

Theoretical Aspects of the Concept Start-up in the Literature

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Keywords: Start Up, Start Up Business, Start Up Model, Entrepreneurship.

Abstract: The topic of this article is "Theoretical aspects of the concept start-up in the literature". The topicality of start-ups is growing every year, so research of start-up development and definition is also expanding. The aim of the research is to study the main theoretical aspects of start-ups in the literature. There are a large number of different definitions of start-ups in the literature, where each author offers an interpretation of the concept according to his or her point of view. In the article, the author reviews the definitions of the concept of start-ups available in the scientific literature. Definitions from different authors were analyzed according to keywords. Novelty of the research - by analyzing the information available in the literature, a definition of the term "start-up" developed by the author has been created. Two studies were conducted in the article - one qualitative and the other quantitative. The first study summarized short definitions of a start-up, listed the authors and keywords, and gathered information and conclusions. The definitions are presented in ascending order, starting with the oldest, with a time period between 1976 and 2021. The second study analyzes the numerical indicators of the keywords "Start up", "Start up business", "Start up model", "Business model", "Entrepreneurship" and draws conclusions. The data collection period of the research is December 2021.


1 INTRODUCTION

Start-ups are business ventures with an innovative idea carried out under conditions of high uncertainty in the formula of the so-called fast revenue growth path. The core of the start-up concept are innovative ventures implemented in the form of services or products launched on the market, which offer value to customers and are desired by them. Investment projects that take sustainable development into account are particularly desirable innovations from a social perspective. Thus, start-ups derive the economic benefits from the business formula with additional extended economic, social, and environmental benefits for their own organization and for the environment. The concept of sustainable innovation is based on wider normative concepts such as environmental sustainability, sustainable development (Boons; Carrillo-Hermosilla et al., 2009). Innovative measures and innovations are important factors in the development of start-ups, which can lead to sustainable development in the future of the company.

Innovation is a central aspect of entrepreneurship (Schumpeter, 1934) and an important goal for

policymakers. Start-ups have been recognized as the engine behind innovative behaviour, leading to increased competition, employment generation, and, ultimately, economic growth (Hébert and Link, 1989; Schumpeter, 1934). Recently, there is increased interest on the potential contribution of start-ups in bringing solutions to environmental challenges such as climate change and biodiversity loss (Shevchenko, Lévesque and Pagell, 2016; York and Venkataraman, 2010). However, entrepreneurial firms, particularly start-ups, differ in the extent to which they introduce innovations to markets (Davidsson and Wiklund, 2001; Bhave, 1994). Understanding heterogeneity among start-ups is the key to explaining their variability in innovation and, subsequently, their potential contribution to the economy and society (Colombelli, Krafft and Vivarelli, 2016). Trends in the positive impact of start-ups are global. Start-ups address global challenges and help countries to develop not only nationally but also internationally.

Startups are perhaps the most interesting form of company because they offer a unique opportunity for global influence and growth – an opportunity that many people could only dream about a few decades ago.

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However, startup culture creates mixed opinions. It seems like people are either ecstatic about startups or can't stand them. Startups are often a target for unfounded arguments. The hype around them is easy to perceive as wishful thinking or even lies. This has resulted in many wrong assumptions regarding startups. (Aalto University, 2021) Opinions about start-ups differ sharply as they are not clearly defined in the literature, so a theoretical rationale is needed to confirm or deny the substance of the case.

In the early stages of a business, growth is determined by the company's sales capacity, ability to expand, entrepreneurial skills, adaptability, ability to innovate, ability to absorb and ability to raise funds. (Griva et al. 2021) A company must have different abilities and skills in order to survive in the changing market conditions. This is a big challenge for start-ups in their daily work.

The start-up environment in Latvia is very dynamic and the last two years have seen a rapid development of the start-up movement: not only are there around 320 start-ups in Latvia that have been able to attract more than € 210 million in investment, but the start-up ecosystem is improving. "Fast-growing technology companies or start-ups play an important role in promoting Latvia's economic growth, added value and innovation. The Law on Support for the Operation of New Enterprises is the basis for promoting the development of such enterprises, as a result of which we hope that every year at least 30 such enterprises will be created in Latvia, which will have attracted approximately 160 highly qualified employees. Our goal is to make Latvia the No. 1 choice for start-up or fast-growing technology companies in the Baltic States," emphasizes Raimonds Aleksejenko, Deputy State Secretary of the Ministry of Economics. (Ministry of Economics, 2020) The development of start-ups in Latvia is recent, last years they have received increased attention, therefore there is relatively little theoretical explanation of the nature of start-ups in the Latvian context.

Latvian ecosystem is small, yet vibrant, it consists of highly motivated multilingual (often with at least 3 languages or more) talented people of various age and backgrounds. The startup environment is dynamic and rapidly growing. To nurture this growth, all important stakeholders have joined hands together. Latvian startup infrastructure consists of 400+ registered startups, a pool of institutional investors and business angels, a diverse range of modern co-working spaces, dozens of business incubators fuelled by the government, academia and private individuals, as well as full of exciting gatherings, productive conferences, hackathons and

meetups. The capital city Riga hosts numerous annual Tech & Innovation conferences: the iNovuss, Deep Tech Atelier, Riga Tech Girls, TechChill and others. Moreover, a unique Startup Law has been passed and Startup Visa, officially - temporary residence permit, has been created in order to make Latvian startup ecosystem even more vibrant and productive. (Investment and Development Agency of Latvia, 2020). Start-up ecosystem in Latvia creates a favorable environment for the development and improvement of start-ups.

Regardless of innovation and entrepreneur being older terminology and yet still also being often mixed or misunderstood with terms like inventions and small business owners, those are still already much established terms than "a startup" - a term that originated from US. in late 70's and became popular in the late 1990's as part of the technology and internet hype and bubble that eventually burst around year 2000. Startup (ie. startup company sometimes also known as upstart) term emerged to describe and identify a new or early stage company with higher than usual growth potential due technology it was developing. This meant that for that growth potential to be possible, it was relying to new technology and since 90's also to internet as the high growth enabling factor. These startups were known as internet startups or more broadly technology startups, and as such the term "startup" is still mainly referred as "technology startup". (Startup common, 2019). Today, the concept of start-up is much more widely used than just technology, it is now used in all areas of business, so it has become vital for overall economic growth. In Latvia, this term was officially formulated in 2017 in Article 5 of the Law on Support for the Operation of New Enterprises - a new enterprise is a capital company with high growth potential, whose core business is related to the development, production or development of scalable business models and innovative products. However, the definition of a start-up has been interpreted differently in the rest of the literature, so the study was conducted to clarify and explore the theoretical aspects in the literature.

Theory is the meaning that we assign to things that we observe in order to make sense of them. Theory can be defined as a general and more or less comprehensive set of statements or propositions that describe different aspects of some phenomenon (Hagan, 2006; Silverman, 2006). In an applied context, theories can be understood as interrelated ideas about various patterns, concepts, processes, relationships, or events. In a formal sense, social scientists usually define theory as a system of logical

statements or propositions that explain the relationship between two or more objects, concepts, phenomena, or characteristics of humans—what are sometimes called variables (Babbie, 2007; Denzin, 1978; Polit, Beck & Hungler, 2003). Theory might also represent attempts to develop coherent narratives about reality or ways to classify and organize events, describe events, or even predict future events (Hagan, 2006). Theories are explanations. The theory of gravity explains why things fall, as well as predicting and explaining orbits and the physical stability of the universe. Theories of inequality contribute to our explanations for all kinds of economic behavior, from consumption to crime to wedding receptions. In time, we may find newer and more informative ways to explain the things we experience as gravity, or the ways in which we respond to inequality. These new approaches may take on different names, but that will not mean that the original theories were wrong, only that explanations can be improved with more data. (Lune and Berg, 2017). The study conducts direct theoretical research, which is developed systematically, details in Table 1.

The aim of the research is to study the main theoretical aspects of start-ups in the literature. There are a relatively large number of definitions of the term “start-up” in publications, where each author offers his or her own interpretation of the term. Tasks of the research - 1. To analyze the key words of the definition of the term “start-up” in literature and the number of definitions in scientific databases. 2. To create an author's definition of the term "start-up". 3. Draw conclusions and make proposals. The object of the research is the concept of “start-up”. Research hypothesis - the term “start-up” is not defined united in the scientific literature. Novelty of the research - by analyzing the information available in the literature, a definition of the term “start-up” developed by the author has been created. Research methods - method of analysis and synthesis; content analysis and monographic method.

2 DEFINITION STUDY OF START-UPS IN THE LITERATURE

Innovative start-ups are an integrative part of today’s global, fast changing world. Many of them operate basing on their own sources, but a good support system can facilitate their operations, provide knowledge, networking or very needed financial input. (Kuźmińska-Haberla and Bobowski, 2019) Start-ups are important for economic and business

development and should therefore be addressed and further researched.

Literature review is an essential feature of academic research. In essence, the development of knowledge should build on previous work. To push the boundary of knowledge, we need to know where the boundary is. By reviewing the relevant literature, we understand the breadth and depth of existing work and identify gaps that need to be explored. By summarizing, analyzing, and synthesizing a group of related literature, we can test a specific hypothesis and / or develop new theories. We can also assess the validity and quality of existing work based on criteria to identify weaknesses, inconsistencies and contradictions. (Paré et al., 2015) A review of the start-up literature and a search for definitions is an important precondition for achieving the goal of the study. The study hypothesized that the term “start-up” is not uniformly defined in the scientific literature, so the literature sought definitions of start-ups in order to summarize, analyze and draw conclusions.

There are a few things to keep in mind when choosing the right keywords. First, researchers need to find a balance between completeness and accuracy. Broader keywords can lead to more comprehensive and inclusive results, but more irrelevant articles are identified. On the other hand, using more specific keywords can improve your search accuracy, but your records may be lost. At this early stage, it is much more important to be exhaustive than accurate (Wanden-Berghe & Sanz-Valero, 2012). The study was conducted by formulating keywords that are related to the concept of "start-up".

Qualitative research refers to the meanings, concepts, definitions, properties, metaphors, symbols, and descriptions of things (Lune, Berg, 2017). The definitions of “start-ups” or “start-ups” by various authors were used in the study of the research literature. The study summarized the definitions of 25 different sources - publications in journals and Internet resources, scientific articles, books. Table 1 summarizes the short definitions of a start-up, lists the authors and key words, and summarizes the information and draws conclusions. The definitions are listed in ascending order, starting with the oldest, with a time lag of 1976 to 2021. The data collection period of the research is December 2021.

Table 1: Explanation of start-up definitions in scientific and industry literature (Created by the author, December 2021).

Nr.	Definition	Author	Key word
1.	A startup is the creation of an entirely new enterprise which did not formerly exist as an organization.	Keebel (1976)	Company Organization
2.	A new firm which began production for the first time.	Gudgin (1978)	New company
3.	Start-ups used to be recognized as an engine of economic growth, source of jobs, wealth in economy in general, as well as, innovation.	Storey, (1994); Birch et al., (1995); Kirchoff and Newbert, (2007)	Growth Innovation
4.	Temporary organizations that create innovative products and/or services using high technology ¹ , but this type of companies are also known to be inserted in uncertain and risky scenarios.	Cho and McLean (2009)	Products Services Technology
5.	A start-up, according to Ries (2011), is a human institution designed to create new products and services under conditions of extreme uncertainty. It may be also recognized as a company that is confused about what its product is, who its customers are and how to make money. Thus, start-ups may be understood as business aimed at solving contemporary problems, satisfying current demands, however, with no guarantee of success.	Ries, E. (2011)	Institution Products and services Customers Business Problems
6.	Čalopa et al., (2014) defined start-ups as newly founded companies or entrepreneurial ventures that are in the phase of development and market research.	Čalopa et al., (2014)	New company Entrepreneurial Ventures Development
7.	A start-up is a newly created business project that aims to find or create an unmet need, meet that need with appropriate benefits, and prove its existence with a functioning business model. Beginners should open up new markets and create high value-added products.	Procházková, K. (2014).	Business project Needs Business model New markets Products
8.	OECD defines start-ups as start-ups in the first three years of operation (0-3 years)	Calvino, F.; Crisuolo, C.; Menon, C. (2015).	New company >3 years
9.	The main difference between a startup and other types of business is that a startup is a fast-growing and easily scalable company. The goal of conquering a global market, technology involvement and investment are just side effects and necessary for rapid growth and expansion.	Petrāne, L. (2016)	Fast-growing Easily scalable Market Technology Investment Growth Expansion
10.	Start-up company - a capital company with a high growth potential the basic activity of which is related to the development, production or improvement of scalable business models and innovative products.	Legal acts of Republic of Latvia (2017).	Capital company Growth potential Business models Products Innovations
11.	A start-up can be defined as a certain type of innovation-oriented company. Italian language A startup that has been established for no more than 60 months has a political turnover of less than EUR 5 million, no profit distribution and is not the result of any extraordinary activity, such as mergers or divisions, as well as socially and widely distributed innovative products and / or high technological value services are considered "innovators".	Paoloni P., Modaffari, G. (2018)	Innovations >60 months Products Services
12.	"Startup is a company that works to solve a problem where the solution is not clear and there is no success in the company," / Neil Blumenthal/	Blumenthal, N. (2019)	Problem solution

13.	The company must be under ten years old for years. It must be an innovative product and / or service and / or a business model. Start up must try to expand (with a view to increasing the number of employees and / or turnover and / or the markets in which they operate).	European Start up Monitor (2019)	>10 years Products Services Expand
14.	"Startup is a state of mind," says Adora Ceungs, one of the most successful CEOs and CEOs of U.S. Startup in 2013.	Pasaulite.com (2019).	State of mind
15.	That's when people added to your business and still make a clear decision, don't give up stability in exchange for a promise of huge growth and a passion for impact.	Pasaulite.com (2019).	Not stable huge growth Impact
16.	According to Merriam-Webster, a start-up means an "operation or start-up or movement event" or "start-up company". The American Heritage Dictionary suggests that it is a "start-up company." There's movement in it - to be Startup, you need to have a newly created store.	Pasaulite.com (2019).	Operation Company Movement Newly created
17.	A start-up is a new company that is less than ten years old and needs to create a repeatable and scalable business model with high demand potential.	Blank, S., Dorf, B. (2020).	New company Business model >10 years
18.	There is no generally accepted official definition of the term 'startup', so researchers have used the following criteria. The company must be under ten years old. It must be an innovative product and / or service and / or business model. The start-up must seek to expand (intention to increase the number of employees and / or turnover and / or the market in which it operates).	Bormans, J., Privitera, M., Bogen, E., Cooney, T. (2020)	>10 years Innovative Product Service Business model Expand
19.	Start-up is a very small nascent enterprise that is expected to discover or create a new need, an attractive and unusual product, a scalable business model, and rapid significant growth. It creates new jobs, brings solutions to current problems in the economy, technology, ecology, communication, leisure, and entertainment. Start-up is a relatively new and attractive business form that is being explored in a broader economic and industry context.	Van Winden, W.; Kör, B.; Sierhuis, D.; Grijsbach, P. (2020).	Enterprise New needs Product Business model New jobs Business form
20.	A small business that has just been started.	Cambridge Dictionary (2021)	Just started
21.	Definition of start-up - the act or an instance of setting in operation or motion.	Merriam-Webster.com (2021)	Operation or motion
22.	Startups are new company to develop a unique product or service to market and make it irresistible and irreplaceable to customers. Start-ups are rooted in innovation, filling the gaps in existing products or creating entirely new categories of goods and services, thus disrupting entrenched ways of thinking and entrepreneurship in entire industries.	Baldrige, R., Curry, B. (2021).	Unique product Service Customers Innovation Entrepreneurs hip
23.	Start up - a fledgling business enterprise.	Merriam-Webster.com (2021)	Business Enterprise
24.	According to the European Startup Network, the start-up is an independent organization less than five years old that aims to create, improve and expand a scalable, innovative, technology-enabled product with high and rapid growth.	European Startup Network (2021).	Organization Product High growth >5 years
25.	A startup is a venture that is initiated by its founders around an idea or a problem with a potential for significant business opportunity and impact. Often the actual development starts even before that with a search of an idea or a meaningful problem worth solving and building a committed founding team aligned with shared vision to make that vision into reality.	Startup commons (2021).	Idea Problem solving opportunity Development Team

The explanation of the definitions of start-ups in the scientific and industry literature gives an idea of the essence of the concept. As a result of the analysis, the definitions of various authors were summarized in Table 1, the authors were listed, as well as the main keywords. Looking at the above definitions, it can be concluded that the most frequently mentioned keywords are products (9 times), new company (6 times), services (6 times), problems (3 times), growth (3 times), innovation (4 times), business model (3 times), up to 10 years (4 times). Keywords such as business, customers, development, needs, entrepreneurship, expansion, market, operation, movement, organization, technology were mentioned twice, the other keywords were mentioned once.

While this defining progress is globally spreading, ongoing and there are quite many views and opinions about what is "a startup", there are however already enough collective and mutual "consensus" to define what a Startup is and what it is not to make the term useful. Compared to much older related definitions of "innovation" and "entrepreneur", startup is starting to be equally well understood for the meaning of the term as the other two. (Startup common, 2019) The definition of the term start-up is based on an understanding of the concept.

As a result of the qualitative research (Table 1), a new definition of start up was created by the author. Based on the analysis of the definitions, the concept of a start-up author interpreted as follows: "A start-up is a new company with a lifespan of up to 10 years and whose business model offers products and/or services that solve customer problems, innovate and promote overall growth." Defining the concept of "start-up" provides an understanding of the key aspects of the concept and will help in future research.

3 LITERATURE RESEARCH IN SCIENTIFIC DATABASES

Quantitative research concerns the number and size of cases, the size and distribution of our subjects. the question is: how big is the thing, how much is it, or how likely is it that we will face it. (Luna, Bergs, 2017). The quantitative study is presented in Table 2, which analyzes the keywords related to the concept of "start-up".

Research databases are organized collections of computerized information or data such as periodical articles, books, graphics and multimedia that can be searched to retrieve information. Databases can be general or subject oriented with bibliographic citations, abstracts, and or full text. The sources indexed may be written by scholars, professionals or generalists. (Library & learning resources, 2020). In

the study of literature, several large multidisciplinary research databases were systematically searched and used - Scopus, Web of Science, Ebsco, Google scholar, ScienceDirect. The search tool in the databases was used to obtain the data, with the help of which bibliographic citations were obtained.

Scopus uniquely combines a comprehensive, expertly curated abstract and citation database with enriched data and linked scholarly literature across a wide variety of disciplines. Scopus quickly finds relevant and authoritative research, identifies experts and provides access to reliable data, metrics and analytical tools. Be confident in progressing research, teaching or research direction and priorities — all from one database and with one subscription. (Elsevier, 2020)

The Web of Science is the world's most trusted publisher-independent global citation database. Guided by the legacy of Dr Eugene Garfield, inventor of the world's first citation index, the Web of Science is the most powerful research engine, delivering your library with best-in-class publication and citation data for confident discovery, access and assessment. (Clarivate, 2020)

EBSCO is the leading provider of research databases, e-journals, magazine subscriptions, e-books and discovery service to libraries of all kinds. (Ebsco, 2021).

Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites. Google Scholar helps you find relevant work across the world of scholarly research. (Google Scholar, 2021)

ScienceDirect is a website which provides subscription-based access to a large database of scientific and medical research. ScienceDirect is an important and essential source of information for millions of specialists around the world. ScienceDirect is a website which provides subscription-based access to a large database of scientific and medical research. It contains the world's largest electronic collection of full-text and bibliographic information on science, technology and medicine. ScienceDirect is one of the subsidiaries of Elsevier, the world's largest scientific publisher. It is operated by the Anglo-Dutch publisher Elsevier. It was launched in March 1997. It contains more than 15 million scientific articles. Over 900,000 articles on ScienceDirect are open access. Articles published open access are peer-reviewed and made freely available for everyone to read, download and reuse. Article abstracts are freely available, but access to

their full texts (in PDF and, for newer publications, also HTML) generally requires a subscription or pay-per-view purchase. Although the main focus of Science Direct is on basic, technical and medical sciences, there are also a large number of articles and journals on the humanities and social sciences. (Canadian institute for knowledge development, 2020).

The listed databases are one of the largest in the world and it is easy to search for information in the scientific literature on multidisciplinary topics. Based on the fact that the definition analysis study (Table 1) formulated the main keywords related to the concept

of “start-up”, the analysis in the databases was performed directly after the keywords. The following keywords were used in the research: "Start up", "Start up business", "Start up model", "Business model", "Entrepreneurship", which were placed in the search engine to find research articles and analyze those figures in Table 2. The number is the result of the keywords and the number of instances of the phrases formed from them in the literature sources of the databases used. The results of the multidisciplinary quantitative analysis for the databases are presented in Table 2. The data collection period of the research is December 2021.

Table 2: Analysis in databases by keywords (Created by the author, December 2021).

Key words	Scopus	Web of Science	Ebsco	Google scholar	ScienceDirect
„Start up”	120,298	354,650	134,459	6,940,000	3,832,254
„Start up business”	7,906	8,283	7,510	5,110,000	368,848
„Start up model”	24,974	67,651	646	6,760,000	2,518,641
„Business model”	277,464	271,562	65,744	4,520,000	581,402
„Entrepreneurship”	51,398	55,129	81,477	2,360,000	34,967

Quantitative results for the keywords “start up”, “start up business”, “start up model”, “business model”, “entrepreneurship” in the databases analyzed in the multidisciplinary field showed that these concepts have been widely studied in the scientific literature. The Scopus database showed the lowest result for the concept of "start up", but Science direct showed the largest result. The concept of "start up" is widely mentioned, researched and analyzed in bibliographic sources. The term 'start up business' is much less researched than 'start up', but research shows that the Ebsco database has the least information on the term. The most concept studied is Google Scholar. The term 'start up model' is the least studied in the Ebsco database, but the most can be found in the Science direct and Google scholar databases. The term "business model" is less studied in the Ebsco database, but most of it can be read in the Google scholar database. The concept of "Entrepreneurship" is much less studied than previous concepts. The least can be read in the Science direct database, but the most can be searched

in the Google Scholar database. Summarizing the numerical results in scientific databases, it can be concluded that the concept of "Start up" is the most studied.

4 CONCLUSIONS

"Startup" is a term that originated in the United States. In the late 1970s and became popular in the late 1990s. (Startup commons, 2019). In Latvia, this term was officially formulated in 2017 in Article 5 of the Law on Support for the Operation of New Enterprises - Start-up company - a capital company with a high growth potential the basic activity of which is related to the development, production or improvement of scalable business models and innovative products. (Legal acts of Republic of Latvia ,2017). Overall the definition of the start-up concept has been interpreted differently in the literature, so the study was conducted to clarify and explore the theoretical aspects of the concept start up in the literature.

In total, two studies were conducted in the article - one qualitative and the other quantitative. The first study (Table 1) summarized short definitions of a start-up, listed the authors and key words, and summarized the information. The definitions are presented in ascending order, starting with the oldest, with a time lag between 1976 and 2021. The second study analyzes the numerical indicators of the keywords "Start up", "Start up business", "Start up model", "Business model", "Entrepreneurship" (Table 2). The data collection period of the research is December 2021.

Regardless of the terminology, the more there are entrepreneurship and innovation, the more there are startups. And the more there are startups, the more there are great companies, scaleups and positive development in the economy and society at large. And that's why developing a healthy startup ecosystem is a holistic exercise. (Startup commons, 2019). Trends in the positive impact of start-ups contribute significantly to the development of the global economy and business.

The hypothesis of the research has been confirmed - the term "start-up" is not uniformly defined in the scientific literature. A study of this concept leads to the conclusion that the authors' interpretation is different.

Based on the analysis of the definitions, the concept of a start-up author interpreted as follows: "A start-up is a new company with a lifespan of up to 10 years and whose business model offers products and / or services that solve customer problems, innovate and promote overall growth." The author offer the new definition as a proposal for the further formulation of a start-up in literature.

Quantitative results for the keywords "start up", "start up business", "start up model", "business model", "entrepreneurship" in the databases analyzed in the multidisciplinary field showed that these concepts have been widely studied in the scientific literature. Summarizing the numerical results in scientific databases, it can be concluded that the concept of "Start up" is the most popular termin.

Startups are a critical element for the economic vitality of any country. They also are the pipeline for SMEs and future high-growth firms. Across Europe, startups contribute to make countries economically and socially vibrant by redefining the technological landscape and creating the markets of tomorrow. (European Start up Monitor, 2019) Future start-ups will probably be defined in a completely different way, so the author's vision is to continue research on the directions of start-ups and development.

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