

IARIW-ESCoE Conference

“Measuring Intangible Assets and Their Contribution to Growth”

Fast as a Gazelle – Young Firms Gaining from their Human Capital Configuration

Carita Mirjami Eklund, Aarhus University, ceklund@ps.au.dk

Kristof Van Criekingen, Aarhus University, kvc@ps.au.dk

Relevance to the conference

The paper analyses the effect of Human Capital (HC) and more classical components of firm-level Intangible Capital (IC) on high growth prospects for young firms. In doing so we operationalize measures of the knowledge configuration in the firm next to more classical measures of firm-level intangible assets.

Context

This research broadens the knowledge of gazelles by investigating gains from human capital and intangible capital towards high growth. High growth can be a path to survival (Almus, 2002) and does, in some cases, renew itself (Eklund, 2020). Hence, our research question is how can firms' and employees' knowledge competences act as a route towards sustained growth for young firms? Literature has discussed if technology intensive industries dominate in high growth. Daunfeldt, Elert, and Johansson (2016) look at what kind of a role sectors play for high growth, so that policymakers would know which industries to support, if they want to contribute towards high growth phenomena. They find that especially in knowledge intensive services high growth firms are overrepresented compared to other sectors and posit that the main reason for this observation is the abundance of human capital that is deployed in these industries. In fact, many highly educated employees might self-select themselves into knowledge intensive services, such as consultancy. Thus, we expect that knowledge capital could be the hidden factor behind high growth in the knowledge intensive sector.

Method

In our approach, we will conceptually split knowledge capital into two parts based on ownership of the asset in such a way that we can separate the effect of the knowledge base of the firm, Intangible capital, and of the employees, human capital (HC), approximated with their highest level of education. Intangible Capital (IC) consists of knowledge created by the employees in knowledge intensive positions and knowledge bought from outside of the firm, such as consultancy. We focus the analyses on how the level and diversity of HC contribute to the probability of becoming a gazelle firm, i.e., fast growing young firm. Literature has argued for both a positive and negative contributions of diversity in HC to team performance (see Horwitz & Horwitz, 2007). Positive aspects in diverse human capital is a larger pool of ideas and understanding to draw from. This might realize in a new way to advertise the product that will speak to different kind of customers or a new production routine where the product or service is done more efficiently. The hindering part of diverse knowledge is that the employees might

talk in different terminology and hence misunderstand each other more easily than in a group of engineers only. It is also a possibility that employees might not value the knowledge from other topics than from their primary interest. In our analysis, we will argue that this ambiguity can largely be resolved when accounting for the cognitive abilities of the employees.

Measurement & Data

We measure high growth within a three years period, which is a long time in a life of a young firm, with Eurostat-OECD (2007) definition. The firm knowledge base is measured with intangible capital (consisting of three parts: organizational, ICT and broad research and development capital) that assumes that in certain positions a share of employees worktime builds up the knowledge stock of the firm and that s/he uses some share of outside services in the process. However, since HC and IC are closely intertwined for value creation, it is important to treat them in tandem. As such, we aim to investigate the contribution of HC together with IC for young high-growth firms to become gazelles. Employees' knowledge competences, human capital, is measured with the highest completed education. To complement this measure, we calculate a measure on diversity in education. We hypothesize that employees with master degrees or higher might be more able to benefit from this diversity. We approach this with interaction analysis. The data origins from Danish registers 1999—2013.

Results

The findings indicate that both types of knowledge stocks increase the likelihood of becoming a gazelle. For employee competences, we find that educational level matters for high growth and that a certain level of educational advancement is required before employees can benefit from educational diversity.

References

- Almus, M. (2002). What characterizes a fast-growing firm? *Applied Economics*, 34(12), 1497-1508.
- Daunfeldt, S. O., Elert, N., & Johansson, D. (2016). Are high-growth firms overrepresented in high-tech industries?. *Industrial and Corporate Change*, 25(1), 1-21.
- Eklund, C. M. (2020). Why Some SME's Become High Growth Firms? The Role of Employee Competences. *Journal of Intellectual Capital*. doi:10.1108/JIC-07-2019-0188
- Eurostat, OECD. (2007). Eurostat-OECD manual on business demography statistics. Luxembourg: Office for Official Publications of the European Communities.
- Horwitz, S. K., & Horwitz, I. B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of management*, 33(6), 987-1015.