IDENTIFYING THE SIGNIFICANCE OF THE IMPACT OF THE CANVAS BUSINESS MODEL ON STARTUPS' PERFORMANCE INDICATORS

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Abstract: Startups are unpredictable, but above all unpredictable enterprises, which can hardly be attributed a universally valid recommendation for their existence. For startups, it is very important to recall that there is no constant business model for them. The current literature provides a number of business models that could be a guide for startups, but it would make little sense to establish a universally valid model given their diversity, instability and variability. In this paper, we describe the Canvas business model, which serves as a visualization of the current state of real functioning Slovak startups, and we further gain valuable insights and valuable knowledge based on this model. The main objective is to identify the significance of the impact of the Canvas business model on the performance indicators of startups. The achieved results and the metamorphosis of real functioning startups contribute to the expansion of knowledge of this relatively new and promising entrepreneurial phenomenon. The startup environment is many times presented by the most successful representatives and the less successful ones quietly sink into oblivion. Representatives of unsuccessful startups do not like to provide data and information about their business.

Keywords: startup, Canvas business model, performance.

1 Knowledge base about startups

Human individuality provides myriad perspectives on the world. Each personality sees it differently. A physicist sees it as a set of laws that make things happen around us. A doctor sees it as a mixture of human bodies, each one identical and original. A mathematician sees it as a set of ubiquitous numbers. But what is the world really like? Dynamic, strange, unique and authentic. No plot will take place again in the same conditions.

The current economy can also be seen as a structure of enterprises that are the driving force of the entire global economy. From multinational corporations, to large enterprises, to medium and small enterprises. Small and medium-sized enterprises require the most attention, in terms of financial support or tax burdens. This type of business makes up the largest proportion of businesses across Europe, yet they do not receive adequate attention. After all, even today's media, motivated by fascination and viewership, will only marginally mention the achievements of small and medium-sized entrepreneurs. It is therefore more than necessary to address this subject and to strive to improve it.

Small and medium-sized enterprises also make up the largest part of the entrepreneurial state in Slovakia. The biggest problem tends to be access to capital at the initial stage of entrepreneurship, which can be fatal for start-ups. In order for the national economy to function more effectively, attention must also be drawn to smaller business entities, start-ups, which, however, rarely survive without help. We must provide them with support and accept their efforts to survive on the market.

1.1 Startup as a specific form of entrepreneurship

The last decade can be characterised as an explosion of startups. They started to spread from the American Silicon Valley and started to change the global economy and the competitiveness of businesses. These are the businesses that have changed the world. The literature on this new, unexplored topic is gradually growing. A number of authors are trying to establish a theoretical basis for this type of entrepreneurship, or to provide advice to people who are trying to change the world for themselves and others through startups.

One of the best-known authors dealing with the topic of startups is undoubtedly Eric Ries, an American entrepreneur and author of many articles on startups. Eric Ries has been at the origin of several startups, including IMVU. He has provided advice on business and product strategy to venture capital firms. Eric Ries (2011) characterizes the startup as an attractive form of entrepreneurship that gives room for expectations to grow, but they can also be disappointing. He considers a startup as an institution made up of people whose main goal is to create a new product or service under truly extreme and unstable conditions. According to him, a startup is absolutely a human enterprise, it is not an enterprise based only on a product, a technology or an innovative idea.

Steve Blank (2015) is also an expert on startups and has revolutionized the practice and teaching of entrepreneurship and innovation. Customer preference was a key factor in his search for a successful business model, which is where he came up with the topic of startups. Steve Blank worked with Bob Dorf on a book called Every Startup Founder's Handbook (2012) in which they clearly and distinctly categorize a startup as a temporary organization seeking a scalable, repeatable, and profitable business model. He found that startups are not small versions of large companies, because large companies operate according to business models, startups are still searching for them. Startups on their entrepreneurial journey have adopted the methodology of product development, product launch, familiarized themselves with life cycle phases, identical processes taught in business schools. Blank and Dorf examined in detail the all-too-&conspicuously identical reasons for startup failures. From this, they came to the insight that startups need their own entrepreneurial tools, different from the tools used to manage large, existing businesses, because every startup is navigating unknown and uncharted waters. A startup's vision consists of a series of untested hypotheses that require a customer response. Information or data should be regularly refreshed in days or weeks, not months or years. The important thing is to keep it up to date and not waste time on unnecessary product improvements that customers don't actually want.

Slávik and Hagarová (2016) expanded the literature with their findings: 'a startup operates in an environment of uncertainty to indeterminacy, but at the same time strives to find concrete and usable solutions, grows dynamically and tentatively without boundaries, employs people who give up the security of a regular job at the cost of exciting personal growth and achieving concrete results, may or may not work on the basis of technology, and ceases to be a startup after crossing certain boundaries'."

The perspective of American entrepreneur Paul Graham, who co-founded Y Combinator, is also interesting. In 1995 he and Robert Morris founded Viaweb, the first SaaS company, which became Yahoo in 1998. Y Combinator is a company that provides seed venture capital to startups. The main goal is to help a startup get through the first, most difficult phase of its existence and then introduce the startup to larger investors or companies interested in acquiring it (Paul Graham, 2014).

From his own experience, Paul Graham (2012) characterizes a startup as a business designed for rapid growth. "Merely founding a business is not in itself founding a startup. Nor is it necessary for a startup to start working on a technology or to use venture capital funding or to have an elaborate exit plan from the startup scene. The only important thing for a startup is growth. Everything else we associate with startups stems from growth."
In 2018, the Slovak legislature adopted the Act No. 290/2016 Coll. on the Support of Small and Medium-Sized Enterprises on the Provision of Subsidies under the Competence of the Ministry

of Economy of the Slovak Republic, as amended, which regulates the forms and method of providing support and the competences of the Ministry of Economy of the Slovak Republic in the field of small and medium-sized enterprises. This Act defines a startup as "a commercial company with mandatory capital formation, with its registered office in the Slovak Republic, which has not been established for more than 36 months and which is controlled by a natural person who is its founder and is an innovative enterprise, micro-enterprise, small enterprise or medium-sized enterprise (Zbierka Zákonov Slovenskej, 2016).

The international Startup Ranking company focuses on providing up-to-date information from the startup environment. The mission of this company is to discover, rank and promote startups from all corners of the world. The main goal is to contribute to the digital discovery and development of startups with services that help them gain global visibility, improve organic search engine rankings, and transform strategic decisions (Startup Ranking, 2021a). According to Startup Ranking, the largest number of startups are currently based in the United States, up to 99,162 startups. This is followed by India with a total of 10,275 startups, and the United Kingdom with 5,699 startups. Slovakia ranks 75th in this ranking with 70 startups (Startup Ranking, 2021b). American startups that are among the top of the current startups not only in America but also in the world include Giphy, Buffer, PicsArt, Coursera, IFTTT, Skillshare and DoorDash. (Startup Ranking, 2021c). The top 70 Slovak startups include sli.do, Exponea, KWFinder, Kickresume, Kontentino, Paylab, GymBeam, Sken.io, Infinario or Greenway (Startup Ranking, 2021d).

In 2020, there were 472 million entrepreneurs in the world, 305 million startups, 100 million startups founded, 1.35 million technology startups, 185 accelerators helped a total of 3,173 companies to exist, and 182 startups ended their lifecycle by selling to a large company (Get2Growth, 2020).

1.2 Metamorphosis of startups

In several foreign sources and dictionaries, this term is most often associated with biology or botany. Cambridge University provides a database that can be used to translate words or to explicitly explain individual words. The Cambridge Dictionary defines metamorphosis in biology as 'the process by which the young form of insects and some animals develops into the adult form', it also defines the word metamorphosis as 'a complete transformation' (Cambridge Dictionary, 2021). One of the oldest databases, Merriam-Webster, provides a view of metamorphosis as "a change in physical form, structure, or substance, especially by supernatural means" or as "a conspicuous change in appearance, character, or circumstance" (Merriam-Webster, 2021). Like Cambridge University, Oxford University also provides a glossary for those interested, defining metamorphosis as "the process by which someone/something changes completely into something else" (Oxford Learner's Dictionaries, 2021).

Based on several scholarly explanations, metamorphosis can be defined as a process of transformation that acts on someone or something and causes completely different structures or characteristics. In this paper, we focus on startup metamorphosis, which is the transformation of an entrepreneurial idea into a functioning startup with relatively favourable performance indicators.

1.3 The success of startups

One less positive fact of this entrepreneurial phenomenon is mentioned in the literature and in the general public in connection with startups - failure. Founders of less successful startups do not feel the need to share their experiences and knowledge with other founders, which would help the public and academia to expand knowledge and thus provide guidance for startup enthusiasts and future founders.

Idealab's founder, Bill Gross, asked the same question - what activity or factor greatly influences the success of a startup, what is behind successful startups? Gross researched over 200 startups and found that in 42% of the cases, the right timing was behind the success (Schroeder, 2019). Idealab, a company primarily focused on startups, decided to conduct quantitative research in which they analysed startups collaborating with Idealab and non-cooperating startups. The company's team focused on one hundred startups that Idealab helped to exist and one hundred startups that did not benefit from Idealab's help. The research found that startup funding was key in the success of startups for only 14% of the startups studied, the business model was significant for only 24% of the startups studied, the business idea was involved in the success of the startup in only 28% of the startups studied, and the composition of the team played a role in the overall success of the startup in 32% of the startups studied. From the research how to win came out the right timing of the product, so the author Schroeder (2019) refers to those interested in founding a startup to ask themselves if they consider the right time for launching their product to the market.

Kevin Laws (2015) considers the mission of a startup to be crucial in the success of a startup because founders who strive to create value not only for themselves, customers, and investors are the ones who are trying to change the world in some way. If a founder decides to start a startup with the vision of skyrocketing earnings, in that case, he or she has many more reasons to discontinue the business in the first few years or even shut down the business altogether due to high costs and low revenue, and such startups are not destined for massive success.

A similar view is held by Nortenko (2020), who recommends that future startup founders should strive to be innovators as much as possible and provide consumers with a product that will make their lives easier. Another recommendation relates to competition, because nowadays there are competing businesses in almost every industry, so startup enthusiasts and future founders should have an overview of businesses that could take over customer segments in the future. It often happens that founders see a product solely from their point of view and therefore cannot objectively judge its sophistication or "user friendly" approach. The author further recommends to follow the rule "less is sometimes more" and not to overcomplicate the business idea, to launch the basic idea and to work together with consumers to improve it.

The views of renowned authors in the field of research identify several perspectives on the startup and its main attributes. In our case, the object of study is startups, which meet the following definition: "a startup is a small enterprise, occurring in unstable to extreme conditions, that seeks to reach consumers by providing a product that is not yet provided by any other competing enterprise or was the founder of an innovative idea in the industry."

Startups are subject to the research, where it is essential that they meet additional criteria. The first factor considered is originality - the business must be based on a new original technology, a significantly improved use of an existing technology or the creation of a completely new need. Another important factor is the size of the business - we will work with startups that are very small businesses with a maximum of 10 employees. The third requirement is the assumption of rapid to exponential growth. The age of the enterprise is also a necessary factor, which limits the startups worthy of the research sample to no older than 5 years. Last but not least, the key issue for us is funding and sources of funds, which the founder can raise as savings from family or friends, through an angel investor, or in the form of venture capital.

1.4 Startup as a special category of small and medium-sized business

Small and medium-sized businesses are the engine of any national economy. The Slovak Republic recognises the

importance of SMEs and therefore provides various forms of support within its ministries.

The Slovak Enterprise Agency publishes an annual Report on the State of Small and Medium-Sized Enterprises in the Slovak Republic to inform and provide an overview of this type of enterprise within our country. In 2018, small and medium-sized enterprises accounted for 99.9% of all business entities in the Slovak economy. More than 73% of all SME businesses contributed to employment in the corporate economy and more than 54% of businesses contributed to value added. Compared to 2017, value added grew by 11% overall and employment in the sector grew by 1.4% (Slovak Business Agency, State of Small and Medium Business Report, 2019).

Small and medium-sized businesses are the largest initiators of entrepreneurial opportunities. In particular, their activities make them more closely connected to the region and the citizens themselves. Interested entrepreneurs can receive financial or educational support implemented by several entities. Applicants can obtain financial support through loans, micro-loans, venture capital, in the form of non-repayable financial assistance, they can also benefit from funding for selected activities from national or supranational funds (National Holding Fund, 2014).

The issue of small and medium-sized enterprises has also been raised in the work of Strážovská et al. (2013). According to the authors, small and medium-sized enterprises are the most important element of national economies, play an irreplaceable role in the dynamic development of countries with advanced market economies, enrich the business world with innovative elements and, last but not least, are highly adaptable to market requirements. Small and medium-sized enterprises are undoubtedly threatened by a number of competitive disadvantages which, in turn, stem precisely from the characteristics of this type of business. The weaknesses of SMEs include financial barriers at the beginning of the business, unstable market situation, small number of employees, insufficient marketing, lower potential for attracting foreign capital and less opportunity to use professional staff (Strážovská et al., 2013).

At first glance, we can say that a startup perfectly meets the characteristics of a small and medium-sized business. It can benefit from all forms of financial or educational support. It is also covered by the validity of the Law on Support of Small and Medium Enterprises. However, what is the gap between a start-up and a small business? We present a few examples, which are summarized according to the author Marzett (2018):

Innovation - forms the biggest gap between an SME and a startup. The SME makes no claims on the technology used - restaurant, law firm, hairdresser, barber. In many cases a startup is based solely on new technology. The point of a startup is to create something new and improve on what already exists.

Profit - the outcome of the business, which SMEs expect from the first day of existence, whereas in a startup generating the first cents can take months. The biggest goal in a startup is to create a product that customers will like. A startup's product tends to be so specific and differentiated that if it finds its way to customers, profits can subsequently be generated in the millions.

Financing - private investment, funds from family, friends or bank loans are usually used to start a small business. For this type of business, it is not advisable to incur debt as this may affect profits in future periods. Startups can also be privately funded, but the development of a specific product requires a larger amount of start-up funds. An entrepreneurial angel or venture capital investor can contribute to the development of a startup. Crowdfunding is also on the rise.

Another important distinction is the legal form of the company. Small and medium-sized enterprises mostly use the legal form of a limited liability company (s.r.o.). Any newly emerging startup can use the new legal form existing since 2017, which was primarily created for this type of business. The simple limited liability company (j.s.a.) is regulated by Act No. 513/1991 Coll. of the Commercial Code. The Commercial Code defines a simple joint stock company as "a company whose share capital is divided into a certain number of shares with a certain nominal value. The company shall be liable for the breach of its obligations with all its assets. The shareholder is not liable for the company's obligations" (Commercial Code, 2019). The biggest difference between these options, is in the amount of the share capital - in the case of j.s.a. the minimum amount of the share capital is 1 euro, while the minimum amount of the share capital in s.r.o. is 5 thousand euros. It is important to mention that the j.s.a. must have at least one shareholder, but the maximum number is not determined, while in the s.r.o. the maximum number of shareholders is 50 (Seneši, 2017).

The choice of the right legal form is important not only for the founder but also for the shareholders, because in the long run it determines the profit shares and the subsequent motivation. The appropriate legal form can help in unpleasant life situations, which may include disagreements between shareholders, inability to repay the amount of the deposit, etc. When setting up a company, it is also essential to take into account the amount of the contribution, which determines the amount of rights and obligations.

The startup environment is characterized by dynamism for both startups and customers. We can say that each investment company has its own classification of startups. However, we will rely on an American author who is considered one of the founders of modern entrepreneurship. Steve Blank (2013) has provided a narrative view of startups, introduced the issues of this business and, last but not least, laid the foundations of theoretical knowledge. He classified startups into the following groups:

- Startup as a small business includes all start-ups whose main source of funding is their own savings. These businesses are characterised by good organisation but slow profit growth. Many businesses in this group are family businesses, groceries or hairdressers. A great option in this group of businesses is a franchise agreement, which will give less experienced entrepreneurs an easier and faster entry into the market.

- Startup as a lifestyle allows the founder to combine personal life with professional life, due to the fact that it is not limited by being tied to a specific work environment. In the context of this group of startups, we can mention co-working centres, which offer a shared working environment with internet access. This group of startups includes various programmers, IT specialists or consultants. It doesn't matter where they work from, what is important for them is the internet connection.

- A scalable startup is based on external funding of the company, the source of capital is usually venture capitalists or business angels. Scalability is characteristic of technology startups that are heading for global markets. Excellent examples of this group of startups are representatives from Silicon Valley. Such startups hire the best people in the industry. They are looking for a repeatable and scalable business model. Their main feature is joining together in innovation clusters. Author Steve Blank (2010) describes the vision of these companies in creating not only a product but also a new industry.

- A social startup seeks to improve the social level, it is not primarily focused on capturing market share. These companies often take the legal form of a non-profit organization. The founders are as tenacious as the founders of a scalable startup, but are driven by a different purpose (Blank, 2018).

- A for-sale startup is characterized by similar features as a scalable startup, but with different goals. The founders of

this startup are looking for a suitable opportunity to end the active period of the startup on the scene. Through acquisition, large companies are looking to expand their innovation portfolio. The object of this deal is the innovative idea of the startup that can provide the international company with a growing customer segment and generate more revenue (Blank, 2014).

▪ According to Roštárová (2015), a startup inside an established company is a new element in Slovakia. The author states "companies are starting to replace their traditional R&D departments with startup projects that are developed inside the company or in an incubator, and the company pays the cost of their membership and lets experts from the incubator to develop the startups instead of in-house company specialists".

1.5 Causes of startup failure

The meaning of the word success has several definitions. When is a startup successful when it survives the most critical period of its life cycle or when it becomes the most valuable startup in the global economy?

On startup success, founders are eager to pass on their advice, tips and experiences. How about the other way around, if a startup isn't making such dizzying profits? This flipside was addressed by CB Insights, an American portal that collects and analyses huge amounts of data using algorithms and data visualisation. The portal's main role is to provide answers to important strategic questions and to supply businesses with data that will make decision-making easier, not just strategic.

Based on the information gathered, the CB Insights portal (2019) has compiled a ranking of the most common failure factors. The survey was conducted on 101 startups that, unfortunately, failed to withstand the pitfalls of the startup environment.

The most common cause of failure tends to be not needing the product in up to 42% of cases. The founder of the startup is adamant about the originality and innovativeness of the product, and if it comes to production without prior analysis of customer segments, there may be a situation where the product does not find the right feedback from consumers. A startup will not be helped by great technology, excellent data on customer buying behaviour, expertise of team members if it does not address the current market need.

Another major reason for failure is lack of capital. Money and time are limited not only in a startup and it is important to allocate them judiciously. Improper allocation of capital was cited by as many as 29% of startups as the source of their failure. The third most serious reason for startup failure is assembling the wrong team. A diverse team with different experience was often cited as critical to overall success. Founders only become aware of a missing or inappropriately assembled team in hindsight. When starting a business, founders are brimming with confidence and don't feel the need to share initial enthusiasm with other team members, but over time, as more and more activities occur, there is a misallocation of tasks and roles. The team issue was key for up to 23% of startups.

Despite opinions that startups don't need to give their attention to competitors, this is not entirely true. Once a startup starts selling a product or service, it should be on the lookout. Competition was cause of failure for up to 19% of startups. Obsessing about competition is not the right move because not enough attention is paid to business development.

Lack of marketing can also be an interesting factor. Knowing your customer segment, being able to reach them and delivering the product the right way is one of the most important skills of a successful startup. Knowing how to grab attention and convert even non-customers into customers. The cause of failure occurred when the startup was not able to market its product. The founders did not use the idea of proper product promotion.

Many times burnout is also a serious problem. Work-life balance cannot be overlooked indefinitely. This reason was cited by 8% of startups as a cause of failure. Knowing how to react correctly in an impasse, to reorient your mind from losses to gains is considered equally important for success or in preventing burnout syndrome. It is in this situation that we can draw attention to the necessity of a team, given the possible division of responsibilities, which would largely prevent burnout syndrome.

An unusual insight into the factors of failure can be provided by the first online publication on startups in Europe. The authors have been providing an overview of all startups since October 2010. The authors of the articles are particularly interested in technology startups, providing readers with analyses, interviews with the founders of individual startups or news from the startup environment. Startups are categorized on the site according to their respective countries. They also provide important information and news for potential startup founders. Author Arnaud (2018) created a ranking of the top ten reasons for startup failure, many of the reasons are the same as those provided to the public by CB Insights, but a few are different and have their own importance. The author advises companies on commodities trading and has founded several companies during his entrepreneurial life.

According to Arnaud (2018), the most common reasons startups fail is lack of experience. This factor does not only apply to founders, but also to team members. Many founders try to launch a startup in an industry "they don't feel at home in." It's important to start a venture in which you can leverage the experience you've already gained. Equally important is to assemble a team of members who have excellent experience, but each from a different background. Together they will form a functioning team. For the founder, it is essential to identify this experience early on and, on that basis, to expand the team with additional, experienced members.

Another cause of failure can be attributed to founders who are preoccupied with their product and are reluctant to accept feedback and criticism of the product. It is essential to realise who the product is actually for, whether it is the founder or the consumers. Without accepting customer feedback, a startup can hardly think of success in the industry. A founder may not be willing to release a prototype for a number of reasons, e.g. not being prepared enough or fearing competition. But without an initial product launch, the founder will never know the reaction and feedback from customers.

The last most common factor in startup failure can be improper timing. Some startups launch products when the right technology is not yet available. Coming up with a product that the market or consumers are not ready for can be fatal for a startup. Capturing the right moment to launch a product is essential.

1.6 Startup business model

The birth of a business idea is often unexpected and spontaneous. Such an impulse can stem from a bad experience while shopping, a lack of goods on the market, if a good or service is not available at all, or simply someone wanting to make the world a better place and help other people.

Initial thinking about a project may initiate the founder to develop the idea or create innovative steps. If the business idea seems viable, it is essential to put the idea on paper; in the event of a crisis, it can remind the founder of the purpose of his or her business. The business plan serves to elaborate the business idea in more detail, thus allowing the founder to see his project from a different perspective.

The current literature provides several business models that primarily analyse the business idea, but can then be differentiated in the visualisation. We analyse two business models, namely the simplest and the most widely used.

The simplest visualization of a business model is offered by Afuah (2014), which consists of five basic components:

1. customer value - the value proposition to customers consists of the things that the company and its products/services can do for customers to solve their problems or satisfy their needs better than products from competitors. The right customer value meets customers' needs and gives them a reason to prefer the startup over competitors. However, the problem can be that customers don't always know what they expect from a given product/service. Customer value depends not only on products but also on their attributes or reputation.

2. market segments - groups of customers that are, or in the future will be, served by the startup. It is important to develop an analysis of each customer segment, how many customers are in each group, what is their willingness to pay for products. This point also includes the startup's collaborators, which may include suppliers, the aforementioned customers, competitors and other institutions

3. growth model - the growth component of the business model focuses on what the company needs to do to increase the number of its customers while keeping costs as low as possible. This step can be challenging because once a startup reaches the right customers and starts generating profits, suppliers may demand higher prices for raw materials or begin to put pressure on them to start supplying lower quality raw materials. On the contrary, customers may start demanding lower prices or higher quality products.

4. revenue model - focused on how much customers will pay, when and how. Profit generation starts with revenue. Without revenue, there would be no cost reduction. Revenue models are often referred to as business models. Revenue models include advertising, subscription or licensing. The price of the product is one of the most important components of revenue, but the pricing model tends to be a critical part of the revenue model. Pricing reflects how much a customer will pay for a product. Proper pricing has one of the most direct impacts on a startup's overall revenue.

5. capabilities - the core is made up of people, including the founder, who must acquire the funding to develop and produce prototypes. Capabilities consist of resources and activities. Resources or assets are owned by the firm while activities contribute in the production of products. Activities contribute to the transformation of resources into finished products. How many products are produced depends on the quality of the resources. A startup's resources may consist of brand, people, equipment, products, startup culture, funds, knowledge, patents, copyrights, trademarks, trade secrets, relationships with collaborators in the business world, or distribution channels.
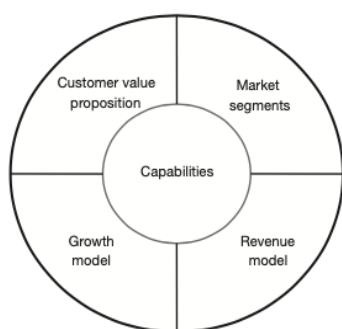
Source: AFUAH, A. Business Model Innovation: Concepts, Analysis and Cases. 2014.

The most widely used business model comes from authors Osterwalder and Pigneur. According to them, a business model justifies how an organization creates, delivers and captures value (Osterwalder - Pigneur, 2010). The reason for the creation of the business model by these authors is that the business model is a concept that should be understood by all. The authors present the business model as simple, suitable for startups and intuitively understandable.

The business model by Osterwalder and Pigneur (Osterwalder - Pigneur, 2010) is known as Canvas. The contents of this model are nine blocks that describe the startup's internal and external environment in great detail. The individual parts of the model include:

1. customer segment - to build an effective business model, a startup should first of all identify its customers for whom the product or service is being created. Customers can be divided into smaller groups based on their common needs and attributes,

2. customer value - the set of utilities of the products and services that the startup is going to provide to customers and differentiate it from competitors. The value a business brings to customers can be manifested through utility, design, brand, status, availability, usability or price,

3. distribution channels - a startup can deliver its product or service to target customers through multiple distribution channels. The most important thing is to focus on efficient distribution channels that are fast and above all cost effective. A startup can use its own distribution channels, partner distribution channels, or a combination of both types to target distribution,

4. customer relationships - based on the identification of the customer segment, it is necessary to set up a specific relationship for each group of customers to ensure long-term sales of the product or service for the startup,

5. sources of revenue - ways of obtaining revenue from each customer segment. The founder can determine the monetization of the product: selling the product, renting the product, or selling a basic version of the product with subsequent monthly payments,

6. key resources - an essential part of the startup that is fully involved in the creation of the product. In case of lack of resources, the founder can collaborate with external staff or use external resources. The key production factors of a startup may include financial, human, material or intangible resources,

7. key activities - a necessary step to successfully satisfy production. Without key activities, a startup cannot produce a product or provide a service,

8. key partners - partners who enter the production process and contribute to the realization of production. A startup may work with partners for various reasons, e.g. diversification of risk, use of the same production factors, use of the same production processes, use of the same distribution channels, or simply helping each other,

9. cost structure - the presentation of the cost structure for each block of the whole business model. Such a structure provides a perfect overview of the startup costs, facilitates the representation of the costs of the entire production. An invaluable aid in cost reduction or optimization.

We decided to use the Canvas business model as a basic scheme to describe startups, because it contains all the important blocks that are needed to build a business correctly.

Key partners	Key activities	Customer value	Customer relationships	Customer segment
	Key resources		Distribution channels	
Cost structure			Sources of revenue	

Source: own elaboration based on Osterwalder, A. - Pigneur, Y. Business Model Generation. 2010.

2 Aim, research sample and research methods

As mentioned above the main objective is to identify the significance of the impact of the Canvas business model on the performance indicators of startups, the results obtained and the metamorphoses of the real functioning startups to contribute to

the expansion of the knowledge of this relatively new and promising entrepreneurial phenomenon.

The fulfilment of the main objective was supported by sub-objectives:

1. to identify selected startups achieving exceptional performance indicators based on selected criteria,
2. an in-depth and detailed examination of the Canvas business model as a comprehensive visualization of the startup conducted through qualitative and quantitative research samples,
3. to elucidate the metamorphosis of startup business models,
4. to elucidate the qualitative relationships between the Canvas business model and startups' performance indicators.

The research was conducted through a questionnaire in real and functioning startups in the Slovak Republic. The questionnaire was designed for startups that met the required parameters, such as the lifetime of the business, the amount of turnover or the assumption of exponential growth. We considered a startup to be a small, fledgling business operating in unstable conditions, trying to reach consumers with an original and innovative product that no other business has offered so far.

The questionnaire designed for startups contained detailed questions that asked about the subject matter of the startup business, funding, product originality, customer segment, customer relationships, and the territorial structure of the markets served. Questions on distribution channel, competitive position and pricing policy also yielded important findings. The questions closely replicated the blocks of the Canvas business model visualisation.

Answers were closed-ended displayed in a range or multiple choice or they were open-ended responses.

Research sample 1 contained 209 startups operating in the Slovak Republic. Some startups had the legal form of a civil association or foundation and therefore did not report economic indicators.

Research sample 2 contained 176 startups whose entrepreneurial activity was captured in the Finstat (2021) database, and had the following structure:

Revenue - ranking of startups by revenue, Profit - ranking of startups by profit made, Revenue Graph - dividing startups based on achieving exponential growth, Industry Classification - we ranked the startups by industry classifications to get information on which industry is most prevalent, Debt - ranking startups by debt, Startup Awards winners - singling out startups that have won awards given to innovative projects, Date of inception - the division provides insight into the time of existence, Ratios - we have quantified the economic indicators of startups in ratios such as profit margin, which is indicative of revenue appreciation. Another ratio we examined was the turnover of total assets, which tells about the efficiency of the use of the assets of the business. The aim of this ratio is to maximize the result, former startups - businesses that can no longer be considered a startup - mainly because of the size (the number of employees exceeded 100) but just because of the sales (more than 33 million euros), startups that managed to survive the first four years of their existence - it is the first four years of the founding of the business that are important, as many startups are not able to survive during the first three to five years of their existence. Out of 176 startups, only 43 were able to survive the first four years. This figure comes from the number of entries in their history.

Research sample 3 - final startups, selected businesses that were the subject of an in-person questionnaire survey in the entrepreneurial outreach. The number of these startups is 30, to meet the minimum statistical sample. Their selection was based on several criteria, which were: assumption of exponential growth (according to the sales graph), active activity in the

market, activity during the first four years (according to the number of entries in the history).

All economic data on startups and their financial indicators were obtained from the publicly available Finstat (2021) database - name of the startup, website, name and contact of the founder, name of the company under which it appears in the Finstat (2021) database, industry classification and its numerical characteristics, date of creation, number of entries in the Finstat (2021) database, revenue generated, total revenue, profit generated, assets of the startup, equity ratio, total indebtedness, gross margin, number of employees.

At the beginning of 2020, we were all paralysed and unpleasantly affected by the global situation associated with the Covid-19 pandemic, which did not bypass the academic environment. This has also affected the development of research, and we have had to make operational efforts to maintain our predetermined course of action. The impact of the pandemic made it impossible for us to draw a continuous sample. Due to the pandemic that emerged and is still ongoing, we were forced to create an additional statistical sample, from which we then selected a smaller, qualitative sample based on established criteria. The previous research sample 2 was starting to become unavailable due to limited access to startups and hence a very truncated research sample 3 was formed.

For ease of reference, we will refer to the research samples generated during the pandemic as the quantitative research sample and the qualitative research sample. Data collection, collected through a questionnaire survey and face-to-face structured interviews, took place between May and December 2020.

The fulfilment of the main objective and the partial objectives of the research required the evaluation of the questionnaire survey, which we subsequently decided to subject to statistical examination for greater relevance. We subjected the impact of the qualities and stages of development of the individual blocks of the Canvas business model on the performance indicators of the startup to the most well-known parametric method, correlation and linear regression analysis.

The statistical investigation required a clear determination of the dependent and independent variables in the first step. The dependent variables of our statistical investigation are the performance indicators of the startup, which we determined as follows Number of users, Number of paying users, Revenue recorded by scale and Revenue recorded directly from the Finstat (2021) financial database. We decided to divide the Canvas business model blocks into two parts in the statistical examination according to the quality of the business model blocks and according to the stages of development.

Theoretical knowledge was mainly drawn from book and journal sources, internet sources where expert knowledge and experience from renowned authors are collected. We mainly used scientific methods, which are analysis, synthesis, induction and comparison. The methods mentioned above have contributed to self characterisation, summaries or comparisons of important findings.

3 Research results

3.1 Research results from qualitative analysis of startups

The questionnaire survey of the qualitative research sample provided us with many new insights and information. The qualitative research sample was really very diverse in terms of industry, we had a representative of almost every area of business, but the largest number of startups (12%) are engaged in computer-related consulting or computer programming, a large number of startups (10%) are engaged in research and experimental development in the field of natural and technical sciences, the same number of startups are oriented towards selling products via the Internet, but in our sample we also find a

representative of carpentry, a representative of the production of other metal products or a representative of other basic organic chemicals. In the questionnaire survey, we also asked the startups we studied about the circumstances of their startup creation and up to 43% of the founders gave us as their answer the lack of market supply, another reason was the ecological mindset influenced by the climate crisis, the impact of innovation, or the need to start their own business.

The current surveyed startups provide their consumers and potential customers with a solution related to sustainability policy, which is the focus of 23% of the surveyed startups. Providing a service is key for 36% of the surveyed startups, and the same number of startups identified meeting the needs of consumers and customers as key.

The need for awareness of customer segments is extremely important in a startup environment, so we asked the surveyed startups about their most important customers. Large international companies form the main customer segment for up to 40% of startups, followed by consumers interested in healthy lifestyles, which is key for 33% of the surveyed startups. In our qualitative research sample, one can find startups that aim to improve the quality of impaired health with their entrepreneurial activities or consumer-oriented startups with mainstream consumer preferences. On the issue of market segmentation, we obtained data that more than half of the studied startups (53%) provide their product or service for a segmented market and the startup is oriented to several segments, however, in our sample there are also startups (20%) oriented to the mass market and a number of startups (13%) create their product or service for a single segment the same number of startups create their value with partial customization.

Startups seek to provide their service or product through multiple levels of communication, with most startups (53%) citing partial contact through an online service as key, personal assistance is key for 37% of startups, startups also use extra personal assistance, co-creation or self-service.

In the survey, we also focused on expansion into foreign markets. Direct export was used or planned to be used by 66% of the surveyed startups, the second most used form of entry is indirect export, followed by the use of a franchise network.

The value proposition of startups requires a combination of multiple resources used, but founders were most likely to cite the use of human resources (63%), financial resources (56%), technological resources (43%), and tangible and intangible resources (63%).

The startups studied in the qualitative research sample were asked about the quality of processes. We focused on the uniqueness, originality or level of processes used in the creation of the value offered. The local level of process quality is crucial for 6% of the startups, national process quality was mentioned by 33% , Central European process quality is essential for 6% of the startups, European process quality is worked with by 23% of the surveyed startups and global processes are worked with by 20% of the startups.

Key partners provide assistance to startups in the form of collaborations in various areas. Up to half of the startups reported that partners provide material resources necessary for the production of the final product, 36% of the surveyed startups receive financial resources from partners, and 20% of the startups use final products from partners. Furthermore, startups use IT resources and implementation technology (23%) or human resources (6%) from partners.

From the cost structure of the startups, we find 46% of the startups report approximately the same costs compared to the relevant competitors, slightly higher costs are reported by 26% of the startups, much higher costs are reported by 10% of the studied startups, slightly lower and much lower costs are reported by 16% of the studied startups.

3.2 The impact of a startup's business model on its performance

The evaluation of the questionnaire requires, for completeness of the data, the addition of a statistical investigation of the relationships between the Canvas business model blocks and the startup's performance indicators.

The statistical investigation was carried out in the statistical program PSPP. Before starting the investigation, it was crucial to define the startup's performance indicators, and we divided the individual blocks of the business model into two large groups according to quality and according to stages of development.

Among the startup's performance indicators, we included the number of users, the number of paying users, sales displayed by scale, and the value of sales directly according to Finstat (2021).

We mapped the Canvas business model to the quality and stages of development groups. The quality group is represented by product quality, customer quality, customer relationship quality, distribution channel quality, resource quality, process quality, partner quality, and cost relative to relevant competitors.

The group of development stages is represented by the degree of product development, the degree of customer development, the degree of customer relationship development, the degree of distribution channel development, the degree of process development, the degree of partner relationship development and the costs compared to relevant competitors.

The statistical examination process was carried out using correlation and linear regression analysis. According to Field (2018), correlation can be defined as, "Correlation is a statistical method by which we can calculate the degree of linear interdependence between two variables." To properly calculate the correlation of two variables, we used Pearson's correlation coefficient = R, which takes values from 0 to 1 and, given a value, can present a small, medium or almost perfect strength of interdependence. For linear regression, it is crucial to correctly determine the dependent and independent variables. The dependent variables depend on the independent variables. In our case, the dependent variables include the number of users, the number of paying users, sales shown by scale, and the value of sales by Finstat (2021). The above variables are dependent on the qualities and stages of development of the Canvas business model.

(A)

Business model blocks	Number of users		Number of paying users		Revenue scale		Revenue FINSTAT	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Product quality	0.19 (0.31)	-	0.20 (0.21)	-	-0.42 (0.31)	-	7724067 (4946442)	-
Quality of customers	-0.21 (0.34)	-	-0.39 (0.23)	-	0.24 (0.34)	-	5.07712 (5.46687)	-
Quality of relationships with customers	-0.59* (0.26)	-0.62* (0.23)	-0.50** (0.17)	-0.54** (0.16)	0.01 (0.26)	-	-64.9553* (40.81906)	-40.1061* (0.19)
Quality of distribution channels	0.68* (0.32)	0.42* (0.20)	0.12 (0.22)	-	-0.28 (0.32)	-	65.74702 (51.07067)	-
Quality of resources	-0.08 (0.49)	-	0.68* (0.34)	0.59** (0.19)	0.52 (0.49)	-	46.65682 (78.60927)	-
Quality of processes	-0.23 (0.39)	-	0.10 (0.26)	-	-0.11 (0.39)	-	-71.3356 (61.79593)	-
Quality of partners	0.07 (0.33)	-	0.14 (0.23)	-	-0.18 (0.33)	-	40.68741 (52.71876)	-
CCtRC*	-0.07 (0.39)	-	-0.85 (0.27)	-	0.24 (0.39)	-	-51.7071 (62.20079)	-
R	0.58	0.50	0.77	0.67	0.42	-	0.61	0.19
R Square	0.33	0.25	0.60	0.45	0.18	-	0.37	0.04
Adjusted R Square	0.06	0.19	0.44	0.41	-0.15	-	0.12	0.00
Std. Error of Estimate	1.58	1.53	1.08	1.09	1.58	-	2528343	2687118
Sig.	0.329	0.021	0.008	0.000	0.806	-	0.234	0.317

*CCtRC = Costs compared to relevant competitors
Statistical error values are given in parentheses. Sig. < 0.05*. < 0.01**

(B)

Blocks of the business model	Number of users Model 1	Number of users Model 2	Number of paying users Model 1	Number of paying users Model 2	Revenue scale	Revenue FINSTAT Model 1	Revenue FINSTAT Model 2	Revenue FINSTAT Model 1
Level of product development	1 (1,01)	-	0,44 (1,03)	-	Level of product development	1 (1,01)	-	0,44 (1,03)
Degree of customer development	-0,76* (0,34)	-0,82 (0,34)	-0,46 (0,35)	-	Degree of customer development	-0,76* (0,34)	-0,82 (0,34)	-0,46 (0,35)
Degree of customer relationship development	3,68* (1,31)	1,70 0,84	0,45 (1,33)	-	Degree of customer relationship development	3,68* (1,31)	1,70 0,84	0,45 (1,33)
Degree of development of distribution channels	2,62* (1,43)	-0,22 (0,71)	1,90 (1,46)	-	Degree of development of distribution channels	2,62* (1,43)	-0,22 (0,71)	1,90 (1,46)
Degree of development of resources	-2,18 (1,50)	-	-0,24 (1,53)	-	Degree of development of resources	-2,18 (1,50)	-	-0,24 (1,53)
Degree of process development	-0,78 (1,08)	-	-0,58 (1,10)	-	Degree of process development	-0,78 (1,08)	-	-0,58 (1,10)
Degree of development of relationships with partners	-1,96 (1,26)	-	-0,26 (1,28)	-	Degree of development of relationships with partners	-1,96 (1,26)	-	-0,26 (1,28)
CCtRC	0,17 (0,32)	-	-0,19 (0,32)	-	CCtRC	0,17 (0,32)	-	-0,19 (0,32)
R	0,67	0,48	0,51	-	R	0,67	0,48	0,51
R Square	0,44	0,23	0,26	-	R Square	0,44	0,23	0,26
Adjusted R Square	0,22	0,14	-0,04	-	Adjusted R Square	0,22	0,14	-0,04
Std. Error of Estimate	1,44	1,58	1,47	-	Std. Error of Estimate	1,44	1,58	1,47
Sig.	0,102	0,073	0,553	-	Sig.	0,102	0,073	0,553

*CCtRC = Costs compared to relevant competitors
Statistical error values are given in parentheses. Sig. < 0.05*. < 0.01**

The statistical investigation provided us with a detailed insight into the interrelationships between the Canvas business model blocks and the startup's performance metrics. Model 1 reflects the primary statistical examination and Model 2 represents the statistical examination of the relevant blocks of the business model that showed a significantly correlated relationship with the dependent variables.

The table labelled (a) interprets the statistical examination between the dependent variables (number of users, number of paying users, sales by scale, and sales by Finstat) and the independent variables that characterize the quality of the business model blocks. The table labelled (b) interprets the statistical examination between the dependent variables and the independent variables that characterize the degree of development of the business model blocks.

In the process of statistical investigation, we did not focus exclusively on the relationship between the blocks of the business model and the performance indicators of the startup, but the Pearson correlation coefficient or the Coefficient of Determination, which are part of the regression model, were also the subject of our investigation. In the table labelled (a), we can see that the values for the Pearson correlation coefficient range from 0.19 to 0.77, which reflects the magnitude of the strength of the interdependence between the variables. For Model 1 and Model 2, the dependent variable Number of paying users expresses a very high strength of interdependence for the qualities of the individual blocks of the Canvas business model. The coefficient of determination is again highly significant in the relationship between the Number of Paying Users and the quality of the individual blocks. The value of the coefficient of determination reflects that for Model 1, the Number of Paying Users is 60% dependent on the qualities of the business model blocks. When the statistical re-examination for Model 2 is repeated, this value is reduced and the dependent variable is dependent on the qualities of the Canvas business model blocks at 45%.

We subjected the variables in Table (b) to the same statistical examination and examined the relationship between startup performance and the degree of development of the Canvas business model blocks. The values for the Pearson correlation coefficient range from 0.24 to 0.67. We can identify the greatest strength of correlation between variables in Model 1 between the dependent variable Number of Users and the stages of development of each block of the Canvas business model. The coefficient of determination reaches the most favourable values again in the relationship between Number of Users and the development stages of the blocks. The dependent variable Number of Users is 44% dependent on the stages of development of the Canvas business model blocks and 66% of this relationship is influenced by factors not under investigation.

The linear regression analysis revealed that the quality of customer relationships and the quality of distribution channels have a significant effect on the number of users of a startup. The second dependent variable, the number of paying users, is also significantly influenced by the quality of customer relationships, but also by the quality of resources used in the product manufacturing process. Revenue as rated by the founders on the scale as the dependent variable did not show a significant influence with any block of the Canvas business model. Sales, whose values were reported directly from the Finstat (2021) financial database, showed a significant relationship only with the quality of customer relationships.

Statistical examination of the impact of the development stages of the Canvas business model blocks on startup performance indicators also yielded interesting findings. The number of users is most significantly influenced by three blocks of the business model in equal measure, namely the degree of customer development, the degree of customer relationship development and the degree of distribution channel development. The performance indicator, number of paying users, did not show a significant relationship with any of the Canvas business model blocks examined. Revenue as assessed by the founders on the scale showed a significant relationship only with the degree of process development. The last performance indicator, revenue as reported by Finstat (2021), showed a significant relationship only with the degree of development of relationships with partners.

4 Discussion

The metamorphosis of startups can be characterized as the transformation of an entrepreneurial idea into a real functioning startup that should meet all the prerequisites of a successful enterprise. Startups are unpredictable enterprises for which it is difficult to specify a general recommendation. Founders have a multitude of business models at their disposal, but each startup is unique.

We present the most important findings that we found by evaluating the questionnaires and consider them important enough to be the content of the discussion.

The characteristics of the research samples served to provide an overall picture of our research samples. After taking a closer look at the representatives of the startups according to the performance indicators, we found that startups such as sli.do and Dedoles ranked in all three rankings of the performance indicators. We tried to figure out commonalities and characteristics that might have helped them participate in these rankings. An interesting finding is that both startups reported the same or about the same values in the Canvas business model development stages in the questionnaire survey. The degree of development of distribution channels has sli.do developed at 80% and Dedoles at 90%. Another penetration can be found in the degree of development of the resources used although the values are not very high, but both are approximately the same as sli.do reported a degree of development of resources of 60% and Dedoles of 63%. The last equal indicator from the area of degrees of development is the degree of development of

processes, which the startups reported at the same amount, namely 70%.

During the evaluation of the questionnaires, we found that the founder's previous entrepreneurial experience gives the startup a better and more successful start in the entrepreneurial world. Entrepreneurial experience was mentioned by up to 60% of the surveyed startups, which include startups such as Boataround, Eyerim, Greenway or Virtual Power Labs. A more experienced founder can properly combine their knowledge and insights to the extent that they can ensure an effective business plan, create a functioning team of the right people and thus be able to create a in-demand product or service. Author Jim Collins (2014) explains the importance of having the right people in the right place in his publication, Companies That Choose to Be Great. Our qualitative sample demonstrates that prior experience can also have a positive impact on startup performance indicators such as sales. Startups Boataround reported sales of more than 800k euros in 2020 (Finstat, 2021), startup Eyerim achieved sales of more than 6m euros in 2019 (Finstat, 2021) and both were largely affected by the pandemic due to the content of the business.

For startups, creating a product or providing a service represents the main purpose of their entrepreneurial existence. Our qualitative sample of startups demonstrates that startups focus on providing a service and, in equal numbers, on satisfying a customer need. By service provision we mean business ideas that are available to consumers in the marketplace but are not essential to life, and startups seek to improve the quality and standard of consumers through it. The services provided solve a potential health problem, provide optimization of interaction between customers and online stores, enable consumers to charge their electric car. 36% of the startups in our qualitative sample are focused on providing the service. An equal number of startups are meeting a consumer need with their products by providing eye protection, proper cancer diagnosis, solutions to prolonged sitting, healthy foods, or solutions to poor two-way communication. By meeting a need, startups provide consumers with a solution to a problem. It is now of utmost importance to be environmentally friendly as well, which 23% of the startups in our qualitative sample are focused on protecting. These startups focus on sustainability policies that strive to contribute to a decrease in waste, promote healthy lifestyles and support the circular economy.

Customer knowledge is one of the key pieces of information that allows a startup to know what distribution channels will be most effective for each customer segment. For the startups in our qualitative sample, the most important are enterprise customers, large international companies that use the services of startups primarily to improve their own business. The second largest customer group is consumers who prefer a healthy lifestyle. The most important customers also include consumers with common consumer preferences who do not require a special mode of communication or product exclusivity. However, in our qualitative sample we also find startups that primarily target consumers with discerning consumer preferences and have adapted their business model to this customer segment since the beginning of their business.

Identifying the customer segment is important, but not sufficient for the entire life cycle of a startup, one of whose main raison d'être should be exponential growth and expansion into the global market. In the questionnaire survey, we focused on the ways in which startups seek to increase the number of customers. Startups most often seek new customers through direct contact, as they consider personal references among consumers to be the most effective way of spreading information. Marketing activities are among the second most used way of acquiring new customers. Targeted advertising, local media, technology development and collaboration are among the other ways that startups use to increase the number of customers. Startup Mr. Bach believes that potential clients will be attracted and retained as loyal consumers mainly by adhering to product quality.

Setting up the right distribution channel requires detailed information about customer segments. In some cases, a startup's problem may not be hidden in the business idea, but in the method of delivery to consumers. Almost every startup in our quality sample provides products and services directly on its own website, through which a potential customer can quickly and easily purchase a product or order a service. The second most commonly used distribution channel is the creation of collaborations with wholesalers or retailers, in which consumers have products available directly in-store. However, quality sample startups also provide the items of their business directly at their own stores or through their own retailers.

Half of the surveyed startups reported that they suffer from a lack of skilled and persistent workers. The previous experience and training received by the workers greatly influences the qualifications that the startups identified as insufficient. If we look at the age composition of startup teams, we find that the vast majority is made up of people in the 25 to 30 age range. These people are nowadays referred to as millennials, not only in the professional literature, who are notorious for higher job turnover. The world's academic literature is becoming increasingly interested in this phenomenon of people on whom the populations of every country in the world are increasingly dependent, but it is all the more difficult to recruit and, more importantly, to retain such people in employment. Millennials can be described as 'unread' people, and their needs and demands are far more different from those of the previous generation. Today, marketers are struggling to figure out a way to reach millennials, to get closer to their mindset, needs, demands and to generalize practices for other companies to reach out to this part of the job market. Based on research in 2018 (Matuščáková, 2018), Cetelem found that millennials are more optimistic than the previous generation and their top priorities in life include family relationships, healthy lifestyle, but surprisingly, stable work came in third place. Therefore, it remains questionable why this generation suffers from the need to constantly change jobs and consequently creates a missing part of one of the most important parts of a startup, without which the existence of a startup is seriously threatened.

During the evaluation of the questionnaires, we drew attention to the possible significant relationship between the quality of the resources used and the market scope. The quality of the resources is judged by the exceptionality, originality or special level of the resources. The founders had the possibility to choose from five resource options, namely local, national, central European, European and global. Baterkáreň, the first Slovak community re-use centre, has marked the option of local quality and its scope can also be assigned to the city of Trnava or the surrounding area. On the other hand, the world quality of resources was identified by the startup slido, whose most important customers are the world's largest banks and also announced this year a global cooperation with Cisco. Eco-cleaners identified the national resource quality option, which indeed fits the market scope, as within the Slovak space this startup ranks among the top companies providing wastewater and stormwater solutions. We can confirm the observation that it is customers that drive startups to use the highest quality resources. If a startup has the ambition to succeed in the global market, it should also adapt the quality and development of the individual blocks of the business model to a large extent.

When assessing the degree of resource development, the founder paid attention to the degree of completion and sufficiency of the resources used. Surprisingly, more than half (62%) of the startups surveyed reported their degree of resource development at less than 70%. This may be related to the result of the statistical investigation, which showed that the degree of resource development has no significant impact on the startup's performance indicators. The low degree of resource development may also have a negative impact on the economic indicators of the startup and the overall performance of the business. A low degree of endowment or a total lack of it forces startups to form collaborations with external partners, which in turn can have an impact on the overall profit of the startup.

The completeness of the processes can be defined by the scope of the actual operational processes that are covered by the startup. Of the sample surveyed, only 26% of the surveyed startups report process completeness. We consider process completeness to be the identification of a need, the subsequent development of a business idea, the creation of a minimally viable product, the realized market entry, the validation of the achieved results, the production or operational implementation of the idea, the subsequent sale and promotion of the product or service, the distribution of the product or service, and the subsequent after-sales service, which would be included in the after-sales service. As we mentioned in the previous point, whether it is a low level of resource development or process completeness, the missing parts have to be made up by the startup through various collaborations, which may result in favourable revenue figures, but consequently the same startup shows less favourable profit figures. The startups we studied are primarily focused on sales and promotion of goods, as they use external collaborations for production implementation. An ideal example is the startup Octago, which brought an iconic octagonal structure to the market, but the startup does not have sufficient capacity to produce the structures. However, among the startups we have studied, there are also startups that provide all the processes themselves. Such an ideal example is the startup Mr Bach, which imports raw materials from India, Malaysia and Indonesia entirely on its own and does not use any partner for its business. Among the independent startups we can also include Virtual Medicine, Powerlogy, Ecocleaners or Luigi's Box. If we look at their economic indicators through the Finstat (2021) financial database, we find that their values are not as high as those of startups occurring in global markets, but their revenue and profit values are more comparable approximations than those that show multiple collaborations.

Key partners fill in the missing processes for startups in production, distribution, after-sales services, sales and promotion, business idea development or entry into foreign markets. More than half of startups (63%) identified the most important key partner as a supplier that provides the startup with materials or components necessary for product creation. After the supplier of materials and components, startups most frequently identified the investor who provided the startup with funding as a key partner. The entry of an investor into a startup is characterised by the intervention in the share capital and the acquisition of a relevant stake. It is very important to mention that startups also identified more than one key partner. We can assume that it is with such collaborations that they try to cover the funding and cover the scope of completeness of the processes. Collaborations can be characterized as a double weapon - they allow the startup to operate, to provide products and services to customers, but with the question of at what cost. At the beginning of the results of the paper, we focused on the characteristics of the quantitative research sample and to our surprise, the most successful performers by revenue and profit matched in very small numbers. We attribute this fact to the key partners with whom the startups have established collaborations, who enable the startups to create value for customers, but on the other hand have a large share in the amount of profit. If we look at the statistical examination, the quality block of partners has no demonstrably significant impact on the startup's performance indicators. Only the degree of development of relationships with partners shows a significant impact on the performance indicator sales, the value of which we recorded directly from the Finstat (2021) database.

Startup costs represent expenses that the founder must include in his business plan and necessarily count on their existence. The amount of costs influences the profit value achieved. Most of the startups of the qualitative sample demonstrate average costs in relation to the prices achieved. Some startups are plagued by very high costs, but within our qualitative sample we also find startups that show high costs relative to the prices achieved.
The purpose of the statistical investigation was to find out whether and to what extent the individual blocks of the Canvas business model influence the performance indicators of the startup. Our findings were again very surprising and unexpected.

Research results are always expected in a positive sense, but the results of the research conducted are not so optimistic.

If we focus on table a) we find that the number of users can be influenced by the quality of customer relationships and the quality of distribution channels. Considering the negative coefficient of customer relationship quality that characterizes that the sense of this coefficient works exactly the opposite. The founders had the opportunity to choose between several options (self-service, partial contact, personal assistance, extraordinary personal assistance and co-creation) and they use personal assistance, partial contact and co-creation most often, but given the negative coefficient, it would be preferable if the startups would soften their focus on this block and leave the customer relationship, if the product object allows it, to the simplest possible communication option, namely self-service. The quality of the distribution channels also affects the number of users, which means the ways in which customers can acquire products. The number of paying users is equally influenced by the quality of the customer relationship and the quality of the resources used in the production of the product. Revenues in terms of scale are not affected by any block of the business model. In this case, we can argue that the Canvas business model does not work, startups are not developed to the extent that this is reflected in the dependent variable. The sales values from the Finstat (2021) database show a significant relationship again only with the quality of the relationship with customers.

If we focus on table (b) we find that the dependent variable number of users is significantly related to the degree of customer development, the degree of customer relationship development and the degree of distribution channel development. The dependent variable number of paying users showed no significant relationship with any of the Canvas business model blocks. The dependent variable sales by scale showed a significant relationship with the degree of process development, and the sales values from the Finstat (2021) database were significantly related to the degree of development of relationships with partners. It is the degree of development of relationships with partners that reflects the large number of external collaborations that we have already mentioned, but again, given the negative coefficient, we can argue that startups form different types of collaborations, but it is the number of collaborations that prevents startups from turning collaborations into performance. They are putting a lot of energy on multiple collaborations at once which unfortunately is not reflected in the right place. The negative coefficient at this level may also reflect the startups' dependence on partners and their increasing aversion to them.

Based on the data obtained by statistical observation, we can argue that the performance indicators of startups are to a greater extent significantly influenced more by the development of the individual blocks of the business model than by the quality of the individual blocks of the business model. Our results could be explained as follows - the individual blocks of the business model have an impact on the startup performance indicators, but in terms of the whole business model they disappear and their significant chance to influence the startup performance decreases significantly.

5 Conclusion

The main objective of the research was to identify the significance of the impact of the Canvas business model on the performance indicators of startups, the results obtained and the metamorphoses of the real functioning startups to contribute to the expansion of the knowledge of this relatively new and promising entrepreneurial phenomenon.

Startups represent a phenomenon in the business world that, although in terms of size can be classified as small and medium-sized enterprises, due to their specific requirements they can be classified as a special form of entrepreneurship.

The research also required working with current literature, as information related to startups is updated almost on a weekly basis. The literature search provided an overview of the most well-known experts and scholars in the field of startup environment, whose knowledge and experience could be called empirical because they come directly from the startup environment. The current literature does not provide a coherent, unambiguous definition of a startup, therefore, based on comparisons of the views of world experts, we worked in our research with businesses that meet the following definition: "a startup is a small business, occurring in unstable to extreme conditions, that seeks to reach consumers by providing a product that is not yet provided by any other competing business, or has been the founder of an innovative idea in the industry."

For the purpose of the research, two research samples were created - a quantitative research sample and a qualitative research sample. Based on the criteria, a qualitative research sample was selected from the quantitative research sample. Both research samples were subjected to a questionnaire survey, but in the case of the qualitative research sample, the questionnaire survey was supplemented by a face-to-face structured interview. The quantitative research sample was of interest to us in terms of the qualities and stages of development of the Canvas business model.

The evaluation of the questionnaires gave us very valuable but unexpected results. Startups largely reported a lack of skilled and persistent workers, which may be closely related to the low age of team members in most of the startups we surveyed. From the evaluation of the questionnaires, we found that the founder's previous entrepreneurial experience may have an impact on the success of the startup. Another surprising finding for us was the large number of collaborations that startups reported, but it is very important to mention that startups also indicated multiple collaborations at the same time. The main partners included an investor, a supplier of materials or components, a supplier of the entire implementation technology or a supplier of finished products. Collaborations can result in low profit values while the startup's revenue values are at a relatively high level. Regarding the profit and revenue values, during the characterization of the quantitative research sample we have identified the best performers based on profit, revenue and number of users we decided to present. From the quantitative research sample, we decided to present the top 10% of representatives, but to our great surprise, only in very few cases did representatives appear as representatives in both the profit and revenue breakdowns. This fact can be attributed to the large number of collaborations that startups indicated. We believe that Slovak startups have an innovative, imaginative idea, but for completeness of processes they require collaborations with external partners who may have their share in the low profit values. The issue of collaborations was also confirmed during our statistical investigation, where we found, based on a negative coefficient, that startups cannot convert a large number of collaborations into the required performance.

Based on the statistical examination, we found that startup performance metrics are more influenced by the degree of development of the Canvas business model than by its quality. We also found from the results of the statistical investigation that when individual blocks have an impact on startup performance, their impact is much more asserted individually than when we consider the business model as a whole. From this we can conclude if one block is developed much more than the others, in an overall sense it will bring almost zero impact on the performance. In such a case, the question arises whether to strive for perfect development of all blocks at the same level or to orient one's efforts towards maximum completion of the more developed block.

The conclusion of the statistical investigation is the observation that startups are indeed unsystematic enterprises whose behaviour we cannot predict with certainty. The whole direction of a startup is in the hands of the founder, research can enrich and extend the current literature, but based on our evaluations of

questionnaires and statistical investigation we found that almost every startup operates separately and gives attention to the degree of elaboration of each block differently.

Through our research samples, we contributed to provide a more detailed view of the knowledge from the startup environment; with the right methods in place, we then proceeded with quantitative and qualitative research to extend the literature by linking the Canvas business model and startup performance metrics. The stated objectives of the thesis were fully met, as we were able to obtain not very optimistic significant relationships between the Canvas business model and startup performance through our research.

In conclusion, from the research conducted, the evaluation of the questionnaires and the statistical examination, we have discovered a few areas that could subsequently be the subject of further research. In the startup environment, investigating leadership in the startup team, how the founder influences the team members, or how the funding method used in the startup's early days influences the startup's performance could yield valuable results. An interesting investigation would be to observe the impact of the business strategy on the startup's performance indicators or to provide insights into the external environment of the venture.

Literature:

1. Afuah, A.: *Business Model Innovation: Concepts, Analysis and Cases*. New York: Routledge. 2014. 335 p. ISBN 978-0-203-58458-3.
2. Arnaud, B. The 10 most Common Reasons why Startups Fail. 2018. [cit. 12-01-2020]. Available at: https://www.eu-startups.com/2018/09/the-10-most-common-reasons-why-startups-fail/
3. Blank, S., Dorf, B. *The Startup Owner's Manual: The Step-by-Step Guide for Building a Great Company*. Pescadero: K&S Ranch, Inc. 2012. 182 p. ISBN 978-0-9849993-7-8
4. Blank, S. *About Steve*. 2015. [cit. 02-01-2020]. Available at: https://steveblank.com/about/
5. Blank, S. *Corporate Acquisitions of Startups: Why Do They Fail?* 2014. [cit. 09-12-2019]. Available at: https://steveblank.com/2014/04/23/corporate-acquisitions-of-startups-why-do-they-fail/
6. Blank, S. *Make No Little Plans – Defining the Scalable Startup*. 2010. [cit. 09-12-2019]. Available at: https://steveblank.com/2010/01/04/make-no-little-plans-%E2%80%93-defining-the-scalable-startup/
7. Blank, S. *The 6 Types of Startups. 2013.* [cit. 09-12-2019]. Available at: https://blogs.wsj.com/accelerators/2013/06/24/steve-blank-the-6-types-of-startups-2/
8. Blank, S. *The 6 Types of Startups.* 2018. [cit. 09-12-2019]. Available at: https://declara.com/content/l35GMn1R
9. Cambridge Dictionary. Metamorphosis. 2021. [cit. 08-06-2021]. Available at: https://dictionary.cambridge.org/dictionary/English/metamorphosis
10. CB Insights. *The Top 20 Reasons Startups Fail*. 2019. [cit. 12-01-2020]. Available at: https://www.cbinsights.com/research/startup-failure-reasons-top/
11. Collins, J. *Z dobrého skvelé. Good to Great.* Bratislava: Eastone Books. 2014. ISBN 978-80-8109-2505-3.
12. Field, A. *Discovering Statistics Using IBM SPSS Statistics*. 5th ed. New York: Sage Publications. 2018. ISBN 978-1-526-41952-1.
13. Finstat. *Finančné a právne dáta o firmách na jednom mieste*. 2021. [cit. 25-04-2021]. Available at: https://finstat.sk/
14. Get2Growth. *How Many Startups are there?* 2020. [cit. 08-06-2021]. Available at: https://get2growth.com/how-many-startups/
15. Laws, K. *Successful Startup's Don't Make Money Their Primary Mission*. 2015. Harvard Business Review. [cit. 09-06-2021]. Available at: https://hbr.org/2015/07/successful-startups-dont-make-money-their-primary-mission
16. Marzett, M. *10 Differences between Startup and Small Business.* 2018. [cit. 06-01-2020]. Available at: https://apiumhub.com/tech-blog-barcelona/differences-startups-small-business/

17. Matuščáková, Z. *Tržby im narástli skoro o 3000 percent. Slido je našou najrýchlejšie rastúcou tech firmou.* 2018. In: Forbes. [cit. 23-04-2021]. Available at: https://www.forbe s.sk/najrychlejsie-rastuce-firmy-strednej-europy-boduje-aj-slov enske-sli/
18. Merriam-Webster. *Metamorphosis.* 2021. [cit. 08-06-2021]. Available at: https://www.merriam-webster.com/dictionary/me tamorphosis
19. National Holding Fund. *Podpora malého a stredného podnikania.* 2014. [cit. 06-01-2020]. Available at: http://www.nhfond.sk/Podpora-MSP/podpora-msp-na-sloven sku/
20. Nortenko, D. *Secrets of the Successful Startup: Seven Tips for Entrepreneurs.* In: Forbes. 2020. [cit. 09-06-2021]. Available at: https://www.forbes.com/sites/forbesbusinesscouncil/2020/0 8/17/secrets-of-the-successful-startup-seven-tips-for-entrepren eurs/
21. Osterwalder, A., Pigneur, Y. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers.* New Yersey: John Wiley & Sons, Inc. 2010. 288 p. ISBN 978-0470-87641-A
22. Oxford Learner's Dictionaries. *Metamorphosis.* 2021. [cit. 08-06-2021]. Available at: https://www.oxfordlearnersdictionari es.com/definition/english/metamorphosis
23. Paul Graham. *About Y Combinator.* 2014. [cit. 04-01-2020]. Available at: https://www.ycombinator.com/about/
24. Paul Graham. *Want to start a startup?* 2012. [cit. 04-01-2020]. Available at: http://www.paulgraham.com/growth.html
25. Ries, E. *The Lean Start-up. How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses.* New York: Crown Business. 2011. 468 p. ISBN 978-0-307-88791-7
26. Roštárová, M. *Nefinančné formy podpory startupov.* In: Podnikateľské modely a podnikateľské stratégie startupov I.: recenzovaný zborník vedeckých prác. Bratislava: Ekonóm, 2015,s.227-243, ISBN 978-80-225-4167-1
27. Seneši, N. *Porovnanie j. s. a. a s. r. o.* 2017. [cit. 06-01-2020]. Available at: https://www.podnikajte.sk/jednoducha-spolocnost-na-akcie/porovnanie-jsa-sro
28. Schroeder, B. *What is the Most Important Element of a Successful Startup? Hint, it's not the Idea, Team, Business Model or Funding Dollars.* 2019. In: Forbes. [cit. 09-06-2021]. Available at: https://www.forbes.com/sites/bernhardschroe der/2019/09/23/what-is-the-most-important-element-of-a-succ essful-startup-hint-its-not-the-idea-team-business-model-or-fun ding-dollars/
29. Slávik, Š., Hagarová, R. *Podnikateľské modely startupov.* In: Podnikateľské modely a podnikateľské stratégie startupov II.: recenzovaný zborník vedeckých prác. Bratislava: Ekonóm, 2016, pp. 10-49. ISBN 978-80-225-4328-6
30. Slovak Business Agency. *Správa o stave malého a stredného podnikania v Slovenskej republike v roku 2018.* 2019. [cit. 06-01-2020]. Available at: http://www.sbagency.sk/sites/defau lt/files/sprava_o_stave_msp_2018_final.pdf
31. Startup Ranking. *About Startup Ranking.* 2021a. [cit. 08-06-2021]. Available at: https://www.startupranking.com/corp/about-us
32. Startup Ranking. *Countries.* 2021b. [cit. 08-06-2021]. Available at: https://www.startupranking.com/countries
33. Startup Ranking. *Top – Slovakia.* 2021d. [cit. 08-06-2021]. Available at: https://www.startupranking.com/top/slovakia
34. Startup Ranking. *Top – United States.* 2021c. [cit. 08-06-2021]. Available at: https://www.startupranking.com/top/united-states
35. Strážovská, H. et al. Podnikanie malých a stredných podnikov. Bratislava: Sprint 2, 2013. 314 p. ISBN 978-80-89393-88-6.
36. Zbierka Zákonov Slovenskej Republiky. *Obchodný zákonník.* 2019. [cit. 06-01-2020]. Available at: https://www.sl ov-lex.sk/static/pdf/1991/513/ZZ_1991_513_20190701.pdf
37. Zbierka Zákonov Slovenskej Republiky. *Zákon o podpore malého a stredného podnikania a o zmene doplnení zákona č. 71/2013 Z. z. o poskytovaní dotácií v pôsobnosti Ministerstva hospodárstva Slovenskej republiky v znení neskorších predpisov.* 2016. [cit. 04-01-2020]. Available at: https://www.slov-lex.sk /static/pdf/2016/290/ZZ_2016_290_20181130.pdf