



## **Entrepreneurship Theory – PhD Course**

### **Assignment 2 (Paper Proposal)**

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Tentative Paper Title: **Growth Intention and Variance of Firm Growth Rates**

#### **Introduction**

Understanding why some firms grow and others do not has been one of the key questions for researchers and practitioners in the field of entrepreneurship. Because firm growth is a complex path-dependent process, this question is difficult to answer. Yet, core motivational concepts, including growth intention, lie behind key entrepreneurial functions and decision-making (Dunkelberg et al., 2013). To this backdrop, scholars have studied growth intentions for decades, which promises abstracting away from complexity in the firm growth processes by placing focus on the core driver of the human actions.

There is evidence of contrasting opinions in the literature about the effect of growth intention on firm growth among supporters of positive and negative effects. Meanwhile, the empirical evidence shows that the magnitude of effects of intentional constructs on firm growth only ranges from small to medium at very best (Levie & Autio, 2013; McKelvie et al., 2017). This presents a puzzle: intention is one of the key causes of human action and owner-managers should have control over their firms. Subsequently, growth intention of an owner-manager should have a strong impact on firm growth. Yet intentions are only weakly associated with growth outcomes in empirical data.

The purpose of this paper is to address this puzzle and understand how growth intention is related to growth in small and medium-sized enterprises (henceforth, SMEs). By studying average growth rates, the literature concludes that growth intention matters, but the effect is small. We challenge this status quo by demonstrating that the estimated positive effects can be mostly attributed to persistent firm-level difference that explain both growth intention and growth. We also demonstrate a different effect of growth intention than the literature argues.

We address our goal by building a two-part argument. First, we suggest that entrepreneurial growth intention increases firm growth. Second, we argue that too high growth intentions lead to a failure to grow and even declining over time after surpassing a so-called inflection point. We further propose that the inflection point varies between firms based on their growth potential, producing an overall pattern where increasing growth intentions mainly increases the variance of outcomes.

This paper unfolds by discussing possible effects of growth intention on growth. This leads us to the development of our hypotheses, explanation of the applied methods and preliminary findings. We end the article with the conclusion and discussion of the contribution.

### **Theoretical background and hypotheses development**

In this article, we follow the approach to conceptual definitions of Hermans et al. (2015) and define firm growth intention as “what the entrepreneur intends to achieve, combined with the effort s/he intends to make” (p. 139). The review of prior literature on the effects of growth intentions on growth presents conflicting findings.

Human intention is a good behavioral predictor including such behavior as entrepreneurship. Based on Ajzen’s theory of planned behavior, stronger behavioral intention (positive perception of a behavior, availability of social pressure, opportunities and means), increases the likelihood of performing the behavior (Ajzen, 2005, pp. 140–141). Besides having means and opportunities to grow a firm, entrepreneurial expectations predict intentions. According to the expectancy theory, the level of invested efforts depends on the expected outcomes: a human expectating rewarding outcomes makes more efforts to achieve a goal (Locke & Baum, 2012). Because achieving goals guides entrepreneurship, it is not surprising that some entrepreneurs are committed to their goals. The relationship between efforts and goals is also discussed in the goal setting theory by Locke and Latham (2002): higher level of goals increases invested level of efforts and subsequently performance by directly affecting degree of attention, energy and sustained efforts invested over time(2002, p. 706).

Nonetheless, setting a complex growth goal does not automatically increase performance because there are limits to how fast and much firms can grow. Performance decreases, once a firm surpasses its limit of abilities or its commitment declines due to goal complexity (Locke & Latham, 2002). Thus, growth speed and volume must be balanced with abilities. A growth rate reached in exceeding speed or volume may lead to a failure after a firm passes its inflection

point (Pierce & Aguinis, 2013). Linear positive relationship between variables switches to curvilinear pattern after reaching context-dependent inflection points, and leads to a potential waste of opportunity or to undesirable outcomes, such as unprofitable organizational performance (2013, pp. 316–317). It is also known as a mismatch between growth speed and scope, when firms fall into “speed trap” (Leavy, 2021, p. 35).

Finally, some companies grow even if they do not intend to. Because factors affecting growth ability and intention are different, there is the issue of a “disconnect between firm’s ability to grow and its desire to grow” (Coad, 2009, p. 111). An entrepreneur lacking growth intention may find the business growing due to operating in a rapidly developing industry. Furthermore, an extent to which companies want to grow can vary: some companies grow simply to survive. This is explained by growth being a benchmark of entrepreneurial success especially for small firms, because their survival often depends on growth (Coad, 2009, p. 135).

To conclude, the review of relevant literature in the domain of small firm growth suggests that moderate amounts of growth intentions have a positive effect on growth, but that this effect might turn negative if the growth intentions are too extreme for the company. Particularly, growth intentions can increase risk taking and if a company takes too extreme risks, this can lead to negative outcomes. Moreover, the goal setting theory states that unrealistic goals can actually harm performance. These considerations suggests that growth intentions may subject to the “too much of a good thing effect” (Pierce & Aguinis, 2013), where an effect that is first positive turns negative after a threshold. However, the threshold may not be the same for all companies.

Based on these concerns, we hypothesize that:

*Hypothesis 1:* The linear effect between growth intention and growth is negligible on the population level.

*Hypothesis 2:* Increasing growth intention is associated with increasing variance of growth outcomes on the population level.

## **Methodology**

We test the relationship between growth intention and growth using longitudinal, annually collected survey data from Finnish IT SMEs over ten years 2007-2016 by the National Software Industry Survey. By focusing on a single industry, we are able to study a homogenous

empirical context and the effects of a narrow set of theory-driven and carefully operationalized predictors. We measure growth intention by a self-constructed scale similar to McKelvie et al. (2017) with eight five-point Likert questions, developed from existing literature and piloted with managers from the study sample. Growth is operationalized as relative change in revenue using three-year changes, obtained from Orbis database with almost complete revenue history available for the sample up to 2020. Exploratory factor analysis of the full scale provided evidence for the existence of three correlated dimensions in the data, though the risk dimension was very weak. The alpha reliability coefficients for the three scale dimensions were .87 for the general dimension, .53 for the risk dimension and .83 for the international expansion dimension. The alpha for the full scale was .87, which must be interpreted as a lower reliability estimate because of lack of unidimensionality of the full scale.

We started our analysis by graphically inspecting the relationship between growth intention, operationalized as a scale score of all the growth items, and three-year average growth of revenue. We tested our variance hypothesis by building a mixed effect model with U-shape effect with random slope and intercept.

### **Preliminary results**

As it is expected, firm growth has negative correlations with firm profitability and age. A discussion whether growth harms profitability (or vice-versa) received attention from scholars. This is in line with the empirical results of Davidsson et al. (2009) study, where growth at all costs seen to harm profitability and overall firm performance. Performance difference between profit- and growth-oriented firms was later supported in the replication study by Ben-Hafaïedh and Hamelin (2021).

The second panel of Figure 1 provides strong visual support for the hypothesis that growth intention increases the variance of realized growth rates more than it increases the expected growth rate. While the result is encouraging for our theory, a bivariate analysis despite its simplicity and transparency is hardly an ideal test. Moreover, because intentions were measured with survey items, they are contaminated with measurement error. To address these issues, we estimated a set of longitudinal structural equation models to test the relationship between growth intentions and expected growth and growth intentions and variation of growth. To test our second hypothesis that the effects of growth intention vary between firms being negative for some and positive for others, we tried to estimate location scale and random slope

models using that slope of growth intentions and variance of growth as random effects on the firm level.

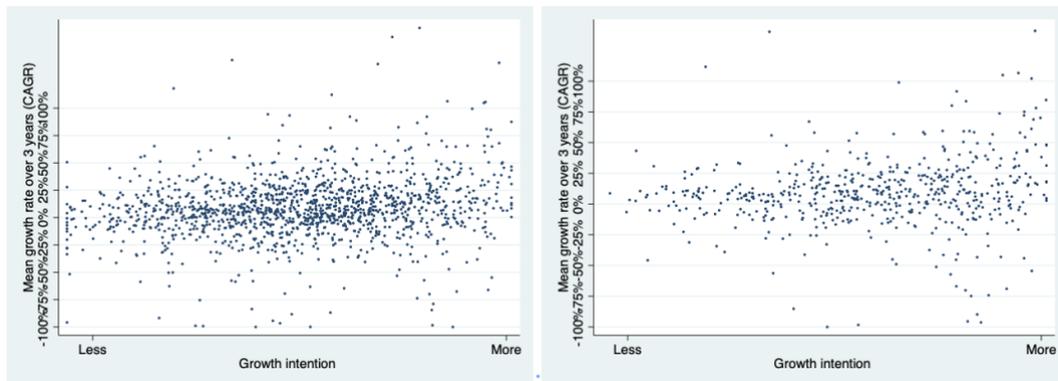


Figure 1. Bivariate relationship between three-year compound average growth rate and growth intention scale score for all companies (left) and product companies (right)

## Discussion and contribution

Our preliminary results indicate that growth intention effect on firm growth varies across firms. We conclude that linear model does not explain the relationship between firm growth and intentions, because the effect becomes negative. This suggests that, like many other phenomena in management and organizational research, growth intentions may subject to the too much of a good thing effect (Pierce & Aguinis, 2013). This conclusion connects with the business term explained by Grove (1996) as “*strategic inflection point*”. Surpassing this “point” means that firm’s fundamentals are rapidly changing and there is no going back to “business as usual”.

Prior studies on firm growth show that growth is often predicted with low accuracy (Wright & Stigliani, 2013). Our main argument about growth intentions affecting growth not through increasing the expected growth rate, but through increasing the variance of overall growth outcomes is preliminary supported. Growth intentions should be viewed as a necessary but insufficient condition (Dul, 2016) for growth. Altogether, while firms lacking intention to grow are less likely to develop (Levie & Autio, 2013, p. 9), increasing growth intention is insufficient for increasing the growth rate and can also have an opposite effect as explained earlier in the article.

Our study has implications for entrepreneurs, investors, and public policy makers. It contributes to ongoing entrepreneurship research conversations by explaining why relying on growth intention in forecasting growth rates is ineffective solution. Our conclusion that increasing intention to grow a firm only weakly influences the subsequent growth rate carries

value for entrepreneurs and managers in those companies that intend to grow: they should reconsider the way and the key components of growth to invest in. We suggest that focusing on the level of ambition and hunger of entrepreneurs and teams might be misplaced unless paired with balanced abilities. Finally, our research has implications for entrepreneurs, investors, and public policy makers. For example, public policy and entrepreneurship education sometimes try to influence the level of ambition that new entrepreneurs have. Our study shows that such policies can backfire by increasing negative outcomes probability.

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