regionally. 'Regional distribution' refers to the distribution of manufactured products in the region where the business is located.

Food processing was the only sector that was heavily represented in local markets at enterprise start-up (44 per cent of total local suppliers), followed by the footwear and leather sector (29 per cent), and textiles and garments (26 per cent).

Figure 8: Market orientation per sector (%) (at start-up and interview)



Source: Author

At the interview in 2012, only 5 per cent of upgraders (1 of 21) had not expanded their markets. Most upgraded enterprises had entered national markets (52 per cent, or 11 of 21) or international markets (38 per cent, or 8 of 21). The food processing sector led the international level with 62 per cent of all international market suppliers, followed by the textiles and garments sector (25 per cent). Few footwear and leather producers expanded their

businesses geographically: they comprised only 12 per cent of all exporting businesses in the sample.

Very little market expansion was observed among non-upgraders at the time of the interview. A total of 96 per cent (87 of 91) had remained at the local market level; only 4 per cent supplied regional markets.

Employee size and market orientation reveal that several enterprises managed to upgrade from micro to medium-sized in 12 years.

Sources of business ideas. Some sources for upgraders and non-upgraders of businesses ideas are presented in Table 9. Respondent answers were grouped according to similar characteristics in seven categories: 1) finding an opportunity/original business idea, 2) ideas from the family, 3) requests from social networks, 4) previous work experience/expertise/education, 5) ideas from official sources, 6) personal passions and 7) others.

Table 9: Sources of business ideas

Sources of business ideas	Upgraders	Non-upgraders
Saw opportunity/ original business idea	• I decided to use idle land for commercial purposes. (FP) • I wanted to help local farmers market their traditional coffee instead of being insurgents and practice fair trade. (FP) • I didn't want goat milk to go to waste, started experimenting with goat-milk soap and went back to a school friend to relearn cheese-making. (FP) • My father-in-law had a *durian* plantation whose trees would soon bear fruit. We thought of new ways to market *durian.* (FP) • Learned of high demand for good bananas from Filipinos abroad (FP)	• Personal initiative (FP)* • Just thought of it (F&L)

Table 9 (cont.) : Sources of business ideas		
Sources of business ideas	**Upgraders**	**Non-upgraders**
From the family	• My parents had their own shoe factory that I continued. (F&L) • My aunt gave the business to us. (F&L) • My parents had the same kind of business. (F&L) • My brother-in-law is in the fashion industry and gave me the idea. (T&G)	• My family has passed the business from one generation to the next. (FP) • I continued my deceased husband's business. (FP) • Mother-in-law had same business (FP)* • Idea was suggested by family, friends and cousins (FP)* • Suggested by a friend (T&G)* • Trained by a friend (F&L) • Family bakes and sells food products (FP) • We are a family of tailors. (T&G)
Requests from social networks	• My previous employer shut down and some friends from Japan requested frozen mango from me that my employer used to produce. (FP) • Friends started formally ordering the fish-in-oil that we gave as Christmas gifts. (FP)	

Table 9 (cont.) : Sources of business ideas		
Sources of business ideas	**Upgraders**	**Non-upgraders**
Previous work experience / expertise and education	• I worked in a foreign shoe shop before. (F&L) • I was a tailor in Israel and Saudi Arabia before. (T&G) • I have expertise in food processing. (FP) • I am a clothing-technology graduate and I want to make Mindanao better known for handweaving and bead embroidery. (T&G)	• Experience from working in a shoe shop/previous work experience (F&L) • I used to work for a banana vendor. (FP)
From official sources	• City government suggested it as an alternative source of income. (F&L) • Suggested by Catholic Relief Services (FP) • It was an NGO project at first. (FP)	
Passion	• Business was started by a grandma who loved to cook (FP) • It's my hobby. (T&G)	
Others	This is the trend here. (F&L)	
Source: Author		
FP = food processing, T&G = textiles and garments, F&L = footwear and leather *Answers related to personal initiative and ideas from family and friends were given by more than two-thirds of non-upgraders		

There are three basic sources of business ideas for non-upgraders. First is **previous work experience** as a shopkeeper or employee in another enterprise. This is particularly common in the food processing and footwear and leather sectors, where, after learning the basics of the trade, some respondents decided to start their own businesses along the same lines.

A second source of business idea is **personal initiative**. Many non-upgraders stated that they thought of starting their business because they needed income. Third, the **influence of family and friends** seem to weigh heavily on non-upgraders' decisions to start businesses, either through continuing the family enterprise or listening to suggestions. Respondents continued businesses started or abandoned by family members. Most non-upgraders tend to follow suggestions from family and friends or copy their businesses.

Upgraders' responses were more varied: While previous work experience also was a source of ideas for starting a business, these respondents had international working experience (in the case of the tailor who had worked in Israel and Saudi Arabia) or experience working for bigger (as well as multinational) companies. **Higher education** was an advantage for many upgraders, as in the case of the clothing-technology graduate who started Crystal Seas, a successful business of handwoven bags. Many upgraders have used what they learned at the university in their chosen fields.

Many upgraders continue the family enterprise or engage in a business that was in the family – especially in the footwear and leather sector. Full-fledged businesses borne out of simple product requests from social networks are not common, yet that had happened with two medium-sized mango and fish enterprises.

Business ideas **from "official" sources** were observed in three upgrader cases. Local governments and agencies were identified by three upgraders not only as sources of business ideas, but also of all-round support during start-up. Upgraders noted that when agencies approached them with business ideas, the agencies also made sure to provide training and networks. However, enterprise owners must abide by one kind of agreement or another with the agency – for example, by hiring women (for the NGO project on the boneless *bangus* fish) or handicapped workers, or by sourcing their raw materials from the agency's preferred suppliers (the farmer's business that was suggested by the Catholic Relief Services).

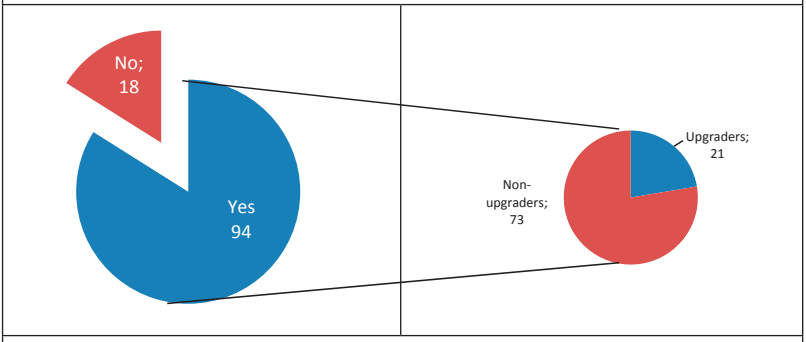
Finding a business opportunity in unlikely places is one of the common denominators of successful enterprises. Not wanting land or goat milk to go to waste, looking for alternative ways to earn money from fruits or idle land, or wanting to be a conduit between traditional coffee growers and consumers are all examples of good business ideas that developed from opportunities found in the most unlikely places. Yet even business ideas

that were initially suggested by state agencies became profitable under upgraders. This suggests that other factors – independent of the business idea – influence an enterprise's propensity to upgrade.

A recurring theme from Table 8 is how personal networks strongly influence the business ideas of upgraders and non-upgraders: Entrepreneurs found market niches among their personal relations, and even businesses that were initially proposed by "official sources" draw on a relationship between the entrepreneur and the agent.

Perceptions of business growth. Figure 9 shows the distribution of respondents according to whether or not they wanted their business to grow. A total of 94 out of 112 respondents said they wanted their businesses to grow. Only 18 said they had no plans to expand. Respondents gave two reasons for not wanting to grow: either they are happy with the enterprise's size or they actually prefer to earn formal wages and have a more stable income – and not have their own businesses. These 18 respondents are all non-upgraders.

Figure 9: Distribution of responses about ambitions for enterprise growth (%)



Source: Author

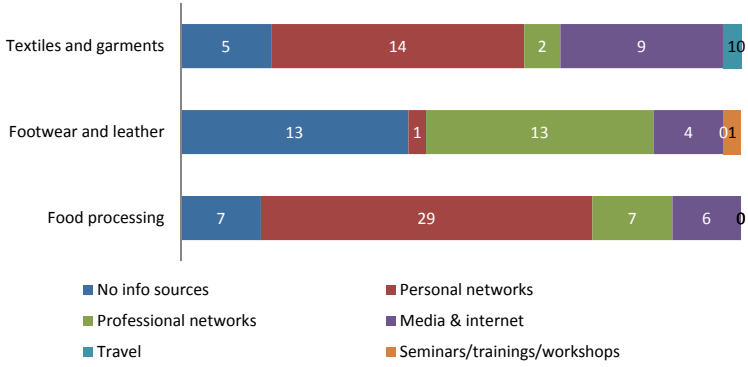
The unpaired t-test of the means of respondent scores to the question, *"Do you want your business to grow?"* reveals a significant difference (p=0.024) between upgraders and non-upgraders (respective means are 1.0 and 0.80). This indicates that significantly more upgraders than non-upgraders wanted their businesses to expand. As discussed below, entrepreneurs who want their businesses to expand take steps to increase their probability of upgrading.

5.2 Cross-sectoral overviews

This section presents cross-sectoral results of important issues that were presented to entrepreneurs from the three sectors during the data-gathering period. It explains where entrepreneurs obtain business-relevant information, the helpfulness and stability of their personal and professional networks, and their perceptions and rankings of the factors that affect enterprise upgrading.

Main sources of business-relevant information. Figure 10 shows the distribution of respondent answers to the question, *"Where do you generally get information that is relevant to the enterprise?"* Only one source – the most important source of information for entrepreneurs – was requested. Multiple answers were not permitted.

Figure 10: Main sources of business information for entrepreneurs (absolute values)



Source: Author

Figure 10 affords two striking insights. The first is that across sectors, many entrepreneurs, especially in footwear and leather, have no major sources of business-relevant information. Should they have an information source, it is their professional networks, not their social circles.

A second salient finding is that entrepreneurs in the food processing and textiles and garments sectors named 'personal networks' as their main source of business-related information. Yet while entrepreneurs from the

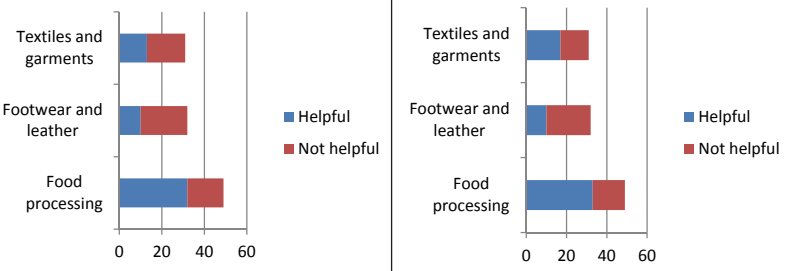
textiles and garments sector also made use of media and the Internet to gather information, food processing respondents drew on a combination of media and professional networks to keep abreast of the latest enterprise-related developments.

One respondent from the footwear and leather sector stated that he gets most of his information from attending workshops and seminars, while a respondent from the textiles and garments sector obtains information by travelling outside the Philippines.

Across all sectors, many respondents mentioned no major source of business-related information. Entrepreneurs in the footwear and leather sector get information from professional networks, those in food processing and textiles and garments from personal networks.

Helpfulness of personal and business networks. Respondents were asked whether their personal and business networks were instrumental in the continuation and growth of their businesses (Figure 11). Responses varied among the sectors, and it was hard to distinguish between the scores of personal and professional networks.

Figure 11: Helpfulness of personal and business networks (absolute values)



Personal networks | *Business networks*

Source: Author

Personal networks were found to be the most helpful for entrepreneurs in the food processing sector. This corresponds to findings presented in Figure 10, where respondents in the food processing sector identified personal networks as their main source of business-related information. Food

processing respondents also said that business contacts were instrumental in their enterprise's growth and upgrading. Respondents from the textiles and garments sector identified their business networks as also helpful for business.

According to respondents in the footwear and leather sector, neither personal nor professional networks were seen as being instrumental in the continuation and growth of most enterprises in the sector. Entrepreneurs clearly have varying perceptions about the helpfulness of networks, with food processing respondents identifying both network types as helpful, and footwear and leather respondents stating that both networks were relatively ineffectual. The next section examines the strength of the entrepreneurs' relationships with their respective professional networks.

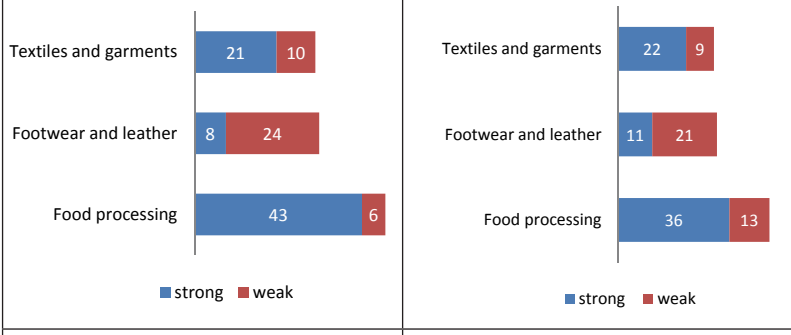
Strength of relationships with suppliers and buyers. Respondents were asked whether their relationships with the suppliers of raw materials and purchasers of their products were stable and strong. Figure 12 presents their answers.

Understandably, the food processors' strongest relationship is with suppliers. With most, if not all, of the products traded being perishable, it is crucial to have a solid relationship with the person responsible for the raw materials. A good relationship ensures that high-quality raw materials are delivered in a timely fashion. The same holds true for respondents in the textiles and garments industry, particularly those who use handlooms for traditional weaving. A strong relationship with the raw materials supplier ensures consistency in product quality and the proper delivery of inputs.

Respondents from the footwear and leather sector mostly reported weak ties with raw materials suppliers: most of the leather-product manufacturers only contact suppliers to place orders. Changing suppliers to get the lowest prices is common in the footwear and leather industry, and might account for the lack of incentive to build the relationship.

Respondents from the food processing and textiles and garments sectors reported strong ties with buyers, while those for footwear and leather were weak. Not surprisingly, the food processing sector most often requests product feedback from buyers – as shown by the frequency of responses in Figure 13. This is distantly followed by the textiles and garments and footwear and leather sectors. Asking for feedback strengthens the tie between manufacturer and buyer because it shows that the manufacturer values the buyer's opinion.

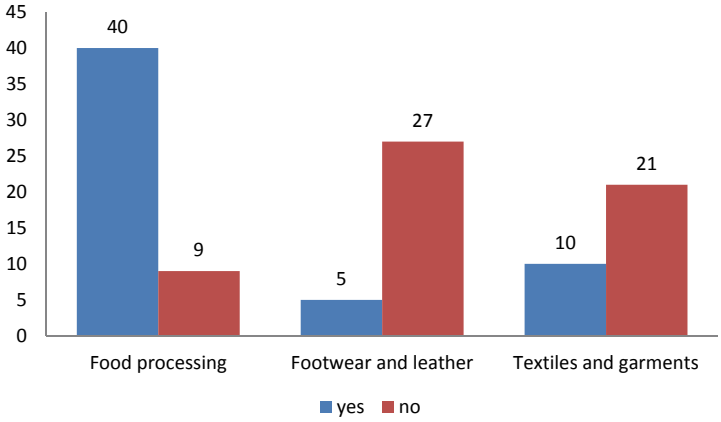
Figure 12: Strength of entrepreneur's relationship with suppliers and buyers



Suppliers *Buyers*

Source: Author

Figure 13: Do you ask your buyers for feedback? (Frequency of response)



Source: Author

Respondents from the food processing sector identified both personal and business networks as significant in the continuation and growth of their enterprises. Similarly, food processors reported strong ties with both their raw materials suppliers and their product buyers, perhaps because of their repeated requests for feedback about the product. Respondents from the footwear and leather sector regarded neither personal nor business ties as instrumental for business growth. Of the three sectors, footwear and leather had the weakest ties with buyers and suppliers, and was the least keen about asking consumers for product feedback. Respondents from the textiles and garments sector ranked between the two other sectors in all aspects.

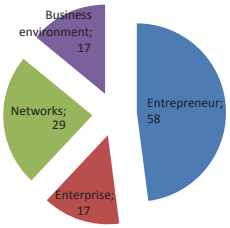
Factors that influence enterprise upgrading

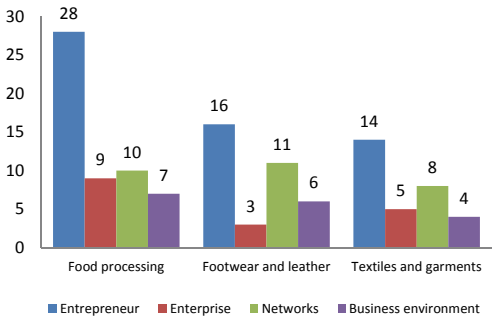
Both upgraders and non-upgraders were asked to rank the opportunities for and constraints to enterprise upgrading based on the four categories of factors identified by the study: at the entrepreneur, enterprise, networks (personal and professional) and business-environment levels. The following sections show the scores for each category.

Ranking of factors that positively influence enterprise upgrading. The final part of the interview involves asking respondents to reflect on various aspects within the four *categories of factors* that influence enterprise upgrading – from one to four according to the opportunities each offers for enterprise upgrading, with "one" as the most important and "four" as least important. In the data analysis, scores were simplified for presentation: factors ranked as "1" received one point and the rest of the categories "0". In Figure 14 below, frequencies for categories of factors chosen as most important (1) are presented in total values and in values differentiated by sector.

A total of 58 businesses identified the entrepreneur's capabilities as those most significant for enterprise growth; in all three sectors, the entrepreneur was also consistently identified as the most important factor influencing enterprise upgrading. Networks were identified as the most important factor for upgrading by 29 respondents, with entrepreneurs from the footwear and leather sector leading the group. Enterprise success due to the quality of the business environment was at third place, with 17 points. The enterprise as a category of its own that influences growth was recognized the least by respondents from footwear and leather while respondents from the textiles and garments sector were the least positive regarding the influence of the business environment on upgrading.

Figure 14: Frequency ranking of factor categories that positively influence enterprise upgrading





Total Sample | *Per sector*

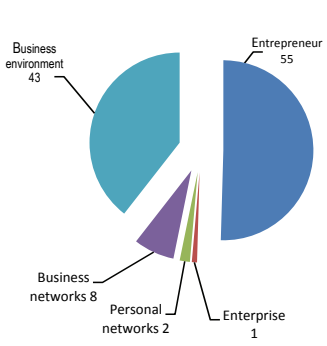
Source: Author

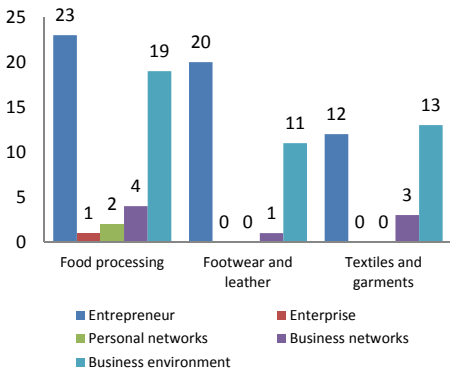
Ranking of factors that negatively influence enterprise upgrading. Using the same model, respondents were asked to rank the categories of factors that negatively influence enterprise upgrading. To get more nuanced answers, the networks category was divided into personal and business networks. Figure 15 shows the results of the pooled sample and per sector.

Just as entrepreneurs were identified as the most crucial figures for the success of the business, they were also identified by nearly half of the respondents (55 of 112) as the main reason for its failure. There were similar responses from the food processing and footwear and leather sectors about how the entrepreneurs' capabilities and capacities spell success or failure for the enterprise. The current business environment was cited by 43 respondents as the reason that many businesses had not been upgraded, with respondents from the textiles and garments sector ranking it as the main reason for the failure of businesses.

Other factors – business and personal networks, as well as enterprise characteristics – received very low scores compared with the two factors mentioned above, which means that across sectors, respondents did not view these three factors as contributing to business stagnation.

Figure 15: Frequency ranking of factors that negatively influence enterprise upgrading





Total sample | *Per sector*

Source: Author

A more detailed explanation and the substantiation of quantitative findings using qualitative elements from the respondent interviews is presented in the discussions about each sector.

5.3 Upgrading trajectories in food processing

This section presents the upgrading trajectories in food processing, based on in-depth interviews with respondents from the food processing sector. It starts with the background to Philippine food processing, the sector's significance for the Philippine economy and the multitude of challenges facing food processing entrepreneurs. An overview of the total sample including financial capitalization, markets and innovation activities is given in 5.3.2, and the ranking of factors that lead to enterprise upgrading and quotes from respondents in 5.3.3. An analysis of the dynamics of enterprise upgrading in the sector is discussed in 5.3.4.

5.3.1 The Philippine food processing sector

Food manufacturing – including the food processing sector – is the Philippines' dominant primary industry. In 2009, it accounted for around 40 per cent of total manufacturing output, represented more than USD 2 billion in gross value added (GVA) and contributed roughly 20 per cent to the gross domestic product (GDP) (New Zealand Trade and Enterprise 2012). Processed food products include cereal, meat, fruit and vegetable preparations, fish and marine products, dairy products and eggs, and alcoholic and non-alcoholic beverages. According to the 2009 National Statistics Office Family Income and Expenditure Survey (National Statistics Office 2012), total family spending on processed foods and beverages amounted to 12 per cent of total family expenditures for the year (or roughly PHP 408.2 billion), about 30 per cent of total family food expenditures.

Processed fruits and beverages are among the Philippines' leading export products. In terms of export performance, from 1999 to 2003 the industry exhibited an annual growth rate of 9.7 per cent, with processed fruits like mangos, bananas and pineapple contributing the biggest share of processed-food exports at 32.7 per cent, followed by nuts and coconuts (15 per cent). In 2009, the annual industry exports topped USD 1.2 billion or 11.6 per cent – up from USD 782 million in 2005 (Macabasco 2011).

The Philippine food and beverage sector exhibits a high workforce participation rate of women (New Zealand Trade and Enterprise 2012). Most industry workers are either high school or grade school graduates, many highly skilled.

Government regulation

Due to the social and economic significance of processed Philippine food both domestically and internationally, several different government agencies primarily govern the industry through the rules and regulations of the Food and Drug Administration, FDA (formerly the Bureau of Food and Drugs, BFAD) that was created through RA 3620. The FDA seeks to

> *protect public health and ensure the safety, efficacy, purity, and quality of all the products it regulates through the effective and efficient implementation of national policies consistent with international best practices.* (www.bfad.gov.ph)

The FDA oversees and controls the manufacture and sale of processed food, where the major concerns are adulteration and mislabelling. The Industrial Technology Development Institute (ITDI) of the Department of Science and Technology (DOST) assists food manufacturers by conducting research and running developmental activities and providing services related to food processing and packaging. ITDI DOST is mostly concerned with product development and standardization; the Department of Food Science and Nutrition of the University of the Philippines Diliman and the Department of Agriculture are involved in developing fruit and vegetable products. The Food Development Center (FDC) provides technical services, technologies and training on product quality and safety to food processing enterprises that export.

The Bureau of Agricultural and Fisheries Product Standards (BAFPS) develops and enforces quality standards for processing, preserving, packaging, labelling, importing, exporting, distributing and advertising agricultural and fisheries products. It also regularly inspects processing plants.

Government agencies such as the Department of Agriculture (DA) (for monitoring the safety and quality of fresh primary and secondary processed agricultural and fisheries products), the Department of Health (DOH) (mostly concerned with monitoring the safety and quality of highly processed food products), the Department of Trade and Industry (which provides assistance in marketing, packaging, labelling and running trade fairs and ethnic food shows), the Department of the Interior and Local Government (DILG) and the local government units (LGUs) (which mostly implement and monitor food safety laws) are indirectly involved in ensuring food quality and safety. The Department of Environment and Natural Resources (DENR) is concerned with implementation of the law mandating food processors to have their own systems to manage and treat waste that do not pollute land, air or water (Angeles 2006).

For meat processors, the National Meat Inspection Service (NMIS) of the Department of Agriculture supervises the operations of abattoirs and meat establishments.

The Local Government Code of 1991 transferred many of the national government's regulatory functions to the LGUs, thus providing more autonomy to city and provincial governments. Food hygiene is controlled at the national, regional, provincial and city/municipal levels.

Measures of Quality Control

The Philippine processed-food industry adheres to several quality-control measures to ensure product safety and quality and comply with the sanitation and hygienic requirements of its major importing partners. The most basic quality control is through the Hygienic Safety Manufacturing Practices, which are better known in the industry as 'Good Manufacturing Practices' or GMP. GMP covers the basic procedures and means for designing an environment that can produce acceptable quality, and is applied to all business areas, especially: buildings and grounds, equipment and installations, sanitary facilities, sanitary operations, food processing and personnel.

GMP certification is a prerequisite for an entrepreneur's 'license to operate (LTO)' from the Food and Drug Administration, which must be renewed each year.

In addition, workers in direct contact with food (food handlers) are required to obtain health certificates from accredited doctors or hospitals before being employed.

The Hazard Analysis Critical Control Points (HACCP) is a system for controlling food safety by systematically identifying and assessing hazards associated with food operations and developing means for their control (Bryan 1988). HACCP identifies hazards and establishes control mechanisms to ensure food safety during production. HACCP certification is very important for exporting processed seafood products to the USA.

Several exporters of processed foods have attained ISO and Total Quality Management (TQM) certifications and adhere to the Codex Alimentarius Commission Standards stated in the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures, or SPS Agreement (ibid).

Challenges

The food processing sector is beset by challenges (Hicks 2001; Macabasco 2011):

Availability of raw materials. The quality of raw material inputs in the country is inconsistent and has not kept pace with industry requirements. Examples include: the changing colour of *ube*, a purple yam used to make *halaya* snacks; banana and citrus diseases; and the fibrousness and water content

of jackfruits. Domestic sugar prices are high compared with neighbouring Asian countries, and the quality of Philippine salt is poor (Hicks 2001).

Intensified domestic and foreign competition. Lower-priced imports enter the Philippines through tariff reductions in international trade agreements such as the ASEAN Free Trade Area (AFTA) and the WTO, while export requirements regarding food safety, traceability, the environment and animal welfare are becoming increasingly stringent.

Issues regarding policy coordination. The mandates of the numerous industry players tend to overlap in both function and scope.

Slow adoption of technology. The cost and availability of equipment suited to the volume of production, and the lack of communication between entrepreneurs and academics, government and research institutions conspires to slow technology adoption.

Access to finance. The Magna Carta for MSMEs (RA 9501) makes loans available for food processors at interest rates of 16 to 20 percent but SMEs whose products are paid for on the basis of 30 to 90 days' credit cannot benefit from this offer.

Customs corruption. Exporters of processed foods must contend with corrupt customs officials who demand bribes before approving shipments.

Over-reliance on single or traditional markets. Exporters continue to rely on the overseas Filipino market, so the export share remains small.

Despite these challenges, the Philippppine government has identified the food processing sector as a priority sector for attracting foreign investment.

The following section shows that both upgraders and non-upgraders are challenged by finance and the availability of raw materials, while increased competition (both locally and abroad) and corruption at customs are more relevant for upgraded exporters; slow technology adoption is common to non-upgraders. The following section presents the sample and findings from respondents in the food processing sector.

5.3.2 The sample

Upgraders from the food processing sector roughly divide into two types: those who manufacture fruit and vegetable products and those

who manufacture products from other raw foods. The fruit and vegetable manufacturers include several producers of mango by-products (juices, nectars, dried and candied mangos and marmelades), a salsa producer, and manufacturers of *durian*, guava, *mangosteen,* and banana products. Among the entrepreneurs who create products from other foods is a manufacturer of gourmet dried fish in oil and one of rice cakes, a producer of goat and cow cheeses and a manufacturer of smoked and deboned milkfish.

Non-upgraders from the food processing sector appear to mostly manufacture perishable food for immediate consumption. These include homemade traditional drinks, fried foods, sandwiches and other hot foods.

Entrepreneur and enterprise characteristics. Table 10 (below) presents salient characteristics of food processing-sector respondents. The first column shows values for the whole sample while the second and third columns compare upgraders and non-upgraders.

The average age of respondents from the food processing sector was 43 years – with the youngest 21 and the oldest 80. On average, the highest educational attainment is secondary school, or 10 years of schooling. One-third of the respondents regularly attend business-related training sessions, and more than half of the respondents used to be employed by another company.

Few respondents had had same-sector experience before opening their current businesses, and even fewer have bribed government authorities. All respondents find personal and business networks helpful to the business, although less than one-fifth of them belong to trade organizations. Around half of the sample have families who used to work or are still working in the same sector; half of the respondents actively search for business-related information. The average number of dependents of food processors is between three and four.

Upgraders in food processing were significantly older, had higher levels of education, attended more enterprise-related seminars and workshops and belonged to trade associations more than non-upgraders. Moreover, significantly more upgraders than non-upgraders found professional relations helpful for business and proactively searched for enterprise-related information. According to one respondent:

> *I am really into the food business by education, training and family background. My family owns a long-running Japanese restaurant in Manila*

Table 10: Descriptive statistics of the food processing sector

Variable	Food Processing (All) n= 49 observations				Upgraders n= 11 observations				Non-upgraders n= 38 observations			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Entrepreneur characteristics												
Age	43.12	13.55	21	80	50.91**	13.87	35	80	40.87**	12.77	21	74
Highest level of education (years)	2.2	0.88	1	4	3.0***	0.77	1	4	2.05***	0.80	1	3
Further training (1=Yes, 0=No)++	0.33	0.47	0	1	0.73***	0.47	0	1	0.21***	0.41	0	1
Wage-work experience (1=Yes, 0=No)	0.61	0.49	0	1	0.82	0.40	0	1	0.55	0.50	0	1
Same-sector experience? (1=Yes, 0=No)	0.24	0.43	0	1	0.36	0.50	0	1	0.21	0.41	0	1
Gave a bribe (1=Yes, 0=No)	0.18	0.39	0	1	0.36*	0.50	0	1	0.12*	0.34	0	1
Family in business before? (1=Yes, 0=No)	0.49	0.51	0	1	0.73*	0.47	0	1	0.42*	0.50	0	1
Membership in trade association or chamber (1=Yes, 0=No)	0.20	0.41	0	1	0.91***	0.30	0	1	0***	0	0	0
Number of dependents	3.61	1.68	0	7	2.81*	1.72	0	5	3.8*	1.62	0	7

Table 10 (cont.): Descriptive statistics of the food processing sector												
Variable	**Food Processing (All) n= 49 observations**				**Upgraders n= 11 observations**				**Non-upgraders n= 38 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Finds personal relations helpful to business (1=Yes, 0=No)	0.65	0.48	0	1	0.82	0.40	0	1	0.61	0.49	0	1
Finds business relations helpful to business (1=Yes, 0=No)	0.67	0.47	0	1	0.91**	0.30	0	1	0.61**	0.49	0	1
Actively searches for info (1=Yes, 0=No)	0.49	0.51	0	1	1.0**	0	0	1	0.34**	0.48	0	1
Enterprise characteristics												
Age of enterprise (years)	5.20	3.88	0	12	5.64	3.29	2	11	5.07	4.06	0	12
Formally registered at start-up (1= Yes, 0=No)	0.31	0.47	0	1	0.72***	0.47	0	1	0.18***	0.39	0	1
Source: Author												
*, **, *** indicate 10%, 5% and 1% significance levels, respectively ++ participated in business-related further training in addition to highest level of education completed												

> *and used to operate a museum café in Makati. I studied culinary hotel and restaurant management in Switzerland, took a six-month intensive course in pastry-making in Massachusetts in 1993, did internships at various French and Italian restaurants including Salumi in Napa Valley, did internships at the Holiday Inn sales department and at the exclusive Chateaux 1771 in Makati. My background has helped me succeed in my business. My European education and upbringing has ingrained in me the utmost respect for quality. Still, every year I attend cooking courses to learn new menus, new techniques and trends.* (Upgraded Food Processor, Davao, March 2012)

There were minimal, but significant, differences between upgraders and non-upgraders in the food processing sector regarding the incidence of bribery, family members in business and the number of dependents. There were no differences between the groups regarding wage-work/same-sector experience or finding that personal relations can help the business. In terms of enterprise characteristics, although enterprise age was similar for upgraders and non-upgraders, significantly more upgraders had registered their businesses at start-up.

Financial capitalization of food processors at start-up and in 2012. Table 11 breaks down the financial capitalization of food processors at start-up and at the time of the interview in 2012. Almost all respondents relied on personal savings, including those of the entrepreneur and their immediate family, including spouse and children, to start-up and continue their businesses.

At start-up – and even after the business has already succeeded – most entrepreneurs relied on their own savings to keep the enterprise going. Most find that banks and non-bank credit institutions do not offer attractive loans; upgraders seem to be able to find other ways to obtain capital, without needing to approach banks. These could be offers of equipment from the government (business environment) or business partners (professional networks) who make some sort of financial arrangement. Respondents said:

> *I have never taken a loan to finance my* durian *products business, however, I regularly rent equipment [for production] from the DOST.* (Upgraded Food Processor, Davao, March 2012)

> *My partners from New Jersey always pre-finance their orders but they simply refuse to pre-finance production if the orders come from others. When the orders come in bulk, I ask a local investor to pre-finance my production. I produce dried mangos from loans and repay as soon as the batch is sold.* (Upgraded Food Processor, Davao, March 2012)

Table 11: Financial capitalization of food processors (at start-up and in 2012)										
Time	**Upgraders**					**Non-upgraders**				
	Personal savings	Borrowed money from relatives and friends	Borrowed money from banks and ther financial institutions	Savings and bank loans	Savings and borrowed money from relatives and friends	Personal savings	Borrowed money from relatives and friends	Borrowed money from banks and other financial institutions	Savings and bank loans	Savings and borrowed money from relatives and friends
Start-up	11	0	0	0	0	27	4	4	0	3
2012	10	0	0	1	0	32	1	3	0	2
Source: Author										

Upgraders borrowed equipment and requested pre-financing from non-bank institutions instead of taking out bank loans. The only upgrader respondent who had a commercial loan at the time of the interview was a producer of native rice cakes:

> *With the successful entry of my business into the Manila market, I expected a bigger production volume. I needed to hire more people and buy more equipment – like heavy-duty mixers and dispensers, pumps, and automatic packing and sealing machines. I am averse to sharing decision-making and shun suggestions to enter joint-venture arrangements or look for financiers. What I needed was a big loan to enable me to upgrade my facilities. I did not lack sources of credit. My sister-in-law and some friends are open-handed: I usually approach them for small, quick loans. Finding myself cash-strapped two years ago, I joined a cooperative and liked the experience. Today I am member of four coops. Sometimes I even get desperate enough to take my post-dated checks to someone willing to rediscount them. I got wind of Micro Enterprise Bank's credit program for micro entrepreneurs after that. I obtained a PHP 50,000 loan to augment my working capital. I do not know how many loan cycles I did now, but I am already able to borrow PHP 150,000 at a time. I am aware that I have graduated from micro to small scale, and may no longer belong to the target clientele of Micro Enterprise Bank.* (Upgraded Food Processor, Davao, March 2012)

Not surprisingly, that entrepreneur's bank used her as a model client to attract more eligible entrepreneur borrowers. Nevertheless, her statement indicates that the initial loan amount that is available for entrepreneurs is relatively small compared to the need. In addition, several rounds of lending are needed before the amount of the first loan can be increased.

In the case of non-upgraders, it seems that even if the business is floundering, few will venture to obtain formal credit outside of the family. But compared with upgraders, slightly more non-upgraders tend to borrow money "outside". This could indicate that non-upgraders simply do not have the capital on hand to start and run a business. Furthermore, non-upgraders who had attempted to take out commercial loans experienced difficulties, and some had to resort to informal lending schemes to finance their businesses.

> *I approached friends who would help me with financial capital for my banana chips, and although the interest is high, I had to accept their offer.* (Non-upgraded Food Processor, Davao, June 2012)

> *Space rental is expensive in the city so I had to resort to borrowing money for it.* (Non-upgraded Food Processor, Davao, July 2012)

> *My pushcart for my drinks and fried foods is from my bank loan.* (Non-upgraded Food Processor, Davao, June 2012)

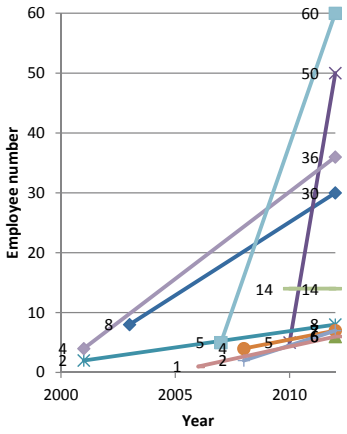
Markets supplied at start-up and at the time of the interview. For upgraders and non-upgraders in the food processing sector, the main focus at start-up has always been local markets or their city or town. Data shows that all the upgraded respondents moved into national or international markets after start-up, meaning that they not only catered to the city where they were established but also expanded to supply other markets. In contrast, none of the non-upgraders supplied their products beyond the city in which they were located. An upgrader said:

> *From an initial production of 3 to 6 kg cheese per week supplied to local supermarkets, I now produce 20 to 100 kg per week of different cheeses. Half of this is sold exclusively in upscale supermarkets in Manila while the other half is purchased by Philippine Airlines for the business class of their international flights.* (Upgraded Food Processor, Davao, March 2012)

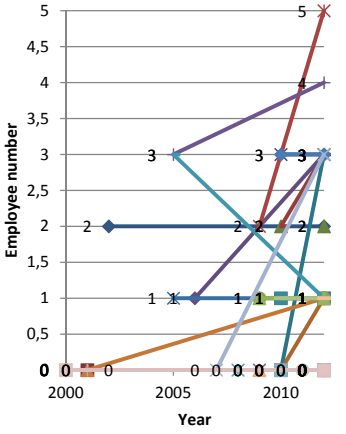
Interestingly, all entrepreneurs feel secure with their markets because they have regular customers. In other words, they consider themselves successful in terms of market segmenting, targeting and positioning – regardless of their upgrading status.

Enterprise growth trajectories. Figure 16 shows the employee growth structures of upgraded and non-upgraded enterprises in the food processing sector. Both groups exhibited visible increases in employee size from start-up until the interview in 2012. However, in the same time period, upgraders in food processing clearly grew faster than non-upgraders. Whereas upgraders added as many as 60 employees, the highest non-upgrader increase in manpower was five. The rate difference is obvious in both y-axis scales.

Figure 16: Employee growth structures based on employee size for food processing upgraders and non-upgraders



Upgraders



Non-upgraders

Source: Author

Another conspicuous difference between the two groups is the persistence of 'zero employment' among the non-upgrader group. Since the employee count used for the study excluded the entrepreneur, 'zero' increase means that a non-upgraded entrepreneur worked alone throughout the lifetime of the business. At least one non-upgraded enterprise shrank in employee size between start-up and the interview.

Absolute and Compounded Annual Growth Rates (CAGR). Table 12 shows absolute and compounded annual growth rates of upgraders and non-

upgraders in the food processing sector based on employee size. To better reflect the distribution of growth rates across enterprises, the median value was taken instead of the mean.

Whereas the median absolute growth among upgraders is over 600 per cent throughout the business lifetime, non-upgraders exhibited only 19 per cent growth in that period. Upgraders showed an annual average growth rate of over 180 per cent while non-upgraders grew less than 10 per cent per year. The non-upgrader group also exhibited negative absolute and average growth, like the reduction in enterprise size based on the number of employees shown in Figure 16.

Table 12: Absolute and compounded annual-growth rates of food processing upgraders and non-upgraders (based on employee size)

Variable	Upgraders n= 11				Non-upgraders n= 38			
	Median	Std Dev	Min	Max	Median	Std Dev	Min	Max
Absolute growth (%)	601	869	0	2250	19.4	56.7	-28	300
CAGR (%)	189	353	0	1125	8.5	27.0	-4	50
Source: Author								

Innovation activities. Table 13 shows the four kinds of innovation activities of upgraders and non-upgraders in the food processing sector: process, ways, marketing and new markets.

Upgraders and non-upgraders in the food processing sector did not differ in terms of creating new products. However, upgraders in the food processing sector did differ significantly from non-upgraders as far as improving their production processes, making business operations more efficient, implementing new marketing strategies and finding new markets for their products.

In general, upgraders searched for ways to make their production and marketing processes more efficient and found alternative ways to approach more customers. Note that findings in Table 13 echo findings comparing the market orientation of upgraders and non-upgraders shown in Figure 8.

Table 13: Types of innovation of upgraders and non-upgraders in food processing

Variable	Upgraders n= 11				Non-upgraders n= 38			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Types of innovation								
Product	0.73	0.47	0	1	0.61	0.50	0	1
Process	0.64*	0.50	0	1	0.34*	0.48	0	1
Ways	0.91***	0.30	0	1	0.11***	0.31	0	1
Marketing	0.73***	0.47	0	1	0.18***	0.39	0	1
New market	0.73***	0.47	0	1	0.21***	0.41	0	1

Source: Author

*, **, *** indicate 10%, 5% and 1% significance level, respectively

In every sector, at least one entrepreneur towers over the others, embodying the essence of entrepreneurship and demonstrating enterprise growth through innovation. Entrepreneur strategies are part of the discussions; boxes like the one below highlight their decisions and strategies and draw attention to their entrepreneurial spirit.

So far, research results for the food processing sector have shown stark dissimilarities in the characteristics of upgraders and non-upgraders. Upgraders were found to have higher levels of formal education and training than non-upgraders. Many upgraders are members of formal trade or manufacturing associations and have professional and personal networks help their businesses grow. Most upgraders also used personal finance to start and continue the business.

The difference between upgraders and non-upgraders becomes more obvious in their upgrading strategies. Some upgraders who lacked personal finance to purchase machines sought equipment from the government in order to support production, while others used some sort of pre-financing agreement with buyers in order to continue operations. These are examples

Box 1: Innovation in food processing: cheese-making at 38°C

Perhaps the most striking story about innovation in the food processing sector is that of Olive Puntespina, a self-taught cow- and goat-cheese maker in the southern Philippines. Her route from being an experimentalist and own-account worker to company head and exporter within four years is a remarkable tale of enterprise upgrading. Her veterinarian-husband's 30 goats – "We thought it would be nice to have some animals roaming around in the farm" – quickly multiplied to over 100 heads and created a surplus of goat milk. Not wanting it to go to waste, Olive Puntespina began to experiment with making goat-milk soap, which she discovered "required only a very minimal amount of milk". After learning the craft of making cheese from an old friend from the university and touring artisanal cheese makers in the USA for a month, she was ready to embark on a new business idea. After starting in her kitchen, her father-in-law cleared out a small section of his car shed for her to use. They erected temporary walls (to separate her kitchen from the family vehicles) and most importantly, connected her with running water. She first made her feta cheese and fresh cheese from goat milk in the car shed – sterilizing everything with hot water and maturing the cheese in plastic sacks and boxes. Admittedly, Olive Puntespina loves to experiment. Aside from the usual blue- or white-mould cheese she adds peppercorns, chili or rosemary, dips her cheeses in local wines and mixes them with bits of pineapple and mango. Guided by basic theory, lots of improvisation and bold marketing strategies, she has created 22 kinds of cheeses and now supplies high-end supermarket chains in the country and the business class of Philippine Airlines.

Source: Author

of entrepreneurs substituting missing elements for production (in this case, finance) with alternatives from the business environment and their networks. In addition, while slight differences exist between upgraders and non-upgraders in terms of product and process innovations, upgraders innovated more than non-upgraders by expanding market coverage and making their marketing strategies more efficient. Such innovation allows upgraders to quickly venture into bigger and potentially more profitable markets – one of the triggers for upgrading.

The next section presents important elements of each of the four layers of the Onion Model according to respondents from the food processing sector.

5.3.3 The ranking

Entrepreneurs from the food processing sector were asked to evaluate their own upgrading (*vis-à-vis* non-upgrading) experience while their stories were compared with the Onion Model. Six sector-specific constraints to enterprise upgrading emerged repeatedly in the interviews: lack of finance, lack of skilled workers, lack of a stable supply of good raw materials, lack of information, corruption and red tape, and low levels (or lack) of technology.

To overcome the constraints, upgraders combined strategies of:

1. investing in quality education (including further training)
2. getting exposure in lead firms and gaining quality work experience
3. accessing finance through personal or family finance or alternative means, and
4. joining professional networks.

The ranking in Table 14 and the following discussion focus on strategies used by upgraded entrepreneurs to overcome the six constraints at each level studied (success factors). Factors identified by food processors as negatively influencing enterprise upgrading (constraints) are also given. Whenever possible, the respondent's statements and examples illustrate their real-life situation.

Entrepreneur. At the entrepreneur's level, consistent success factors for enterprise upgrading include entrepreneur investment in **quality education, including training, work experience**, the proactive and **persistent search for information,** and having a vision.

Earlier we noted that upgraders from the food processing sector had significantly higher levels of education and training than non-upgraders. Education and training are perceived as two different types of learning. 'Education' refers to formal schooling from childhood onwards while 'training' refers to hands-on seminars and workshops that impart business-related skills or knowledge to the adult entrepreneur. Qualitative interviews reveal that even if the entrepreneur's education was not directly related

Table 14: Ranking of success factors and constraints to upgrading in food processing	
Success factors	**Constraints**
Entrepreneur (28 responses)	Entrepreneur (23 responses)
Education Participation in training programmes, seminars and workshops related to the business Proactive search for information Having a vision for self and company	Too much risk-taking in the beginning Preference to retain current enterprise size Gauging customer "feedback" through "complaints"
Professional and personal networks (10 responses)	Business environment (19 responses)
Membership in food-processors' associations or coops Forging strong relations with buyers, suppliers and competitors Full support of family and friends for all business aspects	Corruption and bribery at LGU level (city treasurer's office, fire department, etc.) Unofficial inspections Corruption at customs for exports
Enterprise (9 responses)	Professional and personal networks (6 responses)
Catering to local tastes Diversification of product portfolio Highly skilled employees (compensates for low education)	Other association members are competitors Forging good relations with suppliers takes time Lack of networks (for non-upgraders) Constantly changing suppliers
Business environment (7 responses)	Enterprise (1 response)
Closely working with local government units (DTI, DOST, BFAD) Full compliance with local permits, standards and paperwork	Testing for right formula/recipe costs time, money and effort Employees' low educational level Lack of motivation and work ethics Frequent employee departures
Source: Author	

to the current field of activity, it still contributed to their bookkeeping, documentation and networking skills or taught them to understand the purpose of regulations or the importance of joining organizations.

> *I think my education – as a Master's in chemistry – was put to good use into my passion, which is cooking, and later on, into my business.* (Upgraded Food Processor, Davao, March 2012)

> *Being a graduate Bachelor in animal science [in UPLB] and having experienced working at a dairy training and research institute [in Los Baños], I knew the basics of cheese-making. However, having spent so many years in Davao, I had forgotten how to do it. I went back to Los Baños and spent two days training with a former colleague on how to make cheese. Then I was on my own, experimenting by myself. I did a lot of experiments, spending hours in the lab to be able to produce different types of cheeses. I went back to the lab even after arriving at home just to experiment with the cheese. I took notes on everything I did and documented everything I have done in my years of cheese-making into a protocol diary. I told my husband that if ever I die, the first thing he should do is to go to my cheese lab and get my protocol diary. Afterwards, I still wanted to learn more about cheese-making, so with the help of family based abroad, I went in 2008 on a one-month tour of artisanal cheese-makers – from Wisconsin to northern California. I would have wanted to go to Europe to learn about cheese-making there, but finances were tight and the lack of family in Europe meant that that was not an option.* (Upgraded Food Processor, Davao, March 2012)

> *To further add to my capacity as restaurant owner, I still go to local hospitality and trade shows and do research on the Internet. I always want to update myself because I have my reputation/product to protect.* (Upgraded Food Processor, Davao, March 2012)

> *Even though I had a Bachelor's in Agriculture and am confident about my* durian *experiments, I still attend trainings and trade fairs to update my knowledge, even if the event is in a risky place like Zamboanga.* (Upgraded Food Processor, Davao, March 2012)

Most of the upgraders interviewed had amassed **work experience** either in food or non-food firms before starting their businesses. The gourmet dried-fish producer and ethnic-coffee producer credit their experience working at Chrysler and as a financial adviser for a Canadian firm, respectively, for teaching them proper book- and recordkeeping. **Experience in lead firms** taught them discipline and work ethics that also help in upgrading.

Persistence also distinguishes upgraders from non-upgraders – whether using unconventional ways to **acquire information** or becoming unsatisfied with the status quo, and deciding to strive for something higher.

> *With my mother-in-law I went to DOST and asked for referrals to cooks of other* durian *processors to teach me how to cook the fruits and process them into candies. Secretly I pirated a hired cook from another* durian*-processing company and together [we were] testing my* durian *candies for mass production. I noticed that the hired cook was still very loyal to his employer because when I suggested changing the recipe to fit to my tastes, he simply refused. So I fired the cook and started to test the product myself, changing the recipe until I found the taste that I wanted. In 2001 I registered my business as a processed-*durian *producer and used the name of my mother-in-law for the brand – Rosario.* (Upgraded Food Processor, Davao, March 2012)

> *When I settled with my husband in Davao City in 1993, I tried one small business after another to help support our young family. Retailing was what I tried at first. I ran a rolling store, a public market stall, and a* sari-sari *[variety] store – one after the other. I also supplied a leading store in Davao with volume quantities of the food flavourings I have learned to formulate, but orders from this one big client began to dwindle in time. Within a year, it was clear that these tiny ventures were not getting me anywhere. My husband suggested going back to Manila, but I wasn't about to go home a 'loser'. In 2004, I became pregnant and delivered a baby girl. Boredom from maternity leave led me to start experimenting with food flavours and flour. Every day I cooked and had a new batch of rice cakes (*puto *and* kutsinta*) with a different flavour. My first batches of rice cakes found their first market at the canteen of an elementary school nearby. Before long, I was supplying seven school canteens on consignment. However, I was not making any money because the baskets of rice cakes were returned unsold and spoiled. My luck turned when I decided to supply big hotels in Davao, the Menseng Grand and Grand Royale hotels. These hotels had high influx of non-Davao-based tourists. Soon demand for my products grew.* (Upgraded Food Processor, Davao, March 2012)

> *I have lots of ideas and I know where I would like to go with my business. I believe in mentoring, and I thank the Swiss cheese masters for sharing their expertise with me. If I don't know anything, I go out and learn it. I even bought a book called* Accounting for Dummies *just to learn how to do bookkeeping for my cheese sales. I love what I do. I have carpal tunnel syndrome, tennis elbows and herniated disks but I still wake up every*

> *morning excited to work on my cheeses. It is hard manual labour, carrying the milk vats and so on.* (Upgraded Food Processor, Davao, March 2012)

Despite their lower income, some non-upgraders are **content with their size.** Although preferring to keep to the current enterprise size is not in itself a constraint to upgrading, the reason for this preference is a constraint. Entrepreneurs who had chosen to stay small gave fears of the financial demands of a bigger business and the need for additional manpower as reasons to not upgrade.

> *I am contented with what I earn.* (Non-upgraded Food Processor, Bukidnon, July 2012)

Upgraders from the food processing group also had a mission or **vision of themselves and their companies**. Many interviewees mentioned that from the beginning, they knew what they wanted to do and how to get there.

> *We knew that my father-in-law's* durian *trees would all be fruiting after two years, so early on we came up with a plan on how to cope with the excess supply.* (Upgraded Food Processor, Davao, March 2012)

> *I wanted to help banana farmers cope with low prices and to perk up the demand for native bananas. I know that there are millions of Filipinos abroad who yearn for the taste of home and would pay good money to get their hands on native bananas. However, what we want is the banana fruit and not the peel. Why do we have to pay for everything from the farm all the way to the market to include the peel – when the peel is not what the consumer is after? So we decided to work on bananas without the peel. To ensure that the company will continue with our success, I have entered into contact about growing arrangements with farmers to propagate the* Candava *banana variety. You have to know your product and know if it has a market and know how much you want your business to grow. I have a vision to be recognized as a world-class banana-processing company.* (Upgraded Food Processor, Davao, March 2012)

> *I have an end goal for my coffee business: environmentally sustainable local production, fair trade and peace-building. I continuously plug my business and link it with my advocacy. I focus on quality and I am very transparent regarding my intentions to the community.* (Upgraded Food Processor, Davao, March 2012)

> *I used to just sell peanuts. I added some cooked food just to see if it would work.* (Non-upgraded Food Processor, Bukidnon, July 2012)

Despite their education, training and planning, upgraders also make mistakes. The most common mistake mentioned was **taking too much risk in the beginning**. This is particularly problematic when the product has not yet taken off and sales are too low to recoup losses. For example, in spite of a frozen-banana producer's huge success, he would change a lot of his past actions if he could. A huge investment in freezers and slicing/cutting equipment in the pilot phase caused him to lose money: he overinvested – before he found out about the market demand for bananas. Another upgrader said:

> *Early in my business, I took a risky decision that didn't pay off. I invested in coolers too early instead of just saving the money and reinvesting in raw materials.* (Upgraded Food Processor, Davao, March 2012)

Enterprise and employees. A common initial goal among upgraders and non-upgraders has been to provide customers with **local delicacies or local versions of foreign favorites**. Changes can be made in the products offered – according to customer demand.

> *My friends convinced me to proceed with my business idea, my passion and expertise, which is to create gourmet, all-natural 'past foods' or foods that used to be eaten in the Philippines in the past. Slicing vegetables all day with my maid in my 2.5m² kitchen, my first product is 'Bell Chara' – bell peppers filled with* atchara *– a sweet, vinegary side dish similar to chutney. I obtained my idea from my own research where I found out that the Spanish elite who lived in the Philippines during the colonization period used to eat* atchara *from bell peppers to help remove the cloying taste of food during meals.* (Upgraded Food Processor, Davao, July 2012)

> *My parents used to be meat distributors. Whatever meat was left unsold, I processed into different kinds of Filipino meat delicacies. After a year, I finally hit the right formulation of ingredients [that many customers liked]. I'm proud to say that we are the first ones to flavour puffed pork skin with garlic and make it hot or spicy to cater to local tastes.* (Upgraded Food Processor, Davao, April 2012)

> *I used to only sell barbecue meats using Filipino marinade. The addition of [a] hotdog and rice combo was taken up after suggestions from my frequent customers.* (Non-upgraded Food Processor, Bukidnon, June 2012)

Starting with local tastes at the local level seems to be an ideal way to secure a consumer base, while pushing market boundaries later increases upgrading potential. Indeed, as Figure 8 shows, food processing upgraders

had largely supplied local markets at start-up, but by 2012 had branched out into the international arena.

Another strategy used by upgraders is early **product-portfolio diversification**. One cheese producer who began making *chevre* (soft goat cheese) in 2008 had 22 varieties of marketable cheeses by the time of the interview. Her line-up includes Blue *Pepato* with green peppercorns and Blush (a cheese aged two months that is dipped in the red Bignay wine made from local berries). *Feta Tricolor* (with chili and rosemary) has a unique herb blend and *Queso Rustico* is similar to Spanish *Manchego*. She has developed cheese with dried mangos and pineapple bits but also offers the usual aged cheeses with blue or white mould, or both. Although most upgraders diversify production in order to have several products under the brand name, some do it to offer alternatives to consumers with different preferences.

> *I know that not everybody wants to eat candies and for this reason I decided to branch out into all other types of products. Now I produce all sorts of candies, jams, jellies and* yema *from all sorts of fruits:* durian, marang, langka*, guava,* mangosteen*, depending on the season. These are all products of my testing. Right now I am producing banana strings and testing them for hardening. I am also currently looking at ways to extend the shelf life of my jellies.* (Upgraded Food Processor, Davao, April 2012)

> *I am very flexible to requests for new products. I used to only produce dried shredded fish, chicken, pork and beef – to compete with imported Chinese products. I started drying jackfruit and pineapple due to high demand. I also dried vegetables (okra, eggplant, squash, beans). Right now I am experimenting on making dried tomatoes and making* ube *powder.* (Upgraded Food Processor, Davao, April 2012)

In terms of employee education, most workers hired by food processing enterprises were primary or secondary school graduates. Despite their low educational levels, they were highly skilled, although they did not necessarily possess the skills required by the enterprise when they arrived. Most often, employees were trained on-site by the entrepreneur, and in some cases, were sent to training programmes to increase their skills.

One interesting observation is that successful entrepreneurs promote equal opportunity at the workplace, provide benefits and advocate women's empowerment. Admittedly, many do this to retain employees by instilling a sense of ownership and belonging among their workers, which they argue will encourage employees to work to make the business grow.

For example, a producer of dried-fish-in-olive-oil hires only mothers (or women with children) older than 35 who have experienced problems working because of their age and family situation. The entrepreneur says she prefers to hire women because of the fine movements necessary for preparing and deboning small fish.[12] Being a mother herself, she has the same "thinking wavelength" as her employees, she says. She believes a mother's tasks should not compete with her working at a business. She considers her women employees as family, covers all their mandatory benefits, even absorbing social security and health insurance payments by SSS and PhilHealth, respectively.

Another upgrader stated:

> *To give back to the community, I take in employees who are handicapped who otherwise would not have a chance to find a job [in the Philippine labour market]. I have an employee who is blind in one eye and another one who is deaf. Although it is not my responsibility anymore, I pay for their health check-ups and examinations. I treat them with respect so that they acquire self-worth.* (Upgraded Food Processor, Davao, April 2012)

Many entrepreneurs try to involve their workers in the enterprise's planning and evolution.

> *My employees still need to be motivated to work. However, when it comes to ideas, they actually suggest new ways of organizing production and new processes. I listen to them. I involve the staff to do projections for the coming year.* (Upgraded Food Processor, Davao, April 2012)

Personal and professional networks. Three factors embedded in the enterprise level were found to be common among upgraders – and largely lacking among non-upgraders. The first one is **engagement in productive professional networks** through memberships in associations, building strong relations with buyers, suppliers and competitors, and gathering support from family and friends for all aspects of the business, including finance.

An entrepreneur producing candies from the *durian* fruit credits her membership in the Food Processors Association of Davao (FPAD) for her success. Through FPAD, she says, she was able to informally exchange experiences and ideas with women entrepreneurs like herself. Joining FPAD broadened her professional and personal networks. Although technically

12 She said she tried to hire a gay person but soon afterwards had to fire him because he didn't develop the "soft touch".

competitors, she explained, they still help each other as needed. For example, one entrepreneur can recommend her to other buyers who might want to sample her products and another might augment her output when she can't fulfil the demand. Belonging to an organization also helps entrepreneurs with documentation and accreditation:

> *With regard to networks, the FPAD was a big help, especially in the first few years. We helped each other, reminded each other of seminars, introduced each other to networks and helped spread the word about our products.* (Upgraded Food Processor, Davao, April 2012)

Among the three sectors covered in the study, food processors were the ones who emphasized the importance of **building a strong relationship with the (raw materials) supplier as well as the buyers.** This is because the nature of their products makes the timely delivery of high quality raw materials of paramount importance.

A producer of fish in oil intentionally established stable business relationships with suppliers of fish and olive oil in order to have a certain amount of freedom to dictate the quality of the raw materials. Her long-term relationship with the fish supplier has allowed her to dictate the salt quantity of the fish and how it should be cut for delivery. Another entrepreneur enjoys such a good relationship with her supplier that when the tomatoes are not as red as requested, she can sometimes get redder tomatoes. Stable suppliers also ensure timely delivery and help avoid production backlogs, which are equally important. A dried-fruit producer said that she has a handful of suppliers of fruits and vegetables that she rotates based on availability. Her biggest problem – like other entrepreneurs in the sector – is the inconsistent quality of inputs (in her case, fruits and vegetables), which she mitigates through good working relationships with suppliers who know her standards. Interviews revealed that communicating one's preferences to the supplier is as important as receiving feedback. An entrepreneur said:

> *I make it a point to listen to the comments of friends on how I can improve my products. I tell them to feel free to tell me their critiques so I can improve or work on the issue immediately.* (Upgraded Food Processor, Davao, April 2012)

Most entrepreneurs say that personal networks such as family members and friends who provided financial support were instrumental in upgrading. One cheese producer said that her veterinarian husband decided to help augment her goat milk supply by crossbreeding imported Boer and Anglo-

Nubian goats to produce the local *Bo-Ang* goats that produce lots of milk. She called her three children her "guinea pigs" because she always asked them to taste and rate the new cheeses. Another respondent said:

> *I thank my friends and personal networks for the success of my business. Without their referrals, text messages to other friends and word of mouth, the business would not be as successful as it is today.* (Upgraded Food Processor, Davao, April 2012)

> *I am very meticulous in recording sales, purchases, admin costs. I even report developments in the business to my family informally, even if it is not necessary. I involve my children so that when the company gets bigger they could also be active in it.* (Upgraded Food Processor, Davao, April 2012)

> *My family in fact was very helpful when I entered this business: they supported me in all the ways they can. My American business partners and I have an open communication system. They tell me – dictate me – which products I should manufacture this season and at which quality level. The Food Processors Association of Davao provided me with other professional and personal networks. Like, for example, when I need raw materials, one of them can provide me with mangos,* durian *or bananas. Or if I cannot meet an order, I can get products from them to supply my quota. We help each other a lot in this sense, and in sharing our experiences in our business and in dealings with people. Anyways, since we are in the same sector, we tend to deal with the same people.* (Upgraded Food Processor, Davao, April 2012)

None of the 38 non-upgraders in food processing belonged to trade associations or food processors' organizations – unlike the upgraders. Furthermore, their relationships with suppliers are weak: they change them according to the price. They gauge "customer feedback" through customer complaints and do not solicit critiques. They do, however, willingly replace products (for free) for unsatisfied customers. Many non-upgraders credited the support of their family regarding the business, mostly for the business idea, financial support at start-up or as unpaid labour.

Business environment. Discussing the business environment with respondents from the food processing sector was rather tricky. Two major themes emerged in interviews. Entrepreneurs said the government had made their cities havens for entrepreneurship (through the provision of electricity and water, and reducing business red tape) and enumerated the **benefits of working with the government.** These entrepreneurs understood why the government has to be strict with regulations for food processors. They had registered their businesses at start-up.

> *When the Department of Trade and Industry call me up to ask if they can use my* durian *farm-to-processing set-up as a model for their* Lakbay Aral *(Travel and Learn) programme for university students I never say no. I think it is an opportunity to be on the good side of the government, to be known to customers and to sell to the visiting students. The business environment of Davao is actually helpful. I understand that the Bureau of Food has to be strict otherwise their own products will be affected. We have to go through business permits and taxes but in the end, we benefit from them. The relationship with the government is a relationship that you keep on working on. I accommodate DOST requests for training people once a month but the DTI also accommodates my requests for training in marketing.* (Upgraded Food Processor, Davao, April 2012)

> *Instead of hiding, it is important to have an open relationship with the relevant government offices if you are an entrepreneur. It actually will help you become more competitive by levelling you up! Sometimes they provide you with machineries or train you, help you participate in trade fairs where your product gets known.* (Upgraded Food Processor, Davao April 2012)

> *The current business environment has helped my company and the food processing sector in general. To buyers, you can show your Bureau of Food and Drugs licence and people will know that you have a product of standard quality. The current food laws actually help me improve my business. The free seminars and trainings I attended at the Department of Science and Technology (DOST) really helped. They go beyond what you need to learn.* (Upgraded Food Processor, Davao, April 2012)

However, many upgraders also lamented the petty corruption of inspectors of local government units, which hinders them from further upgrading and slows their growth.

> *There is this issue I had with the city treasurer's office regarding my weighing scales. My mother-in-law, who was responsible for the fresh* durian *fruit stand, had her weighing scales registered but I didn't know that I had to register my weighing scale for processing fruits as well. When the inspector arrived, I was charged with a fine of PHP 76,000.*[13] *I argued that I use it for weighing ingredients in recipes and not for public selling. I approached the treasurer's office for a meeting to explain my case and got the fine reduced to PHP 26,000.*[14] *I still needed to ask the Davao City Chamber of Commerce and Industry (DCCCI) to help me with payments and only after three meetings with DCCCI and the city treasurer's office*

13 Around EUR 1407 at 19 Oct. 2012 exchange rates.

14 Around EUR 481 at 19 Oct. 2012 exchange rates.

> *did I get the fine reduced to PHP 450.*[15] *I immediately called my mother-in-law, who agreed to pay the amount in order to settle the issue (before the inspectors changed their minds).* (Upgraded Food Processor, Davao, April 2012)

A producer of dried mangos lamented the deep-rooted corruption in the Customs Office regarding every container of dried mangos. She said when she doesn't pay a bribe, it takes a long time to process documents and allow her to ship, and the officials give her a hard time. If she pays a bribe, it takes just as long but the customs officials are not difficult. Corruption is so ingrained that a change in government did not solve her problem:

> *The new custom official that came with the new government called me to his office and directly asked me how much I used to give the outgoing official. Since he didn't seem to have an idea, I cut the bribe in half and he accepted it. Now I only pay PHP 500*[16] *to the customs officer, PHP 1200*[17] *for the quarantine officer and PHP 600*[18] *for the inspector – just to get my goods shipped.* (Upgraded Food Processor, Davao, April 2012)

A manufacturer of banana products thinks that you have to know the right people and you have to know with whom you need to talk to get what you want – whether from the government or clients. He considers bribery to be normal in business:

> *I don't think any business could get away without bribing. The government officials demand – and ask upfront – for such actions from the private sector.* (Upgraded Food Processor, Davao, April 2012)

A dried-fruits producer agrees:

> *Once I had a problem with the city treasurer's office regarding my weighing scale for food processing. They charged me 40 to 50 thousand pesos*[19] *because my scales were not registered in their office. Before I could react, they themselves offered me the stickers [for the weighing scales, as proof of registration] in exchange for a few thousand pesos.* (Upgraded Food Processor, Davao, April 2012)

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15 Around EUR 8.30 at 19 Oct. 2012 exchange rates.

16 Around EUR 9.20 at 19 Oct. 2012 exchange rates.

17 Around EUR 22.20 at 19 Oct. 2012 exchange rates.

18 Around EUR 11.10 at 19 Oct. 2012 exchange rates.

19 Between EUR 740 and EUR 945 at 19 Oct. 2012 exchange rates.

Several successful entrepreneurs had not yet resorted to bribes and would rather not. Others refuse to bribe, but must. One manufacturer said that her accountant advised her to give PHP 500 to the business registration office so that *"the contact person there will fix all documentation and send the finished papers to us"*. To an entrepreneur with three kids and a business to run, this sounds like a reasonable arrangement.

Another entrepreneur said that she resorted to bribing in order to secure a business permit: as an entrepreneur, she has to make do with what is in front of her. Even if she gives authorities the proper documents, they are still corrupt and will look for errors in the documentation; strings are always attached to transactions and the system (referring to both entrepreneurs and government authorities) is used to it. Corruption has become normal:

> *The fire department made a routine check of my establishment and found everything in order except for the expired fire extinguisher in the kitchen. I had to buy the over-priced fire extinguisher from the fire department; otherwise they would not sign my business permit. I cannot buy it from a cheaper store. The same thing happened with the authorities from city treasurer's office who checked my weighing scales in the kitchen. They said that the weighing scales should be registered (to hedge against fraudulent weighing practices) and since I had not registered them, I have to pay a fine of something like tens of thousands of pesos. I argued that the weighing scales were for internal use only, to check the weight of raw-ingredient deliveries and to have uniform weights of meat/flour/sugar, etc. that the recipes call for. I am not using the weighing scales for selling produce – unlike the vendors in the market.* (Upgraded Food Processor, Davao, April 2012)

At the time of the interview, she still had to negotiate the issue.

Non-upgraders in the food processing sector believe that the regulatory elements of the business environment constrain rather than facilitate business. According to the non-upgraders, some laws and regulations are simply too irrelevant and inconvenient to comply with: health check-ups for proprietors, local government sanitation requirements and location permits require too much documentation to process – documentation that non-upgraders, particularly the informal ones, don't even have. Non-upgraders hold that it is not only useless to register their businesses but also too expensive.

Summing up

In order to overcome constraints that are specific to the food processing sector, upgraders **invested in the quality of education (and training)** and used their **exposure in lead firms and work experience** to start their businesses. Although only two upgraders (manufacturers of fruits-and-vegetables-based products) had training in food processing that they were able to use in their businesses, the others cited their education as helpful training to run an enterprise. Some upgraders had taken circuitous routes to entrepreneurship – working at non-food-related jobs before deciding to become independent. Nevertheless, they all said that their work experience was an important stepping stone for their subsequent entrepreneurial endeavours for two reasons: there they acquired the ethics and discipline necessary for business and developed professional networks that not only provided future clients but also business resources.

As for **accessing finance**, except for one entrepreneur who had got a bank loan, all upgraders had used personal savings to start their businesses. Non-borrowers were also averse to borrowing from the bank for business continuation. In fact, opening a commercial credit line is not required to start a business in this sector. Entrepreneurs have been able to establish pre-financing or cooperate with "competing" entrepreneurs to top up output. These are creative ways to tap into professional and personal networks in order to substitute missing elements of production.

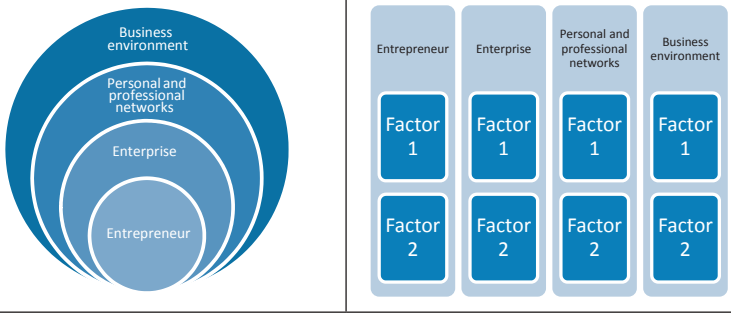
The need for an enterprise in this sector to **engage in productive professional networks** in order to succeed cannot be emphasized enough. Whether for advice, feedback, production augmentation or information about markets and regulations, professional networks have been identified as instrumental in upgraders' success. Particularly for food processors, whose production and products are decided by the quality and timely delivery of raw materials inputs, a strong supplier relationship is critical to success.

5.3.4 Analysis of upgrading dynamics in the food processing sector

This section uses the Onion Model to bring together constraints to upgrading *vis-à-vis* success factors in upgrading and to shed light on the factors that successful entrepreneurs combine to overcome constraints. Upgrading dynamics will also be analysed for the other two sectors.

For ease of presentation, the Onion Model form will be transformed into a boxed chain that better presents the combination of success factors.

Figure 17: Combining success factors (based on the Onion Model)



Source: Author

First, some caveats regarding this model. The constraints to upgrading that are identified below are sector- and time-specific: they only hold true for the food processing sector that was captured in interviews in 2012. These strategies are combined with several others, which were not measured and identified in the study, so that several (or none) of the strategies could be used at each level of investigation. Henceforth, the boxed chain will be used to present entrepreneurs' upgrading strategies.

Food processing upgraders employ combinations of strategies to ensure their business success and increase upgrading potential:

- investing in quality education (including further training),
- getting exposure in lead firms and gaining quality work experience,
- accessing finance through personal or family finance or alternative means, and
- joining useful professional networks.

The model in Figure 18 shows the strategies entrepreneurs combine at each of the four levels of investigation to overcome the six sector-specific upgrading constraints: lack of finance, lack of skilled workers, lack of stable

supply of quality raw-materials, lack of information, corruption and red tape, and low levels (or lack) of technology.

Two of the most commonly cited constraints to upgrading in the sector – lack of information and lack of skilled workers – demonstrate how entrepreneurs successfully combine factors.

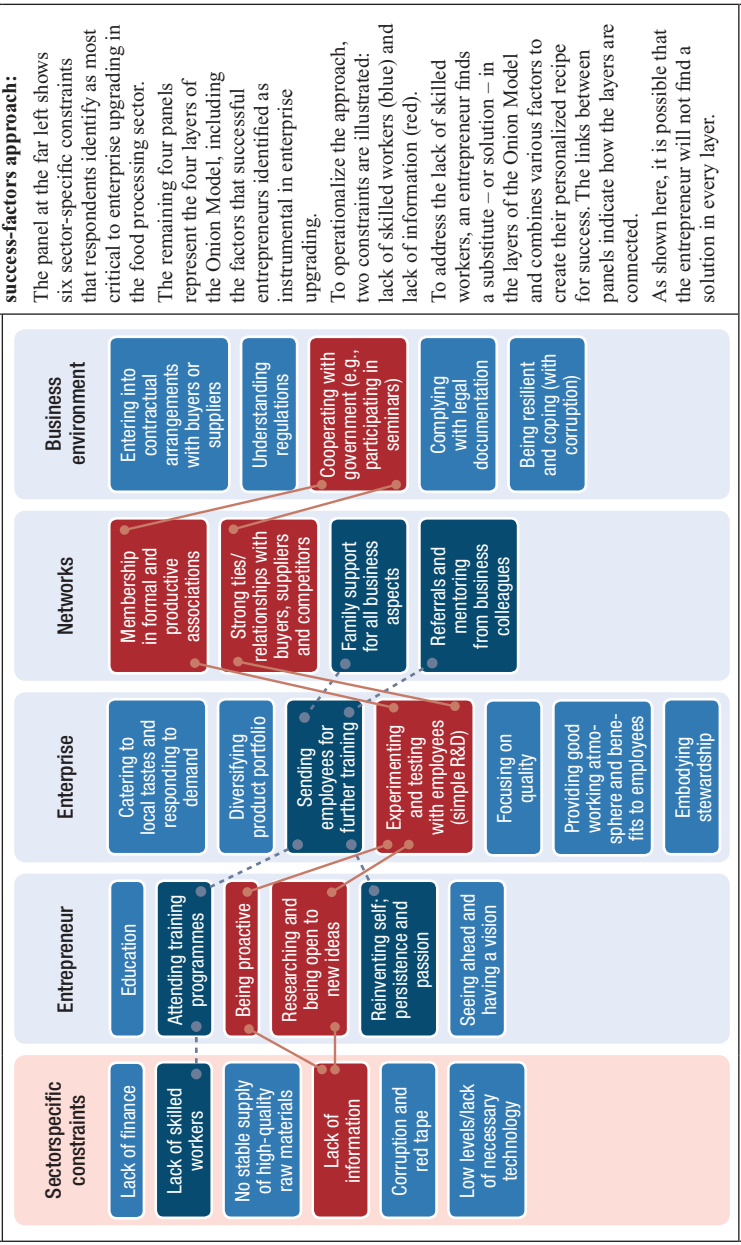
Lack of skilled workers. A problem commonly cited by food processors was the lack of educated workers. Although food processors would have preferred to have better-educated employees, most of their workers were either primary or secondary school graduates. To overcome this constraint, the entrepreneur learns the skills of the trade or participates in training programmes and workshops that must be paid for or are offered for free. Especially when the entrepreneur's education is not directly related to product production and manufacturing – which is usual among upgraders – the necessity and importance of training and "re-inventing" oneself is obvious.

To overcome the lack of worker skills, the entrepreneur can either send employees to paid or free training – depending on the availability of finance and the importance of the skill. Another common strategy for increasing employee skills is to involve workers in operational and technical activities in the firm – from simple R&D, such as product-testing and experimenting, to decision-making and planning.

Personal and professional networks are especially useful for the entrepreneur who must cope with low levels of worker skills. Family can be tapped for unpaid labour until skilled workers are employed, to temporarily replace workers attending training programmes or until the workers' skills have reached acceptable levels, and upgraders can ask business acquaintances for referrals of former employees. Professional (including government) networks can be tapped regarding the various kinds of employee training programmes offered by public and private agencies.

Lack of information. Despite the Philippine government's best attempts to provide up-to-date business-relevant information to entrepreneurs, the dissemination of efficient and timely information remains problematic. DTI regional offices make an effort to support local entrepreneurs with information for running their businesses but most entrepreneurs still lack the necessary information needed to make smart production and marketing decisions.

Figure 18: Combinations of success factors for upgrading in food processing



How to interpret the combining-success-factors approach:

The panel at the far left shows six sector-specific constraints that respondents identify as most critical to enterprise upgrading in the food processing sector.

The remaining four panels represent the four layers of the Onion Model, including the factors that successful entrepreneurs identified as instrumental in enterprise upgrading.

To operationalize the approach, two constraints are illustrated: lack of skilled workers (blue) and lack of information (red).

To address the lack of skilled workers, an entrepreneur finds a substitute – or solution – in the layers of the Onion Model and combines various factors to create their personalized recipe for success. The links between panels indicate how the layers are connected.

As shown here, it is possible that the entrepreneur will not find a solution in every layer.

Source: Author

To overcome the constraint of a lack of information, entrepreneurs tend to draw on strategies at various levels. Instead of passively acquiring information from television or the Internet, successful entrepreneurs take a proactive approach to gathering information. They phone business acquaintances, buy brochures, subscribe to magazines, travel outside the country, attend food fairs and participate in seminars in order to gather information to improve their businesses. The proactive search for information is so ingrained in all of the upgraders that they unconsciously accumulate information in their daily activities.

At the enterprise level, entrepreneurs conduct simple tests and experiments with their employees to determine such things as shelf lives, sugar and salt content, storability and acidity – where no research is available. They follow the same procedure to develop new products for their product portfolios. Entrepreneurs work with their employees to create new products in the most cost-efficient way, because of the simplicity of their in-house technologies. Notwithstanding the simplicity of the methods, the test results can help the business.

Professional networks are probably the most important substitutes for sources of information when official and formal sources are lacking. Upgraded entrepreneurs have cited the critical role of membership in formal (productive) associations for the degree and rate of information acquisition. Informal information from other members about best practices and experiences (particularly in dealing with government agencies/agents) is a tremendous help to entrepreneurs. Without this information, the entrepreneurs would incur costs and efficiency backlogs. The same holds true for information about buyers, suppliers and competitors. Data about supply availability, current market prices and alternative sources of raw materials can be gathered easily and quickly from professional networks.

To cope with the lack of information in the business environment, upgraded entrepreneurs attempt to forge healthy relationships with local government offices. Being visible and cooperative with trade agencies and chambers of commerce and industry means that they will be the first to be informed by the government of new developments and policies. They will also be the first to receive new brochures or invitations to free government-funded trainings.

These examples from the Onion Model illustrate how upgraded entrepreneurs combine success factors to circumvent constraints. In this process, entrepreneurs **substitute** strategic elements that are lacking by,

for example, proactively searching for data that is not publicly available. Entrepreneurs also **complement** two factors to reinforce strategies, for example, by using information from association members and information from raw materials suppliers.

5.4 Upgrading trajectories for footwear and leather enterprises

This section focuses on the Philippine footwear and leather sector. Section 5.4.1 explains its historical importance to the national economy and then discusses the circuitous value chain that creates serious challenges for the sector. Section 5.4.2 presents the characteristics of the sample, including financial capitalization, markets supplied and growth rates. The success factors and constraints to upgrading are ranked in 5.4.3 and the upgrading dynamics of successful footwear and leather enterprises are analysed in 5.4.4.

5.4.1 The Philippine footwear and leather sector

The Philippine footwear and leather sector boomed between the 1970s and the 1990s before several major setbacks caused its epic decline. The departure of locally based international firms for cheaper labour markets elsewhere in Asia, increased competition from Chinese manufacturers, lower trade barriers in WTO agreements and a lack of local technological progress in shoemaking made the mostly uncompetitive sector totally unprepared for internationalization.

History of a downfall

The Philippine footwear and leather industry, which dates from the late 1880s, has always been centred on the banks of the Marikina River, northeast of Metro Manila (IBON Databank 1986). In the late 1970s, transnational sports-shoe companies, such as Puma, Adidas, Nike and Sketchers, took advantage of cheap labour in the Philippines and engaged with local partners in large-scale subcontracting for export (Brookes / Madden 1994). Mostly established in Metro Manila or the Export Processing Zones (EPZ), they were never functionally integrated into the local shoe-manufacturing

system (Scott 2005). In addition, high tariff barriers in the national policy of import substitution protected local shoe manufacturers. At its pinnacle, the Philippines exported snakeskin shoes to the United States and sports shoes to Germany, France, the UK and the US. Filipino manufacturers dominated the local market and prospered.

By the 1980s, the Philippine government had largely abandoned import substitution, and trade liberalization accelerated through the 1990s. After joining the WTO in 1995, cheap goods from China, Korea, Taiwan and other countries began to enter the Philippines (Esconde 2005). The nominal rate of 17.6 per cent for leather, rubber and footwear in 1996 was slashed to 7.7 per cent in 2000, resulting in a huge increase in imports of foreign shoes (ibid.). From 1997 to 1999, the country imported an average of 38.5 million pairs of shoes; by 2003, the average volume of shoe imports had increased to 60.2 million pairs, more than half of which came from China (Cruz 2006). Under Executive Order 334 (EO 334) of 2001, the tariff schedule for the shoe industry was pegged at 15 per cent. It dropped to 10 per cent in 2002, 7 per cent in 2003 and 5 per cent in 2004 (Reyes-Cantos 2003).

Although then-President Macapagal-Arroyo issued an Executive Order superseding EO 334 that keeps tariff rates at 10 per cent, it did not help the footwear industry because importers resorted to smuggling in order to illegally bring shoes into the country. According to Andaquig (2005), smugglers frequently practise undervaluation and "overquantity". The former occurs when the price declared for a pair of shoes is much lower than the actual price so as to considerably reduce its tariff; the latter results from an importer declaring a smaller number of items than were actually imported (ibid.). Between 1997 and 2003, undervaluation and overquantity caused the Philippines to experience a 213 per cent increase in shoe imports, with a corresponding 71 per cent reduction of import value (National Statistics Office 2004).

From the late 1990s to the early 2000s, transnational sports-shoe manufacturers gradually left the Philippines for the cheaper labour in China and especially, in Vietnam (Donaghu / Barff 1990; Barff / Austen 1993). This resulted in a rapid 53.5 per cent decline in shoe exports – from USD 86.12 million in 1999 to USD 45.96 million in 2003 (National Statistics Office 2004). Industrial tariffs for footwear products are currently targeted for further liberalization (reduction) under the Non-Agricultural Market Access (NAMA), which along with the rampant smuggling, threatens to

eliminate the Philippine footwear and leather industry. The Marikina City Treasurer's Office describes the decline of the industry through the number of registered shoe manufacturers in the city: 513 in 1994, 248 in 2004 and just 186 in September 2005 (Morato 2005).

The footwear industry value and commodity chain

The Philippine footwear industry includes all the companies that manufacture or produce apparel for the feet. These include sports shoes (30 per cent of industry production), dress and casual shoes (30 per cent), and sandals and slippers (40 per cent). According to the Technical Report about the Pearl 2 Project (Sutherland et al. 2005), there are 17 major raw materials inputs[20] to the footwear production process in the Philippines, only six of which can be *partially* sourced locally.[21] All the others are fully imported. Most raw materials come from Hong Kong and China, and the rest from Thailand, Malaysia and Vietnam. Raw materials account for almost 60 per cent of total production costs – more than double the cost of labour, at 22 per cent (ibid).

Figure 19 illustrates the value chain for the Philippine footwear and leather industry, starting with the raw materials supply chain, the production/assembly chain and the market chain. Raw materials are produced locally and also imported. Locally produced materials are sourced directly from sellers whereas imported inputs are either ordered directly or through import retraders in the Philippines. The Pearl 2 study identified some common problems in importing raw materials: unavailability, high prices, late arrival and poor quality (ibid.). The unavailability of raw materials is the most commonly reported disruptor of production schedules, that is, the most common cause of delivery delays.

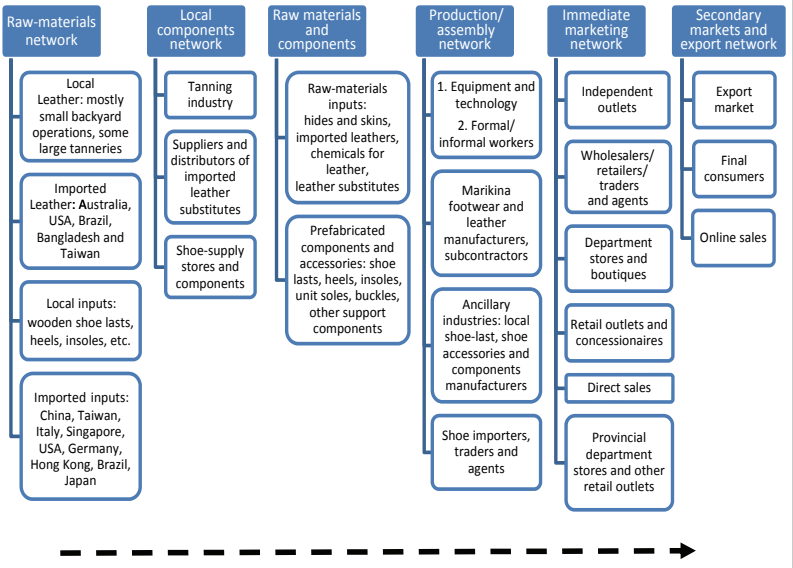
When raw materials are available, the basic manufacturing process is the same for sports shoes, slippers and sandals, with dress and casual shoes including the additional operation of attaching a heel. Production in the micro- and small-firm segment is almost entirely handiwork, typical of the Philippine cottage industry system (Satake 2003). A division of labour is

20 Upper (synthetic and tanned leather), upper lining (synthetic and tanned leather), adhesives, threads, buckles, heels, insole (leather board), nails, cotton tape, welt foam, outsole, leather dressing, shoelaces, shanks, boxes and labels, and chemicals and adhesives.

21 Tanned leather, foam, outsole, leather dressing, shoelaces, boxes and labels.

practised: women shoe workers (*mag-aareglos*) dominate pattern-making, sizing, cutting and sewing because the tasks require dexterity, while male shoe workers (*sapateros*) dominate the shoe assembly that requires tools and equipment and requires physical strength (Cruz 2006).

Figure 19: Value chain of the Philippine footwear and leather industry



Source: Based on Cruz (2005)

According to a survey from 2005 (Sutherland et al. 2005) around 80 per cent of shoe manufacturers use manually operated machines, 36.7 per cent use semi-mechanized machines and only 16.7 per cent use fully automated machines. Machines are not regularly maintained; most maintenance is corrective rather than preventive.

The current production system is 'made to order' except for designs that are predictably in demand. During the peak season of May, October and November, footwear and leather enterprises observe a 60-hour work week – 10 hours of work each day, from Monday to Saturday. Aside from daily wage labourers and contract workers, formal and informal subcontracting is

common, as is payment by the piece[22] (Cruz 2006). Although most micro, small and medium-sized footwear manufacturers have no formalised hiring procedures, skilled workers are preferred. On-the-job training is conducted, along with ongoing training needed for the creation of different footwear designs. But only those in the supervisory and management level undergo formal training programmes and seminars (Sutherland et al. 2005).

According to Scott (2005), much of the production is carried out on a home-based employment basis in which the mostly female informal workers have substandard conditions and no social protection. However, this resembles conditions in the production areas, which are usually cramped and hot. Workers suffer from toxic adhesives at poorly designed work stations.

Most local footwear production is absorbed by the domestic market – and sold in department stores. Depending on the type of distribution channel, mark-ups range from 5 to 10 per cent (when manufacturers sell directly to wholesalers), 10 to 40 per cent (when output is sold by manufacturers to department stores or boutiques), and 20 to 40 per cent (when output is sold by manufacturers to final consumers). There is a 100 per cent mark-up between wholesalers and department stores and another 100 per cent price increase between department stores and final consumers (Cruz 2006).

Challenges

Needless to say, the industry is performing poorly. But, aside from the importation and smuggling of footwear, do local manufacturers recognize other factors that challenge their success? Apparently, yes, according to the Pearl 2 Project (Sutherland et al. 2005), which shows five factors that entrepreneurs identified as hampering enterprise growth:

- Inability to deliver on time. This is influenced by the unavailability and uncertain delivery of raw material inputs.
- Product competitiveness and unsuitability of product design. Enterprises rarely hire designers; usually the owners create the footwear design, based on research about current trends, updating styles and copying foreign-made shoes.

22 Piece raters are paid between PHP 1 and PHP 80 per piece.

- low-quality raw materials
- untrained work force
- unavailability of capital

The Philippine footwear and leather industry is stymied by huge problems at home and in the international market. The status quo threatens the livelihood and craftsmanship of several thousands of industry workers but protectionist measures would face political resistance and backlash at home and abroad. The only other option is to restructure the footwear industry to rebuild its competitive advantages and expand into new markets. But restructuring requires all parties to make conscious efforts to change habits and practices in the workplace and the wider business environment (Scott 2001).

5.4.2 The sample

This section describes characteristics of the sampling pool and distinguishes between upgraders and non-upgraders in the footwear and leather sector. Empirical evidence suggests there are huge differences between them across a variety of parameters. The following discussions show how difficult it is for sector entrepreneurs just to survive.

Entrepreneur and enterprise characteristics. Table 15 shows the statistic means of the footwear and leather group, as well as results of t-tests of sectorial upgraders and non-upgraders. On average, respondents from the footwear and leather sector were 44.6 years old, had finished the equivalent of 10 years of education and had established their (mostly informal) businesses 4.5 years earlier. Only one in four respondents attended business-related training programmes and seminars and only one-third has worked for another company. Slightly less than half of the respondents had same-sector experience prior to opening their businesses; around one-tenth have bribed government officials to facilitate transactions. One in four respondents had family members in the footwear and leather business; roughly the same numbers belong to trade associations. On average, each entrepreneur has five dependents and one in four respondents actively searches for enterprise-related information. Only one-third of the respondents find business and personal relations helpful for the enterprise.

Means in the footwear and leather sector are misleading because among the three sectors, t-test results show that this group exhibited the largest difference between upgraders and non-upgraders – across all aspects. Aside

from 'entrepreneur age' and 'age of enterprise', all the other variables were significantly different between successful and unsuccessful respondents. For example, in contrast to non-upgraders, upgraders had completed tertiary-level education (14 years), actively attend training programmes and workshops related to their trade, had previously been employees and had had experience in the sector before starting their own businesses. All the families of upgraders were also in business, which explains why most upgraders belong to trade associations and all find professional and personal relations helpful for business. Upgraders have significantly more dependents than non-upgraders and over two-thirds of upgraders actively search for business-related information.

> *I am a member of several trade associations and I consider the information flow and availability of trainings [for members] as the greatest benefit of membership. I try to get information about the latest designs from contemporaries abroad and by regularly attending exhibits and trade fairs. I also have my own small R&D center to help the business conceptualize new designs. I try to get advanced information always – in order to stay ahead of my competitors.* (Upgraded Footwear Manufacturer, Marikina, March 2012)

> *I did not finish my education and for this reason, this is my only job. It was recommended to me to purchase a high-tech machine so that I could cater to all services needed by my customer. However, I would need more capital for that.* (Non-upgraded Footwear Manufacturer, Bukidnon, July 2012)

Interestingly, most upgraders started their businesses formally and only one-third of them must pay transaction-related bribes. On the other hand, all non-upgraders started their businesses informally and almost 80 per cent of them have had to bribe a government official.

The financial capitalization of footwear and leather manufacturers at start-up and in 2012. Table 16 shows the financial capitalizations of respondents from the footwear and leather sector. Compared with food processing entrepreneurs, respondents from this sector seem to make more use of banks when starting a business. Three out of six upgraders financed their start-ups by borrowing from banks and other financial institutions, while over 50 per cent of non-upgraders used their own savings to finance their business start-ups, followed by entrepreneurs who borrowed money from relatives and friends (35 per cent).

Table 15: Descriptive statistics of footwear and leather upgraders versus non-upgraders

Variable	Footwear and leather (ALL) n= 32 observations				Upgraders n= 6 observations				Non-upgraders n= 26 observations			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Entrepreneur characteristics												
Age	44.59	8.71	28	61	43.83	12.35	28	61	44.77	7.97	31	57
Highest level of education (years)	1.8	0.77	1	3	2.83***	0.41	2	3	1.62***	0.64	1	3
Further trainings (1=Yes, 0=No)++	0.25	0.44	0	1	0.83***	0.41	0	1	0.11***	0.32	0	1
Wage-work experience (1=Yes, 0=No)	0.31	0.47	0	1	0.67**	0.52	0	1	0.24**	0.43	0	1
Same-sector experience? (1=Yes, 0=No)	0.44	0.50	0	1	1.0***	0	1	1	0.31***	0.47	0	1
Given a bribe? (1=Yes, 0=No)	0.12	0.33	0	1	0.33*	0.52	0	1	0.77*	0.27	0	1
Was family in business? (1=Yes, 0=No)	0.28	0.46	0	1	1.0***	0	1	1	0.11***	0.32	0	1
Membership in chamber or trade association (1=Yes, 0=No)	0.26	0.44	0	1	0.83***	0.41	0	1	0.12***	0.33	0	1

Table 15 (cont.): Descriptive statistics of footwear and leather upgraders versus non-upgraders												
Variable	**Footwear and leather (ALL) n= 32 observations**				**Upgraders n= 6 observations**				**Non-upgraders n= 26 observations**			
	Mean	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Number of dependents	4.9	3.52	0	20	7.33*	7.42	0	20	4.38*	1.63	2	7
Finds personal relations helpful to business (1=Yes, 0=No)	0.31	0.48	0	1	1.0***	0	1	1	0.15***	0.37	0	1
Finds business relations helpful to business (1=Yes, 0=No)	0.31	0.47	0	1	1.0***	0	1	1	0.15***	0.37	0	1
Actively searches for info (1=Yes, 0=No)	0.25	0.44	0	1	0.67**	0.51	0	1	0.15**	0.37	0	1
Enterprise characteristics												
Age of enterprise (years)	4.28	3.21	1	12	6.0	4.15	1	12	3.89	2.91	1	12
Formally registered at start-up (1= Yes, 0=No)	0.12	0.34	0	1	0.67***	0.52	0	1	0***	0	0	0
Source: Author ++ Participated in business-related training programmes, seminars and workshops in addition to the highest educational level *, **, *** indicate 10%, 5% and 1% significance levels, respectively												

Table 16: Financial capitalization of footwear and leather respondents (at start-up and in 2012)

Time	Upgraders				Non-upgraders			
	Personal savings	Borrowed money from relatives and friends	Borrowed money from banks and other financial institutions	Personal savings and borrowed from banks	Personal savings	Borrowed money from relatives and friends	Borrowed money from banks and other financial institutions	Personal savings and borrowed from banks
Start-up	1	1	3	1	14	9	2	1
At the time of interview	3	0	0	3	21	3	1	1

Source: Author

At the time of the interview, upgraders in the footwear and leather sector were divided in terms of types of capitalization. Half the respondents used personal savings while the other half used their savings to augment loans from banks/non-banks to run the business. One respondent said:

> *I use my savings and apply for a credit line every now and then to finance my production. In the beginning, I just used my savings for capitalization.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

> *In the beginning I used to borrow from non-banks to capitalize my business but now I rely on revolving my income from business as a means of financial capitalization.* (Upgraded Footwear and Leather Manufacturer, Marikina March 2012)

Around 80 per cent of non-upgraders in the sample used personal savings to continue their businesses. Only three non-upgraded respondents from the footwear and leather sector borrowed money from relatives and friends, one respondent took credit from banks/non-banks, and one respondent used a combination of both. The sentiment among non-upgraders is that they would like more credit, but they experience difficulties in accessing credit

because of their informality and lack of proper documentation, or because banks perceive them as 'risky borrowers'.

> *I know I need additional capital for further investment and to have space for my products. I want to improve my business, but I cannot get [help] through credit institutions.* (Non-upgraded Footwear and Leather Manufacturer, Bukidnon, July 2012)

Markets supplied at start-up and at the time of the interview. Like the food processing sector, most footwear and leather manufacturers had catered to local markets at start-up. Of the six upgraders, four were supplying local markets and two were supplying both local and regional markets in 2012. All 26 non-upgraders were supplying local markets.

In 2012, all of the upgraders had 'scaled up', meaning that they had expanded into non-local markets. One manufacturer supplies not only local, regional and national markets but also international buyers with shoe and leather products. Four of six respondents supplied national markets in 2012, while one had begun regional distribution. The upgraded shoe manufacturers have increasingly relied on the Internet for advertising or sales.

"We have gained greater markets in Visayas and Mindanao." (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

"Because of e-commerce/Internet marketing, our market is growing." (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

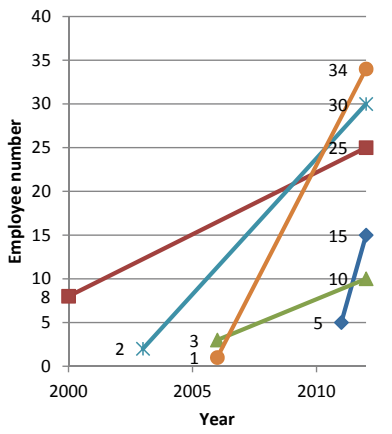
Illustrating how difficult it has been to survive – and upgrade – in the sector, only one of 26 non-upgraders had managed to expand to distribute their leather products regionally. The rest supplied only local markets.

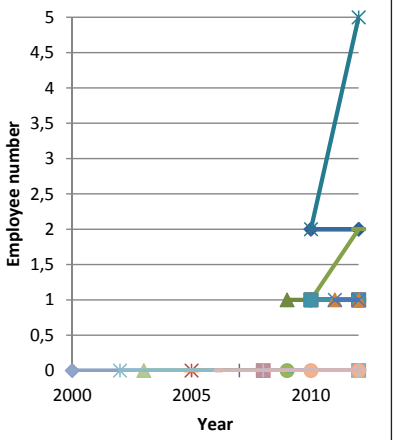
Enterprise growth trajectories. Figure 20 shows the enterprise growth structures via employee numbers for upgraders and non-upgraders in the footwear and leather sector.

Most non-upgraders barely managed to increase firm size and were sole proprietorships or informal own-account workers from start-up until 2012. Only two of the enterprises upgraded by increasing employee numbers – at the 5-person micro-level definition adapted for this study.

The enterprise growth trajectories illustrated above are supported by the values calculated for absolute and compounded annual growth rates for respondents in the sector.

Figure 20: Enterprise growth trajectories based on employee numbers of upgraders and non-upgraders in footwear and leather





Upgraders | *Non-upgraders*

Source: Author

Absolute and Compounded Annual Growth Rates (CAGR). Table 17 shows the absolute and average annual growth rates for upgraders and non-upgraders in the footwear and leather sector based on employee size. Median absolute growth values of upgraders and non-upgraders throughout the life of the business (up to 2012) were calculated at 770 and 10 per cent, respectively. The enormous advantage of upgraders over non-upgraders is also shown in average annual growth rates at 401 per cent per year for upgraders and just 5 per cent per year for non-upgraders.

Note that among the non-upgraders in the footwear and leather sector, the minimum absolute and compounded annual growth rate was zero. Table 18 shows the types of innovation attempted by upgraders and non-upgraders in the footwear and leather sector. T-tests show that across all innovation categories, the innovation activities of these two groups of entrepreneurs significantly varied. Whereas sector upgraders innovated by creating new products, making production and business operations more efficient,

Table 17: Absolute and average growth rates of upgraders and non-upgraders in footwear and leather (based on employee size)

Variable	Upgraders n= 6				Non-upgraders n=26			
	Median	Std Dev	Min	Max	Median	Std Dev	Min	Max
Absolute growth (%)	770	908	116	2500	10	32	0	150
CAGR (%)	401	567	12	1250	5	16	0	75

Source: Author

Table 18: Types of innovation of upgraders and non-upgraders in footwear and leather

Variable	Upgraders n= 6				Non-upgraders n=26			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Types of innovation								
Product	1***	0	0	1	0.23***	0.43	0	1
Process	0.83**	0.41	0	1	0.20**	0.40	0	1
Ways	0.83***	0.41	0	1	0.00***	0	0	0
Marketing	0.67***	0.52	0	1	0.04***	0.20	0	1
New market	0.67**	0.52	0	1	0.15**	0.37	0	1

Source: Author

*, **, *** indicate 10%, 5% and 1% significance level, respectively

implementing new marketing strategies and finding new markets, non-upgraders scored significantly worse in all these innovations.

The findings underscore earlier t-test results that found that upgraders and non-upgraders from the footwear and leather sector exhibited the largest significant differences across all variables. Apparently, innovation activities are also critical differences between the two groups, with upgraders in footwear and leather attempting to innovate across all fronts while non-upgraders lag behind.

Box 2 presents the unique story of an entrepreneur who not only survived but also upgraded his enterprise in the dying Philippine footwear and leather sector. It illustrates the need to be proactive and combine strategies at every level (entrepreneur, enterprise, network and business environment) in order to succeed in a difficult sector. However, as we analyse more thoroughly later, empirical results suggest that in reality, most of the strategies created by upgraders in the footwear and leather sector are based on success factors at the enterprise level.

Box 2: Innovation in footwear and leather: growth in a dying sector

An inspiring story of enterprise upgrading despite tremendously adverse circumstances is that of Joel Gaudia, owner of 'Jeg and Jag', which manufactures all kinds of leather and textile shoes for men, women and children. Following the Philippines' accession to the WTO, a series of regional trade agreements and the expiry of favourable trade agreements with the United States, the country opened itself to cheap Chinese imports (legal and illegal) and competition from more efficient shoe-manufacturing economies. Since the early 1990s, the Philippine shoe industry has slowly declined because of the inability of local traditional shoemakers to compete, partly because of the instability of the raw materials supply. After being devastated by successive typhoons, the Philippine footwear and leather industry is almost history, with many shops closing and entrepreneurs going into other types of business. Joel Gaudia, however, is staying and competing. He researched current styles and technologies, going directly to the competition – China – to observe and learn. He bought the necessary machinery, retrained his workers and, using his new knowledge and technology, started to experiment with materials. By mixing local leather with imported leather and real leather with textiles and synthetics, he was able to create new materials, new designs – and also save money by reducing his volume of leather imports. Using the new technology, his retrained workers translated his ideas into new shoe designs. From formal leather shoes for men and women, he diversified to canvas, casual shoes and childrens' shoes. He created his own website and actively marketed his products on social networking sites. Although it took him 12 years, Joel Gaudia survived and upgraded – in a dying sector.

Source: Author

We have shown the multitude of challenges at the level of the business environment that make it seem impossible for an entrepreneur in the Philippine footwear and leather sector to upgrade. A case in point is the very few upgraders we found in the sector.

Test results and discussions have also shown that in order to upgrade, entrepreneurs must completely overhaul their approach to compensate for elements that are lacking in the business environment. The significant statistical differences between upgraders and non-upgraders across most parameters confirm this. In no other sector were the differences between upgraders and non-upgraders as large as in footwear and leather. Upgraders were found to have more education, training and work experience, and to belong to more productive associations than non-upgraders. Perhaps the most striking difference lies in each group's innovation activities. In the face of stiff competition from foreign shoe manufacturers and the chronic lack of raw materials, local entrepreneurs must invest in product innovation and improve their market-outreach strategies. For this, they need to upgrade their own knowledge (entrepreneur level) as well as their workforce skills (enterprise level). Improving knowledge requires investing in education, not only through training programmes, but also through exchanges with other experts in the field, including competitors (professional network level).

The following section presents how respondents in the footwear and leather sector rank success factors and constraints to upgrading based on their enterprise histories – interpreted through the Onion Model.

5.4.3 The ranking

Entrepreneurs in the footwear and leather sector were asked to reflect on their enterprise histories then the salient factors in their successes and failures were compared with the Onion Model. Five constraints specific to footwear and leather manufacturers are: stiff competition with cheaper imports or second-hand shoes, low levels (or lack) of shoe-manufacturing technology, lack of locally produced raw materials, in particular cow leather, conflicting policies for trade and industrial development, and workers' ignorance of technology.

In-depth interviews with the footwear and leather entrepreneurs revealed the five specific strategies that they use at the enterprise level to survive and

upgrade: investing in in-house R&D and HRD, mechanization, diversifying their product portfolios and accessing new clients and markets (through new marketing strategies).

Table 19 shows the actual responses and total responses for each success factor and constraint to upgrading. The discussions thereafter will substantiate these responses using statements from entrepreneurs to illustrate the situation of Philippine footwear and leather manufacturers.

Table 19: Ranking of success factors and constraints to upgrading in footwear and leather

Success factors	Constraints
Entrepreneur (16 responses)	Entrepreneur (20 responses)
Education-equipped entrepreneur with skills Initiative research designs and technologies Participation in trade fairs and exhibits	Education unrelated to business Lack of new creative ideas (designs) Constantly changing consumer preferences
Professional and personal networks (11 responses)	Business environment (11 responses)
Cooperation with local tanneries Invitations to shoe agents to view collection Membership in manufacturers' associations	Market flooded by cheap showy imports due to trade liberalization Influx of illegally imported or cheap imported shoes Lack of government subsidies to improve local technologies Lack of government support to patronize domestic shoe manufacturers Undervaluation/corruption at customs
Business environment (6 responses)	Networks (1 response)
Local government creates initiatives to revive shoe industry	Personal networks are not helpful Stiff competition with other shoe manufacturers in terms of leather supply and a shrinking consumer base

Table 19 (cont.): Ranking of success factors and constraints to upgrading in footwear and leather	
Success factors	**Constraints**
Enterprise (3 responses)	Enterprise (0 response)
Product-portfolio diversification through innovation Division of labour Finding non-traditional ways to market products Employee training in new production technologies Conducting their own R&D	
Source: Author	

Entrepreneur. Respondents from the footwear and leather sector say that to survive in the industry, one must keep ahead with **new ideas and technologies**, which is possible through research and regular **participation in trade fairs and exhibits**. One upgrader researches the latest trends in designs, colours and cuts in Asia online. He regularly buys American and European shoe catalogues to learn about trends for the coming season, and visits local malls to identify the best-selling shoes and get ideas for displaying his shoes. He also travels abroad to observe production processes, machines and the latest shoe-production technologies. Another respondent said:

> *I try to get information about the latest designs from contemporaries abroad and by attending exhibits. I have to get advanced information – always – in order to stay ahead of my competitiors.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

> *By attending seminars I learned techniques that I would not have learned elsewhere. For example I learned that the first application of the rugby (adhesive) [to the shoe] is absorbed by the sole so now we always put double application: the second application serves as the adhesive so our shoes are more durable than the others.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

All but one of the upgraders in the footwear and leather sector are university graduates, although their courses were unrelated to their current businesses.

Nevertheless, they said that their **education equipped them with other skills** needed for business: networking, strategizing and the realization that to prosper they must keep informed. The entrepreneur who did not graduate had interrupted his education to work in his father's shoe shop:

> *I grew up around shoes but I know that I am still lacking knowledge. So to equip myself I started attending seminars and workshops on shoe production. I am very hands-on with production and I still regularly go to trainings.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

Enterprise and employees. Like the food processing respondents, the footwear and leather group named **product-portfolio diversification** as an important upgrading strategy, which is often accompanied by investing in in-house R&D and innovation. One respondent started by producing men's leather shoes and immediately branched out to casual shoes, school shoes, slippers and sandals in both synthetic and leather materials. He started by mixing pure leather with synthetics, then combined different colours of leather and combined leather with various raw materials. Another respondent stated:

> *From low-end shoes we immediately went to high-end production. For this reason we had to use a higher quality of leather. I had to go to China for research on production processes and trends for this new kind of leather.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

> *I started producing slippers made of a local fabric called* abaca*. Now we produce all kinds of low-mid/high-end ladies' and men's footwear and sneakers. Currently, Jhaz Footwear is best known for its espadrilles, which the company produces for both men and women. These shoes are washable, even the* abaca *parts.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

Diversification and innovation led to the **division of labour**. Though it may sound surprising, division of labour is a concept that arrived rather late to the Philippine footwear industry. According to respondents, shoe production used to involve one man creating a shoe from start to finish. The local shoe industry used traditional low-tech methods of shoe production, relying on Filipino shoemakers' skills and ingenuity. Workers were highly skilled but it was difficult to scale up production volume and speed to respond to changing consumer preferences and the latest fashion trends. Entrepreneurs' visits to China introduced them to the semi-mechanized footwear production that

enables expanded production volume and the division of labour. Now only the production stages that cannot be mechanized are done by hand – across all upgraders. Entrepreneurs also cited the importance of training employees in new production technologies.

Entrepreneurs in the footwear and leather sector have also begun to **embrace non-traditional marketing strategies to access new clients and markets**. Originally, the tag 'Made in Marikina' led to robust sales for manufacturers who sold to retailers and department stores. Now, shoe producers have their own stores for direct sales and their own websites, and answer queries and receive orders via Facebook accounts.

> *Through direct selling we gained new markets. I now supply footwear to a well-known direct selling businesses.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

> *We have embraced social-networking sites by creating our own Facebook account. We supply to stores but also have our own store here for direct selling.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

All interviewed upgraders tend to do their own **simple R&D in the firm**, claiming that that is crucial for economizing on costs, discovering new products and staying ahead of the competition. One manufacturer who takes pride in the fact that his footwear and leather products are 100 per cent handmade in the Philippines has a small R&D center in his production area. He said he wants to be known for innovation not imitation. He tests raw materials and products with his employees. Another upgrader developed her version of imported leather for school and formal shoes, thereby increasing her profits.

Personal and professional networks. Upgraded respondents from the footwear and leather sector cited three of the most important factors that facilitate business growth at the networks level: cooperating closely with local tanneries, inviting shoe agents to view products, and joining manufacturers' associations.

Respondents said that that nearly 75 per cent of their manufacturing costs come from sourcing and processing raw materials such as leather hides that they have to import (at higher costs) because local tanneries are not sufficiently developed to meet demand. Thus, **close cooperation with local**

tanneries is necessary so that the limited local supply will be channelled to them – instead of the competition.

Despite the expense, entrepreneurs also said that it is important to **invite shoe agents** to view their products. The entrepreneur foots the direct and indirect costs – including social activities, giveaways and samples. Shoe agents are very important because they act as informants and middlemen between shoe manufacturers and buyers, both locally and internationally. Displaying their products gives entrepreneurs the opportunity to explain the quality of the production process and the outstanding features of the finished shoes. Personal contact with shoe agents also creates good relationships for subsequent transactions. Respondents said that the cost of inviting agents is recouped by new orders.

According to respondents, to upgrade it is necessary to **belong to a footwear and leather manufacturers' association**. Members not only learn about sector developments but also increase their opportunities to attend exhibits abroad. The Philippine footwear and leather sector has evolved so that memberships equate with privileges, and non-members (or members of rival associations) tend to be excluded. According to one upgrader:

> *I am a member of PhilExport and I credit my membership with providing me with updates of fashion trends here and abroad as well as the opportunity to participate in bazaars abroad.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

> *I am a member of several trade associations and I consider the information and availability of trainings as the greatest benefit of membership. I try to get information about the latest designs from contemporaries here and abroad and by attending exhibits.* (Upgraded Footwear and Leather Manufacturer, Marikina, March 2012)

Business environment. Of the study's three sectors, the respondents from the footwear and leather sector were the least happy with the business environment in the Philippines. Their discontent results from government decisions about trade that caused the once-flourishing Philippine footwear industry to decline. Respondents cited four factors at the level of the business environment that hinder enterprise upgrading in the Philippines: the unimpeded influx of legal and illegal shoe imports, undervaluation at customs, WTO agreements and lack of footwear-manufacturing technology. These are the same reasons causing the downward spiral of the entire Philippine footwear industry.

- *The first constraint to upgrading* is the influx of legal and illegal shoe imports – real labels or label imitations from China, Korea and Taiwan. Currently, 80 per cent of the Philippine shoe market is dominated by imported shoes and leather products from China, leaving Filipino shoemakers to compete for just 20 per cent of the market.
- *Second*, the massive influx of foreign-made shoes in the Philippines is directly related to the gross undervaluation of imported footwear at customs. Shoes are routinely undervalued when the seller and the importer use the agreed-upon transaction value (instead of the actual cost of materials or the price of the product on the local market) as a means of customs valuation. Many corrupt sellers and buyers use this method to save on import duties, bribe the customs officer to undervalue their stocks – and then sell the products at normal prices in the market.
- *Third,* shoe imports first began to swamp the market in the 1990s then inundated it after the country joined the WTO in 1995. Although footwear was not originally included in the General Agreements on Tariffs and Trade (GATT), the Philippines forged ahead, liberalizing the footwear industry under the Tariff Reform Program. The government intended to promote the booming Philippine footwear industry abroad, and support it through an export-oriented policy. However, the footwear industry never became competitive and was not able to earn its fair share of the international footwear market.
- *Fourth*, the local shoe technology still lags far behind its foreign competitors. Only some entrepreneurs were able to afford to travel to other countries, observe their technology and purchase the latest machines – because there are few government subsidies for acquiring or developing such technologies. Furthermore, once the machines are operational, highly skilled Filipino shoemakers will have to be retrained in the new technique. Problems further upstream include weak government policy and lack of support to develop local tanneries and increase their production capacities. Since they have trouble meeting local demand, shoe manufacturers are forced to import more expensive leather.

Some respondents also described the lack of local and international campaigns by the government to promote Filipino-made shoes. Although the government helped promote and export Marikina-made shoes all over

Asia and as far as New York until the 1980s, these days only selected shoe manufacturers can join a handful of exhibits and shoe caravans each year.

Summing up

Philippine footwear and leather entrepreneurs need solid education and regular training to give them an edge over foreign competitors. Although higher education seems to be called for, there is no university course – except for design – that is directly related to footwear and leather manufacturing. For this reason, entrepreneurs must regularly attend exhibits and fairs not only to augment their skills but also to give them opportunities to network with potential buyers and shoe agents. Competition with foreign shoe manufacturers is stiff, so entrepreneurs must stay abreast of the latest shoe designs, trends, colours and cuts. This requires a constantly proactive search for information. Upgraders say that foreign travel, catalogues, mall visits, news from contemporaries and online research help them acquire business-related information.

Our study shows that successful strategies for upgrading in the footwear and leather sector lie more in exploiting business contacts at the enterprise and (professional) network level than at the other layers of the Onion Model. Specializing in a certain type of shoe is less important than **diversifying the product range,** which requires **conducting simple R&D in the company** and adopting new – usually imported – production technologies that require **retraining the employees**. **Semi-mechanization** implies introducing the division of labour to the original 'one-man-one-shoe' manufacturing mode. Upgraded enterprises have found innovative ways to reach new markets via social-networking sites and online sales.

The Philippines lacks local tanneries that can satisfy the local demand for leather. Competition among footwear manufacturers for cheaper, locally produced leather is stiff so successful enterprises must forge alliances with tanneries to guarantee their stable supply of leather.

In terms of **new markets**, upgraders have developed their strategies to reach new clients and grow their markets. Although it might be too expensive, upgraders have also started inviting local and international shoe agents to their production and exhibit areas to view their products and place orders. Upgraders have also discovered how belonging to footwear and leather manufacturers' associations helps in networking.

The forlorn quality of the business environment creates high entry barriers to entrepreneurs who want to engage in footwear and leather manufacturing in the Philippines. The main barrier to market entry is the stiff competition provided by legal and illegal shoe imports flooding the Philippine market. Undervalued shoe imports that sell cheaply in local markets pose a particular threat to more expensively produced local shoes. The imports create difficulties – not only for start-ups but also for upgraders.

A huge amount of financial capital is needed to start producing footwear commercially since local shoe producers have to purchase imported leather because local tanneries are unable to satisfy local demand. Even if highly skilled shoe producers could create better local versions of the imported shoes, the lack of modern technology in the Philippines means that they could not compete with prices and mass production.

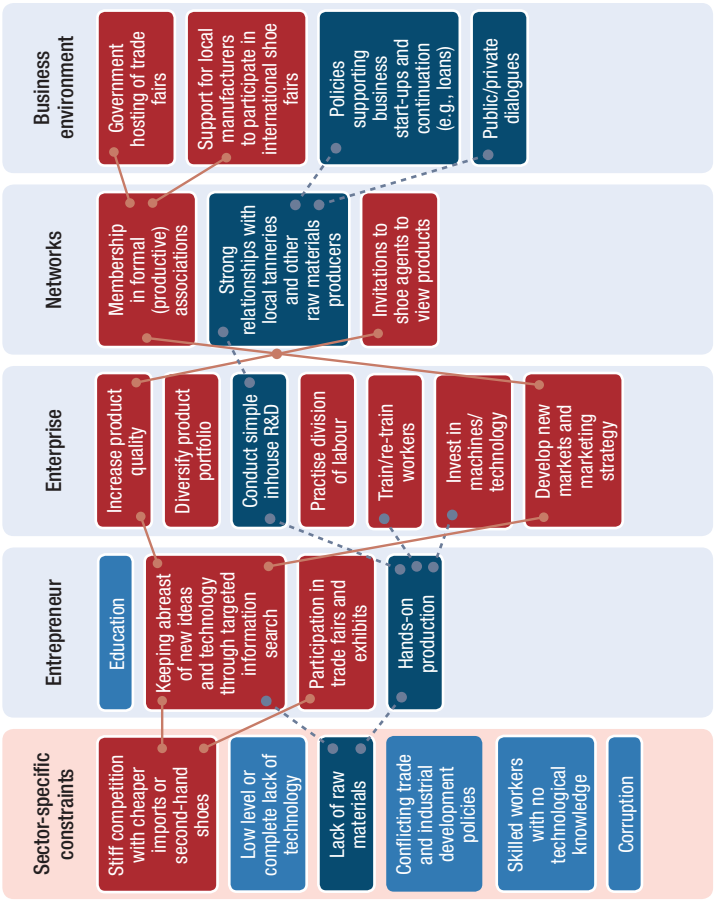
Both the lack of modern footwear-producing technology and sluggish local sales are blamed on weak government support. Upgraders accuse the government of permitting the influx of imported footwear under the GATT and not providing adequate support or protection to local manufacturers to increase their competitiveness. Corrupt customs officials conspire with local importers to undervalue imported footwear, making it easier to import massive quantities of shoes into the country and flood the market.

5.4.4 Analysis of upgrading dynamics in footwear and leather

Entrepreneurs in the footwear and leather sector employed several strategies to survive and upgrade in their difficult sector. Five success factors that they used to upgrade are: investing in in-house R&D and HRD, mechanization (investing in machinery and transforming the production process), diversifying the product portfolio and accessing new clients and markets (through new marketing strategies).

All but the last of the success factors are drawn from the enterprise level. Respondents in the footwear and leather sector consistently observed that in order to upgrade, the firm must be revolutionized. Figure 21 shows how the entrepreneur combines success factors at the enterprise level, using factors from various layers of the Onion Model to overcome serious constraints to upgrading. The five constraints that often confront footwear and leather manufacturers are: stiff competition with cheaper imports or second-hand

Figure 21: Combinations of strategies for upgrading in the footwear and leather sector



Source: Author

How to interpret the combining-success-factors approach:
The leftmost panel represents five sector-specific constraints that respondents identified as the greatest challenges to enterprise upgrading in the footwear and leather sector.
The remaining panels represent the four layers of the Onion Model, including the various success factors that successful entrepreneurs identified as instrumental for enterprise upgrading. More factors are identified at the enterprise level than at the Onion's other three layers.
Two examples of constraints are used to operationalize the approach: competition with imports (red) and lack of raw materials (blue).
To address the 'impossibility-to-compete-with-imports' constraint, the entrepreneur taps on each layer of the Onion Model to find a substitute – or solution to the challenge. Then the entrepreneur combines various factors into their own strategic recipe for success.
How each layer is tapped into is shown by the links between the panels. This chart shows that most success factors are located on only one level.

shoes, low levels (or complete lack) of shoe-manufacturing technology, lack of locally produced raw materials (especially cow leather), conflicting trade and industrial development policies, and highly skilled workers with little technological knowledge.

To illustrate how entrepreneurs strategically combine success factors, two of the most common constraints to upgrading are used as examples: stiff competition with cheaper imports or secondhand shoes and the lack of locally produced raw materials.

Stiff competition from cheaper imports or second-hand shoes. Local shoe manufacturers are confronted with competition from two extremes. Stiff competition by cheaper, legally or illegally imported, shoes from neighbouring Asian countries – mostly China – remains a serious threat, while more expensive luxury shoe brands from the United States and Europe also attract many consumers. It is difficult to position an enterprise in a market saturated with competitive brands offered at competitive prices, particularly if the enterprise itself is grappling with internal (such as low levels of technology) and external (weak government support for local footwear manufacturers) constraints.

Overcoming competition from imports calls for a combination of strategies at each level and also overhauling the enterprise to increase its competitiveness. At the enterprise level, entrepreneurs used all possible means to gather information on the latest designs, consumer preferences, trends and production processes. Aside from researching online, successful manufacturers procured catalogues, travelled to China and Europe and used their professional networks to gather strategic information for their firms. Entrepreneurs understand that to keep pace with the competition, they must keep abreast of the latest trends and technologies. Most entrepreneurs gather information at local and international footwear and leather trade fairs, with or without financial support from the government.

For all upgraded respondents, overcoming competition involved overhauling the enterprise through a series of incremental improvements that affect all production and marketing operations. At the enterprise level, a combination of several related strategies was employed. Most entrepreneurs upgraded their shoe-production technology by purchasing new machines and adjusting their production processes. This requires retraining workers skilled in traditional methods in semi-mechanized production-line operations. The new method naturally involves the division of labour. As a result of more

efficient production and as a means of increasing their consumer base, entrepreneurs also diversify their product portfolios to cater to all types of buyers, for all occasions. Since prices could not be cut below minimum production costs, many entrepreneurs decided to raise the quality of their products in the hope of attracting a stable base of "return buyers". Finally, several entrepreneurs used social networking sites to open up new markets, a move that is overdue in view of international brands' intensive use of the Internet to promote their products.

At the networks level, professional ties have been cited as more important than personal links for overcoming competition. Footwear and leather manufacturers use their membership in local manufacturers' associations to gain strength in numbers to lobby for increased government protection for their industry. The association also promotes local brands and attempts to make consumers aware of the quality of locally made shoes, while entrepreneurs try to cement relations with institutional buyers by inviting local and international shoe agents to visit their production and sales sites.

Despite the government's weak performance at the business environment level, entrepreneurs take advantage of whatever it offers to help overcome competition. Upgraders use publicly hosted trade fairs, financial subsidies and customs support.

Lack of locally produced raw materials. The lack of raw materials, particularly treated cowhide, has always plagued Philippine footwear manufacturers, even in the industry's heyday, from the 1970s to the early 1990s. But after preferential trade agreements expired and protectionist policies collapsed, the shortage became critical. Now footwear and leather manufacturers compete with each other for the cheaper locally produced leather and import leather for their own businesses. How can upgraders mitigate the negative effects of the scarcity of their main production inputs?

At the entrepreneur and enterprise levels, entrepreneurs are 'hands on' in the production and marketing operations and conduct simple R&D in-house. They control the company's leather wastage and determine which shoe or bag parts made of leather can be made from other materials. Entrepreneurs combine knowledge gained through personal involvement in the production process with testing and experimenting in the firm. This experimentation usually results in new footwear and leather products that use less imported leather and more of the abundant local materials. Experimentation also helps diversify the company's product portfolio, which leads to an initial

surge in demand. To cope with the new production method (and temporary increased demand) the entrepreneur invests in machines to process the new raw materials (such as *abaca*, a local fibre). Introducing new machinery requires that the employees be trained to use it and results in the division of labour.

As for networks, entrepreneurs tend to forge relationships with providers of raw materials – not only to be able to buy the limited amount of cowhide available, but also to secure lower purchasing prices and ensure quality. At the level of the business environment, through their respective organizations upgraders constantly seek to engage the government and other associations in public/private and private/private dialogues, and lobby for increased government support for the sector. The most common issues discussed are: creating more protectionist policies for local shoemakers through import tariffs or price floors, curbing corruption at customs and directly supporting existing leather enterprises with cluster accreditation or subsidies.

These examples from the Onion Model illustrate how upgraded entrepreneurs combine success factors to create strategies to circumvent constraints. Entrepreneurs tend to **substitute** strategic elements that are missing, for example, using innovations in cowhide and synthetics in place of other raw materials. Entrepreneurs also **combine** factors to strengthen their strategies, for example, inviting shoe agents and opening direct-shopping websites to increase their market coverage.

5.5 Upgrading trajectories in textiles and garments

This section presents upgrading trajectories in textiles and garments described in interviews with respondents from the sector. The first part presents the history, value chain and challenges besetting the sector; 5.5.2 presents the characteristics of the sample. Like the other two sectors, financial capitalization, markets supplied, growth trajectories and respondents' innovation activities were documented. Respondents' rankings for elements in each of the Onion Model layers – based on their own upgrading (or nonupgrading) experience – are explored in 5.5.3, and 5.5.4 shows how entrepreneurs combined success factors to craft their own upgrading strategies.

5.5.1 The Philippine textiles and garments sector

The local manufacture of textiles was a major part of Philippine tradition and culture well before it became an economically important industry. Although the sector seems to have suffered the same fate as footwear manufacturers due to its unpreparedness for international competition, concerted efforts by the government and local entrepreneurs have injected new life into the sector.

Two strands of history

There are two strands in the history of the Philippine textiles and garments sector. The **textiles sector** was established as part of the Philippine government's import substitution strategy in 1949 (Gutierrez 2009). It is generally classified into: 1) the primary processing sector, which includes spinning, weaving, knitting and finishing; and 2) the secondary processing sector, which includes items manufactured from textiles such as rope, carpets, rugs, etc. In the early 1950s, import and foreign-exchange controls were imposed to tackle the crisis in foreign exchange triggered by a huge trade deficit and the slowing of incoming dollars to the country after WW II (Sanchez 1990).

Local manufacturers' textiles production was mainly geared to the domestic market because of the high production costs relative to world prices. Buoyed by protectionist measures and government incentives such as import and foreign-exchange controls, liberal access to dollar allocations for importing raw materials and machinery, and easy access to loans and tax concessions, the textiles industry grew rapidly at first. But in the mid-1960s it reached overcapacity. Local manufacturers were clearly operating below 'best practices' standards and technical efficiency was lagging. By the late 1970s, the textiles sector was judged un-competitive due to its obsolete machines and equipment, lack of specialization, poor technical processes and high production costs.

Following the de facto devaluation of the peso in 1970, the Philippine government switched from an inward- to an outward-looking development strategy. To stimulate industrial exports, the Export Incentives Act (EIA) of 1978 was passed, along with the provision of credit for duties paid for imported materials and supplies, deductions of shipping costs and promotional expenses for exports and the establishment of the first Export

Processing Zones (EPZ) (Sanchez 1990). In this favourable environment, textiles exports grew.

Native Filipinos practiced *handloom weaving* before the Spaniards arrived in 1521, with weavers' expertise passed from one generation to the next. Handloom-weaving enterprises were reported to have thrived until WW II in northern Luzon, parts of Visayas and among the ethnic tribes of Mindanao (ibid.). Unfortunately, the war's physical and economic destruction, along with the strengthening of ancillary industries like cotton, almost paralyzed the small handloom-weaving sector and destroyed the tradition. With the help of US post-war rehabilitation programmes, handloom weavers were trained in an effort to revive the sector.

Handloom weaving was not considered to be an important part of the textiles and garments industry until recently so it has been assigned a rather loose product categorization in 'Gifts, Toys and Housewares'. Handlooms are also categorized with handicrafts, furniture and ceramics because of the artisanal nature of their production. In 1981, these items were defined by the United Nations Development Program (UNDP) as

> *articles produced without the use of tools, simple instruments or implements operated directly by hand or feet including improved-upon machine-made materials with a novel finished product, including improved depicting native designs.* (Ang / Teo 1995)

The principal competitors in the handloom and handicrafts market are Thailand, Indonesia, Malaysia, Korea, Taiwan, India, Hong Kong and China.

The **garments** sector began with small cottage-businesses that evolved into enterprises to replace traditional home sewing, and custom tailoring and dressmaking shops. The sector currently includes all clothing items for men, women and children/infants as well as accessories such as neckwear, shawls, handkerchiefs, hats, gloves and other apparel. In the 1960s the sector started to grow rapidly as a result of the Embroidery Act of 1961 (RA 3137), which allowed garments firms to import textiles duty-free. The Basic Industries Act (RA 3127) and the Investment Incentive Act IIA (RA 5186) extended tax exemptions, credit and deductions to critical industries (ibid.). In the 1970s, along with the restructuring of the textiles sector because of the foreign-exchange crisis, the garments sector was transformed into an export-oriented sector. During this time the Multi-Fibre Agreement (MFA), a quota system governing the textiles and garments trade with the United States, European Community and Canada took effect, and lasted until

1994. In the 1980s, the MFA helped the Philippine garments sector export massively, becoming the second export-revenue earner after electronics and even overtaking traditional exports such as coconut oil and sugar (Gutierrez 2009).

However, even under the MFA, exports of Philippine garments slowly declined because of intense international competition and the sector's uncompetitiveness. The Import Liberalization Program of the 1980s and the Uruguay Round of the WTO made things even harder for the sector. Under the WTO agreements that came into effect in 1995, textiles and garments were to be integrated into the mainstream by gradually rolling out a 10-year phase with four stages (ibid.). From 2006 onward, export revenues from textiles and garments have been relatively volatile. At its peak in 2006, the Philippine textiles and garments sector employed nearly 400,000 people with sales of USD 2.86 billion.

Prior to the MFA's abolition in 2005, export revenues and income had been declining steadily. Then, after picking up briefly in 2006, they dropped again. The industry is experiencing a phase made more difficult by the recession that hit the United States – the destination of 70 per cent of Philippine textiles and garments – in 2008/2009.

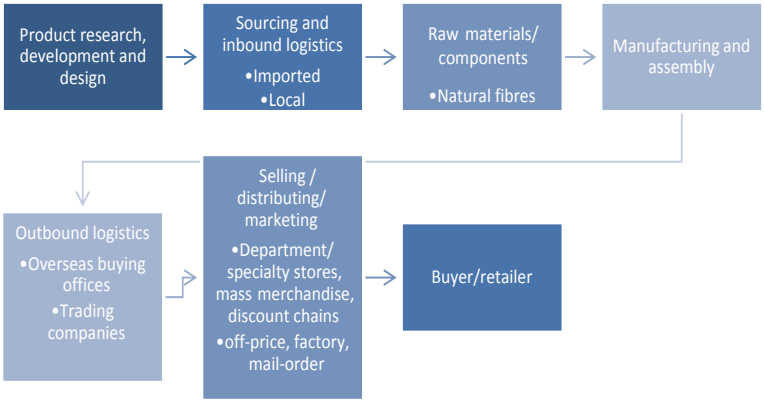
Philippine garments: challenges and constraints in the value and commodity chain

Figure 22 below shows the Philippine garments' value and commodity chain. For the past three decades, the Philippines have been concentrating on the assembly portion of the value chain because it is the easiest (Austria 2007).

The lack of an integrated Philippine textiles industry has forced local manufacturers to work with fabric suppliers from China, India and Hong Kong, and accessories suppliers from China, Taiwan, South Korea and Hong Kong. Even textiles millers reportedly import up to 80 per cent of their raw materials such as polyester, cotton, rayon and acrylic (Antonio / Rodolfo 2006). This sometimes results in longer lead times for Filipinos than their Asian counterparts, which further reduces the industry's competitiveness.

Another challenge to competitiveness is the high cost of labour in the Philippines. Labour costs USD 0.55 per hour in Vietnam and Bangladesh; Philippine workers are paid double that amount. Unfortunately, despite

Figure 22: Value chain for Philippine garments



Source: Adapted from Antonio / Rodolfo (2006)

higher wages, labour productivity in the country is lower than other Asian countries (ibid.).

The slower growth in productivity in the Philippines could be attributed to the decline in investments in the country. A lack of investments in the sector has resulted in poor infrastructure and higher transaction costs, particularly for exporting logistics. In 2006, more than 90 per cent of garments firms concentrated only on pattern-making and finishing (and not the rest of the production process in between).

Filipinos' major comparative advantage is their ability to perfectly execute the designs dictated by buyers. Only recently did the country start developing the design capabilities that are needed for value creation. The biannual Manila FAME (Fashion Accessories Manufacturers Exporters) trade fair hosted by the Philippine government showcases furniture and furnishings, home accents, gifts, holiday décor, fashion accessories, and apparel and textiles designed by local artists. With events spread over four days, FAME attracts hundreds of buyers from the United States, Australia, Japan, Hong Kong and Germany, as well as numerous local traders.

Backward integration has been the strategy of new enterprises in the sector, whereby the entrepreneur conducts massive research developing new materials and product designs. However, other hurdles must be overcome in order to ride out the crisis in the sector. Other challenges include constantly rising costs of labour and production (as a result of depletion and the inconsistent quality of raw materials, unrest in production areas and lack of specialization in raw materials production.

Our study explored these and other challenges to entrepreneurs in the Philippine textiles and garments sector. The shortage of raw materials plaguing the two other sectors also hampers manufacturers of textiles and garments. But uniquely challenging this sector are concerns about security and order in the production areas, which are addressed below.

5.5.2 The sample

Table 20 presents the descriptive statistics of respondents from the textiles and garments sector (left), distinguished between upgraders (middle) and non-upgraders (right).

Entrepreneur and enterprise characteristics. On average, respondents from the sector are 46 years old, have 10 to 14 years of education and about four dependents each. About half the respondents attend training programmes, and roughly the same number find personal and professional networks helpful for their business. Over 60 per cent of the respondents mention wage work and same-sector experience and their proactive search for business-related information. Only one-third of the respondents had family members in the business, and roughly the same number had formally registered their businesses at start-up. Although the enterprises were around five years old, only around 10 per cent of respondents belong to trade associations. A handful of them reported having had to bribe – or had experienced the corruption of – a government official.

Of the three sectors, textiles and garments upgraders and non-upgraders exhibited the most similarities. Successful and unsuccessful respondents only differed in education (on average, upgraders finished university and post-graduate education compared with secondary school for non-upgraders), having family members that were also in business (upgraders reported having family members who were also in some kind of business),

Table 20: Descriptive statistics of the textiles and garments sector												
Variable	**All n= 31 observations**				**Upgraders n= 4 observations**				**Non-upgraders n= 27 observations**			
Entrepreneur characteristics	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Age	46.0	11.34	28	63	46	13.73	28	59	46.07	11.26	30	63
Highest level of education (years)	2.22	0.76	1	4	3.25**	0.05	3	4	2.07**	0.67	1	3
Further training (1=Yes, 0=No)++	0.45	0.51	0	1	0.75	0.50	0	1	0.41	0.51	0	1
Wage-work experience (1=Yes, 0=No)	0.64	0.48	0	1	0.50	0.58	0	1	0.67	0.48	0	1
Same-sector experience? (1=Yes, 0=No)	0.67	0.47	0	1	0.50	0.58	0	1	0.70	0.46	0	1
Gave a bribe (1=Yes, 0=No)	0.06	0.25	0	1	0.25	0.50	0	1	0.04	0.19	0	1
Family already in business? (1=Yes, 0=No)	0.29	0.46	0	1	1.0***	0	1	1	0.18***	0.39	0	1
Membership in chamber or trade association (1=Yes, 0=No)	0.13	0.34	0	1	0.50**	0.58	0	1	0.07**	0.27	0	10
Number of dependents	3.67	2.41	0	10	1.75*	1.5	0	3	3.96*	2.41	0	1

Table 20 (cont.): Descriptive statistics of the textiles and garments sector

Variable	All n= 31 observations				Upgraders n= 4 observations				Non-upgraders n= 27 observations			
Entrepreneur characteristics	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**	**Mean**	**Std Dev**	**Min**	**Max**
Finds personal relations helpful to business (1=Yes, 0=No)	0.42	0.50	0	1	1.0**	0	1	1	0.33**	0.48	0	1
Finds business relations helpful to business (1=Yes, 0=No)	0.55	0.51	0	1	1.0*	0	1	1	0.48*	0.51	0	1
Actively searches for info (1=Yes, 0=No)	0.68	0.47	0	1	1	0	1	1	0.63	0.49	0	1
Enterprise characteristics												
Age of enterprise (years)	5.22	4.08	1	12	7.75	2.87	6	12	4.85	4.13	1	12
Formally registered at start-up (1= Yes, 0=No)	0.35	0.49	0	1	1.0**	0	1	1	0.26**	0.45	0	1

Source: Author

++Participated in business-related trainings, seminars and workshops, in addition to the finished level of education

*, **, *** indicate 10%, 5% and 1% significance level, respectively

membership in trade organizations (very few non-upgraders belonged to chambers or manufacturers' associations), number of dependents (upgraders had an average of two dependents each, whereas non-upgraders had five), helpfulness of business and personal relations (significantly more upgraders found these networks beneficial for their enterprise) and formality (while all upgraders formally registered their businesses at start-up, only a third of non-upgraders did).

For all other variables, upgraders and non-upgraders in the textiles and garments sector exhibited no significant differences.

The financial capitalization of textiles and garments manufacturers at start-up and in 2012. Table 21 shows the financial capitalization strategies of respondents from the textiles and garments sector. Generally, both upgraders and non-upgraders used personal savings (including money from their immediate family) to finance the start-up of their enterprises. All upgraders and 22 of the 27 non-upgraders used only personal finances to launch their businesses.

Table 21: Financial capitalization of footwear and leather respondents (at start-up and in 2012)

Time	Upgraders				Non-upgraders			
	Personal savings	Borrowed from relatives and friends	Borrowed from banks and other financial institutions	Personal savings and borrowed from banks	Personal savings	Borrowed from relatives and friends	Borrowed from banks and other financial institutions	Personal savings and borrowed from banks
Start-up	4	0	0	0	22	0	4	1
At the time of the interview	4	0	0	0	25	0	1	1

Source: Author

According to one upgrader in the sector:

> *The financial capital in the beginning was from me and my husband and from my brother-in-law. We never wanted to borrow from banks, from the beginning, until now.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Upgraders' capitalization strategies to keep their businesses going resembled how they originally used their own or family money at start-up. In fact, respondents stated that they intentionally avoided other means of capitalization and exclusively used personal/family finances for the business. Sometime between start-up and the interview in 2012, non-upgraders shifted slightly towards personal financing. Three respondents stopped borrowing from banks and non-bank entities and used their own money to continue the business.

Even without personal savings, upgraders managed to find ways to acquire financial capitalization without going through banks. Their strategy resembles the approach used by several upgraders in the food processing sector. The owner of a handicrafts business who exports her bags with traditional Philippine design said:

> *The Department of Trade and Industry opened an opportunity for me to participate in my first trade fair for free. I had no money to even make the first samples, but I told them I had met the requirement of two samples per item when in fact I had only one sample for each. From this fair, I received a USD 7,000 order. However, my father got sick and all the profits of my first order went to pay his medical bills. By the time a second trade exhibit came around, I was despondent and cash-strapped. I completed the requirements for the second exhibit but could not afford calling cards to give to prospective buyers that cost PHP 300 per set. My money was just enough to pay the bus fare back home. Through this fair, a buyer gave me an order worth USD 17,000 and asked for my bank account so they could deposit 50 per cent of the payment. I had no money and no bank account to speak of. I hurriedly went with a cousin and borrowed PHP 10,000 from her to open a bank account. A theatre artist trusted my creativity and success potential and poured in a few hundred thousand pesos to cover the cost of materials while waiting for the down-payment check in the bank to clear. He has been my business partner ever since.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

Markets supplied at start-up and the time of the interview. Similar to other sectors, enterprises have been observed moving from local to larger

outside markets over a period of time between start-up and time of the interview. Two of the upgraders had only supplied local markets at start-up, while two others supplied local, regional and national markets. A total of 25 of the 27 non-upgraders only supplied local markets at start-up.

At the time of the interview, two upgraders were supplying international markets and only one remained at the local market. Of the non-upgraders, one had managed to expand into a regional market to join the two who had begun by (and continued) distributing regionally. The rest of the respondents remained at local markets. One upgrader said:

> *My branch in the city is doing really well and I don't see the necessity to branch out. However, I decided to expand my products to include formal wear. Even by not expanding geographically, but only in my product portfolio, I already have an advantage over ready-to-wear clothes, over China-made clothes and over* ukay-ukay *(second-hand clothes). Filipinos like to have formal-wear clothes tailored.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

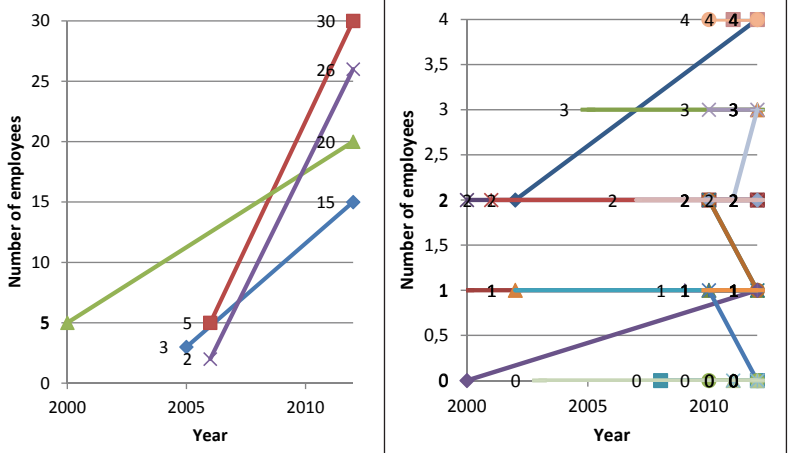
The upgraders' decisions to remain at their established markets was coupled with a conscious decision to expand the product portfolio instead. The statement above contradicts earlier statements by other upgraders about the necessity to increase market coverage to increase demand for their products. The statement shows that an enterprise was able to upgrade without expanding its market scope but rather by improving its product portfolio.

Enterprise growth trajectories. Figure 23 shows the growth structures based on employee numbers for upgraders and non-upgraders in the textiles and garments sector, where respondents had trajectories similar to those in food processing. The sample includes enterprises that had surpassed the threshold sizes (of the study) in the past 12 years.

As shown from the figure for non-upgraders, the sample from the textiles and garments sector includes enterprises that stagnated in size throughout the life of the business, grew marginally or shrank. This finding is shown in the values for absolute and average annual growth rates in the preceding section.

Absolute and Compounded Annual Growth Rates (CAGR). Table 22 shows the absolute and compounded annual growth rates for enterprises in the textiles and garments sector. Upgraded enterprises exhibited median absolute growths of 278 per cent and compounded annual growth rates of

Figure 23: Enterprise growth trajectories based on employee size – of upgraders and non-upgraders in textiles and garments



Upgraders | *Non-upgraders*

Source: Author

Table 22: Absolute and average growth rates of upgraders and non-upgraders in textiles and garments (based on employee size)

Variable	Upgraders n= 4				Non-upgraders n= 27			
	Median	Std Dev	Min	Max	Median	Std Dev	Min	Max
Absolute growth (%)	278	151.5	125	417	-0.06	26.6	-50	100
Average growth per year (%)	115	10	104	123	1.01	21.3	-25	100

Source: Author

115 per cent. Non-upgraders showed 0 per cent median growth and 1 per cent CAGRs since business start-up. Unlike what was observed in the food processing and footwear and leather sectors, upgraders in the textiles and

garments sector did not exhibit large differences in absolute and average growth rates compared with non-upgraders.

Upgraders from the textiles and garments sector exhibited the lowest absolute and compounded annual growth medians (278 and 115 per cent, respectively) whereas upgraders from the footwear and leather sector exhibited the fastest absolute and compounded annual growth rates (770 and 401 per cent, respectively). The single fastest growing enterprise was in the footwear and leather sector (maximum absolute growth of 2500 per cent since start-up), followed by an upgrader from the food processing sector (with a maximum absolute growth of 2250 per cent). Not including stagnating enterprises, the largest enterprise contraction after start-up was an enterprise in the textiles and garments sector that shrank by 50 per cent in employee size before the interview. This was followed by an enterprise in the food processing sector that reduced manpower by almost 30 per cent from start-up until 2012.

Innovation activities. Table 23 shows the result of t-tests on the types of innovation attempted by respondents from the textiles and garments sector.

Table 23: Types of innovation of upgraders and non-upgraders in textiles and garments

Variable	Upgraders n= 4				Non-upgraders n= 27			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
Types of innovation								
Product	0.75	0.5	0	1	0.52	0.51	0	1
Process	1*	0	0	1	0.33*	0.48	0	1
Ways	1***	0	0	1	0.11***	0.32	0	1
Marketing	0.75	0.5	0	1	0.26	0.45	0	1
New market	0.75	0.5	0	1	0.33	0.48	0	1

Source: Author

*, **, *** indicate 10%, 5% and 1% significance levels, respectively

Of the three sectors, respondents from textiles and garments exhibited the least differences of innovation types attempted by upgraders and non-upgraders. There was no difference between upgraded and non-upgraded entrepreneurs in terms of product, marketing and new market innovation.

The most significant difference is that upgraders tried to find ways to make business operations more efficient, something that not all non-upgraders attempted. A fairly weak significant difference was found between the two groups in terms of making the production process more efficient.

Box 3 presents the unique story of an upgrader in the textiles and garments sector. Although this entrepreneur resembles other upgraded entrepreneurs in the sector – and upgraded entrepreneurs in other sectors – an interesting twist to the story is the attempt to mainstream community service and environmental sustainability into enterprise activities. This perspective is very uncommon for local MSEs who are usually more concerned about profits. However, as the entrepreneur explains, community service is important not only to sound good or be socially active but also to avoid being targeted by insurgents in the production area. Environmental sustainability is a way to cope with the lack of raw materials and secure her supply.

Box 3: Innovation in textiles and garments: tapping culture and tradition for a sustainable enterprise

When she started creating home linens, table runners, napkins and placemats at home with five employees, Carmaela Alcantara, the owner of 'Crystal Seas', knew that her education, passion for clothing and love of Mindanao culture would not be enough to make her business succeed. She needed to tap the knowledge and skills of local Mindanao tribes about sourcing, treating and weaving raw materials to expand her enterprise portfolio with new designs. Partnering with the T'boli and Bagobo tribes as well as the lowland settlers of Mindanao, she started to process natural fibres such as *abaca (tinalak), pandan (bani)*, silkworm cocoons *(inaul)* and bamboo into strips and yarns. After providing technical training to local communities, she hired and collaborated with them to transfer tribal designs to woven cloth. From there, she used her design instinct to combine the fine handloom weaving with beadwork and pearls to create high-end bags, shawls, scarves and home accessories for export to Japan, Australia and the United States. Despite her surprising financial success

just six years after start-up, 'Mae' continues to experiment with various materials ("I'm currently testing banana bark to limit the amount of stems we throw away and help the environment at the same time") and provide skills training and work opportunities for unemployed people. Her business provides employment and income to indigenous communities of Mindanao – through production processes that are environmentally sustainable. By combining her passion with business acumen, Mae has found her niche in the Philippine economy: despite stiff Chinese, Taiwanese and Vietnamese competition, Crystal Seas is a front-runner.

Source: Author

The previous section showed that although entrepreneurs in the textiles and garments sector are confronted by several challenges, concerted efforts by the government and the private sector to revive it seem to be having an effect. Unlike the footwear and leather sector, textiles and garments can count on conditions improving as long as the current trend of marketing the Philippines as a design atelier continues.

The only differences in the entrepreneur characteristics of the two sample groups are education, family members in business, membership in trade organizations, number of dependents, helpfulness of networks and formality. The fact that only minimal differences distinguish sector upgraders from non-upgraders implies that it is possible to tap the upgrading potential of unsuccessful enterprises. Tests have shown that in terms of innovation, the only difference between the two groups is the activities that make production more efficient.

The following section presents the success factors and sectoral constraints to upgrading as identified by respondents in the sector – categorized according to the study's Onion Model.

5.5.3 The ranking

Respondents from the textiles and garments sector were asked to reflect on the lives of their businesses and explain how they upgraded (or failed to upgrade). Table 24 shows the different layers of the Onion Model with the most pertinent entrepreneur responses. Respondents were requested to

rank each category according to its importance and the constraint it poses for enterprise upgrading. Interviews revealed that the six most common constraints impeding enterprise upgrading in the textiles and garments sector are: difficulties in accessing markets, competition from cheaper imported or second-hand garments; the lack of direct government support, raw materials (no local textiles industry), and skilled and motivated workers; and security issues that drive away prospective buyers.

Entrepreneurs in the textiles and garments sector were found to combine various success factors to create upgrading strategies to overcome these constraints. Their four strategies are: investing in quality education and HRD, diversifying the product portfolio and increasing firm visibility by participating in local and international trade fairs.

The discussion below focuses on qualitative aspects of the interview that support the statements in the boxes. Entrepreneurs' actual statements in the following discussion will provide more depth to categories shown in Table 24.

Table 24: Ranking of success factors and constraints to upgrading in textiles and garments

Success factors	Constraints
Entrepreneur (14 responses)	Business environment (13 responses)
Education Training Punctuality of production Giving customers value for their money Giving personal touch through work quality	No immediate government support Influx of imported second-hand garments Security issues (especially in the south) Financial and political instability Difficulties in accessing markets
Professional and personal networks (8 responses)	Entrepreneur (12 responses)
Family ties and full support for all aspects of business Word of mouth and recommendations from satisfied customers Membership in organizations that increases interaction with other manufacturers	Too much risk-taking at the beginning (opening new branches immediately, participation in international exhibits)

Table 24 (cont.): Ranking of success factors and constraints to upgrading in textiles and garments	
Success factors	**Constraints**
Enterprise (5 responses)	Networks (3 responses)
Use of local materials and traditional handweaving techniques Hiring unconventional employees Simple R&D at the business Further training for core workers Diversification of product portfolio	Cannot stick with one supplier due to limited availability of raw materials and textile design Need to build a strong personal network of skilled weavers Lack of "functioning" textiles and garments association
Business environment (4 responses)	Enterprise (0 responses)
Participation in trade fairs and exhibits	
Source: Author	

Entrepreneur. Among the textiles and garments sector respondents, three elements that influence upgrading stood out at the entrepreneur level: the quality of education and training, giving customers value for their money, and negatively, excessive risk-taking in the beginning. Like the other two sectors, quality education and training were seen as important to prepare upgraders for their businesses. In addition, despite the quality of their education, upgraders continued to attend training programmes and seminars to acquire skills and knowledge needed for their field. An upgrader says:

> *I am a graduate of clothing technology and I want to make Mindanao more known in terms of handweaving and embroidery. Despite this I still went to additional training in textiles area and trainings in business management.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

> *I finished a Bachelor's degree in agriculture and my education has helped me in dealing with the raw traditional materials, mostly bamboo, that I use for my ethnic bags. I regularly change my designs and update current designs every six months. To do this I continuously attend trainings to improve my skills and update my knowledge.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

Because of the knowledge and skills needed to process textiles and create garments, **quality education and training** (particularly when the entrepreneur does not have any knowledge specifically related to the clothing industry) are crucial for starting and upgrading the firm.

Strategies of sector upgraders include **giving customers value for their money, being punctual with production** and making an extra effort to increase quality. In tailoring, where production delays seem to be the norm, one upgrader makes a point of adding a personal touch. She says this makes her busy customers feel that she is taking care of them. She believes honoring delivery dates is one way to give value for money, and an easy way to gain trust and loyalty.

> *I am also very strict about being on time with the finished clothes. Many local tailors take long and are always delayed with their outfits. With us, even if we have customers coming in all the time and requesting to have clothes made, they always are and always will be finished on time.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

> *I value the quality of my work. After all, I have to protect not only my name but also the name of my brother-in-law. The workers know this, so now they also value quality. I have to sometimes tell the workers to reconstruct an outfit even if it means more cost to us – if the quality is low.* (Upgraded Textiles and Garments Manufacturer, Davao, April 2012)

One common constraint to upgrading mentioned by both upgraders and non-upgraders is too much risk-taking in the beginning. One respondent said it was very exhausting, but had paid off in terms of profits.

> *I also took risks in the beginning just to become known and to get customers. For example, I was very daring and joined design and tailoring contests when I was just beginning my tailoring business. I also submitted and won a tender to design and sew 100 uniforms for a company. That was a lot of work but it paid off.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Risk-taking, they said, is necessary. But sometimes, calculated risks backfire. An entrepreneur said:

> *One of the regrets that I had was that we went to open a shop at the mall immediately and not only was it very expensive, it was also very tiring because we had to be open every day.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

> *One of the biggest risks and lessons I learned was when I participated in an exhibit in Hawaii and I brought all my bags with me. Unfortunately they were denied at the airport for one reason or another. I have learned to be more careful since then.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

In the end, what really matters is the ability to bounce back after a risky manoeuvre "fails". Upgraders managed to do this by having ample financial resources (mostly personal or from the immediate family) to soften the negative effect, or business and social networks to help the entrepreneur rebound.

Enterprise and employees. At the level of the enterprise, four factors for upgrading success were identified: catering to local tastes, hiring unconventional employees, conducting simple **R&D at the business** and **by providing in-house training for core workers (HRD)**. Like in the food processing sector, catering to local tastes is an excellent upgrading strategy in textiles and garments. Catering to local tastes means sourcing out local materials (fibres) and producing the rapidly disappearing traditional handweaving techniques that are valued by Filipinos and foreigners alike. Using local materials supports local fibre producers and provides the entrepreneur with a cheap source of high-quality fibres.

> *I started making my own bags using traditional materials (mostly bamboo) and traditional handwoven cloth from the north in my own designs, and initially, many people found it weird. When I was still at university, classmates and teachers were fascinated by the ethnic accessories and clothes I wore whenever I came back from a schoolbreak in Banaue. Through the semester, they would take all of my ethnic things, and they would all be gone by the time it was time to go back home. After some time, some people started requesting me to make bags for them as well.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

Employing **highly skilled but unconventional workers** has proven to be a successful strategy for upgrading. These workers may be considered unemployable because of their low educational levels but they possess the motivation and skills to produce export-quality products. For example, one upgrader started her business as a community-based enterprise, training local people in various weaving techniques to provide them with livelihoods. To motivate them, she started to pay the workers by the piece – and they instantly became more productive. Another upgrader said:

> *My aim in the beginning was to provide livelihood to housewives and out-of-school youths in different communities in Mindanao by providing them with skills training and the opportunity to work. So my products provide employment and income to our indigenous communities in Mindanao and a good way to make the beauty of the Philippine culture get known internationally. As of the moment, I employ weavers of the T'Boli tribe of South Cotabato and lowland settlers of Davao del Sur. In Davao City, I trained some communities in sewing and bead embroidery. They now also produce high-quality fashion accessories such as scarves and bags which are exported to Japan, Australia and the US.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

A clever entrepreneur does not rely on her workers' skills but rather, strives to improve them. One successful respondent said that she tries to find more efficient ways of weaving and sends her **core workers to regular training sessions**, and conducts simple R&D at the firm with her employees in order to **diversify her product portfolio**. One respondent has made a name for herself by combining two ethnic handicrafts from Northern Luzon and using softened bamboo as well as woven cloth for her bags. Another entrepreneur experiments with processing natural fibres, such as *abaca, pandan,* silk and bamboo, into strips and yarns which she colours with natural dyes from tree bark, roots and leaves. Working with her employees, she experiments with different materials to come up with new fibres.

Personal and professional networks. The upgraders acknowledge the importance of their **immediate and extended families** and friends in helping their businesses grow.

> *My brother-in-law persuaded me to open a tailoring business because he was already in it and it was very successful. His fashion line is featured abroad, and many local celebrities also commission him to create their wedding gowns. He allowed me to use a part of the name of his business for my business.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Family and friends, **word of mouth and recommendations** from satisfied customers had sustained one respondent's growth and allowed her to upgrade. She has never had to pay for advertising. One upgrader said she values her business relations, particularly the ethnic minorities who do her beadwork and handweaving. She makes it a point to forge good relations with them so the business operates smoothly. All the upgraders extolled the benefits of membership in manufacturers' associations as helping upgrading.

> *I am a member of PhilExport and I get to interact with other bag manufacturers like me which I find very helpful. I also make use of their trainings and subsidies whenever I can.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

One consistently negative factor for upgrading cited by both upgraded and non-upgraded entrepreneurs is the difficulty of sticking to one supplier because of the limited availability of raw materials. Constantly changing suppliers makes it hard to build solid relationships with them, which leads to repeatedly negotiating raw materials prices – for inputs of uncertain quality.

> *We do not stick to one supplier of cloth alone, because of varying prices and because of the limited designs. When we need new styles, we look for the specific style from any supplier.* (Upgraded Textiles and Garments Manufacturer, Manila, March 2012)

To mitigate the instability of supply, upgraders source locally, create fibres out of various materials, and use materials that are usually considered to be trash. Experimentation (innovation) is conducted in conjunction with product diversification and the employees.

> *My products are high quality but have a competitive price. I use locally sourced materials from Mindanao to promote Mindanao culture. For example, I like to use banana fibres and my own pearls. Please note that I use banana fibres, which are considered the trash of banana plantations in Mindanao. One product that really sells well in the market is my* 'Waling *bag*'. *It features* tinalak *(local fibre) and uses a Bagobo (tribe) way of stitching. It is very unique.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Business environment. Both upgraders and non-upgraders mentioned three factors that hinder upgrading at the level of the business environment: the general lack of direct government support for the sector, security issues and difficulties in accessing markets.

The textiles and garment respondents understood the rationale behind government policies for local manufacturers; in fact, they all agreed that the rules and regulations for starting, continuing and closing an enterprise in their sector are reasonable. They even considered the taxes to be acceptable. But they lament the expense of attending trade fairs and the lack of government support (and subsidies) to help promising local manufacturers participate in such events. **Increasing enterprise visibility by participating in government-sponsored trade fairs** is said to be one

of the main avenues for becoming known and getting product orders, but prohibitive participation fees makes it difficult for SMEs to take part.

> *With regard to the networks, we try to get the government to support us in terms of participating in trade fairs because the cost to participate is very expensive. But participating in trade fairs pays off because you really get new contacts from it.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Policies allowing an influx of (new or second-hand) items from China have seriously impacted the textiles and garments industry – just as they hurt the footwear and leather sector. One upgrader said that the arrival of branded second-hand clothes has diverted many customers from locally tailored outfits to cheaper ready-made alternatives. The absence of supportive government policies has also been linked to local producers' problems accessing wider markets.

Finally, financial and political instability in the country is cited as driving away prospective clients, both local and international.

> *The infrastructure, corruption level and laws and regulations for business in the country are not the problem. What I cannot live with are the security issues that lead to financial and political instability and difficulties accessing markets.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

One obvious strategy that upgraded entrepreneurs use to circumvent prospective customers' security issues is bringing their products to bigger trade fairs that clients also attend – even if they must shoulder the costs or transport massive amounts of product samples.

> *With regard to the business environment, we experienced a huge reduction in buyers because of the bad publicity of Mindanao. Nobody wants to go to Davao because of security issues. So what I did is to participate in a lot of trade fairs in Manila even if it was expensive.* (Upgraded Textiles and Garments Manufacturer, Davao, March 2012)

Summing up

Massive amounts of investment – for purchasing (or renting) land, machines and raw materials, and also to hire workers – are needed at start-up. Upgraded entrepreneurs in the sample had the advantage of their own money or support

from their immediate families to enter the sector. Bank loans are rare; upgraders commonly circumvented difficulties with financial capitalization by producing with local materials. Low levels of technology in the country mean that locally available fibres must be tested before they can be used for mass production. However, once proven useful, they dramatically reduce production costs and stabilize the supply of raw materials. Final products featuring exotic local fibres and traditional handweaving techniques appeal to local tastes, are interesting and new to the market – and are always in demand locally and internationally.

Upgraders' **education** and skills set them apart from non-upgraders. Courses that focus exclusively on the art and science of fibres and textiles are taught in the Philippines, and one successful upgrader used such training to help her business grow. Anecdotal evidence shows, however, that this is not always the case. Like other sectors, the quality of education *per se* can provide the entrepreneur with skills that are necessary for business. However, the successful entrepreneurs value the knowledge and competence they acquire in further training. Entrepreneurs in the textiles and garments sector emphasized the **importance of their workforce**: having good relationships with – and providing proper working environments for – employees is seen as a major factor in their success. Upgraded entrepreneurs cooperate closely with workers on product innovation in order to **diversify their portfolios**. Without skilled workers, the productivity, innovation capacity and the rest of the enterprise would probably suffer.

Upgraders also value **attending trade fairs** and express disappointment at weak government support for promising (and struggling) enterprises to attend such events. In a sector where entrepreneurs must compete with cheaper imports that are flooding the market, government policies to help local producers increase their competitiveness and access to markets are very welcome. At a more structural level, difficulties controlling security in the country tends to drive away potential buyers of local textiles and producers of garments.

To mitigate the difficulties in accessing markets, upgraders pay the participation fees for trade fairs themselves, and join organizations for manufacturers and exporters. To maintain and strengthen their market position, upgraders provide extra, non-tangible services such as punctuality of delivery and personal assurance of product quality.

5.5.4 Analysis of the upgrading dynamics in the textiles and garments sector

Entrepreneurs in the textiles and garments sector use an array of strategies to overcome constraints to their survival and upgrading (Figure 24). Their upgrading strategies are: investing in quality education and HRD, diversifying product portfolios and increasing firm visibility through participation at local and international trade fairs.

Like the footwear and leather industry, the Philippine textiles and garment sector is declining after preferential trade agreements with the United States ended and multinational brands established new production units in other Asian countries where labour is cheaper. Figure 24 illustrates how upgraders combined a number of strategies in order to overcome sector-specific constraints. Interviews revealed the six most common constraints hindering entrepreneurs in the textiles and garments: difficulties accessing markets; competition from cheaper imported or second-hand garments, lack of direct government support, raw materials (no local textile industry), and skilled and motivated workers; and security issues that drive away prospective buyers.

Two of these issues can be used to explain how entrepreneurs combine strategies.

Difficulties accessing markets. Of all the sectors studied, difficulties accessing local markets are most pronounced in textiles and garments. The influx of cheaper garments from China, Vietnam and other neighbouring Asian countries, and the proliferation of branded apparel from Europe and North America make it increasingly difficult for local textiles and garments manufacturers to enter their products on local (and international) markets. Department stores are swamped with both cheap and luxury imported brands, leaving local manufacturers little space to attract consumers.

In the Philippines, three large, foreign-owned enterprises currently produce textiles for export. Few or none of their textiles are sold in local markets. The remaining enterprises are micro and small garments producers (seamstresses).[23] Medium-sized enterprises either produce garments

23 The country's dependence on imported textiles is evident here.

and accessories with traditional handwoven materials or top-of-the-line garments.

To access an already saturated local market, entrepreneurs must be knowledgeable about the latest designs, fashions and trends. Unlike the footwear and leather sector, information-gathering is relatively easy for textiles and garments manufacturers because of the proliferation of printed material (catalogues and design books), websites and TV shows that feature current fashions and trends. Sector-relevant formal education enables entrepreneurs to rely on their knowledge of the trends and easily adapt production.

At the enterprise level, entrepreneurs focus on increasing customer satisfaction through quality assurance and the timely delivery of finished products. They acknowledge how important the word of mouth (at network level) of satisfied customers is for opening new markets. Successful entrepreneurs do not just rely on referrals but also devise new marketing strategies such as websites for direct sales or accounts on social-networking sites.

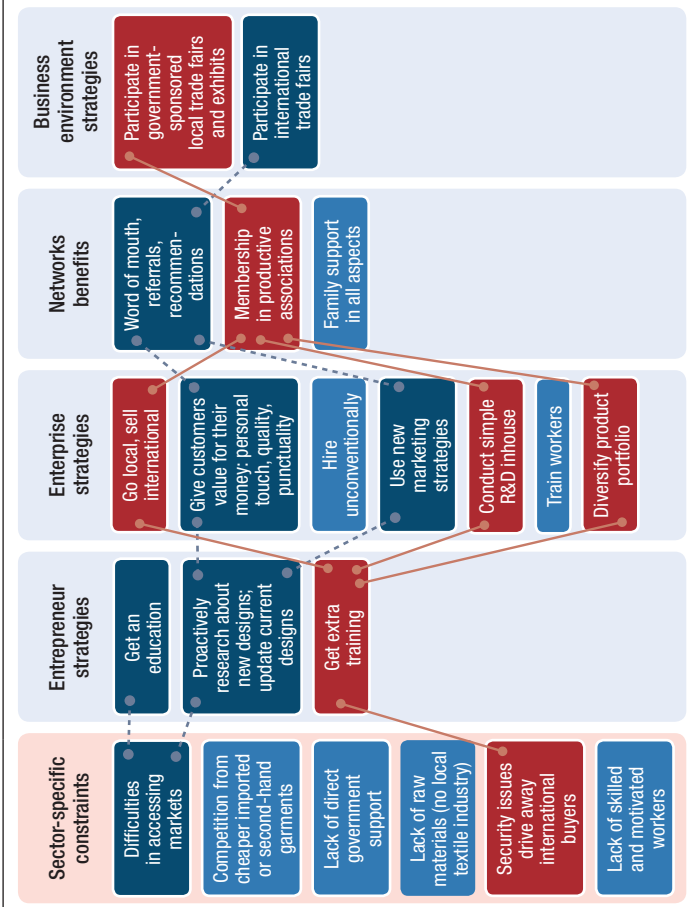
At the level of the business environment, entrepreneurs stress the importance of participating in government-sponsored local trade fairs and exhibits to overcome problems in accessing local markets. Local trade fairs are a great way to network with suppliers and buyers and clinch new business deals.

Security issues drive away international buyers. Producers of handwoven textiles interviewed for the study cited the security issues in the Philippines that scare off prospective buyers. Despite the enormous potential of skillfully crafted traditional weaving to attract international buyers, many are afraid to visit and view products themselves because of terrorist activity. This disadvantages local entrepreneurs: photographs and web cameras do not capture the vibrant colours and intricate beading of handwoven cloth.

Successful entrepreneurs overcome these security issues three ways: they improve their products, use their networks and bring their products to international markets.

To improve their products, entrepreneurs develop their technical, artistic and business skills by attending training programmes and seminars, and apply their new knowledge to R&D with their workers. At the enterprise level, R&D on new fibre sources, fibre wearability, colouring and dyeing techniques, and so on are conducted on a continuous basis, with the results

Figure 24: Combinations of strategies for upgrading in textiles and garments



Source: Author

How to interpret the combination-of-success-factors approach:
The leftmost panel represents six sector-specific constraints that respondents identified as the most critical challenges to enterprise upgrading in the textiles and garments sector.
The remaining panels represent the four layers of the Onion Model, with the various success factors that successful entrepreneurs identified as instrumental in enterprise upgrading. More factors are identified at the enterprise level than at the other three layers.
Two examples of constraints operationalize this approach: difficulties in accessing markets (blue) and security issues driving away international buyers (red). To address the difficulties-in-accessing-markets constraint, the entrepreneur searches all the layers of the Onion Model for a substitute – or solution. Then the entrepreneur creates a personalized strategy by combining various factors. This is shown by the links between the panels.

often translated into new or improved products. Throughout the process entrepreneurs monitor the quality: the long-term objective is to sell products on a par with international standards.

To overcome the security issues that scare off buyers, entrepreneurs join productive organizations to network with exporters.

The last step is bringing the products to the buyers – by participating in international trade fairs. Entrepreneurs often solicit government assistance to defray the costly travel and fees for international trade fairs, and to facilitate customs in the Philippines and at the destination.

These examples from the Onion Model illustrate how upgraders overcome constraints by combining success factors into strategies. In the process, the entrepreneurs tend to **substitute** strategic elements that are lacking, for example, by using innovative textiles from locally made materials instead of imported cloth. They also tend to **complement** an existing factor with another factor to reinforce a strategy, for example, rounding out their education by participating in training programmes and seminars.

5.6 Summary

Enterprises in all sectors must overcome similar constraints in order to upgrade; respondents identified these structural impediments:

The lack of a stable supply of high-quality raw materials is a common structural constraint that is consistently cited in the literature as well as by all the respondents. For the food processing sector, raw-material inputs of similar quality are required to maintain product standards whereas for the footwear and leather and textiles and garments sectors, uncontrolled importation reduces the entrepreneur's ability to control supplier quality. Upgraders often forge robust relations with suppliers to ensure the supply and quality of inputs. This strategy ranked high as a success factor in the qualitative interviews and quantitative frequency rankings in these two sectors.

Two constraints were unique to food processing and footwear and leather manufacturers: corruption at customs and the low levels of technology in the Philippines; this is confirmed by the literature. Customs corruption affects exporting food processors whereas undervalued shoes that illegally enter the country impact footwear and leather manufacturers.

At the enterprise level, Philippine food processors use simple drying, curing and cooking techniques and test for longer shelf lives. Sector-specific information and technologies to help make production more efficient are unavailable. Technological backwardness in footwear and leather refers to the lack of mechanization to enable mass production and lower the price of the finished product.

A specific constraint for manufacturers of footwear and leather and textiles and garments is the competition from legally and illegally imported new or second-hand items. This constraint is systemic at the business-environment level and indicates corruption in Philippine customs.

Another constraint that only affects the food processing and textiles and garments sectors is the lack of availability of skilled workers. All the sectors in the study are skills-intensive (compared with the knowledge-intensive information technology sector, for example). Textiles and garments entrepreneurs, who produce handwoven textiles for inputs to bags or for shawls, need highly specialized skills at the main production stage.

Table 25 summarizes the results of the combined quantitative and qualitative analyses of upgrading strategies from the food processing, footwear and leather, and textiles and garments sectors. Upgraders commonly combine these strategies to overcome constraints to their enterprises.

Table 25: Summary of aggregated upgrading strategies

'Onion Model' layer	Success factors		
	Food processing	**Footwear and leather**	**Textiles and garments**
Entrepreneur	Investing in quality education (including further training)		Investing in quality education (including further training)
	Getting exposure in lead firms and quality work experience		

Table 25 (cont.): Summary of aggregated upgrading strategies

'Onion Model' layer	Success factors		
	Food processing	**Footwear and leather**	**Textiles and garments**
Enterprise		Investing in in-house R&D	HRD
		Mechanization	Product-portfolio diversification
		HRD	
		Product-portfolio diversification	
		Accessing new clients and markets (through new marketing strategies)	
Personal and professional networks	Accessing finance (through personal or other innovative means)		
	Engaging in quality professional networks		
Business environment			Tapping government support to participate at local and international trade fairs

Source: Author

Three general observations can be made about the entrepreneurs' combination of strategies across the sectors that are directly related to sectoral dynamics and the general institutional environment. In the food processing sector upgraders exploit their **personal and professional networks** to help make their enterprises grow. In no other sector are family (immediate/extended) and business connections so often tapped for all kinds of support (financial and physical capitalization, business advice, unpaid labour, tasters, etc.) as by food processors.

Upgraders in the footwear and leather sector seem to need to **revolutionize their enterprises in order to grow by** focusing on R&D, HRD, mechanization, product diversification and marketing. This approach is characteristic of traditional firms that upgrade by making step-wise changes in labour and production processes.

In contrast, the design-intensive nature of creating fashion (and household) accessories forces potential upgraders in the textiles and garments sector to focus on **increasing their knowledge and skills** in order to upgrade.

The revolutionary process and enhancement of knowledge and skills depend on the individual entrepreneur's capacity to innovate, which in turn hinges on their proactive search for information.

6 Takeaways and policy directions

This study made use of a four-layer 'Onion Model' to explore why some enterprises manage to upgrade while growth remains elusive for most small firms. Two rounds of data-gathering from purposively sampled upgraded and non-upgraded entrepreneurs in the Philippines were conducted in 2012. In-depth interviews were conducted with a total of 112 respondents – 21 upgraders and 91 non-upgraders – from the food processing, footwear and leather and textiles and garments sectors. Qualitative and quantitative analyses returned seven main takeaways regarding the upgrading dynamics of MSEs in the Philippines.

6.1 Takeaways

The study's seven main takeaways about MSE upgrading in the Philippines are:

1. The entrepreneur is more important for enterprise upgrading than current literature acknowledges.

In the Philippines, entrepreneurial characteristics across these three sectors were significant factors for successful upgrading. The entrepreneur's education, attendance at business-related training programmes and seminars and proactive search for information were all found to contribute to the enterprise's success. Even if the success factor is not specifically linked to the entrepreneur, it is the entrepreneur who operationalizes the factor, initiates the activity and makes changes *happen*. For example, the entrepreneur's education and conscious decision to join trade associations provides access to productive professional networks while their choice to develop human capital instils a sense of ownership and common striving for success among the employees.

There is, however, an important *caveat* to making the entrepreneur central to Philippine MSE upgrading. Upgraders do indeed possess the necessary ingredients (e.g., education and networks) to drive enterprise growth. But these success factors may result from earlier opportunities. In other words, upgraders might have achieved what they achieved – and non-upgraders could have failed – because of the inequalities of opportunity in Philippine society. These inequalities – for example, in access to quality education, linkages to productive networks and family wealth – are perpetuated through the entrepreneur in the firm's propensity to upgrade.

2. Would-be upgraders tailor strategies by combining success factors. These success factors either substitute for elements that are lacking or complement the strengths of existing elements that are essential for successful production/marketing.

The results of the study consistently showed how successful entrepreneurs combined success factors to create strategies that allow for upgrading. In particular, if an input that is critical for the enterprise's production/marketing

activities is lacking, the entrepreneur used available elements, which can also be complemented with other success factors to strengthen the strategy.

3. Entrepreneurs have to simultaneously overcome sector-specific and structural constraints in order to upgrade.

Parallel sector-specific and structural constraints not only threaten enterprise survival but also make upgrading more difficult. Structural constraints can be remedied by government policies to improve the business environment, but sector-specific constraints are usually unique and require a tailored approach. These two types of constraints create a double barrier for entrepreneurs to overcome, making it more difficult for businesses to survive, let alone upgrade.

4. Intangible entrepreneur characteristics can be as significant as tangible factors in influencing enterprise upgrading potential.

It is impossible to avoid discussing the key role that intangible elements play in the upgrading process. Across sectors, upgraders exhibited strong motivation to succeed personally and financially. They had visions for themselves and the company, and long-term goals. A drive to work intensively and productively – not to just count the hours – also makes the difference between successful and unsuccessful entrepreneurs. Persistence, a proactive search for information and a drive to improve the business's status quo are intangible factors that characterize upgraders.

This author would again like to emphasize the likelihood of these significant intangible entrepreneur characteristics emerging as a result of the individual being embedded in a social structure with many opportunities. Successful entrepreneurs may well have learned how to set long-term goals and search for information proactively, as well as persistence and passion, from key people in their immediate environment.

5. The importance of personal and professional networks in enterprise upgrading cannot be discounted.

Networks play a particularly strong role in the upgrading dynamics of firms. It is beyond the scope of this study to determine which kind of network (personal or professional) is more useful; indeed, there is considerable

overlap between professional and personal networks, particularly for bigger firms. Both kinds of networks are significant at every stage of the life of the business.

From the goat-cheese producer whose husband cross-bred goats in order to provide her with more raw milk, to the producer of handwoven bags whose husband learned to weave in order to help boost output and the dried-fish-in-oil producer who takes the time to explain how the firm is developing to her immediate family – personal networks matter. Professional networks were critical for the food producer who could dictate the colour of ripe tomatoes to her supplier, the dried-mango producer who obtained in-kind credit from her buyer and the manufacturer of men's formal mixed-leather shoes who got a huge order after he invited shoe agents to view his product line.

6. Conflicting industrial development and international trade policies make it extremely difficult for enterprises to upgrade.

Although it may seem trivial, conflicting policies for industrial development and international trade negatively impact the survival and upgrading of businesses in certain sectors.

The Philippine Micro, Small and Medium Enterprise Development (MSMED) Council, under the auspices of the Department of Trade and Industry was founded to boost MSMEs' contribution – including footwear and leather manufacturing – to the country's industrial growth. Yet the Philippine footwear and leather sector has been floundering under the government's open-trade policy since it joined the WTO in 1995. Most of the local shoe manufacturers, who cannot compete with cheaper – but not necessarily higher-quality – shoe imports from China and elsewhere, have closed shop or gone into other businesses. Aggressive liberalization has left the country's remaining shoe manufacturers floundering. Admittedly, the local industry should have developed its competitiveness after years of protectionist measures; however, local industry relies on traditional low-technology methods that use Filipino shoemakers' skills and ingenuity. Industrial manufacturing has killed the *art* of shoemaking.

It is difficult to negotiate the fine balance of protectionism and openness. It is also hard to seamlessly blend a country's industrial development policy with its international trade policies. But increasing domestic enterprises' competitiveness to prepare them for increased globalization helps everyone.

7. Sometimes enterprise growth requires a complete overhaul of strategic approaches.

As respondents from the footwear and leather and textiles and garments sectors demonstrate, it is possible to survive and upgrade in a difficult sector. However, that requires a strategic combination of success factors at all business levels.

It is essential to recognize where the problem lies and what the options are. For example, recognizing that low levels of technology and worker skills, along with outmoded marketing strategies were causing businesses to fail, footwear manufacturers overhauled their strategy at the business-enterprise level. After tackling this issue, successful entrepreneurs lobbied for measures to protect the country's leather trade.

Filipino textiles manufacturers, on the other hand, began by experimenting with local materials that can substitute for expensive imported materials. Successful manufacturers conducted R&D and processed cheap, available local fibres before asking professional networks and the government to support their participation at international trade fairs.

6.2 Policy implications

Our research shows the centrality of the entrepreneur to MSE upgrading in the Philippines. Entrepreneurial characteristics such as the entrepreneurs' education and work experience in lead firms make a substantial difference in an enterprise's propensity to upgrade. The entrepreneur's education and work experience provide the knowledge, skills and motivation needed to act and take critical decisions that further increase the enterprise's upgrading chances – regarding investments in R&D, machines and HRD, the direction and timing of product-portfolio diversification and development of innovative strategies to expand markets and win new clients.

However, the study also found that compared with non-upgraded firms, upgraded Filipino enterprises were headed by entrepreneurs who benefited from a wealth of opportunities, beginning with quality education, that gave upgraders exposure to lead firms and work experience that are not usual in the Philippines. In short, successful entrepreneurs were from families that had wealth or personal connections to help them upgrade. Inequality

of opportunity begins with inequal access to quality education across all levels. Education in high-calibre schools and universities facilitates access to other networks and sources of finance. The entrepreneur's family wealth is an excellent and immediate source of financial capital for pre-financing production, purchasing machines and participating in local and international trade fairs.

MSE upgrading is steered by the knowledge, skills and motivation of an entrepreneur who manages to create various strategies by substituting the elements necessary for successful enterprise growth that are lacking, or complementing factors to strengthen the strategies. Given the findings that the entrepreneur's potential to upgrade is predetermined by the inequality of opportunity in Filipino society, what should policy-makers focus on? We recommend three general directions.

First, because it is the entrepreneur who matters most to enterprise upgrading, one policy is increasing the entrepreneur's capacity to steer the enterprise by increasing their knowledge and skills base. This can be achieved through generic policies such as improving access to quality education, making education compulsory and affordable for all, and reducing the quality gaps between public and private educational institutions. More specifically, integrating entrepreneurship education at all levels of learning is an effective way to encourage entrepreneurial culture. In the Philippines, internships and on-the-job training are only required for specific courses that foresee students working in larger companies after graduating (such as hotels and restaurants, engineering offices, etc.). The culture of internships during and after formal education should be mainstreamed to allow students to learn important aspects of business, get work experience at leading institutions and join productive networks.

Second, our findings show that entrepreneurs still have to find substitutes for lacking elements or complement existing but weak elements that are necessary for successful production/marketing: the Philippine business environment appears to not enable full business growth. Granted, changing social and economic circumstances mean there will always be elements that are lacking or need to be adjusted at the business-environment level, such as access to financing for MSEs, corruption and red tape. However, it is still wise for governments to streamline administrative procedures and make registration cheaper – in order to make formalisation attractive to informal

enterprises[24] and help formal enterprises avoid the temptation of skirting other business-related formalities.[25] That might help formalised MSEs access finance for their reinvestment and innovation activities.

Third and last, since the entrepreneur creates strategies using factors found in all four layers of the Onion Model, the study signals the need for a systemic approach to policy creation. Policy-makers should avoid focusing on a single element – for example, "fixing" the business environment on the assumption that this is a cure-all for lagging enterprise productivity. The recent policy focus on the business environment, spurred by the World Bank's Doing Business project and its annual reports, has led many policy-makers to believe that the key to a vigorous private sector is just streamlining business procedures. True, efficient and cheap administrative procedures tremendously help starting and continuing businesses, but our study shows that an efficient business environment is but one of many factors that aid the upgrading process. Therefore policy-makers are urged to look beyond the business environment and create a package of policies that address the various constraints at each layer of the Onion Model. For example, access to productive networks has been found to be critical in the process of enterprise upgrading, but that is acquired through education, work experience or family connections. Policies that aim to increase educational quality should be coupled with policies or programmes that make it easier for "outsiders" to join networks.

These recommended policy directions steer away from creating policies for Takeaways 4 (the importance of intangible characteristics for upgrading) and 6 (the compatibility of industrial and trade policies). Although intangible characteristics are important, it is difficult for outsiders like us to recommend pure policy action for them, and offering policy recommendations to make industrial and trade policies more compatible is beyond the scope of this study. Finding the appropriate combination for inward- and outward-looking policies always requires a delicate balance of economic and national government and international development agendas – and therefore is best left to specialised studies.

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24 Informal enterprises in our sample were mostly non-upgraders, although no causality was statistically tested due to sampling bias.

25 Consider the exporters in the food processing sector who had had to resort to bribery.

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