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Article

Growth Intention and Growth in Small Accounting Firms

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Abstract: Previous research has found that owner/manager growth intention is related to subsequent firm growth, but growth intention alone only explains about 4–5% of the variance in actual firm growth. The purpose of this study is to investigate factors in addition to growth intention that may help us to explain a higher proportion of the variance in firm growth. We selected three factors for our study: Entrepreneurial orientation, versatile human resources and labor productivity. We tested the hypotheses in a sample of small Norwegian accounting firms. The findings indicate that, after controlling for growth intention, versatile human resources and labor, productivity contributed to the explanation of the variance in sales and employment growth, while entrepreneurial orientation has no such additional effect.

Keywords: growth intention; growth in sales; growth in employment; accounting firms

1. Introduction

Many studies have found a relatively strong and consistent relationship between the owner/manager's desire for firm growth in small and medium-sized firms and subsequent growth in sales and the number of employees. The correlations between growth intention and growth reported in these studies vary from $r = 0.02$ (Wiklund and Shepherd 2003) to 0.31 (Baum et al. 2011), with an average of approximately $r = 0.20$. This means that only about 4–5% of the variation in growth rates can be attributed to the owner/manager's desire for growth in the firm (Kolvereid and Isaksen 2017).

As more than 95% of the variance in firm growth is unexplained in studies of growth intention, other factors are clearly contributing to firm growth. As Delmar and Wiklund (2008) pointed out, growth intention is not the only factor influencing the growth of small businesses. They encouraged future studies on how growth intention relates to behavior and stated that “it is important that growth-oriented small businesses can access the resources they need at reasonable costs, and that growth opportunities are abundant in the economy” (Delmar and Wiklund 2008, p. 452). Factors that can add to the explanation of firm growth include productivity increases, new product development and new market entry (Delmar and Wiklund 2008), productivity and demand (Pozzi and Schivardi 2016), and the availability of versatile resources (Nason and Wiklund 2018).

Studies on the relationship between growth intention and firm growth have provided inadequate explanations. The same is true for studies of growth that do not include a measure of growth intention. Based on a review of the literature on the topic of growth, McKelvie and Wiklund (2010) stated that the explained variance in growth research is notably low and that it is hard to challenge the notion that growth rates of firms appear to be nearly random (Geroski 2005).

Factors that may explain firm growth are both internal and external to the firm. Since small firms do not have much influence over factors in their environment, such as characteristics of the location, changes in legislation, technological improvements, GDP growth rates or consumer demand, external

factors have few implications for management. Therefore, the quest for increased explanatory power in growth research should focus on factors that are internal to the firm and are under management control.

The purpose of the present research is to investigate the effect of three internal factors hypothesized to explain firm growth when controlling for growth intention. These factors are entrepreneurial orientation (innovativeness, risk-taking and proactivity), the availability of versatile resources, and the effectiveness of the firm in utilizing these resources.

This study provides important new contributions. It tests hypotheses regarding the effect of entrepreneurial orientation, firm resources and effectiveness on actual firm growth in terms of sales and employment when controlling for growth intention. We are not aware of any study that has done this previously. Our focus is on factors that are internal to the firm and, therefore, have important implications for managers in small firms. We test the hypotheses in a single industry sample of 452 small accounting firms in Norway.

2. Theory and Hypotheses

According to the theory of planned behavior ([Ajzen 1991](#)), actual behavior is predicted by behavioral intent and perceived behavioral control. In situations where the individual has complete control over behavior, the theory of planned behavior predicts that intention is a sufficient predictor of the behavior. In such circumstances, intention fully mediates the effect of perceived behavioral control. However, in situations with limited control over behavior, perceived behavioral control should also contribute to the prediction of behavior, over and above its mediated effect via intention ([Ajzen 1991, 2002](#)). Supporting this assertion, [Kautonen et al. \(2015\)](#) found a strong direct relationship between perceived behavioral control and actual entrepreneurial behavior in their study of the amount of effort, time, and money the individual had invested in business start-up activities.

When people believe they have the required resources and opportunities and that the obstacles they are likely to encounter are manageable, they should have confidence in their ability to perform the behavior. Perceived behavioral control can serve as a proxy for actual behavioral control, provided that people are reliable in their judgements. Not only perceptions of control, but also factors associated with the actual control of the behavior can influence the behavior in question. As [Ajzen \(2002, p. 665\)](#) states: "given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises." Control factors can be internal as well as external to the actor. A relevant internal factor with regard to firm growth is the entrepreneurs' ability to manage growth, which some researchers argue is very important ([Box et al. 1994; Gilbert et al. 2006](#)). Factors external to the entrepreneur, but internal to the firm, include requisite resources and the opportunities that the firm has at its' disposal.

In this study, we investigate how three different firm factors influence firm growth over and above the influence of growth intention. First, entrepreneurial orientation is an important antecedent of the firms' ability to innovate. Innovation has sometimes been found to relate to firm growth ([Rosenbusch et al. 2013](#)). Second, [Nason and Wiklund \(2018\)](#) found versatile human resources to be related to growth. Finally, firm productivity has also previously found to be related to firm growth ([Pozzi and Schivardi 2016](#)).

2.1. Entrepreneurial Orientation

Entrepreneurial orientation (EO) is one of the most studied concepts in entrepreneurship literature. The current school of thought posits that EO is an antecedent of firm growth and firm performance ([Kraus et al. 2012](#)). Numerous studies have reported positive relationships between EO and firm outcomes such as performance and growth (for an overview of such studies, see the meta-analyses by [Rauch et al. 2009; Rosenbusch et al. 2013](#)). When a firm grows through internal mechanisms, the firm develops innovative products, improved production routines addressing new markets in order to exploit new market opportunities. An innovation can be novel or incremental, but both types of innovations can be valuable to the firm ([Amazon et al. 2006](#)).

With regard to the relationship between entrepreneurial orientation and performance in small firms, (Rauch et al. 2009, p. 776) argued: “The smaller the organization, the greater direct influence can be exerted by top management . . . There is reason to believe, therefore, that the effect of EO on performance is greater in small organizations.” In their meta-analysis of 53 studies of the relationship between entrepreneurial orientation and performance, they found support for this argument and concluded that size moderates the EO-performance relationship so that the association was stronger among micro businesses than in small businesses. Based on the above results, we expect that entrepreneurial orientation is related to subsequent firm growth and hypothesize:

Hypothesis 1 (H1). *Controlling for growth intention, entrepreneurial orientation is positively related to subsequent firm growth.*

2.2. Human Resources

The resource-based theory (Barney 1991) and the growth theory developed by Penrose (1959) differ with regard to what resources are most likely to promote firm growth (Nason and Wiklund 2018). According to the resource-based view, resources that are valuable, rare, inimitable, and non-substitutable create a sustainable competitive advantage (Barney 1991; Peteraf 1993). Penrose (1959), on the other hand, emphasizes versatility in terms of the range of services that resources can provide to entrepreneurial managers. She argues that under-utilized resources can be put to productive use and slack resources allocated to one purpose can be redeployed to more productive applications.

In their meta-analysis of growth studies, Nason and Wiklund (2018) found support for Penrose’s theory but not support for the resource-based view. The two resources most often examined and found to relate to new venture growth are the financial and human capital resources of the firms (Gilbert et al. 2006). However, not all financial and human resources are versatile. Resources tied to a specific use, such as total assets, machines, equipment, premises and specific human capital are not applicable to other purposes. In contrast, resources such as cash, unabsorbed slack, and generic human resources can be exchanged and utilized readily across firms. Slack financial and human resources are versatile since they can easily be used alternatively and provide organizations with flexibility (Nason and Wiklund 2018).

Small firms have low equity and accounting firms are classic professional service firms (PSFs), characterized by high knowledge intensity, low capital intensity and a professionalized workforce (Von Nordenflycht 2010). Therefore, the most important assets for small accounting firms are their employees, not their financial capital. For this reason, we focus on human resources and hypothesize:

Hypothesis 2 (H2). *Controlling for growth intention, versatile human resources are positively related to subsequent firm growth.*

2.3. Productivity

According to Syverson (2011), productivity is efficiency in production: How much output is obtained from a given set of inputs. Productivity is typically expressed as a relationship between outputs and inputs. Single-factor productivity measures reflect units of output produced per unit of a particular input. Labor productivity is the most common single-factor productivity. The standard approach to measuring labor productivity is to use revenues as outputs and the number of employees as labor inputs (Kim and Ployhart 2014). Syverson (2011) discusses a number of factors internal to the firm that may lead to increased productivity, including managerial practices, quality labor and capital, information technology, learning by doing and firm structure.

Modern theories of industry dynamics assume that productivity determines the firm’s performance and growth, and the empirical literature on the topic has followed this view, tracing back firms’ growth to the evolution of productivity (Pozzi and Schivardi 2016). The efficient structure hypothesis also

predicts that under the pressure of market competition, efficient firms defeat the competition and grow (Demsetz 1973; Homma et al. 2014). Accordingly, we hypothesize:

Hypothesis 3 (H3). *Controlling for growth intention, firm labor productivity is positively related to subsequent firm growth.*

3. Methodology

The empirical setting of this study is small accounting firms in Norway. Accounting firms are competence-based, as the firms, as well as their accountants, are subject to government authorization. In Norway, all accountants have to hold a minimum of a bachelor's degree in business accounting and have a minimum of two years work experience in accounting. There were 2689 independent accounting firms organized as corporations (limited liability firms) in the country in 2010. We were able to acquire the e-mail addresses to 1877 of these firms. In October 2011 we sent the main decision-maker in these firms an e-mail with a Questback questionnaire. After sending two reminders, we received 714 completed questionnaires, corresponding to a response rate of 38%. Among these, 532 respondents had submitted complete information about the independent variables included here and 452 of the firms survived long enough to enable us to obtain growth data from 2011 to 2015 from a firm register. To check the representativeness of the sample, we compared the respondents and the non-respondents with regard to localization and accounting figures. We also compared the 452 surviving firms with the 80 firms that had closed since they answered the questionnaire with regard to all the independent and control variables. Since these tests did not show any significant differences, we are relatively certain that the sample is representative for independent accounting firms in the country and that there is no need to control for survival bias. The 452 firms had, on average, 6.8 employees and the average firm age was 13.6 years.

Measures

The dependent variables in this research are sales and employment growth, measured as relative growth in sales revenues from 2011 to 2015 (calculated as: $\text{sales}_{2015} - \text{sales}_{2011} * 100 / \text{sales}_{2011}$) and the relative growth in labor costs during the same time-period (calculated as: $\text{laborcosts}_{2015} - \text{laborcosts}_{2011} * 100 / \text{laborcosts}_{2011}$). The time-lag between the first and second round of data collection was four years. We obtained the relevant sales and employment data to calculate relative growth from a Norwegian register with firm accounting data equal to those reported to the tax authorities.

All the independent and control variables were measured in the first round of data collection in the electronic Questback questionnaire. Growth intention was measured in the questionnaire using three items. Respondents indicated on a 7-point scale (from 1 = completely disagree to 7 = completely agree) the degree to which they disagreed or agreed with the following statements: (1) The firm consciously engages in new assignments in order to grow. (2) We put emphasis on achieving as much growth as possible. (3) We want to grow fast! We averaged the score on these three items in order to create an index for growth intention (Cronbach's alpha = 0.80).

We adopted Covin and Slevin's (1989) measures of the three dimensions innovativeness, proactiveness and risk-taking. Madsen (2007) has previously translated many of the items into Norwegian. We checked these translations and translated the items not translated by Madsen to Norwegian and back-translated to ensure accuracy. The Cronbach's alphas were 0.90 for innovativeness, 0.82 for risk-taking, and 0.96 for proactiveness.

The two measures of versatile human resources used are staff utilization rate (the percentage of billable hours among the number of standard work hours), and the accountant ratio, i.e., the percentage of certified accountants among the employees in the firm. We expect the staff utilization rate to be negatively associated with firm growth, since a low staff utilization rate indicates slack versatile human resources that can be used in order to achieve growth. Further, we expect that the accountant ratio is

positively associated with firm growth, since accountants are the most valuable human resources in accounting firms.

We used two variables as indicators of firm productivity, total sales revenues divided by labor costs in 2010, and the number of clients served divided by the number of employees. We expect both productivity variables to be positively associated with firm growth. The first indicator of productivity, total revenues divided by labor costs in 2010, is a traditional simple measure of labor productivity previously used by several researchers including [Kim and Ployhart \(2014\)](#). We calculated the second productivity measure as the number of clients served by the firm divided by the total number of full-time equivalent employees.

The control variables included firm age (measured in years since registration) and firm size (measured in number of employees in October 2011), since younger and smaller firms tend to grow faster than larger established firms. We also controlled for cluster size, measured by the number of accounting firms in the municipality. The cluster or urban density premium effect is a key feature of urban economics ([Folta et al. 2006](#); [Fujita and Thisse 1996](#)). Among firms in the US, [Faberman and Freedman \(2016\)](#) found that a doubling of urban density was associated with an increase in average establishment earnings between 7% and 10%. The benefit of clustering is thought to be particularly pertinent for small firms competing in industries where knowledge is the basis for any competitive advantage ([Anderson et al. 2014](#); [McCann and Folta 2008, 2011](#); [Brown and Rigby 2013](#)), for example, small accounting practitioners. In 2011, there were 429 municipalities in the country, covering the entire country. The number of accounting firms in each municipality varied in 2011 from 0 in the smallest municipalities to 954 in the capital Oslo.

4. Results

Table 1 shows the descriptive statistics and the correlations among the analysis variables. All three dimensions of entrepreneurial orientation are strongly positively correlated with growth intention, with $r = 0.48$ for risk taking, $r = 0.31$ for innovativeness, and $r = 0.34$ for proactivity. Firm size is also strongly correlated with growth intention ($r = 0.34$). The correlations between the other variables and growth intention are not particularly strong, and most of them are statistically insignificant.

Table 1. Descriptive statistics and correlations among the analysis variables ($n = 452$).

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Size	6.8	7.5	1											
2. Age	13.6	9.4	0.12	1										
3. Cluster size	153.8	287.4	0.05	0.04	1									
4. Growth intention	3.5	1.5	0.34	-0.10	0.10	1								
5. Risk taking	3.1	1.2	0.24	-0.02	0.05	0.48	1							
6. Innovativeness	3.7	1.3	0.30	0.00	0.03	0.31	0.40	1						
7. Proactiveness	3.5	1.5	0.29	-0.04	0.01	0.34	0.41	0.69	1					
8. Staff utilization rate	80.5	9.6	-0.06	-0.01	0.11	-0.14	-0.04	-0.08	0.06	1				
9. Accountant ratio	47.1	20.3	-0.13	-0.06	-0.05	-0.05	-0.03	-0.09	-0.04	0.06	1			
10. Revenues/labor costs	1.6	0.4	-0.09	-0.09	0.11	0.02	0.04	-0.01	0.07	0.02	0.10	1		
11. Clients/employee	28.2	13.4	-0.17	0.00	-0.11	-0.15	-0.16	-0.21	-0.19	0.02	0.10	0.18	1	
12. Sales growth	32.3	72.8	-0.04	-0.14	0.01	0.20	0.10	0.07	0.06	-0.13	0.16	0.33	0.16	1
13. Employment growth	43.2	209.0	-0.04	-0.12	0.01	0.10	0.06	-0.01	0.02	-0.05	0.15	0.49	0.17	0.68

Note: Correlations ≥ 0.10 are significant at $p \leq 0.05$.

The correlation between growth intention and growth in sales is $r = 0.20$ and between growth intention and employment growth $r = 0.10$. Except for the significant correlation between risk-taking and sales growth ($r = 0.10$), the correlations between the entrepreneurial orientation dimensions and the two growth measures are insignificant. Therefore, the correlation analysis offers no preliminary support for Hypothesis 1. In contrast, Hypothesis 2 and 3 receive preliminary support. As expected, the staff utilization rate is significantly negatively related to the sales growth ($r = -0.13$), while the proportion of certified accountants among the employees ($r = 0.16$), revenues divided by labor costs ($r = 0.33$), and number of clients per employee ($r = 0.16$) are all positively and significantly positively

correlated with growth in sales. The variables that are most strongly correlated with growth in employment are the proportion of certified accountants in the firm ($r = -0.15$), revenues divided by labor costs ($r = 0.48$) and number of clients per employee ($r = 0.18$).

The hypotheses were tested using hierarchical regressions. First, we entered the control variables along with growth intention; then, the variables related to each of the three hypotheses. Finally, a full model containing all the analysis variables is presented. If the hypotheses receive support, the explanatory power of the regressions will increase when entrepreneurial orientation, versatile human resources and labor productivity are added to growth intention in the models. Table 2 shows the results for sales growth and Table 3 shows the employment growth results.

Table 2. Prediction of sales growth from 2011 to 2015 (n = 452).

	Controls Only	Entrepreneurial Orientation	Human Resources	Productivity	Full Model
Control variables					
Size	-0.10 *	-0.10 *	-0.08	-0.05	-0.05
Age	-0.11 *	-0.11 *	-0.10 *	-0.09 †	-0.09 *
Cluster size	0.01	0.01	0.03	-0.02	0.01
Growth intention	0.22 ***	0.21 ***	0.20 ***	0.22 ***	0.19 ***
Entrepreneurial orientation					
Risk taking	-	0.03	-	-	0.03
Innovativeness	-	0.04	-	-	0.09
Proactiveness	-	-0.03	-	-	-0.06
Human resources					
Staff utilization rate	-	-	-0.11 *	-	-0.11 **
Accountant ratio	-	-	0.15 ***	-	0.12 **
Productivity					
Revenues/labor costs	-	-	-	0.29 ***	0.28 ***
Clients/employee	-	-	-	0.13 **	0.13 **
Model summary					
Adj. R Square	0.05	0.05	0.08	0.16	0.18
R Square Change	0.06	0.00	0.03	0.11	0.14
F Change	7.36 ***	0.23	8.19 ***	29.95 ***	11.04 ***

Note: † indicates $p \leq 0.1$; * indicates $p \leq 0.05$; ** indicates $p \leq 0.01$; *** indicates $p \leq 0.001$.

Table 3. Prediction of employment growth from 2011 to 2015 (n = 452).

	Controls Only	Entrepreneurial Orientation	Human Resources	Productivity	Full Model
Control variables					
Size	-0.07	-0.06	-0.05	-0.05	0
Age	-0.10 *	-0.10 *	-0.09 †	-0.09 †	-0.06
Cluster size	0.01	0.01	0.02	-0.02	-0.03
Growth intention	0.11 *	0.10 †	0.11 *	0.22 ***	0.10 *
Entrepreneurial orientation					
Risk taking	-	0.03	-	-	0.02
Innovativeness	-	-0.05	-	-	0.01
Proactiveness	-	0.02	-	-	-0.05
Human resources					
Staff utilization rate	-	-	-0.05	-	-0.05
Accountant ratio	-	-	0.15 **	-	0.10 *
Productivity					
Revenues/labor costs	-	-	-	0.29 ***	0.46 ***
Clients/employee	-	-	-	0.13 **	0.09 *
Model summary					
Adj. R Square	0.02	0.01	0.04	0.25	0.25
R Square Change	0.03	0.00	0.03	0.24	0.25
F Change	2.88 *	0.25	5.47 **	70.79 ***	21.44 ***

Note: † indicates $p \leq 0.1$; * indicates $p \leq 0.05$; ** indicates $p \leq 0.01$; *** indicates $p \leq 0.001$.

The control variables and the growth intention measure explain 5% of the variance in sales growth and 2% of the variance in employment growth. The coefficients for the growth intention measure are statistically significant in both regressions (column 1 in Tables 2 and 3).

To test Hypothesis 1 regarding the effect of entrepreneurial orientation on growth controlling for growth intention, we entered risk-taking, innovativeness and proactivity into the regression equations (column 2 in Tables 2 and 3). None of the entrepreneurial orientation dimensions had any significant effect. The relationship between the three dimensions of entrepreneurial orientation and growth disappears when controlling for growth intention. Hypothesis 1 receives no support.

To test Hypothesis 2 regarding the relationship between human resources and growth controlling for growth intention, we entered the two human resource variables into the regression equations (column 3 in Tables 2 and 3). As expected, the staff utilization rate is negatively associated with growth in sales and the proportion of certified accountants in the firm (accountant ratio) has a positive effect on growth in sales (Table 2). However, only the proportion of certified accountants in the firm has a positive and significant effect for growth in employment (Table 3). Hypothesis 2 is supported for the effect of the proportion of certified accountants (accountant ratio) on both measures of growth, and for the effect of the staff utilization rate on growth in sales.

We tested Hypothesis 3 regarding the effect of productivity on growth while controlling for growth intention in a similar way. Both measures of productivity are significantly positively related to growth in sales and employment. Hypothesis 3 is supported.

5. Discussion

5.1. Overview of Findings

In this study, the three dimensions of entrepreneurial orientation are shown to have no effect on actual firm growth when controlling for growth intention. The first hypothesis receives no support. The second hypothesis, concerning the relationship between versatile human resources and firm growth, is fully supported for growth in sales. However, only the proportion of certified accountants (accountant ratio), and not the staff utilization rate, was significantly related to employment growth. The third hypothesis, regarding the relationship between firm labor productivity and growth is fully supported. High labor productivity stands out as the most important variable to achieve employment growth. The second most important variable is another indicator of productivity, the number of clients per employees.

The full model for sales growth explains 18% of the variance. Growth in sales in accounting firms appears to be a function of growth intention, versatile human resources and labor productivity. The full employment growth model explains 25% of the variance. Employment growth in accounting firms appears to be a function of growth intention, the proportion of certified accountants among the employees in the firm and labor productivity.

5.2. Implications for Practice and Theory

In this study, we found strong positive correlations between the three dimensions of EO and growth intention, but only small correlations between the EO-dimensions and actual firm growth. When controlling for growth intention, the three dimensions of EO had no effect on firm growth, failing to support the first hypothesis. Different mechanisms may explain growth in small and large firms, but it is also possible that growth intention captures the effect of EO not only in small accounting firms.

There is little doubt that [Rauch et al. \(2009\)](#) are correct when suggesting that top management (and business owner/managers) have greater influence in small businesses than in large ones. However, they may be wrong when claiming that the relationship between EO and firm performance is stronger in smaller businesses. Many scholars have questioned the relationship between EO and performance in micro businesses. In samples that contain very small firms, researchers often fail to find a positive relationship between EO and performance (e.g., [Lechner and Gudmundsson 2014](#); [Madsen 2007](#);

Runyan et al. 2008). Small firms may, therefore, not need to score highly on entrepreneurial orientation in order to grow. In small firms it appears to be sufficient to be motivated to grow. However, the story may be different for larger (and older) firms where the owner/manager has less influence on the firm.

The findings presented here suggest that in order for a small firm to grow, the firm ought to have an owner/manager who is growth-oriented. In addition, it helps to have some available labor capacity and a high proportion of qualified employees who deal with production and customers and relatively few employees working on support functions. Further, labor productivity appears to be of central importance. This can mean that effective structures and routines and cost-effective utilization of human resources are important prerequisites for firm growth.

Labor productivity, measured by revenues divided by labor costs, is by far the variable that is most strongly related to growth in employment. In the full model of employment growth, three other variables were statistically significant: Growth intention, accountant ratio and the number of clients per employee. In other words, both indicators of labor productivity contributed with statistical significance to the explanation of the variance in employment growth. High labor productivity appears to be an important prerequisite for employment growth in small firms.

The two measures of labor productivity are also significantly related to growth in sales. Again, revenues divided by employees is the variable most strongly related to growth. Growth intention and both measures of versatile human resources are also significantly related to growth in sales. While high labor productivity also appears to be an important prerequisite for growth in sales in small firms, growth intention and the presence of versatile human resources also play significant roles.

5.3. Limitations and Future Research Directions

This study concerns small accounting firms in Norway. Further research is required to assess the extent to which the results reported here are generalizable to small accountant firms in other countries, small professional service firms, or small firms in general. Another limitation of the present study is that we did not distinguish between organic growth and growth through acquisitions. Moreover, one weakness with the present study is that we did not specify a time horizon in our measure of growth intention. It should also be noted that the time-lag between the measurement of growth intent and actual growth may influence the results.

In studies of other industries or of small businesses in general, several of the measures used here need to be adjusted or replaced. For example, the staff utilization rate is difficult to calculate in many industries. Similarly, the number of clients served by the firm is a meaningful measure for firms with few customers and standardized services, but not for all firms.

Since accounting firms are professional service firms characterized by low capital intensity, this study did not investigate the effect of versatile financial resources on the growth intent—growth relationship. In professional service firms, most of the limited capital they possess is versatile and not tied to plants, machinery or equipment. Therefore, future research should study the effect of versatile financial resources in industries that are more capital intensive.

In order to demonstrate causality, the following criteria must be met (Kenny 1979): (1) y follows x temporally; (2) y changes as x changes; (3) no other causes should eliminate the relationship between x and y. The first two conditions require a longitudinal research design and can be tested by regressions such as those reported in the present study. However, the first two conditions are not sufficient to establish causality. If x depended on some unmodeled causes that also drive other variables in the model, we face the problem of endogeneity (Antonakis et al. 2014). Since we did not check for endogeneity in this study, it is safest to regard this study as descriptive and not causal. Another way to establish causality is the case study approach in which the individual sequence stands in the center (Tacq 2011). Therefore, both quantitative and qualitative researchers can contribute to untangling complex causal relationships between factors associated with growth in small firms.

6. Conclusions

Many previous studies of business growth and studies of the effect of growth intention on actual growth have only explained a relatively small proportion of the variance in actual firm growth. This study has shown that the explanatory power in studies of firm growth can be improved by adding other antecedents of firm growth to growth intention. According to the theory of planned behavior (Ajzen 1991, 2002), actual behavior is a function of behavioral intent and factors that concern the actual control over the behavior in question. In the context of small firm growth, this means that factors associated with actual control over firm growth should be associated with actual firm growth. The present study has identified two such factors at firm level: Versatile human resources and labor productivity. We hope that this study can spur researchers on to search for additional factors that can improve the explanatory power of future studies of growth in small firms and reveal complex causal relationships.

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