HIGH-GROWTH MICRO ENTERPRISES:
Managing the risk aspects of enterprise growth

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ABSTRACT

The paper is divided into 4 main sections and a conclusion: section (1) considers the definitions of Micro and Small Enterprises across the EU, USA and Russia; section (2) considers the role of MSEs in mature market economies and compares with the Russian Federation; section (3) focuses on the value creation mechanisms for growth and the challenges faced by MSEs, while section (4) deals with conclusions and recommendations for policy implications.

INTRODUCTION

Small and micro businesses have a vital role to play in the economy with small businesses accounting for 99% of all businesses in the UK.

These businesses have been the main source of new jobs in the UK for many years, with enterprises consisting of less than 50 workers being responsible for 46% of all private sector employment in the UK (Employment Service, 1997a).

In 1996 there were an estimated 3.7 million active businesses in the UK, an increase of over 18 000 since the start of 1995, representing an overall decrease since 1990, following falls between 1991 and 1993 (Department of Trade and Industry, 1997a).

Of those 3.7 million businesses, over 2.5 million were 'size class zero', i.e. those made up of sole traders or partners without employees.

The key characteristics of High-growth MSEs are that:

- their value is linked primarily to longer-term **growth potential** derived from scientific knowledge and intellectual property;
- early on, they lack **tangible assets** which may be used as collateral;
- their products or services initially have little or no **track record**, are largely untested in markets and are sometimes subject to high rates of obsolescence.

The Bank of England's 1996 report[1] on the financing of technology-based small firms used two main definitions of a technology-based SME:

(i) a business whose products or services depend to a significant extent on the application of scientific or technological skills or knowledge, whether it be a novel application of advanced technology to provide a totally new product or service, or an application of existing technology in an innovative manner[2]

[1] Bank of England (1996): The Financing of Technology-based firms.
[2] Allen, J.C. (1992): Starting a Technology business. *Pitman, London*.

(ii) a business whose activities embrace a significant technology component as a major source of competitive advantage.[3]

For most of these high-growth SMEs , there are difficulties potential investors may face in assessing the technology developed or uncertainties and risks over the likely costs of R&D and in estimating prospective demand for a new product or service**.**

Additional financing issues of high-growth SMEs also arise, as a lack of collateral and market presence generally makes equity finance more appropriate than debt for small high-tech start-ups and investors preferring later-stage over early-stage investments.

Substantially high fixed costs, such as underwriting and advisory fees, make it uneconomical for most high-growth SMEs in particular and most SMEs in general to raise small amounts of public equity capital.

For many of these firms, their lack of size and trading record exclude them from the listing of public exchanges.

As important decisions over financing issues arise, management and growth become critical during all the stages of the life cycle of these firms.

Although common characteristics exist between high-growth SMEs, firms located in different high-technology industries can exhibit very different growth patterns: from these patterns, it is possible to distinguish three main types of technology-based SMEs:

i.) Where the product is subject to high front-end development costs , e.g. the biotechnology industry

ii.) Where market entry and product development occur over an extended period of time involving heavy R&D expenditure and complex consultancy arrangements, e.g. medical / life sciences

iii.) Where front-end development costs are lower and lead times from product to market launch are shorter, e.g. the computer and IT industries[4]

[3] McNally, K. (1995): External equity finance for technology-based firms in the U.K.: the role of corporate venture capital. *Venture Finance Working Paper No 13, University of Southampton.*
[4] Moore, B. (1994): Financial constraints to the growth and development of small high-technology firms, *in Hughes, A. and Storey, D.J. (eds):Finance and the small firm.Routledge, London*

2.0 Small Business Definitions

In legal terms, distinctions are only made between sole traders, partnerships and companies (Keenan & Riches, 1995), with no formal definition of what constitutes a small business currently available. Stanworth (1991) argues that no single definition of what constitutes a small firm can be useful for all purposes, yet they provide perhaps one of the most useful descriptions available in the literature, defining a small firm as:

"one with a relatively small share of the market, one that is managed by its owners in a personalised way, and independent in the sense that it is free from outside control in decision making”

This definition encapsulates the essence of the small business but it does not specify size parameters or quantifies what constitutes a ‘relatively small share of the market’.

However, because of the broad clarification placed on the size of small businesses by the EU, it is important to state distinguishing parameters on the size of small businesses included in this project.

These parameters will range from firms with zero employees (micro businesses) to those employing up to ten workers (small businesses), or those who intend to function within these parameters once their business is initially established. This size range for new businesses is representative of the vast majority of small businesses (99%) formed in the UK each year (Stanworth, 1991).

2.1 Classification of Micro and Small Enterprises

The following definitions have been drawn from a range of data. Some of the most commonly used are set out below:

EUROPEAN COMMISSION

	Micro Firm	Small Firm	Medium Firm
Turnover	≤ €2 million	≤ €10million	≤ €50million
Balance Sheet	≤ €2 million	≤€10million	≤ €43million
Employees	< 10	< 50	<250
Independence Criteria*	not applicable	25%	25%

*The independence criterion refers to the maximum percentage that may be owned by one, or jointly owned by several enterprises not satisfying the same criteria.

To qualify as an SME, both the employee and the independence criteria must be satisfied, and either the turnover or the balance sheet total criteria. A large firm is any not satisfying the above criteria.

COMPANIES ACT [UK]

	Small Company	Medium Company
Turnover	max £2.8mn	max £11.2mn
Balance Sheet	max £1.4mn	max £5.6mn
Employees	max 50	max 250

A company qualifies as small or medium if it meets two of the three criteria above in any year.

DEPARTMENT OF TRADE AND INDUSTRY [UK]

	Employees
Micro Firm	0-9
Small Firm	0-49
Medium Firm	50-249
Large Firm	250+

In practice, Government schemes that are nominally targeted at small firms adopt a variety of working definitions depending on their particular objectives.

BRITISH BANKERS ASSOCIATION

For statistical purposes, the British Bankers Association (BBA) defines small businesses as those having an annual turnover of up to **£1 million.**

Source: Bank of England (2001)

Table 1.0 SME definition

THE U.S. SMALL BUSINESS ADMINISTRATION (SBA)

Size standards define the maximum size that a firm, including all of its affiliates, may be for eligibility as a small business concern for most SBA programs.

The SBA has established two widely used size standards – 500 employees for most manufacturing and mining industries and $6.0 million in average annual receipts for most non manufacturing industries.

However, many exceptions exist. The general range of size standards by industry division is as follows:

	Small Firm	**Medium Firm**
	Construction	
Turnover	max $12mn	max $28.5mn
Employees	not applicable	not applicable
	Manufacturing	
Turnover	not applicable	not applicable
Employees	max 500	max 1, 500
	Retail	
Turnover	max $6.0mn	max $24.5mn
Employees	not applicable	not applicable
	Services	
Turnover	max $6.0mn	max $29.0mn
Employees	not applicable	not applicable
	Wholesale Trade	
Turnover	max $6.0mn	max $6.0mn
Employees	max 100mn	max 100mn

Source: Office of Government Contracting,
The U.S. Small Business Administration

Table2.0 SBA definitions

GOSKOMPROM RUSSIA

In the countries in transition the statistical consideration given to MSEs is rather weak and there is a need for further harmonization in this field.

The legal character of enterprises can take various forms in the countries in transition. A business start-up has a choice between several forms of enterprise.

The characteristics of each form differ between countries and even the size of MSEs in term of employees and capital assets varies from country to country. In general the criteria can be summarized as follows:

i. A sole proprietor is basically a small-sized business lead by one single person who does not have or does not need significant capital.
ii. In the case of partnership the partners define the rules of operation and share responsibilities and profits. They have joint responsibility for the business.
iii. Limited liability companies are considered too "risky" because they need significant financing. Banks often require personal guarantees in the form of property in order to grant loans.

The requirements for creating a business start-up are not very clear in the majority of the countries in transition including the more advanced ones. Creating a business sometimes requires 20-30 different steps.

In Russia, State policy was elaborated by different ministries and several agencies. Among them the Ministry of Economy and the State Committee for Industrial Policy played the major role. There is no legal definition of medium- sized enterprises. The criteria for the definition of small-sized enterprises varies according to their sphere of activity:

MICRO AND SMALL ENTERPRISES

Industry Sector	**Employees**
Industry and Construction	0-100
Other production areas	0-50
Innovation	0-60
Trade	0-15
Other non-production related areas	0-15

Table 3.0 Goskomprom definitions

State legislation supporting the development of entrepreneurship and SMEs includes the following:

i. Presidential Ordinance of 30 September 1992 on the federal structure of the executive power;
ii. Government Decree No. 329 of 13 April 1993 on the role of the State Committee for Industrial Policy (GOSKOMPROM Russia): GOSKOMPROM Russia was nominated as the organization responsible for the promotion of small enterprises within the industrial sector;
iii. Government Decree No. 446 of 11 May 1993 on extraordinary measures concerning the development and state support for small-scale entrepreneurship in the Russian Federation: (a) main priorities for the development of small businesses were established; (b) taxation framework for small entrepreneurs was created; and (c) accounting requirements for small enterprises were eased.
iv. Government Decree No. 409 of 29 April 1994 on state promotion of small-scale entrepreneurship in Russia for 1994 and 1995: (a) adopted a federal programme of state promotion for small enterprises; (b) decided on the creation of an information support system for small enterprises at the premises of the GOSKOMPROM;
v. Government Decree No. 1320 of 1 December 1994 on the supervisory council of the fund for the promotion of entrepreneurship and the development of competitiveness; and
vi. Government Decree No. 1322 of 1 December 1994 on measures for the participation of small private enterprises in the implementation of state programmes and public procurement.

According to GOSKOMPROM, the number of small businesses at the end of 1994 amounted to 1.04 million. The total number of employees of these enterprises was 9.5 million. 10 per cent of the small enterprises were engaged in industry, 9.7 per cent in construction, 43.7 per cent in retail and wholesale trade and 8.6 per cent in innovation.

2.2 The Current Position of Small and Micro Businesses in the UK

In the UK, the number of micro and small enterprises rose steadily from 1980 to 1992 when, after a small decline, they stabilised at 3.7 million in 1996 (Department of Trade and Industry, 1997b).

This overall increase has been seen in most sectors of the UK economy with two exceptions, agriculture and retail distribution, and in all eleven standard regions (Employment Service, 1997a).

The greatest rises have been in the South East (40%) and the South West (30%), with the smallest rises in the North West (16%) and the North East (19%). These disparities in growth rates between the South and North have been attributed to the relatively low numbers of Northern businesses engaged in the service industry and other fast growing areas.

It has been argued that the resurgence of small businesses in the UK has, to some degree, resulted from the 'enterprise culture' heavily promoted by the government throughout the 80's (Burrows, 1991). This is further supported by a 1991 survey commissioned by 3i-Investors in Industry, which found that over half of the UK adult population believed that the British economy would benefit from increasing numbers of small firms and less reliance on large companies.

Banncock and Peacock (1989) believe that shifts in the share of small firms in economic activity can be explained as a necessary reaction to the excessive concentration of small firms in the economy during prosperous times.

The UK small business sector has experienced greater changes in the past two decades than anywhere else in Europe. Twenty years ago, the UK economy had greater dependency on large firms than any of its international competitors and, whilst there has been a substantial increase in the number of small firms since that time, the UK enterprise structure still places more reliance on large firms than other countries (Stanworth, 1991).

The growth rates of small firms in the UK also differ, for example fewer small manufacturing businesses expand from the micro or very small size (0-9 employees) into a small business (10-249 employees). This again demonstrates the need for a greater understanding of the processes that lie behind micro and very small business formation and operation.

3.0 VALUE CREATION MECHANISMS: Micro to SME

The potential of MSEs should be boosted to enable them to generate new quality employment opportunities and create additional incomes, thereby contributing to improved social and economic wellbeing, as well as the alleviation of poverty.

This requires an understanding of the special needs and operational dynamics of MSEs. The major issues to be addressed in this regard, therefore, concern improving the role of the MSE sector in *creating* and *maintaining* quality jobs in Russia and the EU generally.

In successfully managing to do this, there will be an improvement in the capacity of the MSE sector to alleviate poverty.

High-growth SMEs would have over time developed mechanisms that will reinforce the managing success and risk of their firms.

The potential for growth is a defining feature of high-growth SMEs, considering the various growth perspectives of these firms: financial, structural, strategic and organisational growths.

The Bank of England's initial report on the requirements for financing technology-based-SMEs, and the difficulties in accessing such finance, are likely to change as the firm progresses through the stages.

These issues were considered in some detail in the Bank's first report, and the following conclusions were made:

(i) like SMEs generally, technology-based SMEs are heavily dependent on internal(including the proprietor's own) funds at the seed stage;

(ii) seed and early-stage costs are likely to be higher for technology-based SMEs than for other SMEs because of the more complex product development process;

(iii) in the light of the perceived higher risks and longer development times applicable to technology-based SMEs, the financing requirement at the start-up and early-growth stages is mainly for equity risk capital;

(iv) second and third round funding may be required before clear profitability is established for technology-based SMEs;

(v) as technology-based SMEs grow, their financing needs become more similar to other SMEs, and bank debt becomes a more important source of external finance ;and

(vi) the rate at which technology-based SME progresses will depend not only on its access to appropriate finance but also such inter-related factors as the type of product, the type of market, the firms growth objectives and the capacity of the firms management.

The broad implication of the above analysis is that the staged development process means that many technology-based SMEs generate additional risks compared with the generality of SMEs[5]

The **Williams report**[6] identified a number of barriers to investments in high-tech firms, of which the following were the most important:

(a) the difficulties, time and cost of properly evaluating the technology possessed by the firm and its commercial potentials;

(b) the problems of attracting finance in advance of trading and profitability, especially given the long lead times prior to commercialisation in several high-tech industries (e.g. biopharmaceutical companies);

(c) the rapid time-expiry of products in other high-tech sectors, such as IT/Software;

(d) the perceived unfavourable risk-reward relationship implicit in investments in high-tech start-ups;

[5] A similar analysis is contained in Oakey, R.P. (1995): High technology new firms: variable barriers to growth. *Paul Chapman, London.*

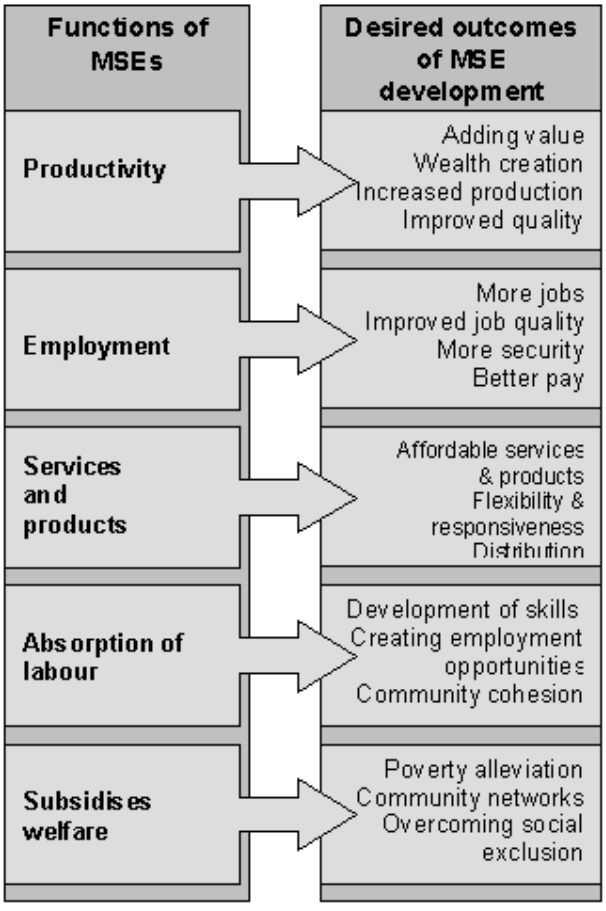
[6] Williams, P. (1998): Financing of high-technology businesses: a report to the Paymaster General. Report of the HMT-sponsored Working Group, chaired by Sir Peter Williams.

(e) the relatively small size of high-tech investments, which for institutions and venture capitalists could make investment management on a significant scale relatively more expensive for a given rate of return.

In order to achieve the optimum size of the firm, high-growth SMEs would typically be exposed to these risks (i) business environment, (ii) technical risk, (iii) investment intensity of R&D activities and long time to market, (iv) wide scope of potential markets, and (v) technology market mismatch.

The firms success depends also to a large extent on management team's ability to utilise mechanism's for growth effectively,i.e: (i)resource acquisition-distribution related or production –related,(ii) organisational learning ,(iii) stage funding,(iv)inter-organisational relationships,(v) endorsement benefits,(vii) firm valuation at IPO exit.

Diagram 1: Promoting desired functions of MSEs



3.0 CONCLUSIONS AND RECOMMENDATIONS

While macro level policy measures are necessary conditions for reform, they are not sufficient to spur economic growth. They have to be complemented and supported by parallel efforts at the micro level to educate the population about the new economic system, to generate a free flow of information in order to build up enterprises and development.

This macro-economic policy and micro-level performance is particularly evident in transition economise like Russia.

Thus developing Micro and Small Enterprises sector is critical in transforming transition economies such as Russia from centrally planned into market based economies. This involves fundamental social change as well as economic restructruring, which MSEs can also contribute to.

The creation of an entrepreneurial class is part of that process as the Lithuanian government has explicitly recognised in one of the stated aims of its programme for SME development: “the development of a new category of businessman in society” (Lithuanian Ministry of Economic Affairs,1994).

The potential role of MSEs includes: generating employment and thus contributing to absorbing any labour surpluses which result from economic restructuring; contribtung to the development of a diversified economic structure (including their roles as suppliers to larger companies); contributing to the trade balance through export earnings or imports substitution (Smallbone, 1998); and in some cases, as a source of innovative activity, herby acting as a source of change in the market.

Micro and Small Enterprises (and SME) development in transition economies can also contribute to the process of privatisation and or the restitution of poverty. This may involve contributing to bringing privatised assets into productive use as an alternative to or following their liquidation, representation the means by which resources which would otherwise lie dormant can be brought into production.

In mature market economies, the Birch Report (Birch, 1979) identifies the contribution of SMEs to employment generation.

While macro-economic policy and micro-level performance is a desired goal in transition economies , mature market economies like the UK and the EU generally would need to harmonise Micro and SME definitions in order to have EU wide growth dynamics.

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