Success Factors of Startups, Case Study in the Construction Industry

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1. Introduction

Every business plan and every company the founder of which intends to succeed strives to maximize its market penetration and further development. To be the owner and operator of a startup as a forward-thinking company that sets direction, makes money, and helps society prosper at the same time is the goal of many business founders. To achieve such goals, however, it is necessary to keep up with the times. Today, we live in the age of digitisation. Investing in digital technologies is no longer considered a competitive advantage, but a standard (Şerban, 2017). Therefore, it is more than appropriate to look not only at how companies and institutions are digitizing, but also at the companies that are implementing this digitization and offering it to others to improve and streamline itswork. Many companies dealing with the area of digitisation are achieving significant market success with this product and becoming startups. We can therefore raise two currently very popular and debated topics: start-ups and digitisation. Digitizing data and processes is a must for all companies that do not want to lose track of the times. This is because digitisation generally leads to efficiency, development and cost reduction, and companies that do not shrink in this respect have a better chance of long-term success in the market. Digitalization also leads to productivity (Jeske et al., 2021).

The aim of this article is to identify crucial startup succesfulness factors and to verify the theoretical findings on the example of a startup based in the Czech Republic that runs its business in the promising digitalization industry. After conducting a literature review focused on the factors affecting the success or failure of startup companies in general, the article continues with the focus on a successful Czech startup company seeking to help companies to facilitate and organise their work using digitisation. This company was chosen because of the fact that it is not just a company that is digitising itself, but also a company that offers and implements digitisation as the field of its activity, so we can assume that this chosen field is one of the basic influences that led to the success of the company. The Czech company DTS, based in Prague, was chosen as the object of this case study as one of the prominent start-ups which perform the service of data digitization in the construction sector. This sector is without any doubt one of the most significant indicators of the economic situation in a given country and at a given time. In a →

semi-structured interview, we turn to the above-mentioned company, which has succeeded in the Czech environment and whose clients have become important Prague and non-Prague construction companies and institutions. We search for the reasons of its successes and the factors that have influenced and are influencing its growth and development. The interview will be conducted with the founder of this company, who has extensive experience in investing, has gone through the various phases of a startup and has managed to achieve the position of a successful company and a leader in his field.

2. Literature Review on Startup Issues and Success Factors

Before getting started with the topic of startup successfulness it is necessary to find a clear definition of the term startup. Defining a company that we can call a startup is seen as a rather complex matter, where the definition is far from uniform. Concepts vary globally and the criteria are not fixed. Difficulties then arise and persist, especially when trying to keep statistics and to compare the success of different countries in the area of innovation and its support. Different countries, territories, academic articles and institutions view startups from different angles. Inconsistency in the understanding of the term 'startup' leads to complications and very limited possibilities to maintain a coherent system of statistics and analysis.

2.1 Startup Concept

The word „startup" usually represents a young high-tech company the main task of which is to turn its innovative ideas into reality. To launch a specific product bringing something innovative to the world is its main task. Startup companies are according to Salamzadeh & Kawamorita Kesim (2017) newly formed companies that struggle to exist, are usually formed based on great ideas and grow to success. What is the most important is therefore the application of a new business idea in uncertain conditions and this effort often includes undertaking significant risks. Startup can also be perceived as a part of a longterm proces — an early stage in the life cycle of a business, when the owner moves from the idea stage to securing funding, establishing the basic structure of the business, and starting operations or trading (Serwatka, 2018). The conditions for the emergence of innovative companies vary across business environments, and these environments are referred to as startup ecosystems. An ecosystem in a given area can be conceptualized as a business ecosystem comprising a network of companies that collaborate to produce systems that have value for customers. This is how Finnish authors (Tripathi et al., 2018) define it in their paper.

A newly founded business is always a question mark by its very nature. Going into business is a big risk, especially for new, inexperienced entrepreneurs. Startups are perhaps even more complex stories in this regard, where investors need to have developed tools and mechanisms to overcome the challenges that can arise at each stage of the investment proces (Gompers & Lerner, 2001). Considering the fact that 90% of startups fail (Kapoor, 2023) and then, according to the same source, only 33% of the remaining minority manage to exist for more than 10 years, the success factors of startup companies can be considered as one of the key economic issues. At the same time, however, startups represent a significant part of the economies of European countries and their employees tend to be very well remunerated. For example, J&T Bank's chief economist Petr Sklenar's statement that startups account for more than 5% of the Czech Republic's GDP recently resonated with the media (Procházka, 2024). Identifying and revealing the reasons for the success or failure of such emerging companies is therefore a very topical and important topic, and researching it will help to chart a path for other innovative companies newly entering the scene so that they know what to bet on and what to avoid.

2.2 Literature Review on Success Factors of Startup Companies

The main aim of this paper raised above was to identify crucial startup succesfulness factors. Given the low success rate of startups, this topic seems to be very crucial and compulsory to deal with. The problematic definition of the term startup is a significant limiting factor when trying to establish criteria for the successfulness of such ventures and the conditions that a successful startup should meet. In general, however, we can summarise that a successful startup is one that by its inovativeness becomes beneficial to human society, that survives the critical first years of its operation and becomes a stable entity. We also must not forget the financial criteria — the company should be classified as profitable and start growing rapidly after its products launch the market. The success of innovative start-ups has been mapped in several studies, mostly focusing on a specific type of start-ups or the environment of individual countries.

The study of Skawińska & Zalewski (2020) differentiates the factors for individual countries based on their level of development and their ability to support innovative start-ups. The research used a component analysis method on start-up data available for selected EU countries. According to the authors' findings, strategic success factors for start-ups differ in highly developed and catch-up countries, with more developed countries offering start-ups an institutional competitive advantage, either in terms of institutional support or human factors.

An analysis by an Asian researcher (Lee, 2017) aimed to examine the success factors of venture start-ups in terms of competitiveness and survivability. To this end, an empirical survey was conducted among CEOs of 100 small and medium-sized venture startups through AHP analysis. According to the research findings, the most critical of the success factors are considered to be: entrepreneurship, followed by innovation, economics and technology. For entrepreneurship, the following characteristics are then highlighted: entrepreneurial competence, positive entrepreneurial motivation, creative use of technology, and continuous investment in technical development. The research therefore highlights entrepreneurship as a critical factor for venture start-ups.

Another scholarly treatise (Sahaf & Tahoo, 2021) concerns the success of startups in the fast-growing and innovative economy of Bahrain, a small state in the Persian Gulf. This country has recently decided to bet more on innovation instead of oil. To study the success of startups, the above study adopted a quantitative method to collect data to investigate the impact of four selected variables: fundraising, experience, knowledge and partnerships on the success of startups in Bahrain. The quantitative findings outlined the importance of several factors that were perceived to have a significant impact on success, with the two main factors being experience and knowledge playing an active role in sustaining the success of startups. In-

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terestingly, fundraising was not included as a key factor by respondents.

Relatively new research (Sevilla-Bernardo et al., 2022) attempts to shed light on the question of startup success through a statistical analysis of a bibliographic sample of 60 recent articles published on the topic. Through a detailed study of the selected literature, but from the perspective of entrepreneurial experience, the authors identify the main factors of startup success, defining a core set of seven practical factors of entrepreneurial success supported by academic literature (Core-7 SF). According to this study, the most important variable for predicting the success of a start-up venture is the idea, followed by the CEO's leadership, business model, marketing approach, and entrepreneurial team.

The authors of the article *Critical success factors for technology-based startups* (Santisteban, Mauricio, Cachay, 2021) then look specifically at technology startups as businesses that are highly beneficial to the economy and employment and deserving of investor support. Based on the t-test method, the study identified ten key success factors for startups, namely: technology exploration, ability to absorb knowledge, perceived performance, product/service quality, customer satisfaction, staged funding, incubator support, innovation and entrepreneurial system, dynamic capacity, and innovative and entrepreneurial company culture. However, the study points out that it is not precisely defined what the success criteria actually are.

The other material on this issue is even more specific, concerning the success of startups in the digitalisation sector. The authors Binowo & Hidayanto (2023) aim to identify the key success factors of digital startups in this pioneering venture. The authors used thematic analysis as a method to identify success factors in the pioneering stages of digital startups and collected data from interviews with ten startup founders. The findings identify fifteen critical factors representing success factors in the pioneering stage of a digital startup. These are: problems, business ideas, teams, business models, capital or funding, products, incubators, validation, competition, marketing, technology mastery, market analysis, founders and co-founders, partners, and passion. Problem factors and team factors are then among the most dominant and influential factors in the success of a digital startup. The problem factor motivates the development of solutions to these problems, the team factor is that with a team, all problems are solved faster, easier and more productively.

Digital startups are also the subject of a multiple case study by the Swedish authors (van Wordragen & Tischlinger, 2019), who set out to gain an understanding and knowledge of how digitalisation has affected the dynamics of business society and what the literature and interviewees believe are the necessary key elements to succeed as an entrepreneur in the digital era. A multiple case study was conducted in which eight case companies were selected and interviewed through semi-structured interviews. Subsequently, an anchored analysis was conducted to identify the subjective success factors of the interviewees. It concludes that the main success factors for digital transformation startups are: a lean approach to customer orientation, entrepreneurial goals and culture, participation in the entrepreneurial ecosystem, integration and use of third-party technologies, and raising capital for business development.

2.3 Success Factors of Startups in the Czech Republic

The success factors of startups are intensively addressed, for example, by Skawińska & Zalewski (2020), who in their outputs emphasize that there is a high potential for growth in the so-called catching-up countries, which include the countries of Central Eastern Europe, by improving the entry conditions for startups. They cite the following as the factors that most influence these countries: culture and institutions, access to human capital,

knowledge and networking, market conditions, access to finance, taxes and regulations, and infrastructure.

Another article (Petrů et al., 2019) focuses on defining the key factors of sustainability of start-ups in the Czech Republic and looks for dependencies between them. The dependence of the selected factors affecting startup sustainability was verified by evaluating data collected through primary qualitative and quantitative research. The findings were compared with secondary research data and with the conclusions of scientific studies by foreign authors. The data were processed using statistical apparatus. Thus, the authors identified environmental and internal factors that can affect the sustainability of a startup. They demonstrated the link between the level of strategic management and the quality of internal communication processes, between the ability of the startup management to manage customer relations (CRM) and at the same time to manage the communication strategy, including brand promotion. It was found that startup management overwhelmingly fails to understand and address customer needs and lacks knowledge of marketing and business management. The key change needed to improve this situation is therefore to eliminate this unprofessionalism.

The topic is also covered in an article by Alexander Kessler (2007) dealing with success factors of start-ups in the Czech Republic and Austria, which presents a comparative analysis of success factors of start-ups in the early stages of development in the traditional market economy of Austria versus the emerging market economy of the Czech Republic. The comparison uses a binary logistic regression analysis and is based on an Austrian sample of 296 start-ups from 1998 and a Czech sample of 459 start-ups from 2000. The success factors differ in the two countries under study, according to the research findings. In Austria, success in the early stage of development can be predicted mainly on the basis of the characteristics of the start-up process and the personal background of the entrepreneur, while personal characteristics and resources do not have a significant impact. In the Czech Republic, the need for personal success as well as start-up resources play an important role in predicting entrepreneurial success.

3. Methodology

The aim of this article is to identify crucial startup succesfulness factors and to verify the theoretical findings on the example of a startup based in the Czech Republic that runs its business in the promising digitalization industry. After conducting a literature review focused on the factors affecting the success or failure of startup companies in general, the article continues with the focus on a successful Czech startup company seeking to help companies to facilitate and organise their work using digitisation.

The method used in the first, theoretical part of this paper was a literature search, primarily to define the term startup on the topic of the definition of a startup, which is related to its success, i.e. rapid growth and long-term survival. The formulation of the topic was: success factors of innovative companies (or success factors of startups). In terms of time frame of the resources used, it was preferred to process rather recent literature, however, due to the generality of the topic, the use of older sources is not an obstacle. Given that the term startup was used in Forbes magazine as early as 1976 and since then innovative startups have been founded all over the world, the assumption is that the underlying success factors of such companies have remained unchanged, or only partially so, in relation to changes in the economy. Sources cited are articles and studies, in English or Czech language.

The second method that proved to be suitable to use for the practical part of this paper was case study, as it was figured that this method would serve well to link what has been found out with practice. The case study is a research method that is currently an influential and growing trend helping to bridge the gap between academic research →

and everyday practice. In order for the study to provide sufficient reflection to the theoretical findings, it was necessary to select a company that is a typical successful startup and is engaged in a sector promising for the economy (in this case, digitalization). A guided semi-structured interview with the owner of the company was selected as part of the case study, which was conducted in such a way that the individual questions were coherent and that the owner of the company mentioned several times the essential things that in his case led to significant success in the market in the field of digitalization.

4. Findings

4.1 Construction Sector as a Business Opportunity and Economic Indicator

The second part of this article aims to come with the results of a case study, which is going to be conducted on the example of a startup dealing with the constructions sector, providing digitisation services in the area of building and construction. This economy sector was chosen because construction is a specialised and key sector in the economy, which has a wide-ranging impact on many other sectors and is therefore considered an important indicator of economic growth. The sector is closely linked to various industries that produce building materials, machinery and other products. It also has important links on the output side as it provides construction work for both the industrial and non-industrial sectors, citizens and other users, which in turn influences the use of subsequent building maintenance services. The construction sector thus plays a key role in supporting economic growth and also has an impact on the development of the territory, including its impact on the environment and the business environment in other economic sectors. Chapter 3 deals with the situation in the construction sector in the Czech Republic and Prague and also with digitalisation in this sector.

4.1.1 Situation in the Construction Industry in the Czech Republic as a Challenge for Innovative Entrepreneurs

The data for this chapter were drawn from the report (MPO, 2023) according to it showed a slowdown in growth by 0.1 percentage point, but recorded annual growth of 2.6% in constant prices. The number of building permits fell in 2022, with 86,049 issued. In contrast, the value of contracts continued to grow, albeit at a slower pace. Year-on-year, the value of construction contracts rose by 8.6% to CZK 244.9 billion, mainly due to public procurement. In 2022, companies carried out construction work worth CZK 681.9 billion, representing a year-on-year growth of 17.4% (at current prices). Construction work in the Czech Republic was higher year-on-year in all categories, with work on non-residential manufacturing buildings growing fastest, followed by residential buildings. Construction work focused mostly on the construction of buildings of three or more dwellings. The second highest item in construction work was industrial buildings. According to the Ministry of Industry and Trade, there were 417,000 employees in this sector in 2022, including entrepreneurs, accounting for 7.7% of the total number of persons employed in the economy. The construction secto's share of total economic output fell slightly. In general, for the Czech Republic in a given year, approximately 80% of construction output is generated in the non-financial corporate sector. This applies in particular to development projects such as shopping and office centres, road construction and civil engineering. The remaining 20 % of output comes from households, which mainly focus on new construction, renovation and modernisation of houses and flats, their reconstruction and modernisation. The number of construction companies in the country in 2022 was 193.7 thousand. The most well-known companies operating in the construction industry in the Czech Republic include for example: STRABAG a. s., Metrostav a. s., Skanska a. s., EUROVIA CS, a. s., COLAS CZ, a. s., FIRESTA-Fišer, rekonstrukce, stavby a. s., PORR a. s.,

Chládek a Tintěra, Pardubice a. s., SWIETELSKY stavební s. r. o., or HERKUL a. s.

4.1.2 Importance of Digitalisation (not only) in the Construction Industry

Information technologies are nowadays used in all sectors and the construction industry should not be left behind in this respect. Digitisation in this sector is beneficial for all parties involved. Thanks to digitalisation, communication between architects, construction companies, contractors and investors can be handled more efficiently, leading to better coordination of work and reduced risk of errors and delays. Digital tools also enable better planning and tracking of project schedules, leading to faster and cheaper construction work. Digitisation also increases transparency in the construction sector by allowing easier access to information on public procurement and construction permits, which helps to fight corruption.

Many technology and digitalisation tools are being used in the construction industry, specifically cloud-based technologies that give construction companies the ability to store, manage and share their data and documents online, which greatly aids communication and improves data accessibility. Another digitisation tool is the Internet of Things, where sensors and devices can be used to collect data on the condition and performance of buildings and infrastructure. In this way, this data can be analysed in real time and help to predict the maintenance and repairs needed. We must not forget the augmented and virtual reality technologies used to visualise projects and present proposals to clients and investors. Digital technologies are also being used for project management (enabling cost and schedule tracking) and to improve safety on construction sites, including worker tracking and monitoring of safety risks. Mobile applications of all kinds are also used on construction sites for inventory management, progress monitoring and communication. Drones are used to capture construction from the air. Construction robots are available for many tasks and we must also mention the use of 3D printing. The Industry 4.0 concept is also one of the segments of the recent or near future of the construction industry. Digitalisation is an important part of the future development of the construction industry. These advances bring a number of benefits to the construction industry from which to benefit. It can contribute to better quality, increased speed and efficiency and also to a significant reduction in costs (Sommarberg, 2016).

4.1.3 Digitisation of the Construction Industry in the Czech Republic through the implementation of BIM Systems

Digitisation in the construction industry is a process that involves the use of modern technologies and digital tools to improve productivity (Berlak et al., 2021), efficiency and quality in the construction industry. In particular, one of the key aspects of digitalization in the construction industry is the Building Information Modeling (BIM) technology. According to the book by Borrmann et al. (2018), it is a digital technology that enables the creation and management of complex digital models of buildings and infrastructure, in other words, building information modeling, which is based on the idea of using digital building models throughout the building life cycle. BIM significantly improves the flow of information between stakeholders at all stages, leading to increased efficiency by reducing the laborious and error-prone manual re-keying of information that prevails in conventional paper-based workflows. Due to its many benefits, BIM is already being applied in many construction projects around the world. These models contain information on design, materials, costs and other important aspects of the project. BIM helps to improve collaboration between different stakeholders, reduce errors and enable better project management.

Geographic information systems and geoinformatics are another important part of digitisation in the construction sector. They are being used for the analysis and management of geographic data →

and are of particular importance for the planning and management of infrastructure projects (roads, bridges and water supply networks). However, the fragmentation of the construction industry still hinders the wider use of these models. The Czech Republic, like other EU countries, is looking for new ways to manage construction and infrastructure projects more efficiently. The main tool in this effort has been the aforementioned system called Building Information Modelling (BIM), which can be used for all phases of a construction project — preparation and management of construction, documentation during construction, asset management and subsequent resolution of any problems with the construction. In their study, Zak & Vitasek (2018) discuss the use of modern technologies for linear construction to streamline traditional methods. In the article, they summarize the legislative process of BIM implementation in the Czech Republic, especially in relation to the public sector, announcing that the Czech Republic intended to mandate the use of BIM for major transport projects above EUR 5,700,000 by 2020. The introduction of BIM in public administration is also mentioned in Government Resolution No. 682/2017 (Česká agentura pro standardizaci, 2024), in which the Ministry of Industry and Trade, the Ministry of Transport, the State Fund for Transport Infrastructure, the Czech Agency for Standardisation and a number of other experts participated.

4.1.4 Construction and Startups

Startups bring a lot of positive things to the economy and, if successful, can be key players and leaders of progress. Construction is a sector that is very sensitive to changes in the economy. Construction output is even considered as an indicator of the development of the economy (Bormpotsialou, Rovolis, 2019). Any savings and any improvements are beneficial in this industry. Startup entrepreneurship is therefore undoubtedly very welcome and also beneficial in this industry. At the same time, it can be argued that there is considerable potential in the construction industry, given its considerable rigidity for the emergence of startups, especially those that are digital and digitizing, and supporting the emergence of such companies is more than desirable.

4.1.5 Opportunities and Risks for Startups in the Construction Sector

Startups bring many positives if they are successful, such as employment, increased product, tax payments to the budget (if they are based in the country), increased product range for customers and more. This leads to the development of the national economy and improvement of macroeconomic indicators in the country. For example, the critical success factors and risks of startups are examined by Yucel & Azhar (2023). According to them, business model innovation, business support organization, prior professional experience of the founding team, and collaboration and inter-organizational learning are key factors for the success of such firms. Uncertainty and marketing are the most emphasized risk factors in the selected articles. Pacheco-Torgal (2017) then also states that the field of civil engineering has long been known for not being associated with the creation of high-tech startups. This is an indication of the low rate of innovation in the field.

The problems have been perceived worldwide for many years, a 2022 treatise (Lam & Mok, 2022), for example, highlights the challenges and limitations of the industry, particularly in terms of conservative policies, investor preference for short payback periods, price competition, high operating costs and lack of promotional channels. However, Yucel & Azhar (2023) also state that the construction industry has been heavily oriented towards innovation and technology in the last few years and many entrepreneurs have emerged to offer solutions to specific problems in the construction industry through startups. Therefore, the evolution of construction technology startups and the factors affecting their success are still unclear and there are intense efforts to change and improve efficiency.

4.1.6 Selected Czech Startups Operating in the Construction Sector and their Success Rate

The table 1 shows examples of significantly successful Czech construction companies that have not only multiplied their turnover but also managed to survive in the conditions of high competition and pressure from foreign companies thanks to their unique and quality product. The following entities were selected as examples. The selection was made in such a way as to include companies from different regions of the Czech Republic, including those on the periphery, and to cover diverse areas of business activity.

The table 1 shows a number of prospective company specializations in terms of startup success. It also shows that a number of opportunities in the construction sector in the Czech Republic have been seized by firms with different fields of activity, which have established themselves on the market and have been established here for a long time despite difficulties and competition from foreign companies. Many of these companies have achieved considerable success and are involved in major construction projects as consultants or builders. Although, like start-ups in other sectors, they are not without difficulties and failures, many of these companies are doing very well, bringing new projects and innovative solutions and achieving success in the longer term.

Table 1 » *Selected Czech construction startups*

Company name	Main subject of activity	Location	Successes
LumiTRIX s. r. o.	Measuring, navigation and optical instruments, videomapping	Kopřivnice	Innovation company of the year in the region
Techprojekt s. r. o.	Energy and subsidy consultancy, projections	Ústí nad Orlicí	Participation in the project Nová zelená úsporám 2024 (New Green Savings 2024)
AREA group s. r. o.	Architecture, real estate development	Plzeň	Changing for the better the part of Pilsen called Přeštice
Evora CZ s. r. o.	Building technology solutions	Brno	Runs an interesting blog about HVAC solutions in modern houses
Univers Tech s. r. o.	Shading and door technology	Kladno	Builds photovoltaic power plant for their own use
GEFOS a. s.	Geodesy, building design	Praha 8	Implemented projects in 24 countries around the world
Betonpres a. s.	Concrete roofing	Temelín	In 2012, the company doubled its turnover tenfold
T.A.Q. s. r. o.	Construction and consulting activities	Praha 6	Carries out a number of reconstructions of major transport structures
ÚRS CZ a. s.	Valuation and calculation of construction production	Praha 10	Won the Gold Medal for Budgeting and Costing Software (IBF 1998)
BUILDSYS a. s.	Building management and energy saving systems		The company is a member of the Česká rada pro šetrné budovy (Czech Green Building Council)

Source: (Construction Companies in the Czech Republic • Firmy.Cz, b.r.)

4.2 Case Study of Digital Transformation Systems – Example of a Start-up from the Field of Digitisation of Construction Companies

An innovative idea is the basis for a startup. It is, of course, a basic condition for success, but it is not enough on its own. Entrepreneurs who decide to set up a business in the Czech Republic face a number of difficulties and obstacles. What is important is tenacity, perseverance and sufficient experience. One of the companies heading upwards and gradually building considerable success is Digital Transformation Systems. I chose the company to research as a sample of a prominent Czech startup that has been reported in the media as a successful and investor-backed company and has customers from large companies and public administration. A questionnaire or a semi-structured interview seemed to be the appropriate methods to find out the success factors of the startup. For the case study, the method of a guided semi-structured interview with the owner and founder of this innovative firm was finally chosen because it was assumed that the owner's own statement would best capture and express the desired outcome – to identify the success factors of the innovative firm. Although the output is the statement of only one entrepreneur, it is an experienced person in the industry who bought a more or less failed and failing company, saved it and raised it to a high level. The findings of the above research mapping the success factors of startups could thus be compared with the findings of an entrepreneur and company director who has been in the business and startup environment for many years and could offer his experience.

5.1 Introduction of Digital Transformation Systems Company

Digital transformation systems s. r. o. (hereinafter referred to as the „company") is, according to the commercial register a Czech legal entity, a limited liability company, which was established on November 17, 2021 and is located at Jungmannova 36/31, Nové Město, 110 00 Praha 1, Czech Republic. According to the entry in the Obchodní rejstřík ČR (commercial register of the Czech Republic), the main subject of its activity is production, trade and services not listed in Annexes 1 to 3 of the Živnostenský zákon (Trade Act of the Czech Republic). In 2021, the company increased its share capital to CZK 500,000. This innovative consulting firm specializes in the effective use of modern technologies, including 3D, BIM, CAFM and GIS, as well as data integration in the construction industry. It provides services to both private companies and state investors from various sectors of the construction market in the Czech Republic and abroad. The company was founded in 2019 as a startup focused on the new trend in BIM. During the Covid-19 pandemic, the company noticed an increased interest in digitization in the construction industry. This helped it to stabilize its market position. In 2021, the company's net turnover almost doubled compared to the previous year to CZK 11,768,000, while the profit was CZK 333,000. In 2022, the article by Arltová (2022) reports sales of 12 million crowns. The company mentions on its website the fact that it was motivated to develop and to establish partnerships and cooperation with renowned companies due to the lack of suitable tools for BIM.

The company is one of the few companies that managed to get enough attention from investors in the field of construction. This led to support from domestic investment funds, which made it possible to expand and develop the company's products. The DTS team says that its main goal is the effective management and use of data in the construction industry. As its products, the DTS company lists data systems and activities related to them, which specifically include preparatory, planning, consulting, operation, construction and maintenance activities. The company provides training, develops applications and systems, and also deals with data security. Digital Transforma-

tion Systems is now considered a successful, fast growing and developing company. Listed clients include: Siemens, Autodesk, Esri, Bentley, Česká pošta or Pražské vodovody a kanalizce.

The founder of DTS, Milan Moravec, is an experienced director and has experience in a leading position in the company. He worked in the field of water construction for 20 years, namely at the Swedish company Sweco Hydroprojekt, which is one of the leading Czech design and consulting companies in the field of water management and employs over 200 people. Milan Moravec was appointed Chairman of the Board of Directors and CEO (*Milan Moravec generálním ředitelem společnosti Sweco Hydroprojekt*, 2015). One of his main goals in his new position was to strengthen cooperation within the parent group, actively contribute to the development of the company, apply new trends in the field of project and consulting management, and maintain the economic stability of the company. Within Sweco Hydroprojekt, he started working in the foreign department in 2003 and, based on his rich professional background, subsequently assumed the position of director of the hydrotechnics, ecology and waste management division. According to his words, he went through the company from the beginning and reached the top. He was responsible for managing projects in the area of flood protection, such as projects in the municipalities of Zálezlice and Terezín. He also headed projects in the field of hydroengineering and hydropower in countries such as Iraq, Pakistan, Afghanistan and Kyrgyzstan. He took over the DTS company and started building it in 2018.

5.2 Semi-structured interview with the owner of the company

The founder of one of the most important Czech startups knows a lot about what the establishment and operation of a startup looks like in practice. A semi-structured interview was conducted with him as part of the chosen research methods, which was recorded with the permission of the respondent. The questions were chosen in order to best identify the success factors of the mentioned company and to provide possible inspiration to other entrepreneurs who would like to do business in a similar way. At the same time, this type of interview was conducted in connection with the recommendation of RWJF (2008), which considers it most appropriate to use this type of interview if we only talk to the interviewee once. The founder of the DTS startup, Ing. Milan Moravec, Ph.D., based on personal experience, answered several interrelated questions in an interview related to the issue of startups and innovative business.

1. **What led you to start a company?** For the last 6 years, I have seen that digitization in the construction industry will have a great potential. In construction industry (unlike other industries) is that papers are still used, there is a huge chaos here, no one is able to organize data they use on the construction site. Digitization is a conservative environment havíng huge potential.
2. **How would you define a startup? The difference between a startup and a traditional private limited company I** think is that in the case of a startup, you get external money from investors to expand in a flash. You can get the money either within the segment, or to another segment, or abroad. The whole principle is that someone gives me one CZK, I expand, I build a big unicorn out of it (a start-up company that reaches a valuation of at least 1 billion USD, autho's note), it then earns 10 crowns from the original one crown.
3. **How did your company become a startup?** We had the knowledge, the market position, we knew what the market wanted. In general, we follow a different method. We proceed by creating our product for customers from the beginning, that means, we verify that they really want. We have immediate feedback, at the same time we provide services for that product — training, customization, etc., so that the cus- →

tomer gets everything on key. This is how we build the product gradually.

4. **Do you consider yourself to be a typical startuper**? Not really. The difference between my company and a typical startup is that we build gradually, that we tame our investors a little so that we don't waste the money on big expansion, we continue at a steady pace and the growth comes on its own thanks to a quality product. I am even not planning not to use many of the funds invested in my company and will keep them as a reserve.
5. **What are the specifics of the building industry?** The way it works in the construction industry is that you have a product, knowledge or reputation and because of that they buy more and more from you. The construction industry is very conservative and it takes a long time to get a new customer. But if you win him over and convince him, you have him forever.
6. **How did you reach the financial growth of the company?** I left a big corporation and went to an existing business that was not very successful. I bought it, put order and structure in it and made it a startup base, which means it has a product, it has knowledge, it has great potential, and it's short on money (this is also how I would define a startup). I joined this company and by bringing with me knowledge, customers and a clear line of what we want, basically within half a year we recruited more customers, more employees and in addition to the product we are developing, which is working with digital data, we provide services and at the same time we received money from investors, because we went through the investor round, where we presented to investors what our vision is, what we want, what are the advantages and disadvantages, so we received money for development, half a million euros. Paradoxically, we still don't need the money because we have enough of our own resources at the moment.
7. **How do you promote DTS and build your company reputation?** The company does not need and does not want to spend too much money on promotion. The startup is still in the construction phase. A good reference means the most to a company. Of course, we have to show what we do, it's about the product, about the services, about the people, that's our real marketing. References work best in the construction industry. I also used the contacts from my past work to build up some reputation, because those people know me and that makes it easier. To illustrate, when you work for Veolia and Veolia is happy, others around you can see it.
8. **Why do you think that your product is unique?** I'll say it with an example. When you build a house, you have the project documentation there. Digitization means that today, instead of paper documentation, you have a 3D model, and the 3D model contains non-graphical information. This means that you click on a wall in the model and a table pops up stating that the wall is made of these bricks, these dimensions, has these parameters, in short all the information about that wall. You click on the window and you have all the information. And today, anyone can design a house or make a 3D model. But few people know how to supply the model with the right information (non-graphical) in the right structure. And that's digitization. So you have a digital twin, you have your house in the form of a 3D model, and all the information that are relevant to that house, including instructions for the boiler or the type of pipe, are stored in the 3D model. When you need to change anything, you change it correctly, you don't look for files, you find out who designed what, you have it stored somewhere. The principle is that I have properly structured data about the construction in question, and thus I save time when I search, change, find out, adjust, remodel, because there is a huge chaos on the construction site

today and you spend most of your time looking for contacts, looking for who did what, you are looking for dimensions and this way you save time, that is the whole principle.

9. **Why do you think that your industry is the key to success?** We know that companies that have gone through digitization, or that we have trained to implement this system, are now much more efficient and have much less error. If I draw something and it's wrong, I have to redo it, then I get penalties at the construction site, I deal with complaints, and there is huge potential here. Smart customers today have their data in order, they know how to control individual workers, because everything is stored somewhere and all data is structured.
10. **What do you see as the causes of success?** We went through the process as one of the first to know that some data are needed, some are not, some often change, some are very critical, some are complex, so that we really know this and how the whole process works. There are more companies in the industry now, because it is generating money and is very fashionable, so many are trying to make a living from it.
11. **What do you see to be your competitive advantage?** We offer a product that is more complex. In contrast to the competition, we follow a completely different path, where we enable companies to go through the entire digitization process, from placing the order, processing the order, through the implementation of the order, to operating and the data flows. We find out what the advantages and disadvantages of digitization in the entire proces are, from design to construction and operation, where digitization will save the most part of expenses.
12. **How is the company doing financially right now?** We are successful. We didn't need any loans, we always had investors. In addition, we have such projects and such customers that we earn on our own. We have investor money ready for expansion, we have x projects abroad and we need funds for them. We have three classic venture capital investors and one „angel", so we have it arranged in such a way that one gives us 250 thousand, another hundred and another and another. We meet investors on startup forums, in startup communities, and here you can get information.
13. **How are you planning to continue working on the success of the company?** We would like to become the first choice for the mandatory implementation of BIM processes in the digitization of the construction industry. The potential of our market is very significant, there are an estimated five thousand companies in the Czech Republic alone, from design firms to construction companies to state and semi-state investors, i.e. a complete ecosystem. We would like to become the first choice for the mandatory implementation of BIM processes in the digitization of the construction industry, throughout the European Union and in various types of projects. We are currently preparing to expand abroad, as our customers are already the largest construction companies in the Czech Republic. Our product is easy to scale, moreover, it is not dependent on local or other legislation.

5.3 Findings about the Startup Successfulness Factors

In the first part of this article, a literature review was done. Based upon this review, we can identify the most often mentioned factors of startup succesfulness. Some authors emphasize the fact that developed countries offer start-ups an institutional competitive advantage. When being supported and consulted by startup-focused organizations, startups may reach their success more easily and without difficulties that the other innovative companies encounter. The other studies vary in stating differeng factors among which we can cite especially the most often given which are:

- entrepreneurship,
- innovativeness of the business idea,
- business model chosen,

- technology and innovation,
- experience and knowledge,
- CEO's leadership and his team,
- marketing approach, product/service quality and customer satisfaction,
- staged funding,
- incubator support,
- performance and dynamic capacity,
- company culture and the right choice of parners
- participation in the entrepreneurial ecosystem.

Based on the guided interview, the text analysis method can be used to select and identify the factors that the owner of the innovative startup DTS mentions most repeatedly. There are some factors that he mentions most often. These factors are:

- contacts,
- knowledge of the needs of the market,
- previous experience,
- the ability to be a pioneer,
- adaptation to the customer's needs,
- patience,
- conceptuality and persistence,
- building the company's image and reputation.

The owner of DTS company mentions all above mentionned factors in the interview, or touches on them and gives practical examples of how his company used some of these instructions to succeed. He then mentions contacts and experience so often that we can conclude that these attributes are absolutely fundamental and key for doing business in the Czech environment. For the future of startups, it would therefore be very appropriate for the state, and therefore its institutions, to focus on counseling when supporting startups, which seems to be a far more significant obstacle to the creation and especially the development of startups than the lack of finance.

6. Discussion

Findings above are very important for the area of business and all types of companies, especially those focusing on innovative product. However, there are a lot of limits and also uncertainties, first of all regarding the term „startup" itself. This term differs in some aspects within different backgrounds and the professional public perceives it in varied ways in terms of crucial aspects of an innovative company and the conditions that the term startup must meet. These conditions are particularly connected with the level of inovativeness, the speed of the company's growth and the length of survival.

The topic of the success of startup companies is still far from explored and will require further research. There are limits of this article in terms of the number of chosen resources, more scientific opinions are necessary to be taken into account with the aim to include the opinions of scientists from countries that are famous for being succesful cradles of startups.

Moreover, to make startups research more relevant, a larger amount of such companies have to be used as the objects of case studies. There is also a visible difference between the findings of the theoretical and practical part of this article. While the case study found out that factor number one of startup succesfulness are contacts with „the right people", the theoretical findings claim that other factors are on the top of the list. On the other hand, both methods proved that experience, knowledge and innovativeness are essential. This research needs to continue by using more methods such as other case studies, questionnaires, thorough statistical analysis of data found with regards to the necessity to include data from abroad. It is important to do detailed ranking of the frequency of the appearance of individual factors and work out statistical tables and relevant graphs. This article is going to be followed by subsequent research with the use of more methods, more samples and more data.

7. Conclusion

The aim of this work was to deal with the success of startups using literature review with the help of the framework of a case study. The research was used to identify the opinions of various global re-

searchers on the success factors of startups in general, a literature search was also done looking for available information within the business environment of the Czech Republic. The case of a selected company operating in the field of digitization was then chosen for the study. The founder and owner of the company that digitizes processes and data in other companies, and which is also a startup and an increasingly prominent player in the Czech private sector, was approached. The founder was willing to share his story and his experience and opinions in a guided interview. The result was the preparation of a case study, for which available materials, data from the commercial register and knowledge of the company owner himself were used.

As a part of the research, it was found that the opinions of experts on the factors determining the success of startups differ, but the selected studies are in agreement. According to some experts, success is primarily influenced by the human factor, such as personality characteristics, as well as innovative thinking, the ability to work in a team or experience and knowledge. Other authors take into account economic and financial aspects, such as in particular sufficient resources, business and marketing model, entrepreneurship or the existence of competition. A number of authors mention that success is mainly due to the company's ability to bring innovations and new technologies. Other findings relate to the great importance of institutional support for such enterprises. Sometimes a set of many factors is also mentioned, including, for example: technological exploration, ability to absorb knowledge, perceived performance, product/service quality, customer satisfaction, financing in stages, support from the incubator, innovation and entrepreneurial system, dynamic capacity and innovative and entrepreneurial culture companies. A practical expert who is an entrepreneur himself, i.e. one of the owners of Czech startups and the founder of the DTS company, considers experience and contacts, knowledge of the needs of the field, adaptation to the needs of the customer, conceptualization, and persistence and building a company image to be some of the key factors.

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The Success Factors of Startups, Case Study in the Construction Industry

ABSTRACT
The issue of startups is a very topical, often researched, but still largely unexplored area. The aim of this study is therefore to focus on this type of innovative companies primarily with regard to the factors determining their success or failure on the market. Startups and their success are examined both from the point of view of experts who have published on this topic so far, but also in comparison with the opinions of an experienced entrepreneur who runs and leads one of the startups. The field of activity that the article focuses on is the construction industry, as one of the most sensitive fields to the state of the economy and at the same time an area where there is a lot of potential in the field of digitization and new technologies.

KEYWORDS
Startup; Digitalization; Success; Factors; Construction; Industry

JEL CLASSIFICATION
M13; M21