

IDENTIFYING GROWTH CHARACTERISTICS IN THE POLISH SMALL FIRM

STRATUM

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Abstract

Polish small firm policy stresses the importance of tying support measures to firm performance and intention to grow. Polish small firms are smaller than their EU counterparts and are therefore considered to be at a competitive disadvantage. They are also vital for employment generation especially given the recent economic slowdown. Therefore the identification of those factors driving small firm growth is important to promote adequate policy interventions. This paper examines the statistical work emerging from survey data of the Polish small firm sector in 1999 that tested for the optimism of this stratum with respect to both immediate growth prospects and EU accession. On this basis key drivers of optimism in the small firm stratum are identified and a *generic* profile of those Polish small firm with a potential for growth is drawn. Policy implications are explored.

JEL classification: C22, C52, L00, P27

Key Words: Polish small firms; growth, confidence, small firms policy

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1. Introduction

1989 saw the introduction in Poland of the unprecedented Economic Transformation Program designed to stabilise the economy, promote structural reforms and introduce market forces. Poland rebounded from transformational recession to moderate recovery (1992-1993) and then to robust growth (1994-1999) - the fastest in Central Europe. This was driven by the rapid expansion of the new private sector. In 1999 small firms in Polandⁱ accounted for 38% of GDP, 54% of the gross value added of all businesses, 99% of the number of total business and 47% of market sector employment. (Dzierzanowski 2001 p31). Poland's GDP was 20% larger in 1999 than in 1989 and 70% of the economy had been privatised with the creation of over two million new small businesses. However the economy decelerated towards the end of the decade and there was also a slow down in small firm development. In 1999 the numbers working in the small firm sector decreased (by 1.6%) for the first time in the decade and the number of small businesses only increased by 2% - a small figure compared to the 18% and 7% increases of 1997 and 1998 respectively. This was a major contribution to the increase in unemployment from 10.7% in 1998, 13.7% in 2000, to 18.7% by 2003 - their worst levels since the Transformation Programme began. Small firms, only recently hailed as potential saviours of the country's employment difficulties, were in need of help themselves. Fig 1

gives the broad macroeconomic background with three key indicators graphed - inflation, GDP annual growth and unemployment rates.

Insert Fig 1

Poland's privatisation strategy, has relied on small firm expansion although small firm government policy only became really active after 1995. It is considered vital to encourage the growth of small firms so that they play a larger role in the economy, grow in size and employ more numbers. However there is a limit to the number of start-ups any economy can generate. While start-up policy can have dramatic success when starting from low levels, this needs to be replaced by a growth in the average size of small firms so they employ more numbers and hopefully increase their productivity levels. As the Polish economy has become more open in the lead up to full accession to the EU the serious productivity gap between Polish firms and their European rivals - probably connected to a significant difference in the average size of their respective small firms - has become evident. The purpose of this paper is the identification of variables associated with the small firm growth and to present them in a policy context.

The structure of this paper is as follows. After the introduction, Part 1 gives a short background to the policy justification of small firm growth in Poland. Part 2 examines the link between firm's intentions to expand and real growth - reflecting the fact that the primary data upon which this paper is based is a survey of small business intentions to expand and their general confidence with respect to EU accession. Part 3 looks at the

published investigations and results upon which this paper is based. Part 4 looks at the policy implications. Part 5 concludes.

1. The Policy of Small Firm Growth

The Polish Foundation for Small and Medium-Sized Enterprise Promotion and Development commenting on the government's small and medium-sized enterprise (SME) programme says ... "the main objective is to create friendly conditions for business start-ups and the full exploitation of SME development potential" (Piasecki et alia 1998 p16). Especially stressed is the substantial difference in firm size structure between Poland and other EU states. If we include the numerous micro firmsⁱⁱ the average size of firms in Poland is 1.7 employees while in the EU it is 6. In this light their first policy recommendation states

"If SMEs are to make a full contribution to economic development and employment generation in Poland, it is important that more of the very small and small firms grow into larger firms. Identifying and addressing the support needs of firms with growth potential in these size bands is therefore a policy priority." and again...."The potential role of SMEs in economic development and in national competitiveness has become increasingly important...[there] is an important role for policies in supporting the

growth potential of existing firms survey findings point at a significant correlation between the growth of sales and the growth of employment and provide a strong justification for tying the support extended by the policy instruments to a firm's growth orientation and its economic performance". (Piasecki et alia 1998 p 23).

Analysis by external sources confirms this perspective. In assessing SME's preparedness for EU accession Smallbone et alia's (2001) first recommendation, in the light of SMEs small size, low value added contribution and technological disadvantages, was for government to "target support on growth-orientated micro and small businesses that have the potential to grow into larger businesses".

Many small firms, of course, simply try to survive while others have no intention of increasing their size above self or family employment levels. Bridge et al. (1998: P122) comment: "A static stage in small business development may not sound very exciting, but it characterises the state of most small businesses." In addition many other small firms simply do not survive at all. Storey (1994), by contrast demonstrated that most growth in employment was due to a handful of successful small firms — 'gazelles'.ⁱⁱⁱ Storey and Johnson (1987) estimated that within new firm creation 4% of small firms in northern England constituted 50% of employment generation after a ten year period. A similar study in the US found that 9 % of the survivors of a group of new start small firms created more than 50% of total new employment. (Reynolds and Miller 1988). Many other studies have pointed in the same direction (e.g. Moreno and Casillas, 2001). Nevertheless there is in most economies a significant pool of small firms, neither

"gazelles" nor "statics", who occupy the middle ground. They have both the desire and the potential to grow but are faced with considerable constraints. The identification of the support conditions required for more small firms to grow wherever possible is clearly a major policy priority.

2. Intentionality

Although small firms were in existence in Poland prior to 1989 they were only created in large numbers in the 1990s in the conditions of an enforced market economy. No *a posteriori* econometric studies are available, to our knowledge, of the factors associated with small firm success in Poland. However "intentionality" (i.e. the intention to expand - an *a priori* category) is a key ingredient of the growth process - and certainly a characteristic of the gazelle. Intentionality is not part of the traditional economist's tool kit yet planned growth can be thought of as one of the key differences between the standard micro/small business owner and the real entrepreneur (Carland et alia 1984). Pistrui et alia (2002) assert that "intentions are the best predictors of planned behavior" and point to a small literature that has argued that growth intention is a key determinant of small firm growth: for example Dunkelberg and Cooper (1982) argued that growth intention is a vital entrepreneurial characteristic; Brown (1995) and Fox (1996) point to its link with real growth; in addition Birch (1987) argued that attitude rather than sector or location determines growth and success, while Storey (1994) points out that "soft" criteria such as the personality of the entrepreneurs, and their motivation for setting up a

business or going into self-employment and remaining there play an important role in determining business growth and success as well as survival".

A direct implication of this argument is a causal link between business confidence and intentions to grow on the one hand and real economic growth on the other. This should be found in organisations specifically concerned with economic prediction. For example the Canadian Federation of Independent Business (CFIB) - well known for its strong and long-term interests in the SME stratum - has been annually tracking business conditions and expectations for the past 14 years. It represents more than 100,000 SMEs nationwide in Canada where SMEs as a whole represent about 45% of GDP. It claims ...

"These annual measures have been shown to be extremely accurate coincident indicators of economic growth. Historical CFIB survey results, indexed to 1988=100, are almost identical to GDP growth in the quarters the surveys were conducted". (CFIB Research Notes 2003).

There are tests and evidence for the link between intentionality/confidence and economic growth especially at the macro level. A statistical tests on Dutch data (Gorter et alia 2002) reveals that investment forecasts by entrepreneurs are not biased at the aggregated (regional and sectoral) level. However this cannot be assumed at the micro level where bias is found. In other words there is evidence (e.g. from Holland and Canada) that SME confidence and intentionality are closely correlated with real economic growth at the regional and sectoral level but it is not possible at more disaggregated (micro) levels to

have the same level of prediction. One could not, for example, with complete confidence, predict small individual firm winners from survey evidence of the intention to expand. However it is possible to build a general picture of what are the variables and characteristics of the firms *most likely* to expand. Rather than being a tool for individual prediction of small firm performance this would be a generic picture of the potentially faster growing firm. Bearing these qualifications in mind let us proceed.

3. Survey, Investigations and Results.

Gdansk is a developed region in north-western Poland known for its port and shipbuilding. Lublin is less developed region in south-east Poland.^{iv} They may be viewed as representatives of Poland A and B respectively (Piasecki et alia 2000) - Poland A, west of the Vistula river is closer to the European union and has higher levels of economic development. Poland B, on the other hand, is significantly less developed, more agrarian, and has closer ties with its Eastern neighbours. These surveys were part of a research programme "An Empirical Study of Small and Medium Size Enterprises in Poland: Phase 11".^v Small firms were defined as employing between 10 and 49 employees^{vi} and the NACE sectors of industry, trade, construction, transport and services were included in the population. The questionnaires consisted of 58 general questions many of which had sub-sections. Considerable data was collected. Professional enumerators were employed to ensure maximum quality and minimum non-sampling error. The sampling technique used a proportionate stratification sampling method across

the chosen sectors. Micro enterprises with less than 10 employees were not included since such data was not regarded as reliable.

The survey in late 1999 sampled around 5% of small enterprises in both regions. The data was statistically examined by two teams: firstly Ghatak et alia (2001); and secondly Ghatak et alia (2003). The two dependent variables of the statistical investigations were concerned with firstly intention to expand output in the two years following the survey (a short to medium term economic variable) and secondly confidence with respect to EU accession (a longer term variable of both economic and political importance). These variables combined constitute, we argue, a good measure of Polish business confidence in late 1999. They indicate, from the point of view of small firms themselves, the profile of small firm potential "winners", i.e. those most likely to succeed in the Polish transformation leading to EU accession. The statistical results therefore contain those variables associated with such intentionality and confidence. This should help policy makers identify those firm characteristics that need to be more generalised in the small firm stratum in order to promote the growth of firm size. We also suggest that our two sample regions, one region relatively developed and one relatively underdeveloped constitute a reasonable representation of Poland as a whole.

Ghatak et alia (2001) reported general optimism about accession to the EU: 61% of small firms were optimistic about accession, 35% were pessimistic while only 4% did not respond to this question. The results of the logit statistical analysis^{vii} showed that this optimism concerning accession was correlated with 6 variables:

the region of establishment - Gdansk more optimistic than Lublin. Gdansk is the more developed region, closer to EU geographically and greater optimism was expected.

branch of activity - most sectors, with the exception of manufacturing, expected to gain from accession. However tourism (restaurants and hotels) was the most unequivocal. The breakdown according to sector is given in Table 1 in the appendix.

ownership of other enterprises - this probably reflected a belief that economies of scale and scope would be highly beneficial in a wider European market.

extent of internet use - this was believed by small firms to be important for reaping the benefits of the EU. This probably reflected the awareness of the need for a leap in communication technology in the face of enormously expanded market possibilities.

knowledge of EU markets - this was, unsurprisingly, related to optimism concerning the impact of the EU on small firms.

the difficulty of obtaining a bank loan - this reflected the widespread view that the cost of credit is a major restriction on small firm expansion and the possibility of growing within the EU market.

Ghatak et alia (2003) ^{viii} found cautious optimism for expansion in the two years following the survey. Their results indicated that the more efficient firms and those with proven competitive advantage were optimistic about expansion. These were firms that would have already expanded in the growth period of the 1990s and were confident they could outride the deceleration that had begun in the later part of the decade. Their results showed the following variables to be determinants of Polish small firms' intentions to expand production:

the existence of export activity - those firms already exporting were expected to be better placed to continue expansion in the immediate future.

the existence of franchising - this probably indicates the degree of modernisation and internationalisation achieved by a select number of firms and their optimism about continued expansion.

a recent increase in fixed assets is an indicator of investment for the future and clearly those firms who had invested anticipated and were better prepared for expansion in the short term.

the difficulty in obtaining a bank loan - also significant in the Ghatak et alia (2001) - a ubiquitous complaint.

the level of human capital proved significantly correlated with expansion plans and emphasises the importance of this variable for productivity and growth. In general the higher the level of human capital in the firm the greater its plans for expansion.

the technological level of a small firm's products points to the important connection between technological advancement, productivity and growth.^{ix}

the estimated proportionate change in income from 1997 to 1999 - this variable is related to growth intentions: past performance is significantly related to immediate short term future performance. This variable could also be used as a proxy for profits (the data for which is difficult to get in Poland from small firms). Profits are clearly related to investment plans and the capacity to invest.^x Here we see that "intentionality" and confidence are not vague, psychological concept but are actually related to performance.

4. Policy Implications - Possibilities and Limits.

The above significant variables constitute key variables associated with Polish business optimism in late 1999 in the lead up to EU accession. Confidence and intentionality, we have shown, are related to past and future performance - they are also correlated to a group of other variables. Policy makers can therefore learn from small firms themselves what, in their opinion, are the drivers of optimism, intentionality and therefore performance. By way of illustration we draw up a generic profile of the potentially

"winning" small firm - bearing in mind that there are significant limits to its use and that it is only an indicative rather than predictive tool at the micro level.

Such a firm is likely to be in the Gdansk, private, service sector. It has a greater international and technological presence than average, with above average levels of exporting, franchising and sub-contracting. It has overcome the difficulties of the credit market probably affording high cost loans or by financing growth out of profits. It typically has more ownership of other national firms than average, more extensive use of the internet and greater knowledge of the EU markets. Its work force is more highly educated and its change in income and investment in recent years has been higher than average. We can infer that such a firm has already had success in the expansion of the 1990s with significant improvements in turnover, profits, investment and productivity. Such a firm may not be among the fastest growers in terms of turnover and may not be among the higher technological group - both of these variables proved to be non-linear. However it would be among the best performers in terms of investment growth. Some cautious policy implications follow.

Firstly, we suggest that on the basis of the above profile the *potentially* "winning" firms, for the most part, would have advanced significantly in many of the variables indicated by the profile but are probably held back by some key constraints. For example there may be a lack of credit or appropriate technology; there may be a lack of marketing skills and information for its exports plans; some firms may wish to relocate from a backward to a more developed region but need help with the finding of low cost premises. Such firms

would be a fruitful target for government help. The generic profile of the potential fast growing small firm is not to be used for rigid policy making. It needs to be creatively and imaginatively used by policy makers in order to promote small firm development. For example the profile of the potentially winning small firm shows it to be located in the Gdansk service sector. This may indicate that it is fruitful to target fast growth firms who are either in or are *trying to locate* within a more developed region or within faster growing areas of their own region; it may indicate that not only service sector firms but also those manufacturing firms who have moved some activities into service provision (e.g. consultancy) would benefit from targeted help. At the other end of the spectrum such a profile would indicate that helping a manufacturing firm in a less developed region that had made changes in neither its technology, the training of its workforce, nor its investment programme, and which had made no attempt at sub-contacting, franchising, or a creative export drive would be a waste of tax payers money from the point of view of employment generation - however it might be done for social or other reasons. Table 2 in the appendix outlines the profile of a potential "winning" small firm with some suggested interpretations that policy makers *might* put on each variable.

Apart from the difficult and specific task of helping individual firms policy makers can address the general requirements of the small firm stratum. The general picture is clear that help for small firms should encourage greater international presence, higher levels of technology, greater knowledge of EU markets (and regulations), greater use of the internet and information technology, improvements in productivity and capital structure, higher education and skills in the labour force as well as greater use of networking

arrangements including sub-contracting and franchising. These firms especially need help overcoming credit difficulties.

Secondly, significant regional differences in small firm development exist in Poland. Small firm policy clearly needs to be differentiated to provide specific help in the less developed regions. In those regions, of which Lublin is an example, small firm policy needs to be a lot simpler. For example it should be concerned with promoting start ups, providing elementary information and training; it should emphasise retraining into new work areas. Fast growth of small firms can be expected in the early stages because many are starting from a very low productivity level. For example, for many very small firms it is not a question of encouraging advanced information technology but more a question of simply encouraging the use of a basic computer - after all 60% of Polish firms do not use one and 80% do not use the internet (Dzierzanowski 2001 p16).

Thirdly, in these surveys small firms explain clearly the following: that bank credit, although available, is too costly; that exporting, though possible, is difficult due to lack of foreign partners, lack of specialists and marketing difficulties; that taxation is too heavy (probably referring to non-wage costs) - all these are areas that government can do something about and a great deal is to be learned from the EU. The most obvious and long standing (Johnson and Loveman. 1993) policy recommendation to increase the employment size of small firms is to lower non-wage costs to the employer.^{xi} This stems from the excessive taxation requirements on employers for hiring labour. This simply

promotes a large informal economy and/or is a real constraint on business employment expansion.

Fourthly, fast growth, according to our results, is not to be expected only by the larger of the small firms. Two of our key variables are non-linear: *the technological level of a small firm's products* and *the estimated proportionate change in income from 1997 to 1999*. This indicates that there is more growth expected (and therefore more employment to be generated) in those small firms which are in the early stages of technology growth and also in those who have grown less fast (income growth) in the 1997-1999 period. Note however that such firms would have grown somewhat in this period and would have advanced in their technology - it is just that they may not be in the top league. This indicates that there are considerable "catch-up" gains for small firms in the early periods of growth. This may indicate that we are not dealing with "gazelles" but that policy needs to be aimed a broad stratum of small firms.

There are, naturally, limits and qualifications to the suggested policy application. Firstly we have noted that the link between confidence/intentionality and performance has to be treated cautiously. Predictive certainty at the micro level (e.g. picking winners) is not possible. However the link at a more aggregated level is sounder. In addition significant variables only tell us about correlation - for example that confidence and intentionality are significantly linked to location and branch of activity. However it is perfectly possible, though not probable, that a confident and successful firm could emerge in the Lublin manufacturing sector. Policy implications should not be rigidly tied to

econometrics but only guided by it. Secondly the survey has limits. It only deals with small firms (10-49 employees). Micro firms, which are the mass of the SME stratum and immersed in informality (Piasecka and Rainnie. 2000), are not included. There are also only two sample regions and we generalise from these to speak of Poland as a whole. Thirdly there are limits to the questions a survey can ask - naturally there will be other variables (e.g, political, institutional and economic) that will be related to business confidence and intentionality. Our significant variables are not exhaustive. Fourthly, the generic profile is for illustrative purposes only and the "interpretations" given by the authors in Table 2 are only suggestions. Policy makers can fill out their own suggestions based on scrutinising the evidence.

Nevertheless we suggest that, despite the limitations mentioned, there is considerable validity of our arguments especially in view of other research into the Polish small firm stratum. Notable examples of Polish firms include:

A. The empirical and detailed work of Smallbone - e.g. Smallbone et alia (2001) where a picture of a comparatively under-powered Polish SMEs emerges and recommendations that target productivity, investment, export, education, finance and technology improvements are set out.

B. The Polish Agency for Enterprise Development's Report (2000) which highlights the following deficiencies in Polish small firms: lack of internet/computer use; limited source of investment funds, low exports, small firm size, sole trader dominance, differential tax

and indirect wage costs prejudicial to small firms; education and R&D and infrastructure deficiencies.

5. Conclusion

Small firm policy in Poland clearly states the importance of the growth of small firms as a major policy objective. Growth in small firm turnover leads to growth in employment. An important question is therefore the identification of growth determinants of small firms. In the absence of other *a posteriori* evidence we turn to intentionality and confidence. On the basis of statistical analyses, testing for intention to expand output and confidence vis-a-vis EU accession in the Polish small firm stratum, the significant variables are presented in this paper as the drivers of small firm growth. These are: region, branch of activity, ownership of other enterprises, extent of internet use, knowledge of EU markets, the existence of export activity, the existence of franchising, a recent increase in fixed assets, the difficulty in obtaining a bank loan, the level of human capital, the technological level of a small firm's products, the estimated proportionate change in income from 1997 to 1999.

Intentionality, we argue, is strongly connected to real growth. Policy makers therefore possess a profile, from primary survey data of small firms, of probable growth determinants for Polish small firms. Policy implications need to be cautiously applied. However this paper presents strong empirical evidence upon which such policy can be based.

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Appendix

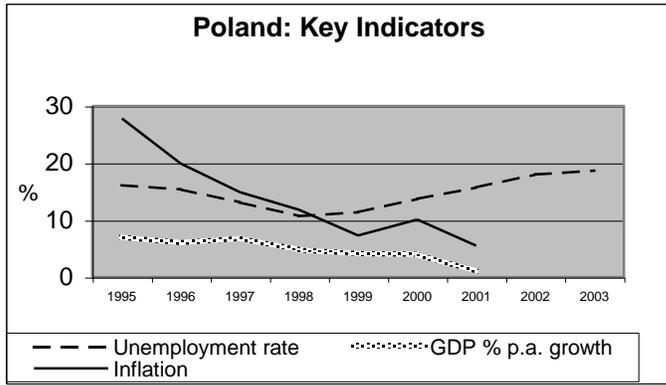
Table 1			
Impact of Polish Accession to the EU: Results by Branch of Activity			
Branch	Negative	Positive	Total
Manufacturing	38	32	70
Construction	18	23	41
Trade	56	83	139
Hotels-Restaurants	0	12	12
Communication	5	21	26
Financial intermediation	1	9	10
Other services	5	44	49
Total	123	224	347

Table 2
Generic Profile Indicators of Small Firm Potential Growth

Variables	Interpretation
Location	Either located in or wishing to locate in a developed region
Form of ownership	Private - perhaps moving away from sole proprietorship towards a more developed legal form
Sector of economy - in order of optimism	Hotels-Restaurants; Financial Intermediation; Communication; Other services; Trade; Construction; Manufacturing
Exports	Either increasing exports already or with significant export potential
Franchising	Franchising already or engaging in other creative relations with other firms - especially foreign
Sub-contracting	Evidence of sub-contracting in appropriate industries
Credit difficulties	Evidence of overcoming difficulties of bank lending
Ownership of other national firms	Evidence of expansion by owning other firms or setting up different branches
Use of internet	Demonstrable business use of the internet
Knowledge of EU markets	Demonstrable and increasing knowledge of these markets
Education of work force	Evidence of higher than average education levels and/or improvements in training of workforce
Level of technology*	Higher than average levels of technology/ evidence of recent betterment of technological level
Income*	Higher than average recent turnover levels
Investment	Recent increases in investment
Productivity	Recent increases in productivity

* These firms do not have to demonstrate the highest levels of income growth or technological level of products.

Fig.1



Notes

ⁱ Defined in this particular report as 1-49 employees.

ⁱⁱ The official definition of SMEs in Poland follows EU conventions of number of employees thus: micro = 1-9, small = 10-49, medium = 50-249. However in practice definitions vary.

ⁱⁱⁱ However the faster growing Polish small firms are not exactly gazelles - they are not for example growing at 20% a year over 4 years - (a CFIB definition). However we may presume they share some characteristics of the gazelles, typically accounting for an unusual proportion of employment growth - very important for Polish employment and competition policy.

^{iv} The Gdansk region, although having the same population size as the Lublin region, has, for example, over double the industrial output.

^v These surveys were financed by the European commissions PHARE ACE PROGRAMME 1997, Contract Number p97-8123-R.

^{vi} The small firm definition (10-49 employees) is in accord with the EU and also with recent Polish legislation (1999 "Law on Economic Activity").

^{vii} Methodology and table of results can be viewed by referring to the paper.

^{viii} Ibid..

^{ix} A non-linear variable indicating that at higher levels of technological product development there was less belief in expansion in the coming two years. This may indicate that firms at the lower end of the technological spectrum were less in danger of competition than those more developed - Macejski (1995) drew similar conclusions. These less developed firms would probably be exclusively serving local niche markets. Such non-linearity may also reflect expectations of deceleration affecting the faster growth firms. At the very least it indicates large catch-up gains for firms with lower level technology.

^x Again this variable proved to be non-linear perhaps indicating that the larger of the small firms, or those growing faster, were anticipating more competition than those who were smaller and growing less fast. Again catch-up gains for certain firms are indicated.

^{xi} This variable does not appear in the econometric results since non-wage costs are generalised across the stratum - i.e. it does not distinguish those wishing or not wishing to grow.