SYMPLE MODEL OF STARTUP MANAGEMENT: CHALLENGES AND KAY FACTORS OF SUCCESS

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Abstract

The paper is devoted to the challenges of startup management. The research was conducted on the example of startups created in Georgia. The key factors that prevent startups from establishing themselves in the market and developing are analyzed.Since 2016, Georgia has been actively creating and developing projects to support technology parks, innovation centers, innovation laboratories, accelerators, business incubators and other innovations. The goal of creating a perfect ecosystem is to stimulate innovative and technological ideas, create and develop startups, and increase the number of successful business companies.The purpose of the research is to identify and analyze the problems of startup management in Georgia. Identify, analyze and evaluate startup management problems by using statistical methodology, Define key approaches to startup management and management model and develop recommendations for improving startup management.

Qualitative and quantitative research, induction and deduction methods were used in the research process.The qualitative analysis has allowed us to identify key trends to startup management, formulate hypotheses based on the research objectives, and accurately describe the quantitative research elements. By the statistical survey methodology, based on a questionnaire survey, we have studied the main factors determining of startup management operating in Georgia.The anonymous questionnaire survey method was used. A questionnaire was developed based on the established hypotheses. 60startups were interviewed. 20 questions were used. The main questions of the questionnaire were of the closed type. The collected data was processed by SPSS Statistics program, performing both general frequency analysis and cross-tabulation analysis.

Based on the results of the research, conclusions were made and recommendations were developed, which will help to improve the management process of startups and increase their efficiency.

Kay words: Start-up, Innovation, Technology, Management, Business Companies

Introduction

At the present stage, the purpose of startups is to create a repetitive, scalable, innovative business model and achieve its rapid development in conditions of uncertainty. As it is known, a small part of startups manage to realize their own ideas, create a new product or service, develop quickly and turn it into a profitable business.

The success of startups is primarily related to taking the right, thoughtful, purposeful steps.

Realizing the ideas of startups and carrying out relevant activities effectively and efficiently, without proper management is unthinkable.

Startup management involves the use of planning, organizing, controlling, leadership, communication and decision-making systems. Each activity has its place in management and directly affects the development of startups.

The aim of the research is to identify and analyze the problems of startup management in Georgia. The following tasks were set according to the purpose:

- Define key approaches to startup management and management model;
- Identify, analyze and evaluate startup management problems by using statistical methodology.
- Develop recommendations for improving sturtup management.

Based on the results of the research, conclusions were made and recommendations were developed, which will help to improve the management process of startups and increase their efficiency.

Methods. Qualitative and quantitative research, induction and deduction methods were used in the research process.The qualitative analysis has allowed us to identify key trends to startup management, formulate hypotheses based on the research objectives, and accurately describe the quantitative research elements. By the statistical survey methodology, based on a questionnaire survey, we have studied the main factors determining of startup management operating in Georgia.The anonymous questionnaire survey method was used. A questionnaire was developed based on the established hypotheses. 641 startups have been created in Georgia, according to the data of 2022.60startups were interviewed. 20 questions were used. The main questions of the questionnaire were of the closed type. The collected data was processed by SPSS Statistics program, performing both general frequency analysis and cross-tabulation analysis.

Literature Review.

The success of startups depends on the innovative product the startups design.The development of a competitive innovative product and meeting the needs of a society is important for the establishment and further development of startups(Miller, p.Kirsten, b., 2011).

An innovative product starts with an idea. However, in order to make the right choice for its practical realization it is necessary to evaluate and substantiate the prospects of the implementation of the idea(Nizharadze, 2017). As the idea is formulated, the structure and characteristics of the product are defined and finally, the idea is realized as a prototype, with the industrial innovation laboratories and techno parks equipped with the latest techniques playing an important role in the creation of the idea and helping the stakeholders in realizing the idea in the shortest possible time and designing prototypes(Sturtups Georgia, 2019). The prototype is tested and if it does not meet the operational characteristics, cycle “design-prototype-testing” is realized over and over again until the final products is created what is followed first, by the pilot (experimental) and then, by commercial manufacturing of the product(Chokheli, Developmental trends for startups in Georgia, 2020). At this stage, all necessary tools and instruments must be ready to operate. As the company is sure that it is free to manufacture and realize the product, it starts to expand the scales of manufacturing(Chokheli, Challanges of Startup Managemnt in Georgia, 2021)(Chokheli,

Challanges of Startup Managemnt in Georgia, 2021).

Creating innovative products and establishing startups and increasing their number is a priority for all countries, including Georgia(Support of Innovation Business, 2018). This is evidenced by the nationwide techno parks, business incubators and dozens of industrial innovation labs operating in almost every region, as well as a number of state-sponsored programs with their primary goal to increase the number of startups and their contribution to the welfare of the country(Chokheli, Strategy to develop fab Labs and their impact on improving business activity in Georgia, 2018).

The evaluation of the activities of the startups in Georgia and their results evidences that the management of startups is often associated with a number of unforeseen problems and consequently, some of them lose hope to attain success and stop functioning.

Results.As per theGeneral frequency analysis, the study results are as follows:

Diagram1 showsthat58 out of 60 respondents, participating in the survey, answered the question – "How many people are the founders of a startup?", where the answer "2-3 persons" had the highest frequency value – 40 (69%), followed by "4 an more persons" - 11 (19%); "one person" -7 (12%).

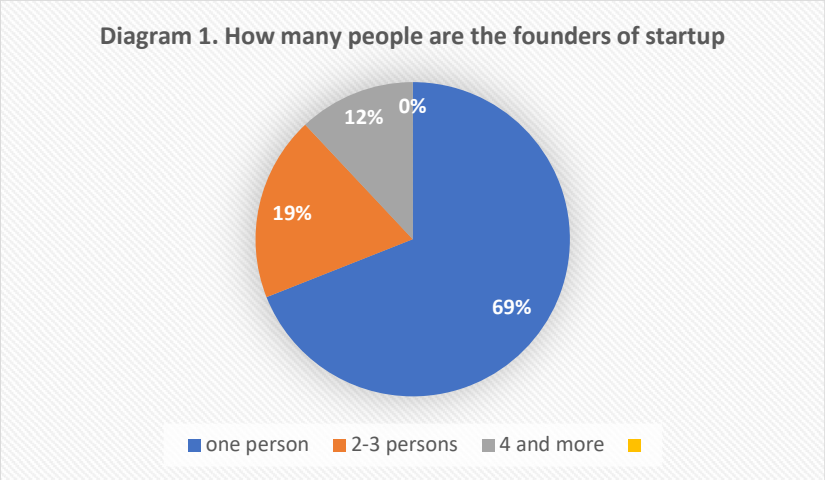


Diagram 2 showsthat56 out of 60 respondents, participating in the survey, answered the question - Startups are managed by the founders, where 32 (57%) of them are managed by the founders, 18 (32%)- are partially managed by the founders.5 (11 %) are not managed by the founders.

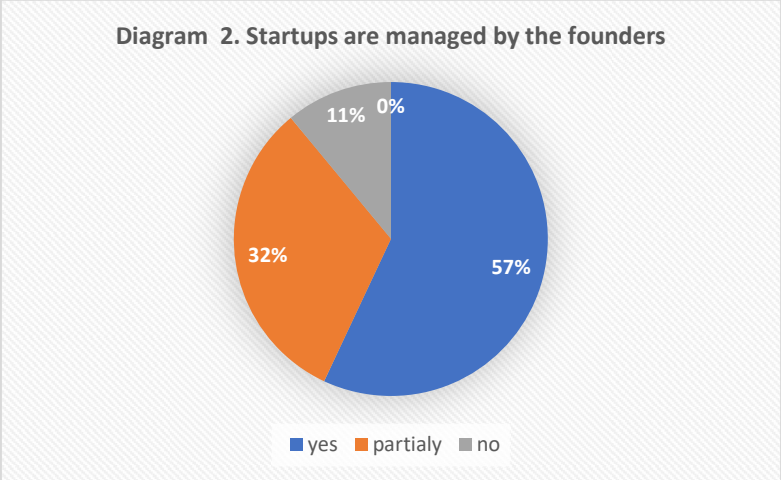


Diagram 3 showsthat56 out of 60 respondents, participating in the survey, answered the question - Startup founders have business management qualifications and / or practical experience, where the answer-"Startup founders do not have business management qualifications and / or practical experience" had the highest frequency value - and 28(50%), followed by "Startup founders have business management qualifications and / or practical experience" - 22 (39%), "Startup founders partially have business management qualifications and / or practical experience"- 6 (11%).

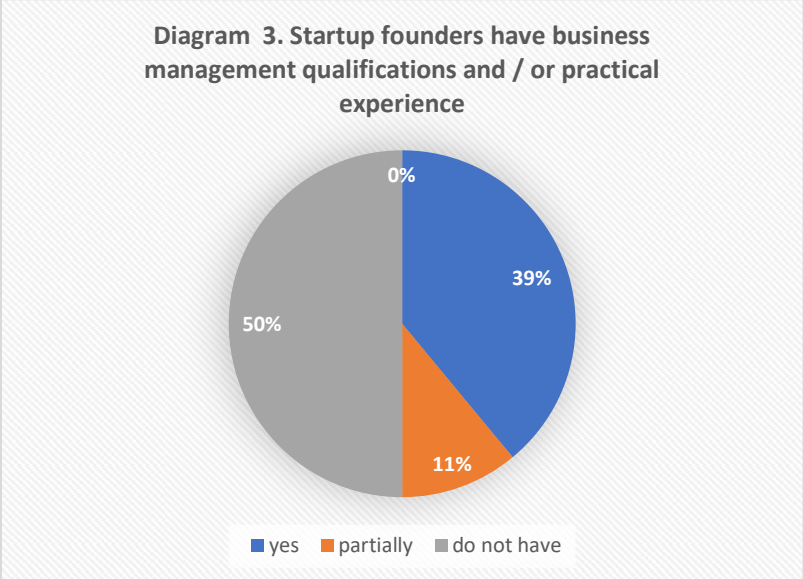


Diagram 4 shows, the frequency analysis of the factors, having an impact on the development startups. The factor – "startup idea" is characterized by the highest frequency value - 55 (93%),managerial skills-51 (86%),role distribution - 45 (76%),relationships between the founders - 45 (76%),strategy- 32 (54%), access to finance - 32 (54%),legal regulations - 27 (46%),other – 5 (9%).

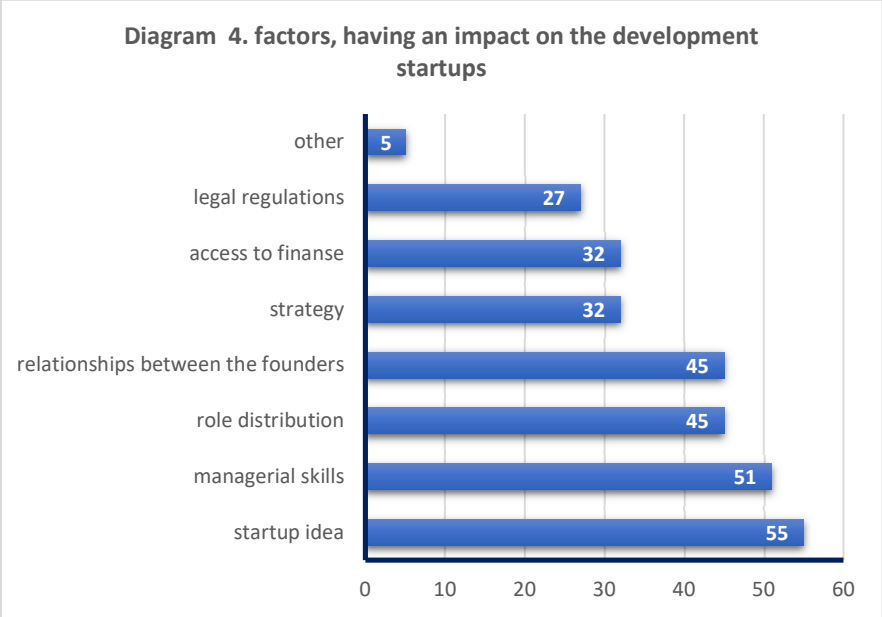


Diagram 5 shows that 58 out of 60 respondents, participating in the survey, answered the question – "The most important factor, having an impact on startup success".The factor – "startup idea" has the highest frequency value - 18 respondents (31%), management - 11 (19%), strategy - 7 (12%), state support program – 8 (14%), finance - 8 (14%), other – 6 (10%).

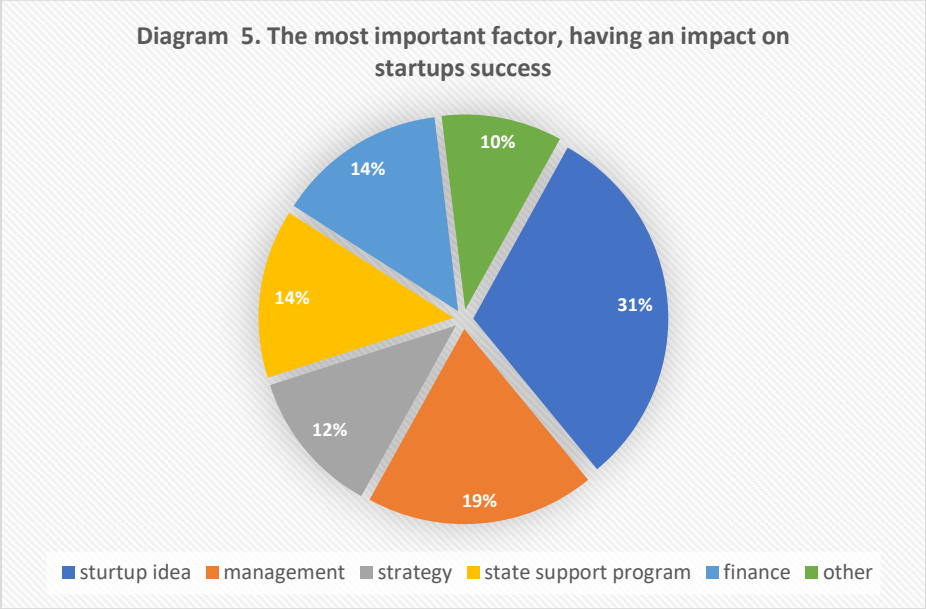


Diagram 6 shows, the frequency analysis of startupsoperation period. The answer "1-3 years" , is characterized by the highest frequency value 21 (36%), 0-1 year – 18 (31%), "3-5 years" - 11(19%), more than 5 years – 8 (14%).

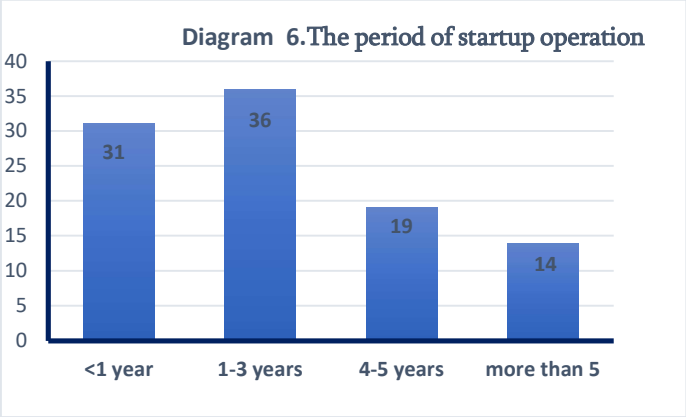


Diagram 7 shows that 58 out of 60 respondents, participating in the survey, answered the question – " startup funding source ". The factor – "Own funds and grant"has the highest frequency value 17 (29%), "Credit and grant" – 13 (22%), "Investor and own funds" – 7(12%), "Own funds and credit" – 8 (14%), "Own funds" – 7 (12%), "Other" –6 (11%).

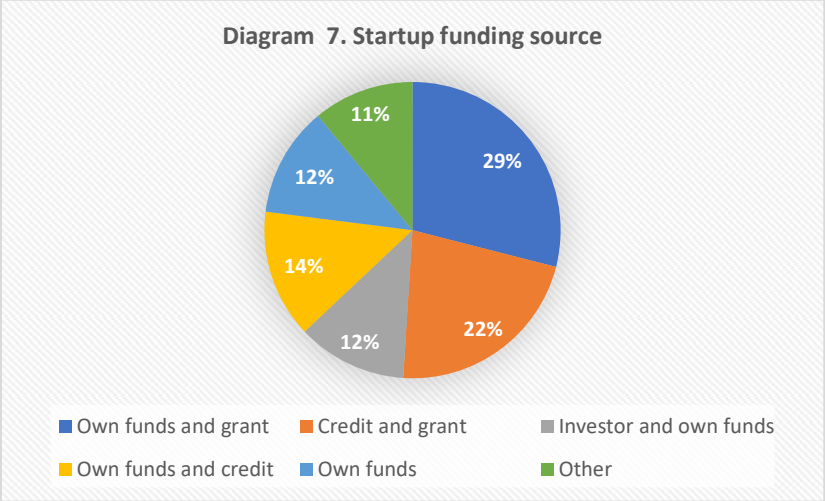
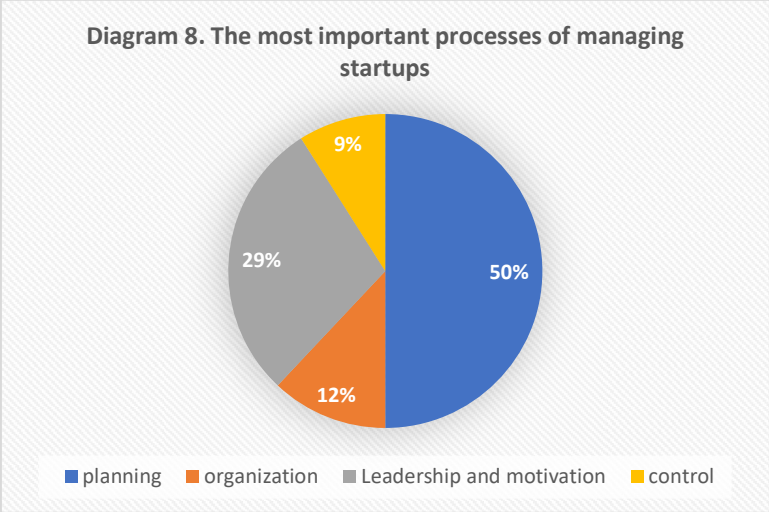


Diagram 8 showsthe frequency analysis of the most importantprocesses of managing startup. The answer "planning", is characterized by the highest frequency value 29 (50%), "leadership and motivation" – 17 (29%), "organization"- 7 (12%),"control" – 5 (9%).



As per thecross-tabulation analysis, the study results are as follows. As already mentioned, the management of startups is related to the implementation of the planning, organizing, leadership and control processes. However, of these processes, startups are considered as one of the priorities and are paid particular attention as they are thought as the most important factor for business.

It is interesting to find out which of the most important (priority) processes of startup management are influenced by the factors bringing success to startups. For this purpose, we tested Hypothesis H1: The success factors of startups have a certain impact on the most important process of the startup management.

In order to test hypothesis H1, we used cross-tabulation analysis in the SPSS environment. As a result, we compiled Table #1 showing the frequency distribution of startup success factors in the important process of a startup management (column percentages are used). As Table #1 shows, during planning, factor Strategy (86%) has the highest frequency percentage, followed by factor Management (83%), factor Other (67%), factor Finance (50%), factor State support program (38%), and factor Startup idea (11%); during organizing, factor Finance (28%) and State support program (38%) have the highest frequencies, followed by factor Strategy (14%), factor startup idea (5%); the following factors have the highest frequency percentage in the leadership and motivation process: factor Startup idea (79%), factor Other (33%), and factor Management (8%); factor State support program (25%)has the highest frequency in the control process, followed by factorFinance (13%), factor Management (8%), and factor Startup idea (5%).

Table 1. Cross tabulation - the most important process of managing startups and the most important factor, having an impact on startups success

		A5. The most important factor, having an impact on startups success					
		startup idea	management	strategy	state support program	finance	other
A8. the most	Planning	11%	**83%**	**86%**	38%	**50%**	**67 %**

	Organization	5%		14%	38%	38%	
	Leadership and motivation	**79%**	8%				33%
	control	5%	8%		25%	13%	
Total		100%	100%	100%	100%	100%	100 %

Source: Authors' creation using SPSS

Table 2 shows the statistical connection between the most important process of managing startups and the most important factor, having an impact on startups success. Based on the given table, the validity of the hypothesis is checked.

Table 2. Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	49.747[a]	15	.000
Likelihood Ratio	54.855	15	.000
Linear-by-Linear Association	5.027	1	.025
N of Valid Cases	60		

Source: Authors' creation using SPSS

Table 2 represents results of Chi-Square Tests, it shows is or no statistical connection between The most important factor, having an impact on startups success andthe most important process of managing startups. From this table is seen that the Chi-square statistic is significant at the 0.01 level (Asymptotic Significance is less than 0.001). Pearson Chi-Square coefficient is high, it is equal to 49.747. So among these variables exists maximal statistical connections and we can conclusion that hypothesis-H1 was performed it is true.

It is also interesting to see the connection between the period of startup operation and factors, having an impact on the development startups. In this regard we had to approve the second hypothesis H2: There is the statistical connection between the period of startup operation and factors, having an impact on the development startups. For this purpose, we used cross-tabulation through a custom table and obtained a cross-tabulation table 3 and a Chi-Square Tests table 4.

Table 3. cross-tabulation- The period of startup operation and Factors, having an impac on the development startups

			A6 The period of startup operation				
			<1 year	**1-3 year**	**4-5 year**	**>5 year**	**Total**
A4. Factors,	**A4_1 startup idea**	**Count**	**13**	**21**	**10**	**10**	**54**
		Row N %	**24%**	**39%**	**19%**	**19%**	**100%**
	A4_2 managerial	**Count**	**14**	**21**	**11**	**4**	**50**

	skills	Row N %	28%	42%	22%	8%	100%
	A4_3 role distribution	Count	10	21	11	10	52
		Row N %	19%	40%	21%	19%	100%
	A4_4 relations between the founders	Count	11	21	11	10	53
		Row N %	21%	40%	21%	19%	100%
	A4_5 strategy	Count	12	1	9	9	31
		Row N %	39%	3%	29%	29%	100%
	A4_6 access to finance	Count	7	19	0	2	28
		Row N %	25%	68%	0%	7%	100%
	A4_7 legal regulations	Count	14	3	3	7	27
		Row N %	52%	11%	11%	26%	100%
	A4_8 others	Count	2	2	1	0	5
		Row N %	40%	40%	20%	0%	100%

Source: Authors' creation using SPSS

Table 3 and Diagram 9 shown, that according to the factor „<1 year", It has the highest percentage of frequency the factor - legal regulations (52%) , it is followed by the factor-strategy (39%), the factor -managerial skills (28%), the factor-access to finance (25%), the factor-startup idea (24%). The factor-relations between the founders (21%), The factor-role distribution (19%); according to the factor "1-3 year" It has the highest percentage of frequency the factor. - access to finance (68%), it is followed by the factor-managerial skills (42%), the factors: "role distribution", "relations between the founders" and "others" have 40%; the factor-"startup idea" (39%), the factor - legal regulations (11%), the factor- strategy (3%); according to the factor "3-5 years", the factor-strategy (29%) is the highest percentage, it is followed by the factor-managerial skills (22%), the factors - role distribution and relations between the founders (21% -21%), the factor –other (20%), the factor - startup idea (19%); according to the factor "> 5 years", It has the highest percentage of frequency the factor - strategy (29%), it is followed the factor -legal regulations (26%), factors-role distribution and startup idea (19% - 19%).

Diagram 9. factors, having an impact on the development startups*the period of startup operation

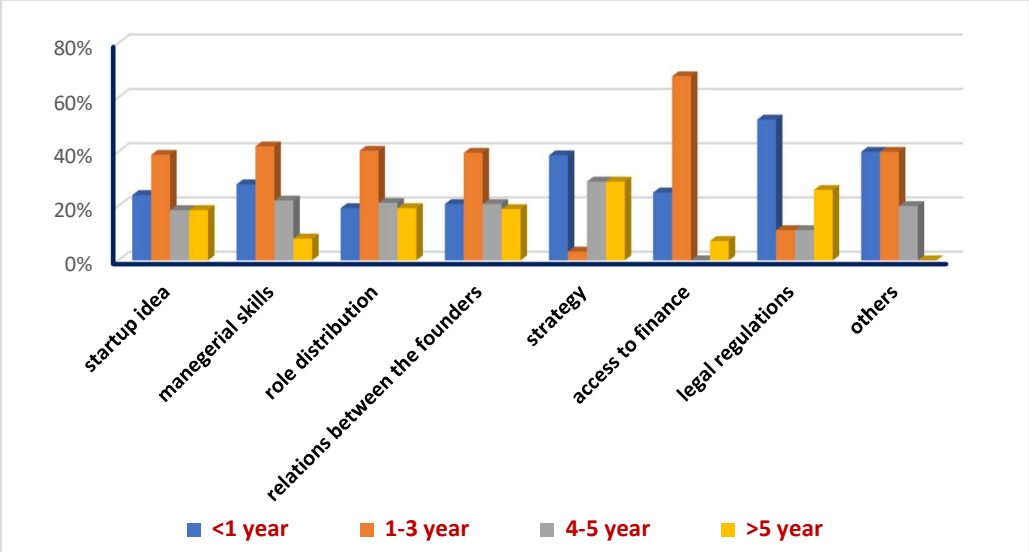


Table 4 shows the statistical connections between the period of startup operation and Factors, having an impact on development startups. Based on the given table, the correctness of the hypothesis is checked.

Table 4. Pearson Chi-Square Tests

		A6 The period of startup operation
$A4	Chi-square	150.128
	df	24
	Sig.	.000

Source: Authors' creation using SPSS

Table 4represents results of Pearson Chi-Square Tests. Chi-square Coefficient is equal to 150.128. The P –value is less than 0.001. The Chi-square statistic is significant at the 0.01 level. So among these variables exists maximal statistical connections and we can conclusion that hypothesisH2 is true too.

Discussion. As the analysis of the activities of the startups shows, across the whole cycle of the startup development, from idea formulation through receiving the income, startups are most often faced with the following problems:

- Deficiencies of a startup idea. Often, at first glance, an idea is impressive and appealing. However, during the product creation and distribution, it fails to give the desired results and is not viable.
- Wrong strategy: a company fails to identify factors influencing the newly created company and to set relevant goals and actions.
- Misunderstandings between and wrong distribution of powers across the founders (authors of the idea). Often, the authors of the idea, during the business, fail to agree on a single approach to solving some problem that often ends in the termination of their activity.
- Lack of managerial skills and skills to run business;
- Lack of access to financial security;
- Challenges related to the ambiguity of financial, legal and/or organizational regulations.

A startup management model can be given as a simple plan. This model gives all the processes that enable the formation and further development of startups. As the model shows,

startup management is related to the consistent implementation of the planning, organization, leadership and control processes. It should be noted that the success of startups is primarily determined by the right formation of their strategic vision and goals. The more thoroughly the management identifies all the factors affecting the activities of the startup, the more accurately it determines the final success that it can actually achieve through the development of relevant strategies and practical realization. The efficiency and effectiveness of startup activities are usually related to the implementation of the organizational process, during which, following the specifying the scope of works, a single design is developed and the set goals are achieved to provide the consistence between the material, labor, financial and information resources. Finally, the permanent examination of the results of startup activities and their comparison against the planned goals allows the startups to accurately evaluate the way of their development and appropriately respond in case of deviations.

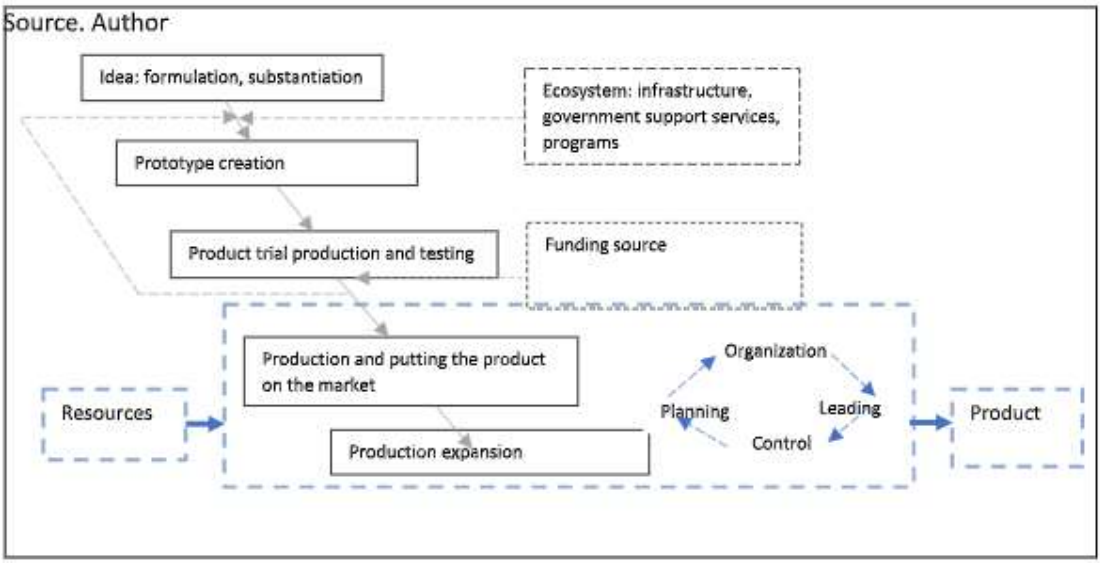


Figure 1. Startup management model
Source. Author

Thus, managing startups is a set of interrelated processes; however, depending on the stage of development, kind of positions, environmental factors, etc. of the startups, their management will need various approaches, which would be specific for individual startups.

Conclusions. Thus, managing startups is a complex process and is influenced by a number of internal and external factors. As a results, the following factors are important for the successful startup management:

- Formulation of thoroughly studied and substantiated startup idea;
- Development and implementation of the right startup development strategy;
- Preliminary evaluation of the founders' roles and wishes in establishing startups and having common views regarding the common goals.
- Acquiring relevant knowledge about the organizational, legal and financial regulations necessary for the development of startups through various trainings, projects, assistance programs, etc.

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