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# Aspiring for, and Achieving Growth: The Moderating Role of Resources and Opportunities\*

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**ABSTRACT** In this article, we use the theory of planned behaviour to develop a model of small business managers' growth aspirations and the level of growth achieved. We empirically test this model on a large longitudinal data set of small firms using hierarchical regression. Consistent with previous findings and others' assumptions, we find that small business managers' aspirations to expand their business activities are positively related to actual growth. However, the relationship between aspirations and growth appears more complex than stated. It depends on the level of education and experience of the small business manager as well as the dynamism of the environment in which the business(es) operates. Education, experience and environmental dynamism magnify the effect that one's growth aspirations have on the realization of growth.

## INTRODUCTION

In most economic literature, the economic motive is taken for granted; people act in ways to maximize their profits. Psychologists, concerned with all aspects of human behaviour, have a more diverse view of the motives underlying economic behaviour. In the small business context, this diverse view may be of particular importance. We know that people start and operate their own firms for a variety of reasons other than maximizing economic returns (Davidsson, 1989a; Delmar, 1996; Kolvereid, 1992; Storey, 1994). The fulfilment of non-economic personal goals, such as gaining independence or developing own ideas, are stated as primary reasons for operating one's own firm (Douglas and Shepherd, 2000). Whether or not running a small firm actually leads to the fulfilment of personal goals is an

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open question. It depends on whether there is a strong link between the small business manager's goals and motivations on the one hand and business outcomes on the other, i.e., the extent to which business outcomes are under volitional control.

Small firm growth may be an area where volitional control is of particular interest. On the one hand, there is reason to believe that the personal motivation of the small business manager is linked to growth outcomes. Growth implies radical changes of the business characteristics. These changes may run counter to the founder's initial goals of, for instance, personal independence. Indeed, previous research indicates that expectations of changed work conditions is a primary concern for small business managers, which in turn affects their motivation to expand their businesses (Wiklund et al., 1997). This suggests that motivational differences may be an explanation as to why there are such large differences in small firm outcomes. On the other hand, there is reason to believe that small business growth is a function of the small business manager's personal abilities. Concerning small firms, the ability of top management is regarded as one of the key capabilities (Jennings and Beaver, 1997). In order to expand his or her business, the small business manager must have the ability to secure the resources needed for growth as well as the capability of developing the organization (Covin and Slevin, 1997; Sexton and Bowman-Upton, 1991). Thus, it would appear that personal ability plays an important role in small firm growth.

Relatively few studies have empirically investigated the link between motivation on the one hand, and small firm growth on the other. The relative scarcity of such studies may be attributed to research design requirements, as temporal separation of motivation and growth outcomes is necessary. Firm growth is not instantaneous. The motivations and behaviours of today will affect size changes into the future. Therefore, it is important to assess motivation at one point of time and size changes from that point onwards. We found only four published studies investigating the relationship between motivation and growth using such a design (i.e., Bellu and Sherman, 1995; Kolvereid and Bullvåg, 1996; Miner et al., 1994; Mok and van den Tillaart, 1990). Each finds some support for a positive relationship between motivation and growth, although these relationships are generally not very strong.

While these studies make significant contributions in this important area, they share two limitations. First, they rely on bi-variate analyses of motivation and growth and do not consider the possible direct or moderating influence of other variables. As mentioned above, small firm growth may be under some volitional control, but it is unlikely to be under total volitional control. In other words, a range of factors in addition to motivation, probably affect growth outcomes. Macro-economic development, market conditions, access to resources, as well as the skills and knowledge of the small business manager constitute some such factors (Covin and Slevin, 1997; Sexton and Bowman-Upton, 1991).

Several psychological theories deal with behaviour that is under limited volitional control. They share the common feature that behavioural outcome is

modelled as a joint function of motivation and individual ability (Ajzen, 1991). There is strong theoretical reason to believe that individual ability (i.e., access to the resources and opportunities necessary to exert the behaviour) affects the relationship between motivation and outcomes (Ajzen, 1991). More specifically, the theory of planned behaviour has been successful in predicting other behaviours under limited volitional control (Ajzen, 1991; Bagozzi and Warshaw, 1992; Doll and Ajzen, 1992). Thus, a deeper understanding of the effect that motivation has on growth may benefit from the simultaneous consideration of both resources and the availability of opportunities for growth. In this paper, we take an important step in this direction by developing a model of the relationship between motivation and growth, based on the theory of planned behaviour.

Second, previous studies of motivation and growth have used the single business entity as the unit of analysis. Recent research has shown that many individuals start and operate more than one business in parallel (Scott and Rosa, 1996; Westhead and Wright, 1998). Several avenues to expansion are open to growth-motivated individuals who can choose to build, merge with, and/or acquire other businesses. Davidsson and Wiklund (2000) argue that it is particularly important to examine the expansion of an individual's entire business activities when individual-oriented variables such as motivation are used to explain growth. Therefore, in this paper we examine the effect of motivation on subsequent business growth by considering the expansion of all business activities that the individual controls.

The paper proceeds as follows. First, we present the theory of planned behaviour, which leads to hypotheses concerning how growth aspirations, and variables pertaining to resources and opportunities interact with these aspirations, in explaining small business growth. Second, we describe the research method, including the sample and data collection using a longitudinal design. Third, we analyse the data and present results. Finally, we discuss the results and implications of the research for both scholars and practitioners.

## **THE THEORY OF PLANNED BEHAVIOUR AND SMALL BUSINESS GROWTH**

The theory of planned behaviour developed by Icek Ajzen (Ajzen, 1988, 1991) is a well-established (Olson and Zana, 1993; Petty et al., 1997) and validated (Locke, 1991) psychological theory purporting to explain and predict specific actions in specific contexts. The theory of planned behaviour is an extension of the theory of reasoned action (Ajzen and Fishbein, 1977), adding aspects of individual ability (Ajzen, 1991). This extension incorporates behaviours over which people have incomplete volitional control. Ajzen expresses the ability of an individual of exerting a specific behaviour in terms of their control over that specific behaviour. Behavioural control, in turn, consists of the individual's access to resources and

opportunities relevant to the behaviour of interest. Access to time and money, and relevant skills and knowledge, for example, could be important in determining the resources and opportunities of performing a behaviour.

Central to this theory is the role of intentions: 'Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert in order to perform the behaviour. As a general rule, the stronger the intention to engage in a behaviour, the more likely should be its performance' (Ajzen, 1991, p. 181). Intentions have together with the individual's perception of behavioural control successfully predicted a range of behaviours including election participation, voting choice, weight loss and performance on cognitive tasks (Ajzen, 1991). Relevant to our study, drawing on the theory of planned behaviour, Kolvereid and Bullvåg (1996) generally found small positive relationships between growth intentions and achieved growth. However, these authors did not consider the direct influence of behavioural control on behaviour.

Ajzen's (1988) original model consists of the constructs: attitude towards the behaviour, subjective norm, intention, perceived behavioural control and behaviour. Attitude towards the behaviour, subjective norms, and perceived behavioural control explain intentions, whereas perceived behavioural control and intention predict behaviour. We focus on the variables of growth aspirations (which reflects attitudes towards growth and subjective norms) and perceived behavioural control – we do not directly measure the construct of intentions.

The theory of planned behaviour is a 'pure' psychological theory in the sense that it relates a number of psychological constructs to each other. Therefore, perceived behavioural control rather than actual behaviour control is included in the theory. Ajzen argues: 'The resources and opportunities available to a person must to some extent dictate the likelihood of behavioural achievement. Of greater psychological interest than actual control, however, is the *perception* of behavioural control and its impact on intentions and actions' (1991, p. 183, emphasis original). He then recognizes that: 'prediction of behaviour from perceived behaviour control should improve to the extent that perceptions of behavioural control realistically reflect actual control' (p. 185). As our intention is the explanation of growth and there is reason to believe that actual behavioural control plays a role in firm growth (cf. Ajzen's logic and the introduction), we model the influence of actual behavioural control on growth. Behavioural control is likely to moderate the relationship between growth aspirations and the achievement of growth. As Ajzen (1991, p. 188) notes, 'past theory as well as intuition would lead us to expect an interaction between motivation and control'.

In the entrepreneurship literature, Sexton and Bowman-Upton (1991) criticize growth models that do not consider the motivation of the individuals making the strategic decisions in a small business and argue that the growth aspirations of the small business manager set limits to the growth a business will achieve. Limits are

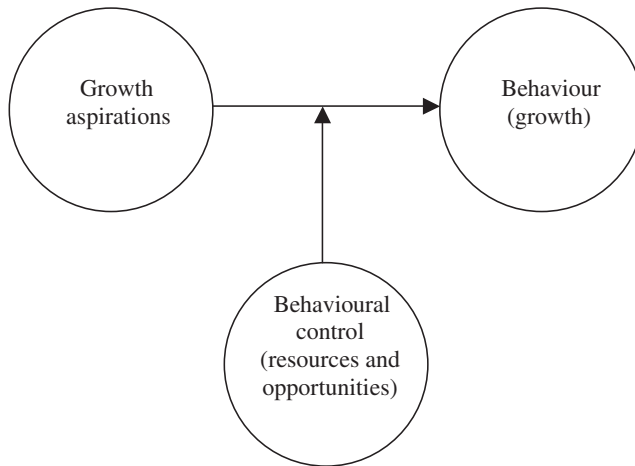


Figure 1. Adapted version of the theory of planned behaviour for studying how growth aspirations influence actual growth

also imposed by the growth opportunities available in the environment, the skills of the entrepreneur and the resources that the entrepreneur has access to. Refining this argument, Covin and Slevin (1997) suggest a model where growth is a function of growth aspirations, moderated by market constraints, entrepreneurial capability and organizational resources. Based on the theory of planned behaviour and acknowledging the contribution of these entrepreneurship scholars we propose and empirically test a motivation-based model of growth shown in Figure 1.

### **Growth Aspirations and Growth Realized**

Previous empirical research has found a direct positive relationship between motivation and growth (Bellu and Sherman, 1995; Kolvereid and Bullvåg, 1996; Miner et al., 1994; Mok and van den Tillaart, 1990). We therefore first test the hypothesis that growth aspirations directly influences subsequent growth. Thus:

*Hypothesis 1:* Businesses controlled by small business managers with higher growth aspirations achieve greater growth.

### **The Moderating Effect of Resources and Opportunities**

The effect of aspirations on behaviour is a function of (a) the extent to which the individual can decide at will to attempt to perform the behaviour and (b) the probability that attempting to perform the behaviour will lead to a successful outcome. In other words, the individual's control over the behaviour affects the strength of the aspiration-behaviour relationship (Ajzen, 1991; Bagozzi and Warshaw, 1992)

by working as a moderator. Behavioural control, in turn, is influenced by the individual's access to resources and opportunities to exert the behaviour (cf. above for a definition and discussion of such factors). Therefore, we now turn to behavioural control factors that are of particular importance in a small business growth context and are likely to moderate the aspiration–growth relationship. The fact that the theory of planned behaviour is context specific means that aspirations and behavioural control must correspond to the particular behaviour in focus. Therefore, in predicting small business growth it is important to assess the specific resources and opportunities that may affect growth.

The growth of a small business is dependent upon the small business manager's capacity to manage growth (Sexton and Bowman-Upton, 1991). This involves the ability to conduct internal reorganizations in response to the increased size of the business as well as the ability to discover and exploit new growth opportunities (Covin and Slevin, 1997). The human capital of a small business manager gives him or her the ability of taking the measures necessary to achieve growth. That is, human capital provides the individual with the resources necessary to exert the behaviour (Ajzen, 1991). The cognitive science literature suggests that experience translates into expertise in strategic decision-making (e.g., Chase and Simon, 1973; Choo and Trotman, 1991). We know that the amount of experience people have affects the strategic choices they make and the models they use to make those decisions (Hitt and Barr, 1989; Hitt and Tyler, 1991). Greater human capital of the small business founder is likely to enhance organizational performance as it increases the chance that the small business manager makes correct decisions and conducts proper activities (Boone et al., 1996).

The human capital of a small business manager consists of skills and knowledge that assist in running the business successfully (Snell and Dean, 1992). Such skills and knowledge can be obtained through education and experience. A distinction can be made between general and specific human capital (Becker, 1975). General human capital is not related to the ability of conducting a specific job and typically refers to years of education or years of work experience (Rauch and Frese, 2000). A consistent finding for general human capital is that educated individuals are more likely to run faster-growing small businesses than those who are less educated (Sapienza and Grimm, 1997; Storey, 1994). But previous research has not found that general work experience affects small business growth. Specific human capital is specific to the domain of operating a small business and consists of skills and knowledge of conditions, internal and external to the small business, that help organize the business successfully, thus facilitating growth (Rauch and Freese, 2000). Specific human capital, such as start-up experience, management experience, and experience of working in rapidly growing organizations has been found to explain, in part, the growth of small firms (Birley and Westhead, 1994; Macrae, 1992; Van de Ven et al., 1984). Thus:

*Hypothesis 2:* The level of human capital will moderate the relationship between a small business manager's growth aspirations and the level of growth achieved. Growth will increase with growth aspirations but at a faster rate for those with (a) more education, and (b) more related experience (experience with start-up, management, and rapidly growing organizations).

The growth of a small firm also depends on the type and amount of resources controlled by, or made available to it (Covin and Slevin, 1997). Securing funding may be particularly important in achieving the growth objectives of the firm (Sexton and Bowman-Upton, 1991). It is probable that lack of financial capital would restrict a small business manager's opportunities to take action. Many small business managers experience shortages of financial capital that limit their ability to pursue various initiatives (McGrath, forthcoming). Financial capital can relatively easily be converted into other types of resources (Dollinger, 1999). Access to more financial capital facilitates the pursuit of resource-intensive growth strategies (Cooper et al., 1994) because slack resources can be used for experimentation with new strategies and practices, allowing the business to pursue new growth opportunities (Penrose, 1959). A recent review of the literature indicated that several studies have found that access to financial capital affects small business growth (Storey, 1994). In a longitudinal study, Cooper et al. (1994) confirmed that access to financial capital predicted growth. Thus:

*Hypothesis 3:* The level of access to financial capital will moderate the relationship between a small business manager's growth aspirations and level of growth achieved. Growth will increase with growth aspirations but at a faster rate for those with greater access to financial capital.

While the access to financial capital can provide the small business manager with the means to conduct a range of activities, the growth of the firm will to some extent be determined by the growth opportunities in the firm's market niche. For any given product in any given niche, factors such as competition, the growth of overall demand, and changes in customer preferences, set limits to growth (Covin and Slevin, 1997; Sexton and Bowman-Upton, 1991). However, changes in the business environment can also offer new growth opportunities for small and new firms (Drucker, 1985). These changes create dynamics in demand, opening up growth opportunities for firms, which can deliver products and services attuned to the changing demand. Such opportunities described above can be expressed as environmental dynamism. More specifically, dynamic environments are associated with high unpredictability of customers and competitors, and high rates of change in market trends and industry innovation (Miller, 1987). The shifts in demand and conditions typical of a dynamic environment are likely to generate opportunities



from which the growth oriented business can take advantage (Chandler and Hanks, 1994; Covin and Slevin, 1991; Zahra, 1993). The less growth oriented businesses, however, are less alert to opportunities in the dynamic environment and will therefore benefit less, and even face negative growth in such environments. Thus:

*Hypothesis 4:* The degree of environmental dynamism will moderate the relationship between a small business manager's growth aspirations and level of growth achieved. Growth will increase with growth aspirations but at a faster rate with greater environmental dynamism.

In sum, we hypothesize that small business managers with higher aspirations for growth achieve higher levels of growth but more human capital (higher educational level and greater specific experience), access to financial capital, and environmental dynamism enhance the effect of a small business manager's growth aspirations on the level of growth achieved.

## METHODS

### Sample and Design

The sample frame was constructed from the CD-ROM database UC-Select, which contains information on the annual reports of all limited businesses registered in Sweden. We randomly selected more than 200 independent small businesses from each of four sectors: knowledge intensive manufacturing, labour intensive manufacturing, professional services and retailing. Half of the sample had between 10 and 19 employees and half between 20 and 49 employees as stated in their latest annual report. These size brackets correspond to the European Union definition of small businesses.

In 1996, 808 small business managers (Chief Executive Officers) were contacted, and 630 of them agreed to participate in the survey. In 1999, those that participated in the study in 1996 were contacted again, of which 552 responded. Due to internal non-response, the effective sample size is somewhat lower in some of the analyses. In order to check for non-response bias, we compared the 552 who responded to all the questionnaires to those 256 who did not. Chi-squared and Student's t-tests were conducted concerning industry, size and previous growth. No statistically significant differences were found.

It is important to track the individual and not the small business given that our unit of analysis is the individual's growth aspirations. Therefore, 123 firms were removed from the study because the original CEO had been replaced. It is also important to include only those small business managers that have control over their strategic decisions (e.g., that the manager is not subservient to directions from

the head office of a parent company). Another 103 CEOs were removed for this reason. The final sample is 326 (552 – 123 – 103) CEOs of small businesses, corresponding to 40 per cent of the original sample.

### Variables and Measures

*Growth.* Four measures were used to capture small business growth. Growth in terms of sales and employment was calculated as the relative change in size from 1996 to 1999 in all businesses controlled by the respondent. When assessing performance, comparisons with competing businesses in the market reveal important additional information (Birley and Westhead, 1994). Therefore, respondents were asked to rate their sales and employment growth compared to competitors on five-point scales. Each of the variables were standardized and summed to an index. The Cronbach's Alpha value of the scale was 0.91.

*Growth aspirations.* The scale measuring growth aspirations consisted of four questions that had been successfully used in two previous studies (cf. Davidsson, 1989a; Delmar, 1996). Respondents were asked whether a 25 per cent increase in the number of employees in five years would be mainly negative or mainly positive.<sup>[1]</sup> A seven-point scale ranging from very negative to very positive was used to measure this item. A similar question was then asked where a 100 per cent employee increase replaced the 25 per cent of the previous question. At the extreme level of growth aspiration individuals would score higher on the 100 per cent than the 25 per cent increase item (9.2 per cent of the sample). These individuals' responses were manually recoded to the highest value (seven) on the 25 per cent scale. Two open-ended questions were also posed. Respondents were asked to report the ideal size of the business in five years in terms of both sales and the number of employees. These responses and the 1996 size figures were used to calculate ideal growth rates of both sales and employees and converted to two seven-point scales. The two items from the 25 per cent and the 100 per cent scale were summed with the two items created from the open-ended questions to form a global growth aspiration index. The Cronbach's Alpha value of the index is 0.72 and corrected item-total correlations range from 0.47 to 0.55 indicating that the index has acceptable reliability (Nunnally, 1967) and that all items share sufficient variance with the index (Nunnally and Bernstein, 1994).

In order to establish construct validity further, we followed the guidelines provided by Robinson et al. (1991). Convergent validity was established by correlating our index with another index aimed at measuring expected consequences of growth consisting of ten items with a Cronbach's Alpha value of 0.78 (the measures were derived from expectancy theory). The correlation between the two indices was 0.62, suggesting that the correlation between the two underlying theoretical constructs, corrected for measurement error, is 0.81 (Cohen and Cohen,

1983). To establish discriminant validity, we correlated the growth aspirations index with previous three-year growth rate in terms of employees and sales. None of these correlations were above 0.10. These analyses taken together warrant the construct's convergent and discriminant validity according to Robinson's et al. (1991) criteria.

*General human capital (education level).* Respondents were asked to state their highest level of completed education. This variable was then recoded into years of education.

*Specific human capital (experience).* To measure experience, three variables deemed to be important to growth in previous research were utilized – start-up experience, management experience and experience of working in rapidly growing organizations. As these three variables all represent different ways of gaining experience (i.e., specific human capital) they all measure a common experience construct. Hence, they were summed to an index. It should be noted, however, that these indicators are formative, meaning that the construct is an effect of its indicators as opposed to reflective indicators where the underlying construct causes the empirical observations (Wold and Jöreskog, 1982). Therefore, reliability analysis, which is suitable for reflective indicators, conveys no relevant information.

Respondents were asked if they had started any other business. This variable was coded zero for those who had no start-up experience and one for those that did. The respondents were then asked if they had ever worked as a manager in another business or organization for more than a year. This variable was coded zero if they had no such experience and one if they did. If the respondent had worked as a manager in a rapid growth business (annual sales growth of at least 20 per cent) the rapid-growth experience variable was coded one, if not it was coded zero. The respondents' total score on these three variables was summed into the experience index.

*Access to financial capital.* A subjective measure of 'access to capital' was utilized and captured on a seven point scale anchored by 'insufficient and a great impediment for our development' and 'fully satisfactory for the business's development'.

*Environmental dynamism.* The construct 'environmental dynamism' captures industry growth rates as well as other dimensions of increased environmental dynamism. We used Miller's (1987) scale consisting of four items to capture this variable. The Cronbach's Alpha value of the scale is 0.69.

*Control variables.* As business size, business age, industry (i.e., manufacturing, service and retail), and the age of the small business manager have been frequently investigated in previous research and may influence growth (see Delmar (1997) for a

review of predictors of growth), they were included as control variables. Initial analyses suggested that the Swedish equivalents of ISIC codes we used for stratification were not always updated or relevant. The interview included a question about the respondents' main line of business (manufacturing, retail or service). Cross-referencing these with the ISIC codes showed some deviations. We chose to rely on the respondents' self-report of main activity as a better indicator of their main industry.

The correlations and descriptive statistics for the non-categorical variables are presented in Table I. To ensure that multicollinearity was not an issue, multicollinearity diagnosis was applied. Due to space limitations, individual figures are not reported, but a calculation of the variance inflation factor (VIF) finds that the values of all first order terms are below 2.2, which is well below critical values (cf. Hair et al., 1998).

## **ANALYSIS AND RESULTS**

### **Independent (Main) Effects Only Model**

The hypotheses were tested using hierarchical regression analysis. The results are displayed in Table II. The control variables of business size, business age, manufacturing, and service were first entered in a base model reported in column 2. This model fails to explain a statistically significant share of the variance of the growth dependent variable. In the next step, the independent (main) effects were entered. The results are reported in column 3 of the table. The main effects model makes a significant contribution over and above the base model ( $\Delta R^2 = 0.09$ ,  $p < 0.05$ ). Within the main effects model, the findings suggest that access to financial capital, and growth aspirations have a statistically significant influence on growth. The positive sign of the regression coefficients suggests that growth was higher for those individuals that had greater access to financial capital, and for those with a greater growth aspiration. The latter finding provides support for the hypothesis that greater growth aspiration is associated with higher business growth (Hypothesis 1). There was no evidence that experience, education or environmental dynamism had a main effect relationship with growth.

### **Full Model Including Interaction Effects**

The hierarchical approach is necessary since an interaction effect exists if, and only if, the interaction term gives a significant contribution over and above the main effects only model (Cohen and Cohen, 1983).<sup>[2]</sup> As displayed in the right column of the table, the addition of the interaction terms gives an explanatory contribution over and above that of the main effects only model. Explained variance increases by 0.15 to 0.27 and the increase is statistically significant at  $p < 0.001$ . This suggests that interaction effects are indeed present. Examining the regression

Table I. Descriptive statistics and Spearman correlations for relevant variables

	<i>Mean</i>	<i>S.D.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>
1. Growth	-0.03	3.39												
2. Business size	22.03	11.42	-0.07											
3. Business age	30.28	28.64	-0.19**	-0.05										
4. Respondent's age	48.04	8.39	0.04	-0.08	0.12									
5. Growth aspiration	16.99	5.67	0.02	-0.05	0.10	0.07								
6. Education	12.13	2.39	0.06	0.11	-0.01	-0.20	0.03							
7. Experience	1.53	1.74	0.04	0.14*	-0.34**	0.10	0.19**	0.12						
8. Financial capital	4.73	1.92	0.11	0.10	0.00	0.00	-0.15*	-0.05	-0.07					
9. Environmental dynamism	16.89	3.52	0.16*	0.17*	-0.27**	0.04	0.12	0.03	0.15*	-0.00				
10. Aspiration *education	205.90	83.01	-0.01	-0.01	-0.11	-0.16*	0.87**	0.47**	0.22**	-0.16*	0.11			
11. Aspiration *experience	26.97	34.53	0.04	0.13	-0.35**	0.07	0.38**	0.09	0.97**	-0.10	0.18**	0.37**		
12. Aspiration *financial capital	76.96	40.76	0.11	0.05	-0.08	-0.04	0.46**	-0.04	0.05	0.74**	0.06	0.37**	0.14*	
13. Aspiration *dynamism	284.29	119.51	0.11	0.03	-0.22**	-0.04	0.82**	0.04	0.23**	-0.07	0.59**	0.73**	0.39**	0.46**

*Note:* n = 326.

Table II. Hierarchical regression analysis: independent and interaction effects on actual growth

	<i>Base model</i>	<i>Independent effects only</i>	<i>Interaction effects</i>
Manufacturing	-0.08	-0.06	0.04
Service	0.00	0.00	0.16
Business size	0.06	0.03	0.01
Business age	-0.08	-0.06	-0.03
Age of respondent	-0.15*	-0.13	-0.09
Growth aspiration		0.15*	1.55*** <sup>a</sup>
Education		0.04	-0.36 <sup>a</sup>
Experience		-0.06	0.45* <sup>a</sup>
Financial capital		0.17*	0.32 <sup>a</sup>
Environmental dynamism		0.13	1.36*** <sup>a</sup>
Aspiration *education			0.85*
Aspiration *experience			0.45*
Aspiration *financial capital			-0.18
Aspiration *environmental dynamism			2.35***
R <sup>2</sup>	0.04	0.11*	0.24***
Adj. R <sup>2</sup>	0.02	0.06*	0.19***
Δ R <sup>2</sup>		0.06*	0.13***

Notes: Standardized regression coefficients are displayed in the table.

<sup>a</sup>In the presence of interactions, the coefficients for independent terms making up the interactions convey no meaningful, but possibly misleading information (Cohen and Cohen, 1983).

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001; n = 326.

coefficients of the interaction terms, it is evident that education, experience and environmental dynamism moderate the relationship between growth aspirations and growth.

To determine the nature of these interactions, each relationship was plotted on a y-axis of growth and an x-axis of growth aspirations for high and low levels of the moderator terms (plus and minus one standard deviation from their mean, cf. Baker and Cullen (1993) and Cohen and Cohen (1983)). These plots are displayed in Figures 2a–c. Figure 2a indicates that growth increases with aspiration but at a greater rate for those with higher education. This finding provides support for Hypothesis 2a. Figure 2b indicates that growth increases with aspiration but at a greater rate for those with more experience, supporting Hypothesis 2b. Figure 2c indicates that growth increases with aspiration but at a greater rate for those in more dynamic environments. This latter finding provides support for Hypothesis 4. The interaction with access to capital was not statistically significant and therefore Hypothesis 3 is not supported.

## DISCUSSION

In this article, we used the theory of planned behaviour to develop a model of small business managers' growth aspirations and the level of growth achieved.

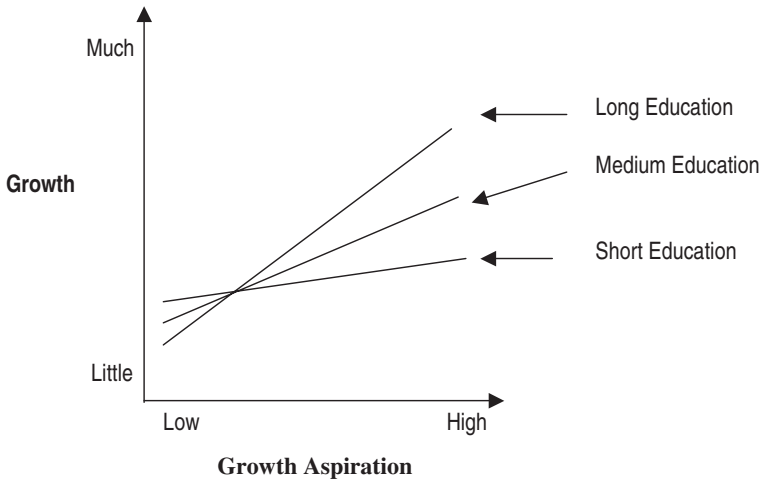


Figure 2a. Interaction of aspiration and education on growth

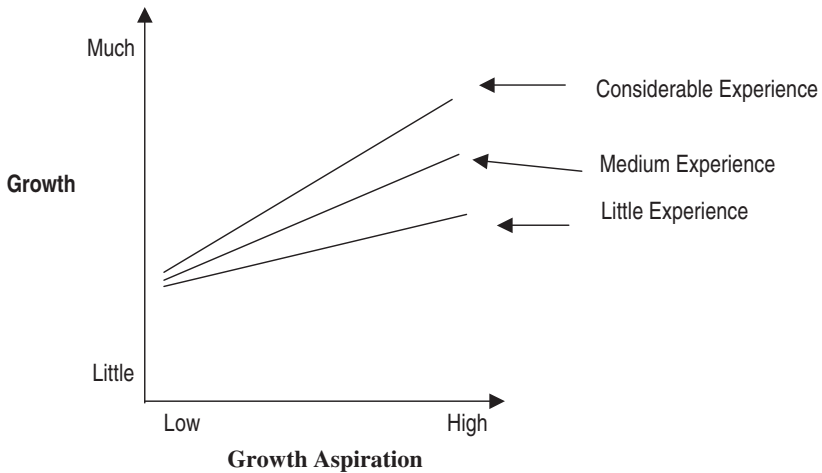


Figure 2b. Interaction of aspiration and experience on growth

Consistent with previous findings and others' assumptions, we found that small business managers' aspirations to expand their business activities is positively related to actual growth. However, the relationship between aspirations and growth appears more complex than stated. It depends on the level of education and experience of the small business manager as well as the dynamism of the environment in which the business(es) operates.

These findings are largely consistent with our model and the theory of planned behaviour. In addition, they provide empirical support to the propositions made by Sexton and Bowman-Upton (1991) and Covin and Slevin (1997). As suggested by Sexton and Bowman-Upton (1991) models that fail to take growth motivation into

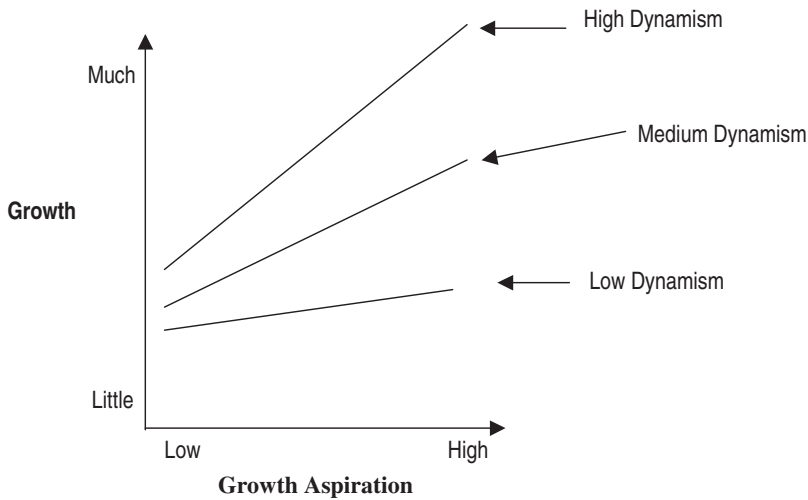


Figure 2c. Interaction of aspiration and dynamism on growth

account fail to explain why so many firms experience no, or just marginal growth. Small business managers must have the ability to manage a growing organization and to spot new opportunities. They must also secure the resources necessary for expansion, and the environment must offer suitable growth opportunities. However, the effect that all these factors have on growth will be contingent upon the aspirations of the small business manager (Covin and Slevin, 1997). Unless the small business manager has a propensity for growth, the firm is unlikely to expand.

One of the interesting findings from this study is that when only the independent effects were investigated, education level did not have a significant relationship with growth. We found, as hypothesized, that it requires simultaneous consideration of the small business manager's growth aspirations. Growth increases with aspiration but at a faster rate for those with higher levels of education. It appears that higher education represents an important aspect of human capital, one that better equips the small business manager to achieve his/her aspirations. Growth, for those with higher education, appears to be more under volitional control, i.e., education facilitates growth for those who want their firms to grow. Storey (1994) finds that growing small businesses are more likely to be managed by more highly educated individuals. Our comparison of the main effect and contingent relationships involving education suggest that the effect of education on growth might remain hidden if only the main effect relationships are investigated. We argue, based on this study's findings, that simultaneous consideration of an individual's growth aspirations provides an even deeper understanding of the relationship between education and growth.

Based on the literature, we argued that a manager's experience is also an important aspect of human capital. The results concerning experience were very similar



to that of education. No direct relationship between experience and growth was found. Experience affected growth only when accompanied by growth aspirations. Although experience may give the small business manager the relevant expertise in how to manage the business and achieve growth, it has limited effect on growth unless he or she actually intends to expand the business.

Interpreted from the viewpoint of the theory of planned behaviour, our findings suggest that a small business manager constrained by a shortage of human capital, such as education and experience, is unlikely to achieve substantial growth regardless of their motivational level. In this respect, our findings reinforce the notion from the theory of planned behaviour concerning behaviour under limited volitional control. Not only aspirations, but also resources are necessary for behavioural performance (at least, in this case, the education level and the experience of the small business manager). Research that fails to investigate interaction effects similar to the ones we have revealed here may lead to the premature conclusion that growth aspirations have a very limited influence on subsequent growth.

Another interesting finding of this study is that the independent effects model infers that growth is not significantly related to environmental dynamism. However, the lack of significance is due to insufficient acknowledgement of the complexity of the relationship. When we jointly consider growth aspirations, environmental dynamism, and growth, we find that environmental dynamism does indeed play a role – it magnifies the influence that aspirations have on growth. Given that dynamic environments provide greater opportunities, our findings reinforce the notion from the theory of planned behaviour that not only is motivation necessary for behaviour but so are opportunities. Our findings of a contingent relationship are also consistent with contemporary theorizing on entrepreneurship which suggests that entrepreneurship research should not be concerned solely with the individual but rather with the interaction of the individual and the quality of the opportunity (Shane and Venkataraman, 2000; Venkataraman, 1997). If individuals and opportunities are studied separately, results may be seriously confounded.

The only hypothesis not supported by the data concerns the interaction of access to financial capital and growth aspirations. Instead we found that access to financial capital had a direct effect on growth. This suggests that small businesses with access to more financial capital grow more, aspirations aside. A plausible interpretation of this finding is that access to slack financial resources allows experimentation within the firm allowing it to pursue new opportunities (March and Simon, 1963, p. 146) regardless of the small business manager's aspirations.

### **Limitations**

While we believe that the results are likely to be generalizable to small businesses outside Sweden, care must be taken in assessing country effects such as culture. Although evidence from several countries suggests that only a small fraction of all

small businesses grow to substantial size, there are national differences suggesting that a larger share of businesses become larger in, for example, the UK (Storey, 1994) and the USA (Birch, 1977) than in Sweden (Davidsson et al., 1994). Such differences may stem from individual differences in growth aspirations, perceived opportunity, resource structures or some combination of these.

We must point out that the measurement of resources and opportunities are relatively course-grained in the present study. A more fine-grained assessment including direct measurement of the entrepreneur's ability to access resources and the actual opportunities available to the individual business rather than the general dynamics of the industry would probably strengthen the relationship between these variables and actual outcomes (cf. Shane and Venkataraman, 2000). More specifically, experience in management, start-ups, and with growing businesses is better captured as a continuous variable (i.e., number of years). While experience is often used as a proxy for expertise, operationalizations that consider both the number of years of experience and the quality of that experience would likely produce stronger and more significant results. The measurement of 'access to financial capital' should also be strengthened by a multi-item operationalization. However, this being said, we should also note that it is not possible to establish predictive validity unless a measure is reliable (Nunnally and Bernstein, 1994). The fact that our variables largely had a significant influence on growth in the hypothesized direction would suggest that they are (predictively) valid (cf. Nunnally and Bernstein, 1994).

We have argued that growth aspiration is an individual level construct and can be achieved through internal (organic) growth or by alternate methods that may not be integrated into the original business entity. While it is possible that an individual might have different aspirations for different businesses under their control, the results support our argument that individuals have a generalized aspiration for growth that is reflected in realized growth across their businesses. This suggests that when investigating the relationship between an individual's aspirations and growth, scholars may need to expand their growth measures beyond a single business unit – care must be taken in the choice of both the measure of growth and the unit of analysis.

Finally, there is a possibility of survivor bias. Six firms in the sample had gone out of business before the first survey, and another 31 went out of business during the three years of the study. Many more had failed, of course, before the sampling frame was constructed. Therefore, we can only generalize our findings to *surviving* small businesses. It is possible that higher growth aspiration is also associated with greater risk-taking propensity. Risk-taking, in turn, may be associated with higher chances of failure. Due to high failure rates among new and small firms, future research needs to address whether those characteristics that lead to higher growth among surviving businesses are also associated with a higher risk of failure.

### **Future Research and Implications**

This study uses a longitudinal design and focuses on small businesses in Sweden. According to recent reviews, a lack of longitudinal designs in the field of entrepreneurship research is a major methodological shortcoming hampering further theoretical development (cf. Aldrich and Baker, 1997; Chandler and Lyon, 2001; Davidsson et al., 2001; Sexton, 1997). This is particularly important in growth studies, since growth itself is a change process. Therefore, measuring independent variables at the end of the growth period can severely bias results. We have taken an important step by temporally separating independent and dependent variables to investigate the relationship between aspirations and growth while considering the role of resources and opportunities.

A natural extension of this study is to investigate heterogeneity of growth aspirations among small business managers. Why do some small business managers aspire to grow their businesses rapidly while others do not? The theory of planned behaviour offers a theoretical framework for such an empirical investigation. It should be possible to build on previous work on the antecedents of growth motivation (e.g., Davidsson, 1989b; Kolvereid, 1992; Wiklund et al., 1997) in assessing how attitudes towards the behaviour and social norms influence growth aspirations and, in turn, how growth aspirations and perceived behavioural control influence intention.

A more detailed examination of the interplay between growth and growth aspirations may be particularly interesting. Ajzen (1991) admits that feedback loops probably are present in his model. Feedback from growth to growth aspirations is likely. Growth may be an 'acquired taste', i.e., managers of expanding firms may experience the benefits of expansion and larger size and thus become more motivated to grow their firm(s). In other words, it appears plausible that the experience of realized growth affects future growth aspirations.

These issues are beyond the scope of the paper but highlight the importance of research into the antecedents of growth aspirations. Within the scope of this research was the relationship between a small business manager's growth aspirations and realized growth. Care must be taken however in generalizing these results to managers of new and large businesses. There may be important differences in the aspiration-growth relationship for these different types of managers. Theoretical and empirical exploration of such differences could make an important contribution to the literature.

The practical implications of this paper's findings are numerous. First, small business managers with greater growth aspirations are more likely to realize growth. This suggests that there is an opportunity for economic growth if small business managers' growth aspirations can be increased. Second, education plays an important role in enabling growth aspirations to be realized. Governments and

others wishing to grow an economy need to emphasize the importance of education. Finer grained research that investigates which aspects of education are most important to growth would be valuable for educators. Third, the aspirations of small business managers are important but so is the macro environment. Environments that produce or allow the pursuit of opportunities enable growth aspirations to be realized. Therefore, governments need to focus on both the education of individuals and vibrant markets.

This paper has made a number of contributions to the literature. First, we empirically assess the relationship between growth motivation and actual growth, an area which has received little attention in the past. Second, we explicitly assess the influence of personal ability on growth, something that previous growth motivation studies have not addressed. We used the theory of planned behaviour as a framework from which we empirically investigated the moderating role of resources and opportunities. Growth aspirations are important to small firm growth, but unless the small business manager has access to relevant resources and opportunities, growth will be constrained. Third, we used the growth of the small business manager's total business activities as the dependent variable. Given that growth aspirations are an individual level construct, we captured realized growth of all that individual's businesses. Finally, reviews of entrepreneurship research suggest problems with cross sectional studies and advise the use of longitudinal designs (e.g., Aldrich and Baker, 1997). Our use of a longitudinal design better captured the temporal relationship of growth aspirations and realized growth.

Based on our findings, Figure 3 categorizes small firms along two dimensions; resources and opportunities for growth provides one dimension, and growth aspirations the other. Depending on their position along these two dimensions, four types of small firms are identified:

Resources Opportunities	Yes	Unused potential	Actual growth
	No	Little potential	Constrained
		No	Yes

Growth Aspirations

Figure 3. Four types of firms in terms of resources and opportunities for growth and growth aspirations. Adapted from Sexton and Bowman-Upton (1991) and Wiklund (1998)

- (1) Starting with the firms in the upper right quadrant, which both possess the necessary opportunities and resources, *and* the aspiration to grow, those are the ones that exhibit *actual growth*.
- (2) In the upper left quadrant are the firms which have an *unused potential* since they, if they were motivated, have the ability, resources and opportunity to expand. A relatively large proportion of all small firms are probably in this situation.
- (3) Firms which strive for growth but lack certain skills, capital, or other abilities, resources and opportunities, we call *constrained*. These firms are situated in the lower right quadrant.
- (4) Firms in the fourth category have neither motivation nor abilities or resources for growth, and thus have *little potential* for growth. All firms are not suited for expansion. Due to limited management abilities, these firms may actually perform better if they remain at a smaller scale. This group still has an important role in society for creating employment etc.

## CONCLUSIONS

This study takes an important step towards an increased understanding of a small business manager's growth aspirations and realized growth. While there is a relationship between the aspiration for, and actual growth, the relationship is more complex – it depends on the educational level and experience of the small business manager as well as the level of environmental dynamism. Education, experience and environmental dynamism appear to magnify the effect that growth aspirations have on growth. This is consistent with the theory of planned behaviour and the importance of resources and access to opportunities in realizing aspirations. We have taken an important step, but there is considerably more to learn about small business managers' aspirations and growth. Given the importance of small businesses to most economies, such research has important practical implications.

## NOTES

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- [1] While it is unlikely to impact the results, it should be noted that a five year time horizon was used to operationalize growth aspirations yet there is a three year time difference from when aspirations and growth were measured.
- [2] The alternative approach is to have the control variables, main effect variables, and interaction variables in one model and use the significance of the interactions' regression coefficients to test one's hypotheses. Correlation between main effect variables and corresponding interaction terms might inflate the effect size of the interaction term. The hierarchical approach tests the interaction terms contribution over and above the main-effect model and therefore represents a more conservative test of moderation.

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