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### *Start-Up Founders' Competence Potential*

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#### **Abstract**

In order to respond to all the fast changes that are happening, it is necessary to act quickly and to be adaptable, both from the point of view of organizations and individuals, having necessary knowledge and skill and continually developing human potentials. The year 2020 with the COVID-19 pandemic has shown how those changes can happen overnight and create a need for the companies' transformation. That is the new clear reason for the big interest in researching start-ups. Start-ups are innovative and fast-developing companies, bringing new solutions and new products, and working under extreme uncertainty, therefore, they require specific skills, knowledge, and other competencies of their founders. Competencies, on the other side, are predispositions, knowledge and skills needed to respond and adapt to changes. The aim of the paper is to propose a theoretical model of relationships between start-up founders' competence potential and outcomes of their ventures. The theoretical model is based on the Upper Echelons Theory presented by Hambrick and Mason (1984) and the scale measuring competence potential of employees in innovative enterprises proposed by Rakowska and Sitko-Lutek (2015). Competence potential of start-up founders is still not researched in depth, so the proposed theoretical method could be used as the practical research methodology.

## **Introduction**

It is clear that the 21<sup>st</sup> century is reorienting from a material consuming economy to a knowledge-based economy (KBE) but we are still not using the full potential of its possibilities. Knowledge-based economies “are directly based on the production, distribution, and use of knowledge and information” (OECD, 1996, p. 7). The micro-economic and management approaches to the knowledge-based economy consider knowledge as a factor of the competitive advantage of organizations (Glińska-Noweś, 2007; Kołodko, 2002, p. 155). In order to respond to all the fast changes that are happening, it is necessary to act quickly and to be adaptable, both from the point of view of organizations and individuals, having the necessary knowledge and skill and continually developing human potential. The shift to the economy based on information and knowledge is said to be the driving force of the modern economy focusing on innovation, education and human resources, application of knowledge, and information-communication technologies (Stam & Garnsey, 2007; Audretsch & Thurik, 2001). According to the OECD, this economy is going towards high-technology industries and highly skilled managers and workers incorporating knowledge and technology in the new theories and models (OECD, 1996).

To fill in the gap in knowledge and understanding the correlation between human potential and start-up venture outcomes, the paper offers a theoretical model of relationships between start-up founders’ competence potential and outcomes of their ventures. An in-depth understanding of that correlation could have a great practical outcome in competence development for future venture founders and potentially better outcomes of new businesses. This article is based on a literature review on start-ups, the competence potential of start-up founders, and start-up performance outcomes.

## **Start-ups and competence potential of their founders**

Society and the economy are dealing with fast and unpredictable changes highly impacted by cultural, organizational, and technical changes supported by the Internet, new technologies, and new ways of communication. The year 2020 with the COVID-19 pandemic has shown us how those changes can happen overnight and create a need for the companies’ fast transformation. A greater need and expectations for new and fast solutions appeared and, there is an interest in who could meet those economic and innovative expectations. Hence, great interest in establishing and investigating start-ups.

Definition of a “start-up” is very diversified but what they have in common are the following features: fast development, intention of developing new products or services, high risk of failure, uncertainty about the future, innovation, development of new solutions and their commercialization, ambition and high development potential

in the event of success (Laszuk, 2016; Ries, 2010, 2011, 2017; Harris, 2006; Skala, 2017; Skala, Kruczkowska, & Olczak, 2015). Start-ups are “new and fast developing ventures, operating in the areas of high technology and/or directing new market trends, most often financed from own or alternative resources” (Laszuk, 2016, p. 11). Because of the diversity of definitions of what a start-up is, it is a problem to define the exact number of start-ups. Often, they are put in the same category with small and medium enterprises. Still, the number of start-ups is constantly growing all over the world. At the moment, there are 6 big start-up ecosystems – Silicon Valley, New York, London, Beijing, Tel Aviv and Berlin. Polish start-up ecosystem is constantly growing and the largest start-up ecosystems are Warsaw, Wrocław, Kraków, Lublin and Tri-City. Report about the Polish start-up scene from 2019 estimates the number of start-ups to be in the range of 3,000–6,000.

Start-ups are also defined as *young companies* (Skala, 2017; Gemzik-Salwach, 2014; Bursiak, 2013). According to the European Startup Monitor (2019/2020), start-ups are defined as companies up to 10 years old, whereas the Polish Agency for Enterprise Development defines a start-up as a company which has been on the market for 5 years (PARP, 2019). Ries (2011) defines start-up as “a human institution designed to deliver a new product or service under conditions of extreme uncertainty” (p. 28), pointing out that this definition does not include any specific branch of the economy in which the start-up venture must operate in order to become a start-up. That means that start-ups can operate in any industry: environmental protection, education, sport, health, travel, biotechnology, banking, etc., which gives them a full range of business markets. Young companies create almost half of new jobs on average across OECD countries (OECD, 2016). During the COVID-19 pandemic, start-ups have reacted fast and flexibly to the pandemic. They have provided game changing innovations in the field of education or health service, helping to shift into fully digital work and stimulating innovations in medical goods and services.

On the one hand, new challenges for enterprises bring great opportunities for development, profits and finding new solutions, on the other – increased risk, shortened reaction time and less predictable results demanding specific knowledge, skills and other competences (Kupczyk, 2014; Laszuk, 2016; Rakowska & Sitko-Lutek, 2015, 2016; Rakowska, Sitko-Lutek, Mendryk, Jakubiak, & Cichorzewska, 2018). According to the Polish Startup Report (PARP, 2019), one of the main reasons why start-ups fail is lack of sufficient competencies, which are usually defined as “predispositions in knowledge, skills and attitudes, which enable us to perform professional tasks at appropriate level” (Filipowicz, 2004, p. 17). As Debrulle, Maes, and Sels (2014) report, what is of importance is owners’ or founders’ human capital as they play the main role in connecting a start-up with its environment. Both the Polish Startup Report (2019) and the European Startup Monitor (2019/2020) describe start-up founders in a similar way. As regards the age and sex, the average start-up founder is a male, aged 38. Usually, they are described as people with experience in managing business or start-ups. Feld and Hathaway (2020) divide key entrepreneurial resources into

7 groups: intellectual capital (ideas, information, technologies, stories, educational activities), cultural capital (attitudes, mindset, behaviors, history, inclusiveness, love of place), financial capital (revenue, debt, equity, or grant financing), institutional capital (system of rules, functioning market, stability, operations), network capital (connectedness, relationships, bondedness), physical capital (density of resources, quality of place, fluidity, infrastructure and platforms) and human capital (talent, knowledge, skills, experience, diversity). Each of the 7 mentioned groups of entrepreneurial resources is important but until now, research on start-ups was focused mainly on the institutional capital and the policy changes in order to make a field for start-ups development, or on the financial capital, angel investments and revenue models. On the other hand, leadership and top management teams (TMT) is a very interdisciplinary research domain, however, intellectual capital and human capital are still not very substantial as a start-up research domain.

Rakowska (2007) summarized competence potential as: skills, knowledge, attitudes, values or health, which, if used well, can be a valuable resource for the organization. On the basis of her research, Rakowska (2016) defined the competence potential profile of an efficient manager of an innovative company as a set of “specialist knowledge, good knowledge related to the functioning of the enterprise, knowledge of management methods and techniques, with good time management skills, easiness to cope with stress, creative thinking, communication, conflict management, adaptation and cooperation with people of all ages” (*ibid.*, pp. 248–249). If the human potential is so important, it is interesting how it is connected with the organizational outcomes.

### **Start-up performance outcomes**

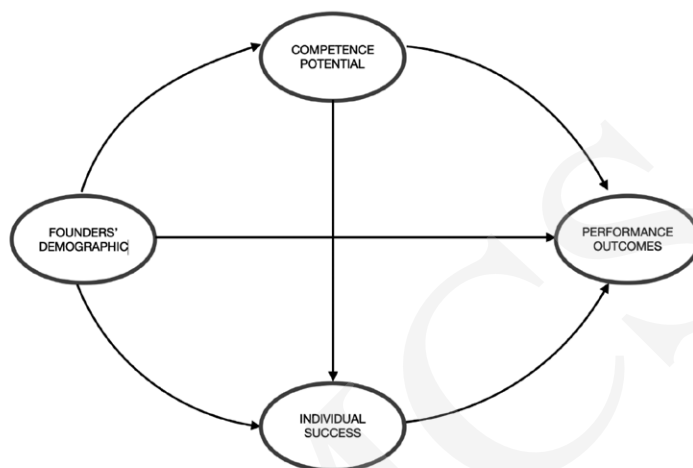
European start-up founders were asked about the most important success factors for a start-up. They pointed out that the most important factor of success is human potential, choosing the right co-founding team (European Startup Monitor, 2019/2020). There is no consensual description of start-up performance outcomes. Skala (2017) developed a diagram of start-up development and its growth factors. As the main factor she pointed out founders’ resources as a “fundamental resource of a start-up at the initial stage of its development” (p. 36). Skala (2017) defines those fundamental resources as knowledge, skills, competencies, experience and social capital. Feld and Hathaway (2020) believe that the best way to be successful in start-up business is to surround yourself with people smarter and more experienced than you, to be around diversity of genders, races, and points of view which encourage innovation and productivity, and to have a community of friends, family and local angel investors. Ries (2011) describe that the success of a start-up is not a consequence of good genes or being in the right place at the right time but the success is based on founders’ determination, brilliance, and a great product that is constantly changing regarding

the needs of the customers, learning and following the right process – the lean methodology. Previous research also shows that the performance outcome is correlated with founders' background and age (Azoulay, Jones, Kim, & Miranda, 2020) and that previous experience has a positive influence on a performance (Gompers, Kovner, Lerner, & Scharfstein, 2010; Eesley & Roberts, 2012; Chatterji, Levine, & Toffel, 2009). Ren, Tang and Jackson (2020) pointed out that the top leader is the core of enterprise development for the start-ups because his/her “decision-making directly affects the start-up’s development and profitability” (p. 2). Debrulle et al. (2014) researched the correlation between a start-up owner’s human and social capital and start-up absorptive capacity, taking into consideration the owner’s knowledge and previous experience. Their research confirms a positive correlation between start-up absorptive capacity and the owner’s social capital.

### **Research model description**

Eisenmann (2020) points out that performance outcomes of start-ups are researched from different perspectives. Psychologists may focus on personal growth of founders; sociologists – on founders’ network relationships; financial economists – on the impact of capital market boom-bust cycles; scholars of technological innovation – on shakeouts as dominant designs emerge; and so forth. Because of the huge diversity of the start-up performance outcomes, it is important to define and operationalize performance outcomes from the start-up founders’ perspective. If we state that performance and performance outcomes of the organizations are a reflection of the activity of their top managers and TMTs (Hambrick & Mason, 1984), and their personal experiences, demographics, values, personalities and other characteristics (Hambrick & Lovelace, 2018), it is important to research how start-up performance outcome (success) is correlated with the human capital, i.e. competence potential of a start-up founder: “The Upper Echelons Theory states that organizational outcomes – strategic choices and performance levels – are partially predicted by managerial background characteristics” (Hambrick & Mason, 1984, p. 193). In the study conducted by Staniewski and Awruk (2016),

(...) positive correlations were found between hope of success and start-up intentions that may testify to the fact that people who are convinced of their own strong will, the quality of their skills, and their persistence in the problem-solving process are frequently certain that they would function well as entrepreneurs, which may in turn translate into the final decision to establish their own business. (p. 245)



**Figure 1.** Conceptual model scheme of the relationship between start-up founders' demographics, competence potential, performance outcomes and individual founders' success

Source: Author's own study.

In order to expand the research on founders' background characteristics and its level of business outcomes, the conceptual research model was designed. The goal of the conceptual model (Figure 1) is to identify relationships between start-up founders' demographics, their competence potential, individual perception of success and the start-up performance outcomes by operationalizing performance results of start-ups, identifying competence potential of Polish start-up founders and their demographics, identifying how start-up founders define success of their ventures and defining relationships between all constructs, i.e. founders' demographics, competence potential, performance outcome and individual success.

The scale created and validated by Rakowska and Sitko-Lutek (2015) seems to be a good tool for measuring competence potential of start-up founders as managers of an innovative company. The scale is composed of self-reported items referring to knowledge (9 aspects measured with a Likert scale), skills (15 areas measured with a Likert scale), values (list of 9 general and 9 occupational values), well-being (Warwick-Edinburgh Mental Well-being Scale) and cognitive style (Cognitive Style Index by Allison and Hayes [2012]). Empirical evidence shows the impact of risk taking on the performance of start-ups (Sorensen & Chang, 2006), hence, the competence potential scale should be supplemented with the psychometric scale DOSPERT developed by Blais and Weber (2006) in order to assess risk taking in five domains: financial decisions (separately for investing versus gambling), health/safety, recreational, ethical, and social decisions.

## Conclusions

According to OECD (2020), start-ups have played the key role in economic growth and job creation, being the accelerator for innovation. Stam and Garnsey (2007) point out that in the knowledge-based economy, innovativeness and flexibility are more important than stability and control. That is why there is a big focus on research and development of innovative and fast developing companies, both in the world of business and science. Due to the aforementioned challenges and importance of human capital, it is important to focus the research on the start-up founders' demographics (as the dominant characteristics considered in UET) and their competences, and – specifically – their competence potential. Peterson, Smith, Martorana, and Owens (2003) indicated the small number of research that looked into the relationship between the CEO's characteristics and performance outcomes even though many researches indicated that TMT dynamics is an important determinant of organizational performance.

In their research, Peterson et al. (2003) collected several measures of organizational performance – income growth, sales growth, change in return on investments. They concluded that focusing on one performance measure can simplify reporting data, and that comparison across firms requires a metric that is adjustable for all firms. Due to the specificity of start-ups, it is important to specify and define the mentioned parameters. Because of the specificity of start-ups as very diversified companies, with different size, number of employees, very often for a long time without sales growth but financed by investors, characterized by uncertainty about predicting future events, and high risk of failure, without a concrete product or a service but with the minimum viable product (MVP), we are unable to measure performance in terms of, for example, sales of product or services.

That is why the expected outcome of this research model is the operationalization of performance outcomes of start-ups and definition of individual perception of success from the perspective of start-up founders. The application of this model could describe, in a more detailed way, startup founders and their characteristics, performance results of their start-ups and the way they are correlated with the competence potential.

## References

- Allinson, C., & Hayes, J. (2012). *The Cognitive Style Index: Technical Manual and User Guide*. London: Pearson Education.
- Audretsch, D.B., & Thurik, A.R. (2001). What Is New about the New Economy: Sources of Growth in the Managed and Entrepreneurial Economies. *Industrial and Corporate Change*, 19, 795–821.
- Azoulay, P., Jones, B., Kim, J.D., & Miranda, J. (2020). Age and High-Growth Entrepreneurship. *American Economic Review: Insights*, 2(1), 65–82. <https://doi.org/10.1257/aeri.20180582>

- Beauchamp, M., Krysztofiak-Szopa, J., & Skala, A. (2018). *Polskie startupy. Raport*. Warszawa: Fundacja Startup Poland. Retrieved from [https://startup.pfr.pl/media/filer\\_public/0f/c9/0fc9c629-3825-4208-86bc-aa1e982784fa/raport\\_startup\\_poland\\_2018.pdf](https://startup.pfr.pl/media/filer_public/0f/c9/0fc9c629-3825-4208-86bc-aa1e982784fa/raport_startup_poland_2018.pdf)
- Blais, A.-R., & Weber, E.U. (2006). A Domain-Specific Risk-Taking (DOSPERT) Scale for Adult Populations. *Judgment and Decision Making*, 1(1), 33–47.
- Bursiak, L. (2013). Diagnoza I. Pozycjonowanie sytuacji finansowej firm start-up oraz spółek z rynku NewConnect w roku 2011. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse. Rynki Finansowe. Ubezpieczenia*, 59, 49–58.
- Chatterji, A.K., Levina, D.I., & Toffel, M.W. (2009). How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics & Management Strategy*, 18(1), 125–169. <https://doi.org/10.1111/j.1530-9134.2009.00210.x>
- Debrulle, J., Maes, J., & Sels, L. (2014). Start-Up Absorptive Capacity: Does the Owner's Human and Social Capital Matter?. *International Small Business Journal: Researching Entrepreneurship*, 32(7), 777–801. <https://doi.org/10.1177/0266242612475103>
- Eesley, C., & Roberts, E. (2012). Entrepreneurial Impact: The Role of MIT. *Foundations and Trends in Entrepreneurship*, 7(1–2). <https://dx.doi.org/10.2139/ssrn.1352633>
- Eisenmann, T.R. (2020). Determinants of Early-Stage Startup Performance: Survey Results. *Harvard Business School Entrepreneurial Management Working Paper 21-057*. <http://dx.doi.org/10.2139/ssrn.3725023>
- European Startup Monitor. (2019/2020). Retrieved from [http://www.europeanstartupmonitor2019.eu/EuropeanStartupMonitor2019\\_2020\\_21\\_02\\_2020-1.pdf](http://www.europeanstartupmonitor2019.eu/EuropeanStartupMonitor2019_2020_21_02_2020-1.pdf)
- Feld, B., & Hathaway, I. (2020). *The Startup Community Way: Evolving an Entrepreneurial Ecosystem*. Hoboken: John Wiley & Sons, Inc.
- Filipowicz, G. (2004). *Zarządzanie kompetencjami zawodowymi*. Warszawa: PWE.
- Gemzik-Salwach, A. (2014). Wykorzystanie metody Dave'a Berkusa do analizy potencjału rozwojowego firm start-up w Polsce. *Acta Universitatis Lodzianensis. Folia Oeconomica*, 300(2), 111–122.
- Glińska-Neweś, A. (2007). *Kulturowe uwarunkowania zarządzania wiedzą w przedsiębiorstwie*. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa.
- Gompers, P., Kovner, A., Lerner, J., & Scharfstein, D. (2010). Performance persistence in entrepreneurship. *Journal of Financial Economics*, 96(1), 18–32. <https://doi.org/10.1016/j.jfineco.2009.11.001>
- Hambrick, D.C., & Lovelace, J.B. (2018). The Role of Executive Symbolism in Advancing New Strategic Themes in Organizations: A Social Influence Perspective. *The Academy of Management Review*, 43(1), 110–131. <https://doi.org/10.5465/amr.2015.0190>
- Hambrick, D.C., & Mason, P.A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 9(2), 193–206. <https://doi.org/10.5465/amr.1984.4277628>
- Harris, T. (2006). *Start-Up: A Practical Guide to Starting and Running a New Business*. Berlin – Heidelberg: Springer.
- Kołodko, G.W. (2002). *Rozwój polskiej gospodarki. Perspektywy i uwarunkowania*. Warszawa: Wydawnictwo Wyższej Szkoły Przedsiębiorczości i Zarządzania im. Leona Koźmińskiego.
- Kupczyk, T. (2014). *Competencies of Management Staff in the Knowledge-Based Economy*. Wrocław: Wyższa Szkoła Handlowa.
- Laszuk, A. (2016). Przedsięwzięcia typu start-up. In A. Kałowski & J. Wysocki (red.), *Start-up a uwarunkowania sukcesu: wymiar teoretyczno-praktyczny* (pp. 9–29). Warszawa: Oficyna Wydawnicza SGH.
- OECD. (1996). *The Knowledge-Based Economy*. Retrieved from <https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=OCDE/GD%2896%29102&docLanguage=En>
- OECD. (2020). *Start-Ups in the Time of COVID-19: Facing the Challenges, Seizing the Opportunities*. Retrieved from <https://www.oecd.org/coronavirus/policy-responses/start-ups-in-the-time-of-covid-19-facing-the-challenges-seizing-the-opportunities-87219267/>
- PARP. (2019). *Startupy w Polsce. Raport 2019*. Retrieved from [https://www.parp.gov.pl/storage/publications/pdf/Startupy-w-Polsce---raport-2019\\_200117.pdf](https://www.parp.gov.pl/storage/publications/pdf/Startupy-w-Polsce---raport-2019_200117.pdf)



- Peterson, R.S., Smith, D.B., Martorana, P.V., & Owens, P.D. (2003). The Impact of Chief Executive Officer Personality on Top Management Team Dynamics: One Mechanism by Which Leadership Affects Organizational Performance. *Journal of Applied Psychology*, 88(5), 795–808.  
<https://doi.org/10.1037/0021-9010.88.5.795>
- Rakowska, A., & Sitko-Lutek, A. (2015). *Employees' Competence Potential from the Perspective of HR Diversity Management: Results of Pilot Study Paper*. EURAM 2016 Conference, Warsaw, Poland.
- Rakowska, A., & Sitko-Lutek, A. (2016). Kluczowe kompetencje pracowników przyszłości w opinii ekspertów międzynarodowych – wyniki badań. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 429, 173–185.
- Rakowska, A. (2007). *Kompetencje menedżerskie kadry kierowniczej we współczesnych organizacjach*. Lublin: Wydawnictwo UMCS.
- Rakowska, A. (2016). Potencjał kompetencyjny kadry kierowniczej innowacyjnych przedsiębiorstw w perspektywie zarządzania różnorodnością zasobów ludzkich. *Organizacja i Zarządzanie*, 97, 239–252.
- Rakowska, A., Sitko-Lutek, A., Mendryk, I., Jakubiak, M., & Cichorzewska, M. (2018). Diverse competence potential of employees in Innovative Enterprises: Research results. In A. Rakowska (Ed.), *Unlocking the Potential of Employees in the Context of Organizational Diversity* (pp. 209–278). Bangkok – Celje – Lublin: ToKnow Press.
- Ren, S., Tang, G., & Jackson, S.E. (2020). Effects of Green HRM and CEO Ethical Leadership on Organizations' Environmental Performance. *International Journal of Manpower*.  
<https://doi.org/10.7282/t3-ytf9-cx57>
- Ries, E. (2010). *What Is a Startup?*. Retrieved from <http://www.startuplessonslearned.com/2010/06/what-is-startup.html>
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. New York: Crown Business.
- Ries, E. (2017). *The Startup Way: How Modern Companies Use Entrepreneurial Management to Transform Culture and Drive Long-term Growth*. New York: Currency.
- Skala, A., Kruczkowska, E., & Olczak, M.A. (2015). *Polskie startupy*. Fundacja Startup Poland. Retrieved from [https://www.citibank.pl/poland/kronenberg/polish/files/Startup\\_Poland\\_raport\\_2015.pdf](https://www.citibank.pl/poland/kronenberg/polish/files/Startup_Poland_raport_2015.pdf)
- Skala, A. (2017). Spiralna definicja startupu. *Przegląd Organizacji*, 9(932), 33–39.  
<https://doi.org/10.33141/po.2017.09.05>
- Sorensen, J., & Chang, P. (2006). Determinants of Successful Entrepreneurship: A Review of the Recent Literature. *SSRN Electronic Journal*. <http://dx.doi.org/10.2139/ssrn.1244663>
- Stam, E., & Garnsey, E.W. (2007). Entrepreneurship in the Knowledge Economy. *SSRN Electronic Journal*.  
<https://doi.org/10.2139/ssrn.1923098>
- Staniewski, M., & Awruk, K. (2016). Start-Up Intentions of Potential Entrepreneurs – the Contribution of Hope to Success. *Economic Research – Ekonomska Istraživanja*, 29(1), 233–249.  
<https://doi.org/10.1080/1331677x.2016.1166345>