

NIRP Research for Policy Series 2

**Small-scale enterprises in rural Kenya:
constraints and perspectives**

Daniel Felsenstein, Dick Foeken, Anthony Muraya and Dafna Schwartz

Colophon

NIRP Research for Policy Series

Part 2: Small-scale enterprises in rural Kenya: constraints and perspectives

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Contents

Preface	5
I. General information	7
I.1 Framework of the study	7
I.2 Objectives and research questions	8
I.3 Hypotheses and methodology	9
I.4 Theoretical orientation	12
I.5 Elaboration of the research	14
II. Results	19
II.1 Small businesses in the study area: a preliminary exploration	19
II.2 Basic characteristics of the enterprises	21
II.3 Basic characteristics and motivations of the entrepreneurs	23
II.4 Basic characteristics of the business environment	27
II.5 Start-up, operational and growth constraints	28
II.5.1 Constraints related to the life cycle of the enterprise	28
II.5.2 Constraints related to characteristics of the enterprise	32
II.5.3 Constraints related to characteristics of the entrepreneurs	33
II.5.4 Constraints related to the business environment	35
II.6 Farm linkages and complementarities	37
II.7 Support programmes	38
II.8 Conclusions	40
III. Discussion	43
III.1 Scientific relevance	43
III.2 Recommendations for further research	44
III.3 Practical applicability	44

IV. Recommendations	47
IV.1 Education and training of donors and policy makers	47
IV.2 Minimisation of constraints	47
IV.3 Improvement of infrastructure	48
IV.4 Rise in agricultural productivity and rural welfare	48
References	51
Appendices	
I. Participating researchers and institutions	53
II. Follow-up of the project: capacity building and project-related publications	55

Preface

This text is based on the results of a project conducted jointly by researchers from Israel, Kenya and the Netherlands in the period September 1994-August 1998. It addresses the question of barriers to entry and growth of small enterprises in rural Kenya. The project was funded by the Netherlands-Israel Development Research Programme (NIRP), which aims to encourage development-related research focused on socio-economic and cultural change. Being policy-oriented in nature, NIRP aims to make the results of research accessible to anyone interested in solving the problems investigated. The target groups for such knowledge include policy makers, representatives of non-governmental and donor organisations, and the scientific community. With this aim in mind, the Publication Board has launched the NIRP Research for Policy Series as a channel for the publication of “user-friendly” summaries of more than 30 scientific reports.

The Publication Board wishes to thank Dr. Mirjam A.F. Ros-Tonen for summarising the scientific report and editing this booklet. Thanks are also due to Mr. Robert R. Symonds for revising the English.

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I. General information

I.1 Framework of the study

Small-scale enterprises¹ are an important source of employment and income for the rural population in developing countries. It has been estimated for sub-Saharan Africa as a whole, that 25-30% of the income of rural households is earned through activities outside agriculture (Haggblade *et al.*, 1989). In Kenya, too, a growing number of people are engaged in micro-enterprises. Because of increased pressure on arable land caused by a rapidly growing population, more and more rural households have to seek alternative sources of income in order to satisfy their basic needs. While migration to urban centres in search of employment is one option, another one is to start a small-scale enterprise.

Small-scale enterprises do not have to be marginal activities, as is often stated. On the contrary; if micro enterprises (0-4 workers) succeed in evolving into small enterprises (5-19 workers), they can form a dynamic sector with vital links with agriculture and other sectors of the local economy. Such enterprises can be expected to create jobs and enhance indigenous control of the economy (Kenya, 1989) and to promote income generation, conservation of foreign exchange, savings for investment and support services (Ikiara, 1991). For these reasons, the Kenyan government has spent substantial funds since 1983 in its endeavour to promote small-scale enterprises. However, there is evidence to suggest that the sector's growth has been spontaneous and that few small-scale firms have been able to "graduate" into larger enterprises in the more formal economy. The small-scale enterprise sector has expanded mainly through proliferation in numbers (the same enterprises have diversified or new entrepreneurs have entered the industry) rather than through increased size of firms (Hosier, 1987).

¹ In this study, an enterprise is conceived as a set of non-farming economic activities carried out by one owner, and with one system of bookkeeping. Small-scale enterprises may refer to either micro-enterprises (0-4 paid employees) or small enterprises (5-19 paid employees).

The consequence of this horizontal, rather than vertical growth, is income sharing, low productivity and stiff competition.

The lack of growth of micro-enterprises into small enterprises could have serious implications for rural economic development. It suggests the presence of factors constraining the transition from micro to small enterprise. The fact that many potential entrepreneurs in Kenya do not graduate beyond the micro-enterprise stage and that the potentially dynamic small enterprise sector is heavily underrepresented in the Kenyan economy is a phenomenon which warrants serious analysis. This problem therefore presents one of the major motives for this study.

Strong and effective support is required to achieve further growth and contribute to people's welfare. The prerequisite for a sound policy in this respect is an understanding of the sector's constraints. This study aims to contribute to this understanding and to explain why most small-scale enterprises tend to remain small. It addresses the question of what barriers hinder the formation and growth of small enterprises in rural Kenya² and how they can be removed.

The study was conducted in three divisions³ of the Nakuru and Kericho Districts, a highland zone located in Kenya's Rift Valley Province. The three divisions were chosen for their relatively high potential for small enterprise growth, given their rich agricultural hinterlands.⁴ They were also selected on the basis of their different population dynamics, being Molo Division (Nakuru District) an area with a growing population; Rongai Division (Nakuru District) an area with a relatively stagnant population, and Kipkelion Division (Kericho District) an area with a declining population. Molo Division was also selected to assess the impact of an important urban centre. The study area is an agricultural one, with 85-90% of the population finding income and employment in agriculture and livestock production. An increasing number of households earn an income from small-scale commercial and manufacturing enterprises.

1.2 Objectives and research questions

This study aims to examine the specific constraints that small-scale

² Rural" in the context of Kenya is any land that is neither urban (i.e. places with a minimum population of 2,000 people; see Kenya, 1994) nor designated as a protected area.

³ The Division is the administrative unit below the District.

⁴ All three areas are located in the former "white highlands" settled by European farmers.

enterprises in rural Kenya face at the various stages in their development. Secondly, it aims to identify and analyse the barriers for micro-enterprises to develop into small enterprises. A third objective is to discover whether certain types of enterprises or entrepreneurs face specific constraints. Finally, the study intends to evaluate possible policy instruments and tools needed for overcoming constraints in the establishment and development of small-scale enterprises in rural areas.

In line with these objectives, the study addresses the following research questions:

- What are the specific constraints faced by small-scale enterprises in rural Kenya at the conception, start-up and sustained operational stages of their development and what constraints hinder their transition from one stage to another?
- To what extent do different types of enterprises face specific constraints during enterprise development?
- To what extent do different types of entrepreneurs face specific constraints during enterprise development?
- To what extent do backward and forward linkages with the agricultural sector exist and how do these linkages affect the development of small-scale enterprises?
- What actions can be taken to stimulate the development of small-scale enterprises in the rural areas?

1.3 Hypotheses and methodology

This study was guided by the following hypotheses:

1. The nature and intensity of constraints on the formation and growth of small-scale enterprises differ across the development stages of small-scale enterprises. During the conception stage, lack of information is likely to be the major constraint. At the start-up stage, lack of credit or finance may be the most serious barrier, while at the operational stage the acquisition of material inputs or information (on market opportunities, for instance) may act as a major constraint.
2. The major constraints on the transition from micro-enterprises into small enterprises relate to the rural location of the enterprise. A “real” rural environment is generally characterised by low demand, limited purchasing power and local values and norms relating to family obligations, role expectations and social sanctions. Moreover, the physical distance to major markets involves high transportation costs and results in lack of information.

3. The characteristics of the enterprise, such as economic branch, level of technology, firm size and age can mitigate the existence of some constraints and exacerbate the existence of others. For example, human capital constraints can impact heavily on branches that require sophisticated skills, but not in branches characterised by labour-intensive production.
4. Women, older people and/or less educated persons are assumed to face more and stronger constraints than men, younger people and relatively well-educated persons. Moreover, existing or earlier experience of running an enterprise in the family is expected to have a positive influence on the entrepreneur's performance.
5. Micro-enterprises maintain both backward and forward linkages with the agricultural sector. A transition from micro-enterprise to small enterprise is expected to create backward linkages to other sectors as well.
6. Experience from other countries suggests that well-constructed policy interventions, which address real needs, can modify structural constraints. Hence, it was hypothesised that some structural constraints can be solved through innovative intervention instruments.

Table 1 Size distribution of enterprises in the census and in the main survey (n = 1,629)

Size category	Number of enterprises in the inventory survey (census)		Number of enterprises in the main survey	
	n	%	n	%
0 employees	871	53	101	34
1-2 employees	587	36	116	39
3-4 employees	125	8	46	16
5 or more employees	<u>46</u>	<u>3</u>	<u>31</u>	<u>11</u>
Total	1,629	100	294	100

The methodological package comprised three different field surveys with different sample sizes: a census (inventory survey) among 1,629 cases, a main survey among 294 cases and an in-depth survey among 32 entrepreneurs. The inventory survey (census) was to generate basic information on the name and sex of the entrepreneurs and the firm's location, type of activity and size (in number of employees). It also served as a basis for the selection of the 294 enterprises that were included in the main survey (Table 1).

Table 2 Major characteristics of the population centres

District	Division	Centre	Population size ^a	Population growth ^b	Status ^c	Location ^d	
Nakuru	Rongai	Rongai Town	+	0	m.c.	0	
		Salgaa	0	+	-	+	
		Menengai	-	0	-	0	
		Kampi ya Moto	-	0	-	0	
		OI-Rongai	-	-	-	-	
		Leng'net	-	0	-	-	
	Molo	Visoi	--	0	-	-	
		Molo Town	++	+	u.c.	0	
		Total	+	+	-	+	
		Muchorwe	0	+	-	0	
		Turi	0	0	-	0	
		Sachang'wani	0	+	-	+	
		Mau Summit	-	-	-	0	
		Kamara	-	0	-	+	
		Kibunja	-	+	-	+	
		Kipkelion	Kipkelion Town	0	-	u.c.	-
			Chepseon	-	+	-	+
			Lelu	--	0/-	-	-
			Barsiele	--	0	-	-

Notes: ^a Measured relative to Molo Town; ++ is largest; -- is smallest
^b + = growing; 0 = stagnant; - = declining
^c u.c. = urban centre; m.c. = market centre; - = no official status⁵
^d + = on highway (Nakuru-Eldoret or Nakuru-Kericho); 0 = on other major tarmac road (Njoro-Molo-Kericho; Molo-Olenguruene; Nakuru-Marigat; Salgaa-Rongai); - = on murram road⁶

The questionnaire used in the main survey covered the main research questions, grouped around such themes as the characteristics of the entrepreneur and the enterprise, the constraints, stock and seasonality, income and costs, and organisations.

Information about stage-specific constraints was obtained in various ways. Firstly, the respondents in the main survey were asked to enumerate the three main constraints – in order of importance – faced at each of the stages. With respect to the growth stage, the question about constraints was

⁵ In Kenya, population centres are classified into urban centres, rural centres, market centres and local centres (Kenya, 1978). Urban centres are defined as places with a residential population of over 5,000 and a rural hinterland population from 40,000 up to 150,000. Rural centres are defined as centres with 15,000-40,000 inhabitants in the hinterland, market centres have between 5,000 and 15,000 inhabitants in the hinterland and local centres serve a catchment area of approximately 5,000 people.

⁶ Murram is a word which is commonly used in Kenya for a kind of gravel.

subsequently differentiated for enterprises with increased, stable and declined numbers of employees (i.e. growing, stagnant and declining firms). The question to owners of grown enterprises was about the three most important constraints they had faced during the growth stage. Owners of stagnant and declining firms were asked about the main obstacles to hiring extra employees.

The in-depth interviews with 32 entrepreneurs were meant to give a deeper insight into the factors critical to the growth (or decline) of small-scale enterprises in the study area. The entrepreneurs were representative of the area's eight main business sectors (manufacturing, repair, catering, other food selling, groceries, other retail trade and wholesale, transport and other services) and equally represented the growing and the stagnant or declining firms in those sectors. The main issues discussed during the in-depths interviews included the entrepreneurs' life histories in business, their envisioned businesses in the long run, their views on the performance of their businesses over the years and the possible explanatory factors for variations in these.

In addition to some very tiny centres consisting of just a few shops, there are 19 centres in the three selected divisions, ranging from Molo Town to small centres like Barsiele in Kipkelion Division and Visoi in Rongai Division. It was decided to include them all in the surveys. The characteristics of these centres are presented in Table 2.

1.4 Theoretical orientation

This study sees micro-enterprise formation as part of a developmental process and not as an end in itself. The idea is that the employment and income-generating capacity of small-scale enterprises, as well as their role in rural economic development, can be increased if more of them succeeded in transforming themselves from micro-enterprises (0-4 employees) into small ones (5-19 employees). Most of them face constraints on growth, however. This study aims to understand these constraints and explain why most micro enterprises remain small. In doing so, it distinguishes between constraints at different stages of enterprise development, i.e. the stages of conception, start up and sustained operation.

No widely accepted or coherent body of theory exists on the small entrepreneurial firm. Nevertheless, constraints on enterprise growth can be sufficiently understood with the help of a review of some theories on firm dynamics (Liedholm and Mead, 1991; Fafchamps, 1994). Of particular relevance in this respect are dynamic entrepreneurial theories. These

theories assume that entrepreneurs are a key determinant of firm growth. There are three models based on these theories.

The Lucas model

Lucas developed this model in 1978 on the premise that individuals are not equally endowed with business acumen or management ability. He considers this ability to be a major determinant of enterprise formation, growth and mortality. Fafchamps (1994), too, points to the importance of management ability in explaining variations in firm size. He contends that, in Africa, micro-entrepreneurs often lack the capabilities to run a large formal organisation. Some are also risk avoiders, an attitude which makes them remain small.

Lucas incorporated his model into Gibralt's law, according to which firms of all sizes are assumed to face the same probability of growth and luckier firms grow faster than the rest. This is one of the weaknesses of his model, as in developing countries firm size and growth tend to be inversely related (i.e. the smaller the firms, the smaller their growth chances). Moreover, his model is unduly abstract, static and dependent on too many tenuous assumptions. It says relatively little about how firms evolve, ignores risk and uncertainty and does not define optimal firm size.

The Kihlstrom and Laffont model

This is a variant of the Lucas model, developed by Kihlstrom and Laffont in 1979. Contrary to the Lucas model, it considers the role of risk in firm dynamics. The authors argue that entrepreneurs are basically risk takers and that varying preferences for risk rather than business acumen are the major determinants of business formation, growth and mortality. For example, a preference to deal with known and certain markets may lead to highly fragmented markets with severely limited profits and growth potential.

Like the Lucas model, this model is of limited value because of some of its underlying assumptions, such as Gibralt's Law.

The Jovanovic model

Jovanovic developed this model in 1982, taking into account the key elements of the models above. Jovanovic argues that risk arises because business activities are inherently risky and also because individuals are unsure of their management abilities. He assumes that entrepreneurs learn to better assess their abilities by engaging in the real business world and observing how well they perform. As they gradually learn more about their actual abilities, business attitudes and practices will change over time.

When an enterprise is started, it is perfectly competitive with firms of equal size, assuming they all have equal managerial abilities. Entrepreneurs then observe their profits or losses after the first year and, from this update, can estimate their management abilities. Those firms that revise their management ability estimates upward will grow, while those that downgrade their estimates will contract or even exit when the expected net profits become negative. Over time, the surviving entrepreneurs gain a more precise estimate of their managerial abilities through experience and eventually the estimated and actual managerial abilities will converge. Firms that survive this market screening tend to be well managed and efficient and can grow.

Although it is an important step towards a truly dynamic theory of the firm, the Jovanovic model is still somewhat limited. The entrepreneur is assumed to simply learn more about his or her given managerial ability. No provision is made for the entrepreneur to enhance this ability through education or training or simply by gaining more business experience.

Indeed, none of these models identify determinants of managerial ability, while it is well known that education, training and certain socio-demographic variables are among the key determinants.

Moreover, these growth models do not include other variables that may be crucial in explaining patterns of firm evolution, such as location, sub-sector and gender of the entrepreneur. Thus, in generating hypotheses about the key determinants of firm birth, expansion, contraction and dissolution, one must move beyond those suggested by the above growth models. Individual characteristics alone are not sufficient to explain enterprise development. Characteristics of the enterprise and business environment need also to be taken into account.

1.5 Elaboration of the research

The constraints on enterprise growth which are the subject of this study are not dealt with as explanatory variables, but are used to stress the complementarities between, for instance, economic class (branch, firm size and technological level) and social factors (age, gender, ethnic background and characteristics of the household). Very few studies to date have looked at this interplay between characteristics of the entrepreneur, characteristics of the firms and their business environment and how this affects the constraints on growth. This section elaborates on the three types of constraints considered in this study and the way they were operationalised (Table 3).

Constraints related to characteristics of the firm

Economic branch is assumed to affect both the constraints encountered by the enterprise and its growth perspectives. This study distinguishes eight economic branches, which are grouped for the purpose of analysis into three main categories. These are manufacturing and repair, the food sector (catering, other food selling and groceries) and other services (wholesale and retail trade, transport and other services).

Firm size, another characteristic of the firm, is operationalised in this study in terms of the number of employees. The distinction between a micro enterprise (0-4 paid employees) and a small one (5-19 employees) is based on the classification used by the Kenyan Central Bureau of Statistics (CBS, 1986). An increase in the number of employees is defined as growth. The relation between firm size and growth in the African context is supposed to be an inverse one: the smaller the enterprise, the larger its operational constraints, hence the more limited its potential for growth.⁷

A firm's technological level is determined by estimating the value of its equipment and tools and by looking at the source of energy used in the enterprise.

Table 3 Overview of possible constraints on growth

Constraints related to characteristics of the enterprise	Constraints related to characteristics of the entrepreneur	Constraints related to characteristics of the business environment
<ul style="list-style-type: none"> - Branch-specific constraints - Firm size - Technological level 	<ul style="list-style-type: none"> - Poor managerial ability and marketing skills - Inadequate risk management - Limited education and training - Gender - Motivation - Cultural background - Age - Household characteristics 	<ul style="list-style-type: none"> - Inadequate infrastructure (roads, electricity, water) - Low and unstable demand - Market constraints (e.g. market inaccessibility and barriers to entry) - Institutional bottlenecks (local and national bureaucracies) - Restrictive government policies and regulations - Legal constraints - Lack of skilled labour - Capital deficiency - Lack of credit opportunities - Lack of information

⁷ It is obvious that other types of enterprise growth may also occur, such as increased output or an improved capital/labour ratio.

Constraints related to characteristics of the entrepreneur

Several characteristics of the entrepreneur are likely to influence the degree to which constraints are felt. In addition to the managerial ability and risk management strategies, which were already discussed above, gender is of particular importance. Running a micro-enterprise can be especially important for women, who are often not able to look for economic activities outside the household because of domestic tasks like child care, food cultivation and food processing. There is evidence that, compared with men, female entrepreneurs not only have different motives for starting a micro-enterprise, but also face different and sometimes stronger constraints (Akelo, 1994). This is the case not only during the start-up stage, but also during the further development of their enterprises (Kuiper, 1991). This is not so much because of female entrepreneurs' life styles, but because of the effect of restricted access to financial resources and emphasis on the financial aspects of the business (Carter and Allen, 1997). Even isolation of markets through poor infrastructure facilities has a more negative impact on female-owned enterprises (Aspaas, 1991). For these reasons, specific attention will be paid to the gender issue in relation to the constraints on the enterprise development.

The entrepreneur's motive for starting the enterprise is another factor assumed to affect its potential for growth. On the basis of a study in central Kenya (Kinyanjui, 1993), there is evidence to suggest it is important, in particular, to distinguish between entrepreneurs who are just working to survive (supply-driven) and those who are not just concerned with survival, but want to grow and develop (demand-driven). The growth perspectives for both groups are expected to differ considerably, being more favourable for enterprises founded on demand-driven motives. For this reason, this study pays considerable attention to the motives of entrepreneurs, distinguishing between the motives for engaging in business and those for choosing a particular economic branch.

Other characteristics of the entrepreneur or his/her family that are likely to influence the degree to which constraints are felt are the entrepreneur's level of education and business training, age and his or her 'family background' (marital status and household size). Of particular importance regarding the latter is the question whether some family member has already experience with some kind of business (Halvorson-Quevedo, 1992). Such factors will also be taken into account in the present study.

16 Although the entrepreneur's cultural background was not specifically addressed in this study, it can affect business growth, as it may inhibit good

management practices or the decision to start or expand a business. Among the Dholuos, for example, only women are expected to engage in commerce, while men are not (Gachungi, 1985). Another example is that building loyalties with customers, suppliers and fellow entrepreneurs requires entrepreneurs to spend time away from their premises, either on ceremonial or courtesy visits or negotiating and carrying out transactions in person. The high value placed on personal contact and interaction in Africa, combined with the underdevelopment of communication facilities, cause enterprises to close down temporarily or to be left in charge of its employees. Other local values that pose non-economic constraints on growth include fear of witchcraft and jealousy, obligations towards extended families and norms governing the behaviour of entrepreneurs. With respect to the latter, entrepreneurs may increase their status by employing additional people without regard to profitability, thus reducing productivity, investment funds and, hence, growth of the enterprise.

Constraints related to the business environment

The firm's location can be very important, not only in the decision to start a business, but also as a factor in its further development. Two geographical locations are defined in this study. The first is the administrative division in which the enterprises are located (Molo Division, Rongai Division and Kipkelion Division), each with its own population dynamics (growing, stagnant and declining, respectively). The other definition of location is based on the relative access to markets, operationalised by the proximity of the various centres to major roads or highways. With regard to the latter, three categories are distinguished: "highway", Molo Town and "periphery". "Highway" concerns all the – rapidly growing – centres located along the Nakuru-Eldoret and Nakuru-Kericho highways. Molo Town is a category of its own by virtue of its size, which makes it relatively busier than the other centres. The "periphery" comprises all other centres. In terms of constraints, the latter have limited market potential because of their isolated location. Poor infrastructure increases transport costs and limits access to markets and information (e.g. on marketing opportunities) and, therefore, growth. On the other hand, entrepreneurs in these locations may have some artificial monopoly, as these areas are inaccessible to traders from larger centres (Tellegen, 1997).

As far as a firm's market potential is concerned, the type of centre where it is located is also important. This variable is based purely on population size. As stated above, the centres are classified – in descending order – as urban, rural, market and local centre (see footnote 5).

An enabling business environment also requires adequate basic utilities, such as electricity and water. Information was therefore collected about the use of water and type of energy used in the enterprise.

II. Results

II.1 Small businesses in the study area: a preliminary exploration

This section describes the results of the inventory survey undertaken in all the 19 centres in the three divisions (i.e. Molo, Rongai and Kipkelion). The aim of this exercise was to identify and map all small-scale businesses in the study area and to collect basic data describing their main characteristics. The questionnaire designed for this inventory contained questions relating to the characteristics of the enterprise (economic branch, size, location), entrepreneur (name and sex) and business environment (population dynamics, accessibility to the market, type of centre in which the business was operating and location within the centre itself).

Characteristics of the enterprises

Most enterprises (97%) are micro enterprises, with 0-4 paid employees. More than half of the firms belong to self-employed entrepreneurs, with no paid employees at all.

The activities are strongly service-oriented. Manufacturing comprises less than 20% of the population. The major economic branch is the retail sector, with more than 40% of all enterprises. The remaining 40% are distributed across various forms of services, such as transport (7%), lodging (16%), personal services (13%) and other services (4%).

Most enterprises (73%) are “conventional” businesses, operating from premises designed for economic activity. About one fifth (20%) operate from roadside establishments, while the remaining enterprises are home-based (5%) or hawkers (2%).

Characteristics of the entrepreneurs

Of the 1,629 small-scale enterprises in the study area, 1,232 (75.6%) were owned by male entrepreneurs and 397 (24.4%) by females.

Characteristics of the business environment

Over half of the enterprises (55%) are located in a high-growth environment

(Molo Division). Businesses located in stagnant or slow-growth environments (Rongai Division) comprise 28% of the total, and the remaining 17% of the businesses observed operate in an environment of declining growth (Kipkelion Division).

In terms of market accessibility, 513 enterprises (32%) are located along one of the highways, 395 enterprises (24%) at a relatively large market (Molo Town) and 721 cases (44%) are located “inland” or at a peripheral location. This distribution shows that more than two-fifths of the enterprises are found in areas of low market potential and difficult accessibility. The other half are divided between areas of better accessibility (highway location) or with a large market potential thanks to the area’s population size.

As regards the type of centre and location within the centre, 38% were located in urban centres (i.e. Molo Town), 22% in rural centres, 36% in market centres and 4% in local centres. Within these centres, over 75% of the enterprises are located on commercial plots, while the rest are distributed over other locations within the centre, outside the centre or in *Jua Kali* areas.⁸

Using these partial data, some basic relationships were explored, resulting in the following findings:

- Relating the characteristics of the enterprise to those of the entrepreneur showed a concentration of female entrepreneurs in the service sector, beyond the level expected on the basis of the general distribution over economic branches.
- Relating characteristics of the enterprise to those of the business environment showed that manufacturing activity was over-represented in non-stagnant and accessible business environments (Molo and Rongai Divisions and within these mainly highway locations). Retail activity was heavily concentrated in areas where the population is largest (i.e. Molo Division, a growing population area).
- Other aspects of the business environment did not yield any surprising results. Thus, businesses that were not found in conventional premises (e.g. hawkers, roadside and home-based businesses) did not show any particular attachment to gender or sector affiliation beyond the expected distributions. Nor were female businesses heavily concentrated in any of the types of centre (urban, rural, market, local).
- Statistical relationships between the size of the firm (number of

⁸ *Jua Kali* is the local (Swahili) name for the informal sector. It literally means “fierce sun”, as many activities are undertaken in the open air.

employees) and the various characteristics of the entrepreneur, enterprise and business environment revealed that firms headed by female entrepreneurs were significantly smaller than those operated by males. Enterprises in the transport and lodging branches are significantly larger than enterprises in other branches. Firms in urban centres, in locations that are more accessible and which experience a faster population growth were also larger than others. This points to the role of market potential and/or agglomeration effects in promoting larger firm size.

Various statistical tests were used to estimate the size and probability of growth of small enterprises.⁹ The results show that the probability of adding employees (i.e. probability of growth) is associated with firms headed by male entrepreneurs in urban centres and operating economic activities in either the manufacturing or transport branches. Conversely, businesses run by females, located in market, rural or local centres and operating in the retail sector are likely to be smaller and with a lower probability of adding employees.

In sum, the features of the firm (economic branch), characteristics of the entrepreneur (gender) and attributes of the business environment (size and dynamics of the local market) all seem to play some part in determining firm size and its probability of growth. These and other relationships will be further explored in the sections below, using more detailed data obtained in the main survey of 294 enterprises. Firstly, the basic characteristics of the enterprises (II.2), the entrepreneurs (II.3) and the business environment (II.4), respectively, will be presented, after which their relations to various constraints will be considered (II.5).

II.2 Basic characteristics of the enterprises

As we have seen in the previous section and as Table 4 confirms, manufacturing businesses form a small minority (17%). Enterprises in this rural area of Kenya are overwhelmingly engaged in all kinds of trade and services, particularly in food services. Catering, other food selling and groceries together account for 60% of the enterprises.

⁹ The estimation of firm size is based on simple ordinary-least-squares (OLS) techniques. The probability of a small firm moving from the zero employees category to the 1-4 employees category was estimated by using a binominal logit model. In essence, both estimations measure the same thing and similar results emerge from both.

Table 4 Basic characteristics of the enterprises

Characteristic	Category	Percentage (n = 294)
- Branch	Manufacturing	17.4
	Repair services	9.1
	Catering	25.0
	Other food selling	12.8
	Groceries	11.9
	Other retail trade and wholesales	7.5
	Transport services	6.9
	Other services	9.4
	Total	100.0
- Number of paid employees	0	34.2
	1-2	39.7
	3-4	15.6
	5+	10.5
	Total	100.0
- Ownership	Sole proprietorship	93.2
	Partnership	6.5
	Family proprietorship	0.3
	Total	100.0
- Estimated value of tools/ equipment	0-10,000 Ksh ^a	40.8
	10,001-20,000 Ksh	21.8
	20,001-40,000 Ksh	10.7
	40,001+	26.7
	Total	100.0
- Geographical location	Molo	54.0
	Rongai	31.0
	Kipkelion	15.0
	Total	100.0
- Market accessibility	Highway location	33.0
	Molo Town	28.0
	Peripheral location	39.0
	Total	100.0
- Use of water	Yes	53.8
	No	46.2
	Total	100.0
- Type of energy used	None	27.3
	Electricity	18.7
	Diesel	9.5
	Charcoal	3.7
	Firewood	0.3
	Paraffin	15.3
	Combination	24.2
	Other	1.0
	Total	100.0

^a 1 US\$ = 60 Ksh

About one-third of the 294 firms (34%) in the main survey have no paid employees and another 40% have only one or two (Table 4). In all, 90% of the enterprises are of the micro type. Compared with the results of the inventory survey (II.1), in which 97% of the enterprises were found to be micro-enterprises, this indicates a certain underrepresentation, which can be attributed to the sampling method. Because of the small sizes of the businesses, it is not surprising that most of them (93%) were owned solely by the entrepreneur. The others were owned in partnership (7%), while one was owned by the family as a whole. The estimated value of tools and equipment was quite low, namely, less than Ksh. 20,000 (US\$ 335) in more than 60% of the enterprises. This feature, too, corresponds with the predominantly small size of the firms.

II.3 Basic characteristics and motivations of the entrepreneurs

Table 5 shows that most entrepreneurs are men (85%) and younger than 40 years (61%). Most of them are married monogamously (81%), while most of the others are single (14%). Nearly 95% of the entrepreneurs had some education, almost half of them (49%) having primary education and almost one-third (32%) having attended secondary school. Only a small number had no education whatsoever (6%), but that does not mean they are all illiterate. Less than half of the entrepreneurs (44%) received business training, mostly in the form of apprenticeship (24%) or vocational training (15%). The average entrepreneur's household consists of six persons, with household size ranging from a minimum of 1 to a maximum of 23.

As stated in Section I.4, the entrepreneurs' motivation for starting up a business was assumed to affect the potential for growth. The distinction between supply-driven and demand-driven decisions seemed to be of particular relevance or, to put it differently, whether starting the enterprise was motivated by necessity or by economic opportunity (Tellegen, 1997).

The prospects for growth were expected to be better for the latter. To explore this further, two sets of factors were analysed, i.e. the motives of the respondents for starting a business (Table 6) and the factors that influenced the choice of a particular activity (Table 7). Both factors are first analysed for the whole sample and then related to gender, economic branch and the two location variables (division and market accessibility). Next, the choice of business activity is related to characteristics of the entrepreneurs, such as gender, education, training and economic activities previously undertaken.

Table 5 Basic characteristics of the entrepreneurs

Characteristic	Category	Percentage (n = 294)
- Gender	Men	84.7
	Women	15.3
	Total	100.0
- Age	<20	0.7
	20-29	25.0
	30-39	35.5
	40-49	25.0
	50+	13.8
	Total	100.0
- Marital status	Single	14.2
	Married monogamously	81.1
	Married polygamously	3.7
	Divorced/separated/widowed	1.0
	Total	100.0
- Education	No education	5.8
	Primary school, Standard 1-4	7.8
	Primary school, Standard 5-8	39.3
	Secondary school, Form 1-2	9.8
	Secondary school, Form 3-4	31.9
	Higher education	4.1
	Other	1.0
	Unknown	0.3
	Total	100.0
- Business training	No training	55.9
	Apprenticeship	23.7
	Vocational training	14.6
	Workshop/seminar	5.2
	Combination	0.3
	Other	0.3
	Total	100.0
- Household size	1-3	20.0
	4-6	42.0
	7-9	25.7
	10+	12.3
	Total	100.0

Most entrepreneurs were motivated to start a business through the need to have a satisfactory and stable source of income (Table 6). About a quarter (23%) of the entrepreneurs started a business because they were unemployed. These can be supposed to fall under the “supply or necessity-driven” category. Almost a half (49%) started in expectation of an income increase. Most of these – but not necessarily so if the previous income was low – might fall under the “demand-driven” category. The desire to be economically independent was also important (18%), although mainly among the male

entrepreneurs. The remaining 10% of the entrepreneurs entered business for various other reasons, such as peer pressure, inheritance, childhood ambition, experience and retirement venture. The low percentage of entrepreneurs who went into business through inheritance (2.5% – not specified in the table) indicates that business has only recently become an important occupation in the study area.

As can be seen in Table 6, the desire to earn higher incomes was of more importance in the category “other services” (64%) than in manufacturing (38%) and food services (48%). Accordingly, the unemployment motive showed the reverse picture. Apparently, income prospects are better in the other services. The proportion of entrepreneurs motivated by the desire to be economically independent is smallest in food services. This can be explained by the dominance of women in this sector, for whom this motive is not very common.

Table 6 Motivations for starting by gender, branch, division and market accessibility (%)

	n	Lack of employment	Better payment	To be one's own boss	Peer pressure	Other
Total	294	23.4	48.8	18.2	3.8	5.8
<i>Gender</i>						
Male	249	22.9	48.2	19.7	3.6	5.6
Female	45	26.1	52.2	10.9	4.3	6.5
<i>Branch</i>						
Manufacturing / repair ^a	78	29.5	38.4	24.4	5.1	2.6
Food service ^b	146	28.1	48.0	13.0	6.8	4.1
Other services ^c	70	8.6	64.3	22.8	1.4	2.9
<i>Division</i>						
Molo	167	24.2	44.8	21.8	4.2	4.8
Rongai	88	27.0	47.2	14.6	4.5	6.8
Kipkelion	39	10.8	70.3	10.8	-	8.1
<i>Market accessibility</i>						
Highway	92	20.2	60.7	9.0	5.6	4.4
Molo Town	88	22.7	44.3	26.1	1.1	5.7
Periphery	114	26.3	43.0	19.3	4.4	7.0

^a Carpentry shops, motor repairs, black-smiths, etc.

^b Food and tea kiosks, butcheries and bars, raw food sellers and groceries.

^c Wholesalers, transporters, hairdressers and others.

Table 7 Motives for the choice of branch by gender, branch, division and market accessibility (%; n = 294)

	n	Supply driven		Demand driven				Other reasons
		Exper. and skills	Easy start and run	Demand exists	No competition	High/stable returns	High growth potential	
Total	294	30.6	30.6	12.4	3.4	8.6	5.5	8.9
<i>Gender</i>								
Male	249	34.7	27.3	11.8	3.3	9.0	5.3	8.6
Female	45	8.9	46.6	15.6	4.4	6.7	6.7	11.1
<i>Branch</i>								
Manufact. / repair	78	56.4	15.4	10.3	2.6	5.1	1.3	8.9
Food services	146	17.1	43.2	11.6	2.1	10.3	6.8	8.9
Other services	70	28.6	22.8	14.3	8.6	11.4	5.7	8.6
<i>Division</i>								
Molo	167	34.5	32.7	24.9				7.9
Rongai	88	24.7	25.8	37.1				12.4
Kipkelion	39	25.7	33.3	35.9				5.1
<i>Market accessibility</i>								
Highway	92	23.9	34.8	38.0				3.3
Molo Town	88	45.5	26.1	18.2				10.2
Periphery	114	24.6	30.7	32.5				12.2

Location can be very important in the decision to start a business. This is reflected in the different proportions of entrepreneurs who were motivated by the desire to earn higher incomes (70% for Kipkelion vs. 45% and 47% for Molo and Rongai, 61% for entrepreneurs located along the highways vs. 44% and 43% for Molo Town and the periphery, respectively). In Kipkelion this difference can be attributed to the relative lack of alternative income-generating opportunities; in highway locations to the available business opportunities.

As regards the choice of a particular business activity (Table 7), most entrepreneurs (61%) chose their activity on the basis of the supply factors “experience and skills” and the perceived ease of starting and running the business. Almost one third (30%) of the enterprises are demand driven, established mainly on the basis of the existing and future size of the market or demand or expected returns. Other motives, such as inheritance, talents

or demonstration effects, are less common (together 9%).

Female entrepreneurs, more than male entrepreneurs, tend to choose activities that are easy to start and operate (47% vs. 27%), specifically in the food sector. The prevailing socio-cultural norms and expectations on gender roles, as well as their limited skills, experience and financial abilities, are likely to restrict their choices. For men, experience and skills play a larger role (35% vs. 9% for women). This is especially the case in manufacturing and repairs, which require specific skills.

Experience and skills also play a relatively larger role for entrepreneurs in Molo Town. Being a dynamic market centre, it has a relatively large number of specialised businesses for which specific experience and skills are needed.

The relative importance of demand-driven factors for entrepreneurs in the periphery might be unexpected, but can be explained by the artificial monopoly created by the inaccessibility of the areas to traders from larger centres.

Statistical testing¹⁰ revealed that education and business training did not seem to have an impact on the choice of a business, mainly because most businesses are simple every day-life activities which do not require much education or sophistication. However, previous income-generating activities do have an impact, as they minimise the difficulties of choice for subsequent business activities.

To sum up, the majority of the motives for starting a particular business were demand and not supply-driven. As growth prospects are better for firms whose start was motivated by supply-driven factors, very little growth is to be expected from most of the small-scale enterprises in the study area.

II.4 Basic characteristics of the business environment

The distribution of the sampled enterprises over the three divisions in the study area confirms the picture that emerged from the inventory survey (II.1). More than half (54%) of the enterprises in the sample are operating in a dynamic environment (Molo Division), 31% in a stagnating or slow-growth environment (Rongai) and 15% in an environment of a declining population (Kipkelion) (Table 4).

Their location in terms of market accessibility also corresponds with the distribution of the total population: 33% have a highway location; 28% are located at the major market (Molo Town) and 39% at a peripheral location with limited accessibility and market demand.

¹⁰ Chi-square tests were employed to test this.

Other aspects of available infrastructure are the availability of water and energy. Although water is an important utility in almost any type of business, only slightly over half (54%) of the entrepreneurs reported using this resource. The high percentage of enterprises not using water is an indicator of the very small size of most of these businesses. This is also reflected in the type of energy used. In more than one-quarter (27%) of the enterprises, no energy was used at all. Less than one-fifth (19%) used electricity, while the remainder used various types of more or less traditional types of energy.

Compared with the Rongai and Molo Divisions, Kipkelion (declining growth area) has fewer alternative sources of income and employment. Agriculture in this area is less developed than in Molo and Rongai. This is partly because the natural conditions are less suitable, but mainly because of local indifference towards farming as a source of income. Traditionally, the dominant ethnic group in Kipkelion is more engaged in livestock herding than in crop farming. Livestock farming can generate as much income as crop farming, but milk marketing has been a large problem. As farmers in Kipkelion seem to have fewer alternative outlets than Rongai and Molo farmers, relatively more of them seek an income in small-scale enterprise. As we saw in the previous section, this is reflected in the relatively larger proportion of entrepreneurs who were motivated to start a business to increase their incomes.

II.5 Start up, operational and growth constraints

It was hypothesised that the constraints which small-scale entrepreneurs face are different for each stage of enterprise development¹¹ (i.e. start up, operational and growth stages), for different types of enterprise and for different types of entrepreneur. It was also assumed that constraints are location-specific. This section first presents the stage-specific constraints for all enterprises. These will then be further specified for types of enterprise, types of entrepreneur and location.

II.5.1 Constraints related to the life cycle of the enterprise

Entrepreneurs perceive different constraints at different stages of enterprise development. The constraints they mentioned during the survey are presented in Table 8. It can be seen from the table that “capital constraints” – mainly lack of capital and financial resources, but also problems with the

lack or inadequacy of premises – are the most important constraints at the start up and growth stages. At the operational stage, lack of capital and financial resources is also a problem, but here the high input costs are also felt as a major constraint. Low and unstable demand is the second important problem in all stages, sometimes combined with severe competition or

Table 8 Start up, operational and growth problems perceived by the entrepreneurs (%; n = 294)^a

Constraint	Start-up stage	Operational stage	Growth stage
<i>Capital constraints</i>			
Lack of capital / finances	70	49	89
Lack / unsuitable premises	28	8	25
Inadequate tools / supplies	12	-	-
Inadequate basic utilities	8	15	8
High input costs	-	39	-
<i>Marketing problems</i>			
Low / unstable demand	38	50	40
Severe competition	-	15	-
Seasonal fluctuation	-	-	38
<i>Labour-related problems</i>			
Inexperienced labourers	8	12 (not specified)	22
Dishonest labourers	-	-	29
Lack of labour / high mobility	3	-	11
Costly labour training	-	-	28
<i>Other constraints</i>			
Inexperience	19	-	-
Lack of information	14	-	-
Administrative regulations	-	8	-
Debts (dishonest debtors)	-	9	-
Domestic finance demand	-	-	7
No problem	6	1	4

^a The percentages refer to the total proportion of entrepreneurs who had mentioned the problem (either as their first, second or third problem).

seasonal income fluctuation. “Labour-related problems”, including such constraints as inexperienced labour, dishonest labour, lack of labour, costly labour training and high labour mobility, are experienced as important problems at the growth stage. Among the “other constraints” are lack of experience and information, which are – not surprisingly – particularly relevant at the start up stage.

The figures in Table 8 demonstrate that, in accordance with the hypotheses, capital constraints become a somewhat less decisive factor as the enterprise develops (although they are still a major problem in the growth stage), while labour-related problems increase. The latter type of constraint is particularly important at the growth stage.

As was explained in Section I.5, a distinction was made in the information about constraints on growth between constraints actually experienced during the growth stage by firms which had grown and obstacles preventing stagnant and declining firms from hiring extra employees. The characteristics of the three types of enterprise (Table 9) give a first indication of the factors that influence growth:

- *Economic branch.* With 43-51% of the enterprises experiencing growth, catering, manufacturing and transport seem to offer the best prospects for growth. With only 11-22% of the enterprises experiencing growth, the growth prospects for groceries, other retail trade/wholesale and food selling seem to be the worst.
- *Gender.* Compared with male-run enterprises, only a few female-run enterprises experienced growth (40% vs. 11%), indicating that women face stronger constraints than men do.
- *Education.* Within the group with at least half of the primary school completed, the proportion of enterprises which have grown is larger than within the group with up to half of the primary school completed (36-39% vs. 23%).
- *Division.* In Kipkelion, fewer enterprises experience growth than in the other divisions (21% vs. 35 and 41%).
- *Market accessibility.* Growth prospects in Molo Town seem to be the best (42% of the enterprises have grown); highway locations do not have larger proportions of enterprises which have grown (29%) than the periphery (34%), which may be an indication of high competition along the highway.

Of the entrepreneurial characteristics, age and household size do not seem to have any impact on enterprise growth.

To sum up, the prospects for growth are better when the entrepreneur is a man and has followed some formal education, when the business is catering, manufacturing or transport and it is not located in Kipkelion or along the highway.

Table 9 Basic characteristics of growing, stagnant and declining enterprises (%: n = 294)

		n	Growing (%)	Stagnant (%)	Declining (%)
Total		294	35	50	15
<i>Enterprise characteristics</i>					
No. of employees	0	100	-	88	12
	1-2	117	40	42	18
	3-4	46	65	20	15
	5+	31	84	10	6
Economic branch	Manufacturing	55	51	36	13
	Repair services	25	36	48	16
	Catering	73	44	37	19
	Other food selling	37	22	59	19
	Groceries	37	11	86	3
	Other retail trade and wholesale	19	16	74	10
	Transport services	21	43	33	24
	Other services	27	27	56	7
<i>Entrepreneurial characteristics</i>					
Sex	Men	248	40	46	14
	Women	46	11	74	15
Age	< 30	75	36	47	17
	30-39	104	27	57	16
	40-49	74	45	43	12
	50+	41	37	56	7
Education	Up to primary school, Standard 4	40	22	70	8
	Primary school, Standard 5-8	115	39	44	17
	Part of secondary school and higher	138	36	50	14
Household size	1-3	58	27	59	14
	4-6	123	37	49	14
	7-9	76	37	47	16
	10+	36	36	50	14
<i>Locational characteristics</i>					
Division	Molo	167	35	50	15
	Rongai	88	41	48	11
	Kipkelion	39	21	58	21
Market accessibility	Highway location	92	29	52	19
	Molo Town	88	42	44	14
	Periphery	114	34	55	11

II.5.2 Constraints related to characteristics of the enterprise

As for differences in constraints by economic branch, there is a clear difference between manufacturing and repair on the one hand, and the services sectors, on the other. With regard to the former, the proportion of entrepreneurs mentioning insufficient capital as the main start-up problem was substantially higher than in the service sectors, while the proportion mentioning low demand was much lower (Table 10). This can be explained by the relatively costly equipment and tools required in this branch. Few people can afford these investments, so that competition in this branch is experienced much less as a constraint than in the service sector.

Table 10 Main constraint during start-up and operation by economic branch (% of respondents; n = 294)

Constraint	Start-up stage			Operational stage		
	Man. & repair	Food services	Other services	Man. & repair	Food services	Other services
<i>Capital constraints</i>						
Lack of capital / finances	66.3	43.5	37.9	43.8	21.1	19.4
Lack / unsuitable premises	6.3	9.7	3.0	6.3	1.4	8.9
Inadequate tools / supplies	2.5	5.5	1.0	-	-	-
Inadequate basic utilities	-	-	-	1.3	7.5	4.5
High input costs	-	-	-	4.7	15.6	19.4
<i>Marketing problems</i>						
Low / unstable demand	64.8	17.2	21.2	23.8	31.9	19.4
Severe competition	-	-	-	8.8	4.8	7.5
<i>Labour-related problems</i>						
Inexperienced labourers	-	4.8	4.5	-	9.5 (not spec.)	6.0 (not spec.)
<i>Other constraints</i>						
Inexperience	8.8	6.9	10.6	-	-	-
Lack of information	5.0	4.1	12.1	-	-	-
Administrative regulations	-	-	-	2.5	3.4	8.9
Debts	-	-	-	7.5	4.1	3.0
Miscellaneous	-	2.8	3.6	-	-	-
No problem	6.3	5.5	6.1	1.3	0.7	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

At the operational stage, low demand is almost as critical a constraint as lack of capital and financial resources. In the food sector, it is even experienced as a stronger constraint, which indicates the highly fragmented

nature of its market. As with the start-up stage, in manufacturing and repair lack of capital and financial resources is more often mentioned as the main constraint than low demand. This indicates the existence of a potential market, but the inability to capitalise on this latent demand because of generally inadequate facilities.

The obstacles experienced during the growth stage do not differ much across the different branches. Some constraints are branch-specific, however. Entrepreneurs in manufacturing and repair, for instance, complain relatively more often about small premises (14% vs. 7% and 5% in food services and other services, respectively). It is possible that this problem has to do not only with the actual size of the premises, but also with access to utilities such as electricity, which is the main type of energy used in this branch.

Another example of a branch-typical growth obstacle is dishonesty of workers in other services, i.e. transport. It was experienced as a problem by 20% of the respondents (*cf.* 5% in manufacturing and repair and 0% in food services). In passenger transport, the collusion between the driver and conductor to take part of the day's revenue is high. In goods transport, drivers can do their own private transport and keep the money while they are out on official business, especially if they have no official return cargo.

Among stagnant and declining firms, little variation was found between economic branches. Only the factor of low demand was less of a problem for manufacturing and repair (32%) than it was for the service sectors (40-45%).

To sum up, obstacles differ between economic branches, with the main difference being between manufacturing and repair, on the one hand, and the service sectors, on the other. Enterprises in the first category primarily experience lack of capital as a major constraint, particularly during the start-up and operational stages. The service sectors are hindered mainly by low demand. During the growth stage, no such general differences were found between economic branches. Some growth obstacles are, however, rather typical of specific activities.

II.5.3 Constraints related to characteristics of the entrepreneurs

Gender is a decisive factor in the kind of constraints perceived. Female entrepreneurs less often feel lack of capital and financial resources as a major problem at both the start-up and the operational stages¹², but

¹² Constraints experienced during the growth stage could not be specified by gender, because of the low proportion of female-owned businesses among the expanding enterprises.

complain more than their male counterparts about low or unstable demand (Table 11). This can be explained by the sector most women are engaged in, namely, food services. Such businesses require little investment and are easy to start and run, but are therefore highly competitive, too. One person, without any employees, generally runs these enterprises, the low level of activity being the main obstacle to hiring extra employees (64% of the female-owned stagnant and declining enterprises). Not surprisingly, therefore, very few (10%) of the female-run enterprises had grown, against 40% of the male-run businesses (Table 9).

Table 11 Main constraint during start-up and operation by sex (% of respondents; n = 294)

Constraint	Start-up stage		Operational stage	
	Male	Female	Male	Female
<i>Capital constraints</i>				
Lack of capital / finances	51.0	34.8	28.6	17.4
Lack / unsuitable premises	6.1	13.0	-	-
Inadequate tools / supplies	2.9	8.7	-	-
Inadequate basic utilities	-	-	5.2	4.3
High input costs	-	-	12.3	17.4
<i>Marketing problems</i>				
Low / unstable demand	13.9	19.6	24.6	39.1
Severe competition	-	-	6.5	6.5
<i>Labour-related problems</i>				
Inexperienced labourers	-	-	6.9 (not spec.)	2.2 (not spec.)
<i>Other constraints</i>				
Inexperience	8.2	8.7	-	-
Lack of information	5.7	8.7	4.7	6.5
Miscellaneous	6.1	4.3	11.2	6.6
No problem	6.1	2.2	-	-
Total	100.0	100.0	100.0	100.0

Education possibly plays a role here as well. There is some relationship between enterprise growth and the entrepreneur's level of education, and women usually have less education than men. It should also be noted, however, that the low proportion of enterprises which have grown among female-owned businesses might indicate that women do not aspire to expand their businesses.

II.5.4 Constraints related to the business environment

Constraints also differ according to the location of the enterprise. For instance, in Kipkelion Division lack of capital and financial resources was a larger problem than in the Rongai and Molo Divisions at the start-up and operational stages of enterprise development (Tables 12 and 13).¹³ The lower level of agricultural development in the former area undoubtedly contributes to this, as it makes people in the area having more limited sources of investment capital than people in Rongai and Molo. Kipkelion neither has electricity, because of which entrepreneurs more often complain about poor utilities as the main operational problem.

During the growth stage, entrepreneurs in Molo seem to experience fewer problems with lack of capital, but more with labour-related problems. The findings show that access to the market also makes a difference (Tables 12-14). At the start-up stage, entrepreneurs in the periphery complain more often of lack of capital and financial resources than their colleagues in other locations. This is probably because a more isolated location is generally associated with less commercial agriculture, so that less starting capital can be derived from this sector. At the growth stage, however, lack of capital is a major constraint for highway locations. As we saw before, most entrepreneurs along the highway were motivated to start their business by the need to improve their incomes. This probably means that they are very sensitive to marginal changes in their income flow. Given their location, lack of demand would not seem to be a major obstacle to growth. However, as at an earlier stage, capital constraints and inadequate infrastructure mean that growth potential may not be realised.

Low demand is less frequently experienced as a start-up problem in the periphery, because of lack of competition from other traders. In other locations, where competition is higher, market shares are smaller, so that low demand is a major problem. However, this is no longer the case at the operational and growth stages, during which businesses in the more isolated centres suffer more from low demand than those located in Molo Town or along the highways (Table 13).

Another major operational constraint in the periphery is the high cost of inputs. This may be due to the extra transport costs incurred by entrepreneurs in these locations in getting their supplies from the main towns of Nakuru and Kericho and to the poor communication and transport network in these areas.

¹³ These percentages could not be checked for the growth stage because of the lack of expanding enterprises in Kipkelion.

Table 12 The main start-up problems by location (% of entrepreneurs; n = 294)

	n	Insuff. capital	Unsuitable premises	Low demand	Inexperience	Lack of basic info	Other	None
<i>Division</i>								
Molo	167	44.2	6.1	17.6	9.7	7.3	9.6	5.5
Rongai	88	49.2	9.0	13.5	7.9	6.7	5.6	7.9
Kipkelion	39	64.9	8.1	5.4	2.7	-	16.2	2.7
<i>Market accessibility</i>								
Highway	92	41.6	9.0	19.1	7.9	7.9	10.0	4.5
Molo Town	88	45.5	5.7	17.0	6.8	8.0	12.5	4.5
Periphery	114	56.1	7.0	9.6	9.6	3.5	6.2	7.9

Table 13 The main operational problems by location (% of entrepreneurs; n = 294)

	n	Insuff. capital	Poor utilities	High input costs	Low demand ^a	Labour problems	Other	None
<i>Division</i>								
Molo	167	28.1	1.8	12.0	32.4	6.6	16.8	2.4
Rongai	88	20.2	5.6	19.1	40.6	6.7	7.8	-
Kipkelion	39	36.8	18.4	7.9	21.0	2.6	13.2	-
<i>Market accessibility</i>								
Highway	92	28.6	8.8	11.0	27.5	4.4	17.6	2.2
Molo Town	88	29.5	1.1	10.2	30.7	9.1	17.0	2.3
Periphery	11	23.5	5.2	18.3	40.0	5.2	7.8	-

^a Includes unstable demand and severe competition here.

The constraint “seasonal income fluctuations”, experienced mainly in the periphery, indicates dependence on the performance of the agricultural sector. For businesses located along the highway, this factor has no relevance, indicating that they are more dependent on passing traffic.

To sum up, each location carries with it specific constraints. In Kipkelion Division, these are lack of capital and financial resources and absence of electricity. Enterprises in peripheral locations suffer mainly from low demand, but not at the start-up stage. The high costs of inputs are also a serious operational problem in these locations, as well as income fluctuation associated with seasonal variations in agriculture.

Table 14 The main obstacles to growth by location (% of entrepreneurs; n = 103)

	n	Insuff. capital	Small premises	Low demand	Seasonal income fluctuation	In-experienced labour	Costly labour training	Others
<i>Division^a</i>								
Molo	59	23.7	8.5	18.6	5.1	18.6	8.5	17.0
Rongai	36	33.4	8.3	22.2	11.1	5.6	11.1	8.3
<i>Market accessibility</i>								
Highway	27	55.6	11.1	-	-	18.5	7.4	7.4
Molo Town	37	18.9	10.8	18.9	8.1	10.8	10.8	21.7
Periphery	39	23.1	5.1	33.3	12.8	10.3	5.1	10.3

^a Kipkelion had to be excluded because of too few cases.

II.6 Farm linkages and complementarities

An important question relating to the development of small-scale enterprises in rural areas is whether there are linkages with agriculture and to what extent small business development is used as a strategy to supplement, or even replace, farming income. The latter is really the important issue here, as the interest of this study in small business formation arose from its potential contribution to the economic welfare of the rural population. By isolating the factors that determine which small businesses provide the sole source of income and which have a complementary role in income generation, it is possible to understand which small businesses are likely to improve human welfare.

Two types of linkage between small enterprises and the farming sector were investigated. *Backward linkages* refer to the use of agricultural inputs to produce outputs, e.g. when farm produce is processed or sold in shops or when farming revenue is used as working capital in the small-scale enterprise. *Forward linkages* exist when business output is used as input to farming. This is the case, for instance, when sales revenue from a shop is used to buy additional farmland.

As was expected, both types of linkage exist between farming and non-farming activities, although forward linkages are more common. About one third (35%) of the respondents reported backward linkages, while almost two-thirds (64%) reported forward linkages. Statistical tests were carried out to discover to what extent these linkages were influenced by business size, age and income, value of capital stock, age of the entrepreneur, economic branch, accessibility to the Molo market and local market orientation.

It was found that backward linkages with agriculture were strongest for young entrepreneurs and for manufacturing enterprises. Forward linkages were stronger for capital-intensive enterprises (i.e. firms with a larger capital stock) and for firms with a strong local customer base in farming.

Market accessibility appeared to be related quite significantly to the existence of both backward and forward linkages. Firms with access to the Molo market have fewer farm linkages than firms which have more difficult market access. This suggests that location within the orbit of a large market centre can substitute for the need to foster linkages with the farming sector. Apparently, these firms can serve alternative sources of demand, because of their advantageous location. By the same token, in location outside a major centre, fostering forward and backward linkages with the farming sector could be a substitute for lack of market accessibility.

To discover whether the small business is a complementary source of income to farm-based activities or whether it substitutes for agricultural activity, it was investigated whether entrepreneurs had alternative sources of income, in addition to business. For 32% of the entrepreneurs, the business was the sole source of income. The others had alternative sources of income such as farming, salaried employment or any combination of these.

It was found that it was, in general, the weaker, less stable, younger and service-oriented businesses (food services, lodging, retail trade) with a non-central market location (i.e. outside Molo Town) and more linkages to the farming sector, which were used a form to supplement incomes. Owners of firms with a relatively large capital stock, located in an area of large market demand, less often had alternative sources of income, suggesting that they did not need them either. These findings suggest that small-scale enterprises in the rural area were established as a form of income diversification and risk dispersal strategy rather than as a substitute source of income to agriculture. It was not possible to establish the causality of this relationship: does the small firm complement the farm activity or does the farm activity complement the small business? The key issue, however, is that small-scale enterprises, as a source of additional income, do seem to be playing a part in improving the economic welfare of the study area population.

II.7 Support programmes

As mentioned in the introduction, the Kenyan government has spent considerable funds on stimulating small-scale business. There are many

support programmes for small-scale entrepreneurs in the study area. At the time of the study, there were 25 credit programmes in Nakuru District and 18 in Kipkelion District, while the entrepreneurs in both districts could choose between 15 different training programmes. In the past, business advice was also given to small-scale entrepreneurs. The support programmes are sponsored not only by the Kenyan government, but also by NGOs and foreign donors. In order to assess their impact, the respondents were asked whether they knew about any programme in their area, whether they received assistance from these programmes and whether they had received assistance from any support programme in the past.

Despite the proliferation of programmes in the study area, the entrepreneurs' knowledge of and participation in the programmes appeared to be very low. Less than one out of every five entrepreneurs knew about the existence of one or more support programmes, with this knowledge being much more limited among female than among male entrepreneurs (6% vs. 21%). The number of entrepreneurs actually participating in any of the support programmes was even smaller: only 11% of the respondents reported receiving assistance from one of the current programmes and 7% had received assistance in the past. Female participation in such programmes was negligible: 4% benefited from current programmes and 2% had benefited from programmes in the past. The corresponding percentages for men were 12% and 8%, respectively.

Those who received assistance in current programmes mostly received it in the form of loans (Table 15). Second in importance was business advice, a form which was more important for participants in past programmes. Few participants in support programmes received business training, while the number of entrepreneurs receiving integrated assistance – such as a credit, training and counselling package – was also conspicuously limited.

Table 15 Type of assistance from support programmes (%)

	From current programme (n = 32)	From past programme (n = 22)
Credit	44	41
Training	12	9
Business advice	22	32
Combination	6	9
Other types of assistance	16	9
Total	100	100

Business size clearly affected both knowledge and participation: among the small group of relatively “large” businesses with 5 or more employees, 48% of the entrepreneurs had knowledge of current programmes; 39% actually benefited from them and 19% had received assistance in the past. Operators of these larger enterprises were mainly in manufacturing, wholesaling and hardware. These are branches which are in need of loans and credits and therefore susceptible to credit programmes.

Knowledge of and participation in support programmes was also relatively high among entrepreneurs in manufacturing and repair (30% and 21%, respectively). Most of these are in the *Jua Kali* sector, which has become increasingly popular among donors as a target of support.

It is rather surprising that, although Kipkelion Division is the area with a declining population, both knowledge of and participation in support programmes (26% and 17%, respectively) were higher than in the Molo and Rongai Divisions. In the latter two, 19% and 13% of the respondents, respectively, were aware of any programme and 10% had actually participated. This relatively positive picture was largely due to high participation rates in one of the four centres, Chepseon, which is located along the Nakuru-Kisumu highway and is growing substantially.

The general lack of information about the programmes is a large barrier in itself. Poor knowledge and participatory rates may be a result of poor dissemination. It suggests the need to publicise the programmes more widely.

Moreover, there are genuine fears and limitations on the part of most recipients, particularly with respect to programmes linked to commercial banks. The provision of loans entails long and tiring procedures. Most of the entrepreneurs are not literate enough to go through the rigours of such programmes and could easily give up or not bother at all. Something must therefore be done to make the programmes simple and efficient and to minimise the bureaucracy involved.

II.8 Conclusions

The large majority (97%) of the enterprises in the study area comprised micro-businesses, with 0-4 paid workers. Over half had no paid employees at all and fell under the self-employed category. Trade and commerce (food services in particular) were the most common type of activities in the area. Businesses in manufacturing formed a small minority. In terms of the entrepreneur’s socio-demographic profile, most were men (85%), younger than 40 years of age (60%), married (85%), and with a moderate level of education. More than half had not had any kind of training.

Most entrepreneurs were motivated to start a business by the need to have a satisfactory and stable source of income. About a quarter of them started a business because they were unemployed. Almost a half of the entrepreneurs started in expectation of an increase in income. The nature of human capital (experience and skills), perceived start-up and operating constraints and the existing and future size of the market (or demand) were the three most important factors playing a role in choosing a particular branch. More female than male entrepreneurs tended to choose activities that were easy to start and operate, particularly in the food sector. The possession of specific experience and skills was a more important motive for men, particularly in the manufacturing and repair branch and in Molo Town, where various specialised businesses exist. Education and business training did not seem to have an impact on the choice of a business.

As was hypothesised, constraints do change across the life cycle of the enterprise. Financial problems became a somewhat less decisive factor as the enterprise developed, while labour-related problems increased. The latter type of constraint was particularly felt at the growth stage. In conformity with the hypothesis, lack of information was a constraint specific to the start-up stage, while high input costs were a major constraint during the operational stage. With regard to the gender-specificity of constraints, female entrepreneurs complained more about low or unstable demand than their male counterparts and less of lack of financial resources, at both the start-up and operational stages. In manufacturing and repair, financial constraints were more of a problem than low demand, which is more typical of the businesses in the highly competitive food sector.

The study confirms that micro-enterprises face considerable constraints on their growth and development into small enterprises. Only 35% of the enterprises surveyed had grown (i.e. taken on more employees); 50% had remained as they started and 15% had declined. Relatively more expanding enterprises were found among male entrepreneurs, aged between 40-49 years and with some formal education. The proportion of enterprises which had grown was also relatively larger in the catering, manufacturing and transport branches and among enterprises located in Molo Town. Conversely, growth obstacles seem to be stronger for entrepreneurs who are female, have little education, are located in Kipkelion and/or along highways and who operate in food selling, groceries or other retail trade. The low proportion of expanding enterprises among female-owned businesses suggests that women face more serious growth constraints than men, but may also imply that many women do not aspire to have an expanding business.

The main obstacles to growth are lack of capital (89% of the entre-

preneurs), low and unstable demand (combined with seasonal income fluctuation – 40% of the entrepreneurs) and labour-related problems (about 40% of the entrepreneurs). Lack of capital is felt more strongly in Kipkelion and at highway locations, while labour problems seem to be stronger in Molo Town and low demand is a larger problem in the periphery.

Farming output and revenue is used as an input to small-scale businesses: 35% of the enterprises maintain such backward linkages with agriculture. This was found to be the case mainly among younger entrepreneurs and manufacturing enterprises. Forward linkages, mainly in the form of using business revenues as an input in farming, were more common (65% of the enterprises), particularly among capital-intensive enterprises and enterprises with a strong local customer base in agriculture. A closer look at the relationship between incomes from agriculture and small-scale business revealed that rural small-scale enterprises were established mainly as an income diversification and risk dispersal strategy, rather than as a way of substituting income from agriculture.

Efforts to improve the performance and growth of small-scale enterprises appeared to have limited success. In spite of the existence of a large number of support programmes in the study area, the entrepreneurs' knowledge of and participation in such programmes was very low, with the exception of the small group "larger" businesses, with five or more employees. The lack of awareness of these programmes seems to be a significant barrier in itself and suggests that these programmes need to be publicised more widely.

III. Discussion

III.1 Scientific relevance

The findings of this study have a notable scientific relevance. The hypotheses underlying the study are predicated on two implicit assumptions. The first is the notion that certain “barriers” impede the growth of micro and small businesses and prevent the former from increasing in size. The second is that the progression from micro to small enterprise is a natural progression and a growth goal to be achieved. However, on the basis of the extensive fieldwork carried out, equally plausible assumptions can be posited that reflect opposite positions. It may well be that for many enterprises of the type surveyed here, the present scale of operation is actually the market equilibrium. This would be a cause for concern only if it implies stagnation, in the sense that there is no progression from one size cohort to the next.

The empirical results show that the probability of moving up in size is conditioned by gender (male-headed firms are more likely to grow), market accessibility (urban centre firms have a greater likelihood of growth) and economic branch (manufacturing and transport businesses are more likely to grow than services). This suggests that constraints do exist, which operate against female-headed, rurally located and service-oriented businesses. This finding is of particular scientific relevance as it adds some empirical flesh to intuitive notions about constraints on rural small business activity.

The findings also have a direct bearing on the academic debate surrounding the role of micro and small enterprises in the village economy. It was shown that owners of larger and older businesses do not have alternative sources of income, which suggests that they do not need them either. Conversely, owners of younger, less stable and service-oriented businesses located outside an area of market demand, view small-scale businesses as an income complement. This points to small-scale enterprises playing a role in boosting rural welfare. The causality issue – what came first: the decline in agricultural incomes and the search for an alternative or the adoption of the alternative, leading to a decline in agricultural income? – has not been explored here.

III.2 Recommendations for further research

While the issue of the small business as a complementary or substitute form of income generation has been explored here from a quantitative angle, some of the more interesting academic questions on the relationship between farming and non-farming activities may be qualitative. For example, does any equipment sharing or pooling take place? Are the same experiences relevant to both forms of activity? Further investigation of such farm and business linkages and complementarities is necessary in order to find out how the incomes of both farmers and entrepreneurs could be increased.

Further research should also be undertaken into support programmes. One of the main questions here is whether existing programmes fit the needs of small-scale entrepreneurs. What are the causes and implications of the observed lack of knowledge of and low participation rates in credit and other support programmes? Is credit a sufficient and reliable solution to the apparent lack of capital at the start-up stage? What are the experiences of those who received financial assistance (loans, in particular) and what lessons can be learnt? The entrepreneurs' perceptions about business training should also be further investigated.

The gender issue in rural enterprise development also needs further research. The results of this study suggest that female entrepreneurs face stronger constraints on growth than male entrepreneurs. More research is needed in order to discover how this relates to the gender division of labour within the household (e.g. in farm and non-farm activities) and what other factors determine the limited growth among female-owned enterprises.

III.3 Practical applicability

Various practical and policy issues arise from this research. The first relates to entrepreneurship as being conditioned by necessity (the need for a stable income) or opportunity (the chance to improve incomes by responding to perceived market opportunities). The findings point to the fact that, for two-thirds of the small business population, necessity is the dominant factor. One way of stimulating the growth of this proportion is through a demonstration effect of successful entrepreneurship. However, one should be aware that the success of such a strategy is also culturally conditioned. In some contexts, successful entrepreneurs will prefer not to draw attention to their success, while in others this kind of learning effect will be welcomed.

A second issue is using entrepreneurship as a vehicle to improve economic opportunities for women. Women set up micro-enterprises on the basis of the very low skills and other low barriers to entry that exist in this

sector. However, many prescriptions for improving entrepreneurial capacity involve skills and human capital investment. The practical recommendation in this case is to give women greater access to capital. This can be achieved at the local (village) level through the various existing women's local lending circles and credit groups such as those run by the Kenya Rural Enterprise Programme.

Finally, the findings point to very low levels of programme uptake. Despite the variety of programmes, there is minimal awareness of their existence and an even lower level of programme participation. The policy prescription arising from this finding is the need to investigate what are the real needs for support among entrepreneurs and how greater programme uptake could be achieved. For programmes the utility of which is undisputed, adequate funds need to be set aside for generating interest in the programme, advertising, demonstrating their value and monitoring their implementation. This could be done using existing grassroots organisations.

IV. Recommendations

IV.1 Education and training of donors and policy makers

Donors and policy makers need to understand and appreciate the various characteristics of the entrepreneurs as well as their support requirements. This will enable them to market the support programmes in a flexible and effective way, responsive to the actual needs of the targeted entrepreneurs. Of particular importance in this respect might be the distinction between entrepreneurs who are just working to survive – subsistence self-employment – and those who are not just concerned with survival, but want to grow and develop (Sing, 1986; King and McGrath, 1994).

Here, Egerton University, as a rural-based institution of higher education, can play an important regional and/or national role by developing small business development as an academic area of interest in the university, by developing human capital in this field through the training of students, by carrying out research and monitoring activities, by providing training courses and disseminating information and examples of best practice. Together with the district trade development departments, such a university unit can also provide necessary extension services.

IV.2 Minimisation of constraints

At the start-up stage, it is recommended that private and public organisations provide an enabling environment in their own ways to minimise the constraints faced by most entrepreneurs. Real estate developers, for example, could supply business premises with adequate basic utilities. Institutions like universities, trade development departments, banks and trade associations could jointly develop investment profiles or data banks to provide existing or future entrepreneurs with information needed to start, diversify or expand their businesses.

Lack of capital was found to be a major constraint in both the formation and growth of small-scale enterprises, so access to credit opportunities should be improved. Donors and programme sponsors need to understand and appreciate who the small-scale entrepreneurs are and what are their

varied financial constraints. This can help them to design credit programmes that fit the needs of the entrepreneurs. Entrepreneurs, on the other hand, need to understand and appreciate the importance of proving their creditworthiness to various sponsors and of viewing support not as a charity, but as a resource that could be competitively allocated where its returns appear highest and/or guaranteed.

Most entrepreneurs are not literate enough to fulfil such prior requirements as management training or book keeping, which means that existing credit programmes should be made simple and efficient, less bureaucratic and more transparent. Knowledge of credit programmes should be increased through wide and effective publicity (in local languages and in strategic points and fora such as local barazas, churches, mosques, markets, schools, and bus stations).

In addition to credits, other sources of capital should be introduced or popularised among the rural entrepreneurs. Stocks are one such example. Local Grameen Bank-like institutions, such as the Kenya Rural Enterprise Programme (K-REP), should extend their services widely and rapidly.

IV.3 Improvement of infrastructure

Although poor infrastructure was not often mentioned as a major constraint by the sampled entrepreneurs, it is widely recognised that a general improvement of the infrastructure like roads, telephone, water and electricity is a prerequisite for developing the small-scale business sector.

Improved infrastructure will enhance the general business environment and enable firms to reach a wider segment of the domestic market, hence improving their prospects for growth. Most of all, agricultural infrastructure and services must be prioritised in investment allocation because of its potential positive multiplier effects on non-agricultural activities. However, there is another side to this recommendation. When the accessibility of peripheral locations is improved, relatively cheap urban-produced goods and services will enter the rural locations. This may threaten the business activities and livelihoods of mainly female micro-entrepreneurs, who may have to give up their businesses because of increased competition. From a macro-economic point of view, this may be seen as an inevitable price to be paid, but it may also imply that special attention needs to be given to this most vulnerable group among the small-scale business population.

IV.4 Rise in agricultural productivity and rural welfare

The above recommendations can only be fully fruitful if there is a general increase in the welfare level of the population in the region, to be realised

by a rise in agricultural productivity. Improved agricultural productivity will have a positive effect on the performance of most rural-based small-scale businesses, because it will not only increase the availability of investment capital, but will also increase the purchasing power of the local population. This study has shown that, at the operational and growth stages of enterprise development, low demand is a major constraint on the small-scale enterprises in the area (and undoubtedly in other rural areas as well).

Hence, the large majority of the businesses operate at a very low scale. Although this factor falls outside the scope of the present study, it is important to note that all kinds of measures to improve the small-scale businesses partly depend on a rise in the purchasing power of the local population. One way of achieving this goal would be to stimulate the cultivation of high-value food and non-food crops (e.g. cut flowers) and to encourage people to broaden their means of livelihood.

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Appendix I

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Appendix II

Follow-up of the project: capacity building and project-related publications

Two Kenyan junior researchers from Egerton University were involved in the project from the onset. Before the actual start of the study, they both followed a five-month field study internship course at the Development Study Centre in Rehovot, Israel, where they did some research on small-scale enterprises in order to become acquainted with the topic. One of them participated during the whole project period, thus receiving training on all stages of research: proposal writing, different types of fieldwork, data analysis and writing. It is envisaged that he will write a PhD thesis on the basis of this project in due course.

One MSc student from Egerton University participated in the first two fieldwork stages of the project (interviews and data entry), after which he undertook his own research project on a related topic. The latter project was successfully completed with a MSc thesis (Bowen, 1997).

Six university graduates (five from Egerton and one from Moi University) participated in the project as enumerators, thus receiving some practical training in field research.

Over the whole period, a resource library was built up. It is envisaged that this will continue to function after the conclusion of the project.

Publications:

Bowen, Michael (1997), *Determinants of growth of small and microenterprises in selected districts of North Rift Valley Province in Kenya*. Njoro: Egerton University (MSc thesis).

