

Multi-Criteria Mechanism for Selecting Projects by Fintech Accelerators

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Abstract—The fintech industry is currently actively gaining its positions. Fintech accelerators are a new infrastructure institution for the Russian market of the fintech ecosystem, which is currently in the stage of its active formation. As the specialized accelerators and as the element of the infrastructure of the innovative and financial system fintech accelerators are building up their positions. This can be explained by the boom of fintech innovations. Fintech accelerators contribute to the development of new financial technologies in the market and, as a growth driver for startups, support them comprehensively. In this regard it is interesting to consider the problems of selecting startups by fintech accelerators in accelerating programs. The study authors developed a step-by-step mechanism for selecting startups by fintech accelerators, which includes the acceptance of an application for acceleration, the initial verification of the acceleration application for compliance with the formal and basic requirements established by the fintech accelerator, the detailed verification of the accelerated application, the discussion of the acceleration application at the fintech Accelerator Council and the decision-making on inclusion (rejection) of the venture project in the accelerated program, the conclusion of the contract between the startup and fintech accelerator for acceleration. The presented mechanism corresponds to the multicriteria nature of the selection of startups for acceleration, including such criteria as a technical idea, a product, an object of intellectual property, a business plan, a financing mechanism, a venture company, a team, a general application, and so on.

Keywords—*fintech industry, innovative and financial system, selection of startups, accelerator.*

I. PERTINENCE

Innovations as “business superstars” [1] are absolutely necessary to the Russian economy for its healthy development [2], boosting its competitiveness at the global market and are particularly pertinent in the current geopolitical environment.

Fintech accelerators are already used in the global and national markets and they only strengthen their positions; nevertheless, there is still a lack of practical systemic projects as well as theoretical research in the field. Today in Russia, there are very few publications on fintech accelerators, but as a whole in fintech industry there is an increase in relevant research, for instance the works of Korableva O.N. [3],

Krylova A.V. [4], Medvedkina E.A. [5], and Pertseva S.Y. [6]. The studies conducted by Ernst & Young [7] and PricewaterhouseCoopers [8] are also of interest.

That is why the authors of this research believe that it is essential to study the application review process by fintech accelerators and present step-by-step acceleration application review mechanism given various selection criteria.

Any fintech accelerator has a number steps for acceleration selection of startups taking into account certain criteria and multidimensional analysis of both an innovative idea and the implementing team, certainly in the light of exogenous and endogenous factors. In this context, it seems interesting to create a mechanism to select startups on the step-by-step multi-criteria basis in order to boost high-tech financial innovative products in Russian newly developing digital economy.

The authors of this research seek to develop a multi-criteria mechanism to select startups for an acceleration programme.

II. RESULTS

A. Multi-Criteria Startup Selection for Acceleration

The selection process of startups for acceleration as a whole starts with filing an application and ends with an in-person interview with a fintech accelerator's representatives and, if necessary, with others, for instance, with potential investors. Startups go through a highly competitive selection process. For a project to become part of an acceleration programme, it should meet a number of criteria. The authors identified what, in their opinion, the most important criteria are.

1) Technical idea

When assessing a project the fintech accelerator analyzes an innovative idea that forms the basis of a startup: its creativity, the quality level of product development, market competitiveness, patent opportunities. The assessment can be conducted by staff members of a fintech accelerator and outside experts, as well as by both of them at the same time. Technical idea of a fintech innovation must be feasible, saleable, and applicable. Fintech accelerators almost never support fundamental research that at the same time needs long-term investment and has long-term pay-back period.

2) *Product*

The product that will be manufactured by a startup after an acceleration programme is thoroughly assessed. On the one hand, fintech accelerators are interested in unique innovative products, but on the other hand, they should not be fundamentally new. The assessment focuses on potential appeal of a product for the consumer, its future demand is forecasted, as well as psychological factors that can hinder the product's marketing are taken into consideration. It is hard for brand new products to take their niche in the market right away, and only few of them can become an immediate success that increases the fintech accelerator's risks and does not further its main goal of fast acceleration of a start-up.

3) *Exclusive rights over an intellectual property asset*

During the application process for the acceleration programme, it is advantageous for a start-up to have legally acknowledged exclusive rights over an intellectual property asset, as in this case the startup may not only be a natural monopolist in the market but also, if necessary and economically beneficial, sign a contract on exclusive intellectual property rights alienation or a licensing contract and thus gain additional capital to improve the idea or continue R&D activities.

4) *Business plan*

A definite and detailed business plan is a considerable advantage in the competitive selection process. Business plan should first and foremost focus on marketing plan to present as thoroughly as possible sales opportunities for the product manufactured as part of the project. Risk assessment and financial flows formation is also important.

5) *Financing mechanism*

Different financing forms and sources is definitely a huge advantage for a start-up in the competitive examination for a place in a fintech accelerator.

6) *Startup*

The competitiveness of a start-up is directly assessed, SWOT and PEST analyses that make a multidimensional scrutiny possible are conducted. The analysis of financial flows in a company's activities are analyzed particularly carefully. Some fintech accelerators assess financial and business situation of a startup, if it already operates, and make forecasts for the future.

If the application for acceleration is filed by a team that already has a legal entity, the fintech accelerator assesses the actual capital structure of the company, including both the amount of money brought in directly by investors and the equity to debt ratio with a view to evaluate the potential for raising debt funds.

7) *Team*

Fintech accelerators mainly focus on the team implementing the project. There is a popular saying: "It is

better to invest into a bad idea with a good team than into a brilliant idea with a bad team. Venture investment is for real businessmen. 90% of startup's success depends on them." [9].

The team must be balanced, wholly independent, and reliable. It is preferable for it to have not only innovators, but also lawyers, economists, and marketing experts that can promote the product on the market. Fintech accelerators usually have enough trust in a startup team when it comes to the technical dimension of the project, though they can offer services in order to improve the innovative idea with the help of experts.

The team should be hard working, conflict-free, and able to work under pressure. Certainly, the team should have a leader that must not only be a charismatic person but also a good entrepreneur. At the in-person interview with the fintech accelerator's representatives, it is essential to make a good impression, not to prolong the interview, and present the potential product both as concisely and eloquently and clear as possible. As some fintech accelerators conduct presentations through modern means of communication, it is vital to provide a web-camera, a microphone, a speaker, and other necessary equipment. A startup team should carefully prepare for the presentation.

On the one hand, the team's members should be experts in their particular field; on the other, they should be able to replace other members in case of an emergency.

8) *Application*

Every fintech accelerator has its own criteria for applications, which are most often publicly available and can be found on the website. It is essential to fill in the acceleration programme application accurately and precisely as the applications that are not correctly filled are not accepted, and an interesting and promising project may not pass the selection process of a fintech accelerator for organization reasons.

Fintech accelerators cannot review applications only from innovative companies that meet multi-criteria selection parameters as the influx of applications is too big, but, as a first step, a fintech accelerator can refuse an application if it is completely outside its field and is simply not interesting enough and does not seem promising to the accelerator.

B. Acceleration Selection Mechanism for Startups

The development of a start-up selection mechanism by fintech accelerators demands a step-by-step mechanism for submitting applications, examining them and making a decision on a start-up admission to an acceleration programme.

The authors suggest improving the start-up selection mechanism in fintech accelerators in the light of multi-criteria selection parameters in the following way.

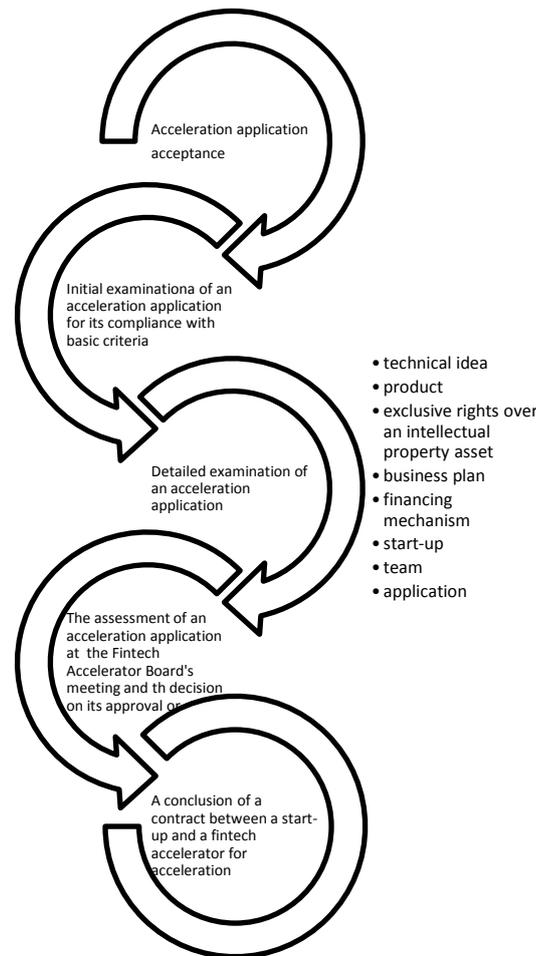


Fig. 1. Multi-criteria startup acceleration programme selection mechanism.

Step 1. Acceleration application admittance

The application can be submitted by an individual or a group of individuals by one of the three ways:

1. applications only via Internet;
2. applications only in paper form;
3. applications via Internet and in paper form.

In an acceleration programme application, it is preferable to foresee the necessity to submit the following documents:

- personal information on every individual who participates in the project implementation;
- a brief description of the innovative idea;
- business plan that must include a resume, business asset assessment, cover legal issues, industry description, potential sales market analysis, organizational plan, investment plan, production plan, marketing plan, financial plan, risk assessment of the project, and conclusions and appendixes. The focus should be made on the uniqueness of the project on the one hand and its innovative concept must be presented in a detailed way on the other. It should be audience-friendly and comprehensible even to non-experts in the project's field. Investment, financial, and marketing plans should also be

assessed very carefully. Resume must be brief but clearly expressing the main idea behind the presented product. Having read the resume, the fintech accelerator representative should form a relatively complete picture of the project. The resume's wording should interest both the fintech accelerator and potential outside investors;

- exclusive intellectual property asset rights documents (if applicable);
- documents acknowledging sources that finance the company's operation at the moment (if applicable);
- a copy of the company's state registration certificate (if applicable); it is necessary to understand here that fintech accelerators prefer legally established companies;
- a copy of a registration with a tax authority (if applicable);
- documents indicating the presence or absence of property encumbrance (if applicable);
- the company's finance statement (if applicable);
- personal data processing consent;
- other documents at the fintech accelerator's request.

All the submitted documents must be in due form and, for that purpose, a fintech accelerator should provide an electronic submission system or develop and publish rules for filling-in process and format of the acceleration application. It is also practical to make available different forms of signature of the application by the applicant. (it can be a handwritten or digital electronic signature; in some cases a scan is also acceptable)

Despite the fact that fintech accelerators seek to create competitive startups by developing and improving its business plan, including its financial, legal, marketing, organizational, and other elements [10]; when applications are submitted, almost all fintech accelerators ask innovators to present their business plans in order to assess the amount of necessary corrections, potential time and labour investment .[11]

Step 2. The Initial assessment of an acceleration application as to its compliance with formal and basic criteria established by a fintech accelerator

The assessment is carried out by a fintech accelerator representative within the time period specified by the accelerator. First, compliance with formal criteria is assessed, in particular the availability, completeness and correctness of submitted documents.

When fintech accelerators receive an application for an acceleration programme, first, they must conduct a legal examination of the project to confirm whether the future deal is lawful. Furthermore, an initial examination is conducted in order to show whether startups meet basic criteria of admission to acceleration programmes; experts assess the potential of an innovative idea and financial analysts evaluate the financial feasibility of a project, its commercial effectiveness. [12, 13] Every examiner must present quite a detailed written statement on the conducted examination of a start-up preferably describing weaknesses and strengths of the project and, if needed and expedient, giving recommendations concerning possible improvements.

In order to make a decision at the end of the initial examination it is viable to form a commission in a fintech accelerator that will comprise the most authoritative experts examining acceleration applications.

As a result one of the following decisions can be reached:

1. to approve an acceleration application and to present it to the Fintech Accelerator Board;
2. to report an acceleration application out;
3. to refuse an acceleration application.

If a startup passes the initial examination, it goes to the third level. An individual who submitted an application is informed about the results of examination during any step by any of the available communications channels and also in written form by mail and/or e-mail.

Step 3. Detailed examination of an acceleration application

During this step, it is preferable to send the application for assessment not only to fintech accelerator representatives, but also to outside experts, including potential investors, independent industry experts in order to find out their opinion on the start-up and its product. In this case, a fintech

accelerator will know from the beginning how fast the startup can raise funds, what problems the project has, and what hinders its progress in the opinion of outside business entities. In some cases, it is desirable to refer an acceleration application for analysis to other infrastructure institutions of a fintech ecosystem.

The staff of a fintech accelerator put together a package of documents necessary for the startup's assessment and refer it to experts with an established deadline.

At this stage, the following startup selection criteria are considered in detail: the technical idea, the product, the intellectual property asset, the business plan, the financing mechanism, the start-up, the team, and the application as a whole. A scientific and technical expert evaluation of an innovative product is conducted; the organizational and legal status of a startup is examined (the compliance with the Charter, the management's decisions, Federal executive authorities' registration certificates, etc.); marketing evaluation; financing plan analysis; the evaluation of the start-up's potential effectiveness; financial and business evaluation; corporate structure analysis; team and human resources analysis; legal analysis and the assessment of legal risks concerning exclusive rights to intellectual property assets. Many selection start-up fintech acceleration criteria are comprehensively examined in the light of a project's uniqueness and the standards set up by a specific fintech accelerator.

Every expert prepares a detailed evaluation statement covering both the startup as a whole and the product that will be put on the market with all its weaknesses and strengths and, if necessary, recommendations concerning possible improvement; he or she also discusses the possibilities of raising funds for the project under review (if the expert is a potential investor).

A fintech accelerator's representatives gather all expert evaluations, file the received information, and prepare documents necessary for a Fintech Accelerator Board meeting.

Step 4. The discussion of an acceleration application at the Fintech Accelerator Board's meeting and the decision on a startup's acceleration programme application approval (refusal)

It is suggested to make a Fintech Accelerator Board a body with the authority to make a decision on a startup's admission to an acceleration programme. In this case, the Fintech Accelerator Board must first examine all the expert evaluations and other provided documents and then make a decision on an acceleration application by a simple majority open vote.

As a result one of the following decisions can be reached by the Fintech Accelerator Board:

1. to accept an acceleration application and admit the start-up to the acceleration programme of a fintech accelerator;
2. to refuse an acceleration application and not to admit the startup to the acceleration programme of a fintech accelerator.

An individual who submitted an acceleration application is informed about the results of examination during any step by

any of the available communications channels and also in written form by mail and/or e-mail.

Step 5. The conclusion of a contract between a startup and a fintech accelerator for acceleration

A fintech accelerator prepares documents for a conclusion of a contract with a startup for an acceleration programme.

Thus the authors believe that the selection of start-ups into fintech accelerators can be divided into five major steps.

III. PRACTICAL PERTINENCE

Startupbootcamp Fintech, Fintech Innovation Lab, F10 Incubator and Accelerator, Level39, Barclays Accelerator [14] are considered to be among the best fintech accelerators in Europe; in the USA, these are Wells Fargo Startup Accelerator and BNY Mellon Innovation Center. [15] Russian fintech accelerators only make their first steps. Fintech Lab [16] is one of the biggest and most famous accelerators in Russia established in 2017 by a number of banks (AK BARS, VTB 24 Bank, Otkrytie Bank, Sankt-Peterburg Bank, Bank Home Credit) and the international payment system Mastercard.

This research of multi-criteria start-up selection into fintech accelerators has a practical dimension: its results can be used in offering consultation services for fintech accelerators' representatives or startups filing their applications for acceleration programmes and as a whole make it possible to improve the existing fintech ecosystem [17] by making it more comprehensible and accessible for the fintech community.

IV. CONCLUSION

Thus, fintech accelerators while selecting project for an acceleration programme assess systematically a number of criteria, most important of which are discussed above.

If an innovative idea and a startup formed on its basis with a relevant business plan as well as the startup's team will be positively assessed by a fintech accelerator, then the project may be admitted to the acceleration programme, which will help it to raise funds and in the future this start-up may well become a market leader.

The developed step-by-step selection of startups for acceleration in the light of multicriteria selection process will

help to develop Russian fintech industry by standardising and streamlining project selection and procedures and financial contribution by fintech accelerators and other financial and non-financial institutions.

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