



**TRIPLEHELIX**  
UNIVERSITY INDUSTRY GOVERNMENT association



## **XIX International Triple Helix Conference – 2021**

### **TITLE:**

“Yes, you can” – How the existence of an inspiring role model encourages to exploit existing entrepreneurial support mechanisms

### **TYPE**

b. research design for studies in-progress

### **TRACK:**

Entrepreneurial university and Impact

### **PURPOSE:**

The importance of higher education institutions as source of new ideas and inventions has positioned universities as key actor within national economy and society (Abreu & Grinevich, 2013) and attracted major attention within academic research, practice and policy (Audretsch et al., 2014; Tseng et al., 2020).

This study aspires to contribute to the entrepreneurship literature by responding to research calling to improve the understanding of the impact of role models on academics' entrepreneurial behaviour (Huyghe et al., 2016; Miller et al., 2018). It addresses this gap by investigating how the existence of inspirational role models may drive actual engagement with entrepreneurial university support mechanisms. This study aims to shed light on how universities can stimulate entrepreneurial activities amongst academics. Moreover, I show a connection between the influence of different types of role models and the effect on academic's entrepreneurial activities.

Thereby, I want to unravel whether the existence of inspiring role models positively impacts the entrepreneurial behavior of academics follow several research calls to assess the impact of real-life role models entrepreneurial activities.



## **DESIGN/METHODOLOGY/APPROACH:**

In one of the very first comprehensive academic entrepreneurship studies combining primary and secondary data, our research group draw on data from 6.9 million company entries in DACH region business registers. The founding shareholders of these firms were mapped with social network data to determine whether they have been enrolled and/or employed at any university while founding their venture. Our study was conducted through an online survey with previously identified academic entrepreneurs that founded their ventures between 1998 and 2019. The sample contains more than 270 academic founders collected between March and October 2020, equivalent to a response rate of 12 percent.

Regarding the measures, I apply a scale adapted from Nowiński & Haddoud (2019) to assess the existence of an inspiring role model within the dimensions family, university, personal and media environment. To measure the moderating variable of motivating factors, I use the scale developed by Lam (2011), adapted to entrepreneurial activities. The dependent variable is operationalized by the engagement with university support mechanisms, whether the academic founder made use of a measure which were provided at the respective university. Therefore, a list of established support mechanisms previously used in academic entrepreneurship research (e.g., Bergmann et al., 2018; Fini et al., 2011; Hayter et al., 2018; Van Looy et al., 2011) is provided, varying from informal (e.g., provision of facilities such as tools, machines, laboratories) to formal (e.g., financial support, accelerator programs). To increase the robustness of our study I add several control variables on the individual level (e.g., age, gender and academic background) and on university level.

## **FINDINGS OR EXPECTED OUTCOMES:**

This study explores the existence of an inspiring role as antecedent of the engagement with specific university support mechanisms through different motivating factors. I aim to advance the understanding on how role models impact entrepreneurial behavior and therefore act like key agents in influencing entrepreneurial activities within university environment.

First analyses indicate a strong correlation between the existence of an inspiring role model and their actual engagement in entrepreneurial activities. The hypotheses are tested on the four sub-dimension of the exposure to entrepreneurial role models, such as an entrepreneur in the family, academic environment (e.g. guest lecturer, professor), personal encounter with a successful



entrepreneur and the perception of successful entrepreneurs in the media.

I expect the existence of inspiring role models to be positively correlated with the engagement with selected entrepreneurial support measures. Furthermore, I expect the individual motivation factors to increase the strength of the positive relationship. This study aims to explain the impact of different types of role models and their effect on academic's entrepreneurial activities.

I also expect the results to differ for specific control variables, such as e.g. gender, age, background of studies and prior entrepreneurial experience on the individual level as well as macro-level factors like university size, functional orientation and interdisciplinarity on the university level.

### **ORIGINALITY/VALUE:**

Many universities have adopted an additional goal, that emphasizes universities' contribution to public value by economic and social development (Fini et al., 2018). In this regard, empowering academics to engage in entrepreneurial activities is crucial in pursuing this objective (Clarysse et al., 2011; D'Este & Perkmann, 2011). Although sources and determinants of academic entrepreneurship have begun to command the attention of policymakers and researchers, there remain many unanswered questions about how individual and social factors shape the decisions of academics to engage in entrepreneurial activities (Antonioli et al., 2016).

When looking at predictors of academic entrepreneurship, scholars agree that individual-level attributes and experiences are one of the most important aspects (Clarysse et al., 2011). Several authors have demonstrated that role models are central to understand entrepreneurship as career choice (e.g., Douglas & Shepherd, 2002; Gibson, 2004). Previous literature indicates that parental role models, mentors and media models positively influence entrepreneurial intention (e.g., Mcgee et al., 2009) Mueller & Conway Dato-On, 2008). Role models not only provide opportunities for vicarious learning (i.e., learning from others) but are also a good source of social persuasion, making individuals feel more confident to pursue an entrepreneurial career (BarNir et al., 2011).

However, the findings are less clear in the context of academic entrepreneurship. The absence of entrepreneurial role models is a challenge for academic entrepreneurs (Etzkowitz, 1998). Previous studies do note the importance of entrepreneurial role models (Venkataraman, 2004; O'Shea et al., 2005) as key agents in influencing entrepreneurial activities within universities, while largely focusing on the development of spin-out companies. This approach explores how role models can impact upon other forms of engagement with entrepreneurial activities. The theoretical and empirical



knowledge about organizational determinants on academics' entrepreneurial engagement still lack (Perkmann et al., 2013).

### **PRACTICAL/SOCIAL IMPLICATIONS:**

This research bears imperative insights for practitioners, policy makers and educators. The results help to provide a better understanding how to support academics to successfully engage in entrepreneurial activities. Findings will encourage to stimulate entrepreneurial activities by actively positioning role models in the university environment and therefore strengthen entrepreneurial intentions of academics.

The link to economic and societal outcomes, e.g., through successful academic start-ups is still scarce (Hayter et al., 2018). This missing connection is a highly relevant issue because it leaves academics and policy makers in the dark when hypothesizing about ideal institutional entrepreneurship support – whether from a theoretical or practical viewpoint. My research will address this issue.

### **DIRECTIONS FOR FURTHER RESEARCH/LIMITATIONS:**

Limitations in that research leave theoretical and empirical gaps in the understanding of the outcomes of entrepreneurial university support mechanisms. Researchers should take a closer look at the role of the usage of these measures, the academic entrepreneurs' assessment of them and the actual effect on the long-term success on the individual level (e.g. entrepreneurial capabilities) as well as on the company level of the founded firms (e.g. firm success).

### **KEYWORDS (3-5):**

Entrepreneurial University, Academic Entrepreneurship, Entrepreneurial Role Model, Entrepreneurial University Support Mechanisms



## REFERENCES

- Abreu, M., Grinevich, V., 2013. The nature of academic entrepreneurship in the UK: widening the focus on entrepreneurial activities. *Res. Policy* 42, 408–422. <http://dx.doi.org/10.1016/j.respol.2012.10.005>
- Antonioli, D., Nicolli, F., Ramaciotti, L., & Rizzo, U. (2016). The Effect of Intrinsic and Extrinsic Motivations on Academics' Entrepreneurial Intention. *Administrative Sciences*, 6(4), 15. <https://doi.org/10.3390/admsci6040015>
- BarNir, A., Watson, W., & Hutchins, H. (2011). Mediation and moderated mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of Applied Social Psychology*, 41, 270–297
- Bergmann, H., Geissler, M., Hundt, C., & Grave, B. (2018). The climate for entrepreneurship at higher education institutions. *Research Policy*, 47(4), 700–716. <https://doi.org/10.1016/j.respol.2018.01.018>
- Clarysse, B., Tartari, V., & Salter, A. (2011). The impact of entrepreneurial capacity, experience and organizational support on academic entrepreneurship. *Research Policy*, 40(8), 1084–1093. <https://doi.org/10.1016/j.respol.2011.05.010>
- D'Este, P., & Perkmann, M. (2011). Why do academics engage with industry? The entrepreneurial university and individual motivations. *Journal of Technology Transfer*, 36(3), 316–339. <https://doi.org/10.1007/s10961-010-9153-z>
- Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81–90. <https://doi.org/10.1177/104225870202600305>
- Etzkowitz, H. (1998), 'The norms of entrepreneurial science: cognitive effects of the new university-industry linkages,' *Research Policy*, 27(8), 823–833
- Fini, R., Grimaldi, R., Santoni, S., & Sobrero, M. (2011). Complements or substitutes? The role of universities and local context in supporting the creation of academic spin-offs. *Research Policy*, 40(8), 1113–1127. <https://doi.org/10.1016/j.respol.2011.05.013>
- Fini, R., Rasmussen, E., Siegel, D., & Wiklund, J. (2018). Rethinking the Commercialization of Public Science: From Entrepreneurial Outcomes to Societal Impacts. *The Academy of*



*Management Perspectives*, 32(1), 4–20. <https://doi.org/10.5465/amp.2017.0206>

Gibson, B., & Sanbonmatsu, D. M. 2004. Optimism, pessimism, and gambling: The downside of optimism. *Personality and Social Psychological Bulletin*, 30: 149–160

Hayter, C. S., Nelson, A. J., Zayed, S., & O'Connor, A. C. (2018). Conceptualizing academic entrepreneurship ecosystems: a review, analysis and extension of the literature. *Journal of Technology Transfer*, 43(4), 1039–1082. <https://doi.org/10.1007/s10961-018-9657-5>

Huyghe, A., Knockaert, M., & Obschonka, M. (2016). Unraveling the “passion orchestra” in academia. *Journal of Business Venturing*, 31(3), 344–364. <https://doi.org/10.1016/j.jbusvent.2016.03.002>

Lam, A. (2011). What motivates academic scientists to engage in research commercialization: “Gold”, “ribbon” or “puzzle”? *Research Policy*, 40(10), 1354–1368. <https://doi.org/10.1016/j.respol.2011.09.002>

Mcgee, J. E., Mueller, S. L., & Sequeira, J. M. (2009). E T & P Self-Efficacy : Refining the Measure. *Entrepreneurship: Theory and Practice*, 817, 965–988. <https://doi.org/10.1111/j.1540-6520.2009.00304.x>

Miller, K., Alexander, A., Cunningham, J. A., & Albats, E. (2018). Entrepreneurial academics and academic entrepreneurs: A systematic literature review. *International Journal of Technology Management*, 77(1–3), 9–37. <https://doi.org/10.1504/IJTM.2018.091710>

Mueller, S., & Dato-On, M. (2008). Gender-role orientation as a determinant of entrepreneurial self-efficacy. *Journal of Developmental Entrepreneurship*, 13,3–20

Nowiński, W., & Haddoud, M. Y. (2019). The role of inspiring role models in enhancing entrepreneurial intention. *Journal of Business Research*, 96, 183–193. <https://doi.org/10.1016/j.jbusres.2018.11.005>

O’Shea, R., Allen, T.J., Chevalier, A. and Roche, F. (2005) ‘Entrepreneurial orientation, technology transfer and spinoff performance of US universities’, *Research Policy*, Vol. 34, No. 7, pp.994–1009

Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D’Este, P., Fini, R., Geuna, A., Grimaldi, R., Hughes, A., Krabel, S., Kitson, M., Llerena, P., Lissoni, F., Salter, A., & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature



on university-industry relations. *Research Policy*, 42(2), 423–442.

<https://doi.org/10.1016/j.respol.2012.09.007>

Tseng, F. C., Huang, M. H., & Chen, D. Z. (2020). Factors of university–industry collaboration affecting university innovation performance. *Journal of Technology Transfer*, 45(2), 560–577.

<https://doi.org/10.1007/s10961-018-9656-6>

Van Looy, B., Landoni, P., Callaert, J., Van Pottelsberghe, B., Sapsalis, E., & Debackere, K. (2011). Entrepreneurial effectiveness of European universities: An empirical assessment of antecedents and trade-offs. *Research Policy*, 40(4), 553–564.

<https://doi.org/10.1016/j.respol.2011.02.001>

Venkataraman, N. and Tanriverdi, H. (Eds.) (2004) *Reflecting Knowledge in Strategy Research: Conceptual Issues and Methodological Challenges*, Elsevier, Boston, MA.