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STRATEGY FOR SUCCESSFUL START-UP LAUNCH IN THE RUSSIAN ECONOMY (WORK EXPERIENCE)

In the modern Russian economy, start-ups begin to play a significant role - young and ambitious companies aimed at the rapid implementation of a new idea in order to earn high profits. The economy of our country is being transformed and its innovative potential is increasing due to the development of the start-ups system. A successful startup needs not only a promising idea but a clearly structured strategy to implement an innovative idea, avoid possible risks, prevent errors, select a viable team of like-minded professionals, manage investments wisely, produce, sell or provide in-demand and competitive products and services. Having broad experience in the field of launching startups in Russia, we try to consistently examine each component of a competent strategy in this article so that businesspersons could use it and implement their innovative ideas in startups.

Keywords

startup, startupper, strategy, businessperson, innovative business, marketing, financing, investment, startup team

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1. Introduction

A young business, which is aimed at implementing a promising idea in order to quickly achieve high profits is traditionally called a startup. If a few years ago it was necessary to have an innovative idea for a startup, then recently this term simply means the launch of a new business. Typically, the most successful startups are run by young businesspersons with a high level of ambition. The process of implementing an idea in a startup involves a high degree of risk, low chances for success and the need to assemble a professional and viable team. The life cycle of any startup consists of passing through certain phases or stages of development, these are: the origin of an idea, the immediate launch, the development and expansion of horizons. For example, having launched a startup on the basis of a loss-making outlet in Krasnodar, we already have a developed network of stores at the moment. And there are many such examples.

2. Discussion

In his book "The Hero with a Thousand Faces", the American scientist mythologist Joseph Campbell formulated the concept of "hero's journey" based on the world heritage in the field of mythology and religion clearly highlighting its structure: call; giving up the call; threshold crossing; gaining custodians; face to face with demons and shadows; development of the "inner self"; transformation and coming home.

If you project this structure onto the path of a startupper, you can find analogies with the process of establishing a new company. Any startup begins with an idea, sometimes it is rather illusory, it is just an idea of a goal and likely prospects at the initial stage

(call). Bringing this idea to life successfully is possible only through overcoming doubts (giving up the call), stepping over the stamps of traditional business (crossing the threshold), recruiting a viable team and finding reliable investors (gaining custodians). It is imperative to go through the “valley of death” (face to face with demons and shadows), reach the stage of stable growth and profit, achieve success and prosperity (development of the inner self, transformation), expand the startup network and share your experience with colleagues (coming home).

Startups are significantly different from our usual concepts of “entrepreneurship” and “business” because they are aimed at innovation, high growth and profitability, and investment. A startup can be launched by both a young and an experienced businessman; even a large company can launch it. Startups do not have to work for a large market, they are start-up business projects with very illusory prospects that can be implemented in almost any business.

Startuppers are characterized by ambition, the desire for rapid growth and high profits. This is what attracts venture investors who, despite significant risks, prefer startups to small businesses in order to get multiple profits. Besides, startups, unlike large companies, are flexible, quickly adapt to changes in the market, independent in decision-making, and demonstrate a good response to the wishes of consumers.

3. Materials and Methods

In the process of generating startups and advising fellow businessmen on their launch, we came to the conclusion that more than 90% of novice startuppers make a number of serious mistakes when organizing a new company, which results in failure. First of all, the startup itself, as an innovative business, should not be treated emotionally, and you should take the attitude of a businessperson-manager.

Among the most common mistakes of novice businessmen are the following:

1) Misconception about a startup. Many people believe that the most important thing for establishing a new company or enterprise is to have a promising idea. But until the startup has started to bring a stable profit, it will be limited to the framework of the thinking process and will not be valuable from the point of view of the economy.

2) In addition, a large percentage of startuppers attach too much importance to investments, but this is fundamentally wrong. It is most productive to launch a new business with your own funds, and initially treat investments as someone else's money that imposes certain obligations on you. Therefore, when launching a startup, investments are likely to harm and reduce the motivation not only of the team, but also of you as a leader.

3) Some startuppers are often let down by excessive self-confidence and their righteousness about how to quickly succeed in business. This trend is sometimes called the “teenager syndrome”, when a businessman is absolutely sure in his idea about the development of his innovative idea in a startup.

4) The financial component is very important in a competent strategy, which must be scrutinized. Our personal experience suggests that start-up businesspersons quite often invest financial and other resources in the product itself, the demand for which has not been fully examined. The lack of various resources results in problems for marketing and sales of products.

5) A lot of startuppers aged 40 and older when starting a business are very hampered by the thinking of a Soviet person. Experienced businesspersons often call this phenomenon “Sovok” management. Such businesspersons, when launching a startup, deny the strategy, methodology, try to build an innovative business on the principles of the “Sovok” (as the USSR has been called in some circles for a long time) and aggressive trends of the dashing 90s.

Even one of the above mistakes may well lead a startup to failure, and if you make several at once at the launch stage, then this is 100% destruction of both the idea and the young business.

Thus, there are a number of fundamental mistakes that a startup itself often provokes in the course of its work, but there is also a competent strategy - a number of necessary steps, as a model for managing a new company. In order to successfully start, a young company needs a strategy as a foundation. It serves as the basis for the implementation of any startup. The strategy makes it possible to understand which market to enter, how to present your product or service more profitably and, in general, to understand what prospects your company has.

4. Results

Before you launch a startup, like any other business, you need to decide on its scope. The driving force in the launch process should be the right idea about the future of the project and a personal point of view, which will help answer pressing questions:

- 1) what kind of business you are planning to launch;
- 2) who is your main consumer;
- 3) whether the product will be sold or the service will be provided;
- 4) what stages the startup development will go through;
- 5) what are your company's strengths and advantages over others.

Having answered these questions in detail, you proceed to the next stage of the strategy - formulation of the goal and tasks, as well as the definition of methods for achieving them. This stage can be represented as a tree, where the trunk is the goal, and the branches are the tasks.

With one main goal - to launch a successful startup and quickly achieve high and stable profits - the tasks should be clearly divided into two groups: short-term (from 6 months to a year) and long-term ones (up to 4-5 years). In the process of achieving the goal and objectives, the startupper again needs to answer a number of personal and business questions:

- 1) what do you want to achieve as the manager of a new business;
- 2) what will be the scope of your company;
- 3) whether you will work in a startup yourself or completely entrust the work to selected personnel;
- 4) what are the qualitative and quantitative characteristics of the produced (sold) product or service;
- 5) how the wishes of consumers will be satisfied.

At first, any startup needs to concentrate on the implementation of short-term tasks, because each new business concept must be carefully analyzed and you are to work out a methodology for further personal and team actions.

According to statistics, only 10% of new products introduced to the market begin to make a profit. Thus, 9 out of 10 attempts to launch a new product end in failure and significant financial losses. Despite the huge number of such failures, many of which have already become common examples in the history of world business, startupers continue to follow the same path and the negative story is repeated many times.

That is why testing a market niche can be called an important step in a successful strategy, which will reveal the real attitude of consumers to the product being produced or sold, the service provided, i.e. the demand for it. The development of a new product, service in isolation from live buyers or customers whose opinion is the criterion for verification, will lead the company to a natural failure.

Having found your target market, you need to position your business at the same level as the majority of consumers. The strategy allows you to select the most successful marketing

moves for searching, communicating and informing the market about your products and services. Any strategy must be tested, and it is necessary to analyze all possible risks for this, especially when a startup needs serious investments. It will allow you to reach a new level, achieve success, if the startupper demonstrate flexibility and responsibility, fully actualizes, constantly improves his/her intellect and creatively builds a business model.

It is best to start your business with sales, and, in some cases, they can be made even before the product is produced, i.e., sell it to potential customers for an advance payment. Thus, communication will be established and an agreement with the consumer will be preliminarily negotiated. In case that it is possible to sell a large batch of goods for an advance payment, then a startup can do without investments and produce or purchase products independently. It all starts with the fact that a startupper begins to understand exactly how to sell the product and has already tested it in practice. That is why we recommend, first of all, to pay attention to the sales department in your startup.

An equally important component in the strategy is a reliable and viable team capable of creating, promoting, implementing a product or service. It is necessary to separate responsibilities in the team immediately: leave a small but important part for yourself and personal assistants (moreover, you need to leave for yourself the most responsible work that best demonstrates your competences), and entrust the main part to your team. At the same time, we must not forget that even the most monolithic team of like-minded people will not be able to complete a business project on their own only on sheer enthusiasm. Therefore, one-time or small-scale work should be outsourced to narrow professional specialists in order not to pay them a full salary.

It is better to launch a startup with small things, because the commitment to giant projects can lead to ruin. A new business should be based on a "grain" - a product, invention, service that can be brought to the market quickly, without investment or with a minimum amount, and make a good profit. This "grain" should be valuable and competitive, and after the first profit, it is already possible to update and expand the range of products or services.

Marketing is very important for any startup, so a competent strategy is often called marketing. Marketing is extremely necessary both in the production and in the sale of the product, in the provision of services by the company. Marketing moves should ensure a constant influx of consumers, these moves must be carefully calculated and controlled. The funds allocated for marketing should be significantly larger than for the product itself, since even a very good quality product or service cannot be sold on its own.

Both experienced and novice startupper should not ignore external consulting. Almost every new company has a difficult goal, a large number of no less complex and serious tasks, for the solution of which experts are needed. Since a startup does not have sufficient finances at the beginning of its work, it is quite reasonable to attract a high-level expert as a consultant. Even if 2-3 hours of his working time will cost you a lot, these expenses will pay off, because during this time he/she will be able to solve those problems that you and the team will not be able to solve even in six months without necessary competences and experience. This element of the strategy is taken from the foreign business practice and always works well. If the startup budget allows, it is possible to involve not individual specialists in consulting, but even companies.

As for investments, they are not so necessary for a startup at first. It is quite possible to start your business without them if you have a promising idea. Investors should be attracted to your business project when its main idea is verified and funding is needed only for further growth and development.

The startup strategy works well if you start building your business at a young age, no older than 23-26 years old. At this age, there is still a lot of time for experiments and errors, parents can help in some way, most often there is no family and children. This is important, since a new business project will initially take the most time with minimal

profit. 30-40 years old is also a good age for a startup, because during this period a person has already acquired sufficient experience and made start-up capital.

Even with a strict adherence to the strategy, a situation may arise when a startup is on the verge of bankruptcy. This applies to the main part of the new business, both in Russia and abroad. Therefore, the head of the company should never give up and surrender, it is necessary to analyze mistakes, review the actions in accordance with the strategy and move forward step by step.

Our experience in the field of innovative business shows that a startup that develops quickly and successfully requires serious financial investments. This is a kind of "growth paradox, in which the faster growth is, the more money will be needed to maintain growth, and the more money will be missed" [2].

Therefore, the personal income of a startupper will be insignificant during the period when a startup develops until it reaches a stable profit, and this period may last more than one year. We strictly adhered to the business plan and the chosen strategy when launching our first startup in Krasnodar and, due to this fact, our personal income increased significantly in six months.

A successful launch strategy requires the head of the company to document all agreements with customers, partners and investors. All terms of transactions and investments must be agreed before financial settlements are made, since any business is a risky thing. In parallel with this, all startup expenses must be approached very economically, even if you have seed capital. But even a solid amount of money will not be enough with rash spending.

You should never forget that a startup is a team of professionals and like-minded people that you have attracted to its creation. Very often, startupper do not trust their people enough and try to think for team members and delve into those aspects in which they lack competence, instead of listening to their opinion and trusting their vision of problems. The founder of a business often takes on the lion's share of duties and responsibilities, as a result of which he/she constantly overworks, and the staff is underloaded. Successful startupper act differently: they delegate the main part of the work along with all the responsibility to their team and constantly control the executives.

Following the strategy requires a startupper to plan work carefully depending on the importance of the business goal, tasks and the urgency of their solution. With this approach, the founder of the company will be able to deal with the eternal problem of lack of time, less time will be spent on current affairs and much more time on strategically important ones.

To prove yourself well in the business circles, you must always be responsible for your promises and obligations to consumers, team members, partners, and investors. Moreover, it is absolutely not important to whom these promises are given, the main thing is their fulfillment.

There is such a notion as "manager burnout", and this concept refers more to psychology than to business. Businesspersons who are very overloaded with work suffer from this burnout, their motivation to develop a startup is significantly reduced, and they lose interest in working in general. In this case, even a competent strategy will not help you. Therefore, it is vital for startupper who plan to launch a successful business to find a balance between work and leisure, maximize positive emotions and minimize negative ones, devote more time to loved ones and friends, and travel.

5. Conclusion

Unfortunately, a significant part of promising ideas remains without implementation quite often. Starting businesspersons are stopped by many things: lack of finances, work, family, etc. A well-thought-out strategy, which is based on the experience of successful startups and projected on the implementation of your innovative idea, can help you quickly start a business from scratch, which will begin to produce high and stable profits over time.

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PROPER LAWSUIT NOTIFICATION IN THE US AND THE UK IN THE ERA OF SANCTIONS

The problem of proper notification of a foreign defendant is one of the most complex and urgent problems of international civil procedure. In the framework of this study, we will not separate the categories of proper and timely notification, but will study proper notification as a broader concept, including timely notification.

Keywords

Court notices, notification of the defendant, international civil procedure, proper lawsuit notification

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1. Introduction

The complexity of the problem under study comes out of the conflict of jurisdictions - a situation when several legal systems simultaneously claim to regulate relations related to the notification of a foreign defendant (*Baumgartner, The Proposed Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial*

Cases: Transatlantic Lawmaking for Transnational Litigation. Tübingen, 2003). In such a situation, the court and the parties face a conflict of jurisdictions between the legislation of the court's country and the legislation of the respondent's country of origin. The urgency of the problem is caused, among other things, by unprecedented sanctions against Russia, which have caused difficulties in communication between the authorities of different countries, the rupture of logistics (courier) chains and the mass culture of "cancellation of Russia", which may lead to a violation of the right of the parties to participate in the trial, and at the same time to have an impartial court. As a part of our research, we will consider the general procedure of notifying parties about the process in the United States and the United Kingdom, and also focus on the emerging practice of such notifications in relations to the Russian government during the period of sanctions and "unfriendliness".

2. Methodological Framework

The methodology of this study consists of theoretical methods, in particular with the analysis of the regulatory framework of the United Kingdom and the United States, as well as with theoretical studies written by a number of English, American and Russian authors. The purpose of this article is to study the specifics of notifying a foreign defendant in the United States and United Kingdom of a lawsuit in the era of sanctions. The relevance of the topic of this study is due to its novelty and poor elaboration in the environment of Russian and European scientific research. As a result the author comes to the conclusion that it is necessary to form clear criteria for the proper notification of a foreign defendant of a lawsuit and to expand the admissibility of using alternative notification methods.

3. Discussions

3.1. *Introductory part: legal regulation of the issue*

The participation of Russian citizens in lawsuits in the UK and the US is not uncommon. And it doesn't always concern family and marriage relations, but also trade in general.

For example, under authority of the English Law on Marital Relations (Matrimonial Causes Act 1973), a spouse who has a proven connection with the UK (for example, if he has lived there for more than a year, including previous visits to the country) can apply to an English court with a property claim against his spouse or ex-spouse, including the case, when the marriage has already been dissolved outside the UK. The court may make a decision to divide the property, awarding the plaintiff a part of the property of the spouses, monetary payments - including the situation when the courts outside the UK (for example, in Russia) have already resolved the issue of the division of property. The amount of judgement awarded is determined by the court on the basis of the "reasonable needs" of the spouse. The statute of limitations does not apply to such cases.

Let's give another example. By virtue of the New York State Code of Civil Procedure of 1846), state courts have the right to consider disputes with a person residing outside of it, if the criterion of close connection of the disputed legal relationship with the territory (minimum contacts) is satisfied. With regard to family disputes, by virtue of section 302 (b) of the Code, this requirement is fixed as a requirement that the plaintiff has domicile in the state of New York, as well as that the spouses have permanently resided together in this state (Had Marital Domicile) before the termination of the actual family relationship. At the same time, the question of the duration of cohabitation for the presence of a close connection is considered differently. In particular, in *Levy v. Levy*, 185 A.D.2d 15 (N.Y. App. Div. 1993) this concept was interpreted broadly, covering the situation when the parties lived together in the state of New York for some time in the past, even if they later moved out of it.

At the same time, family and civil relations present only one of the branches within which a foreign jurisdiction may be present. At the moment, there is a certain amount of trade and financial relations between these countries and foreign jurisdictions, as well as in Russia.

3.2. Features of the legal regulation of the issue in the USA

Separately, we will focus on the issue of regulating the procedure for notifying a party of a lawsuit in the United States.

The legal system of the country in question has a complex structure in which state laws may contradict each other, and federal legislation gives a certain amount of discretion. In the procedural legislation of individual US states, it is established that notification of a foreign defendant located outside the United States is carried out by transmitting a notification to the Secretary of State (Secretary of State), who then must transmit it (most often by mail) to the defendant. At the same time, the notification period is counted not from the date of actual receipt of the notification, but from the moment of its transfer to the Secretary of State. This rule is enshrined in the Code of Civil Practice and Remedies of Texas 2017 (Civil Practice and Remedies Code). As an example, we can cite the case of the District Court of Texas (*Blue Spike LLC v. Biolink Solutions LTD*), the subject of which was the alleged violation by the Russian company Biolink Solutions of the rights of Texas Blue Spike (an American company) by means of individualization. At the same time, the notification of the Russian defendant was carried out precisely by sending a notification to the Secretary of State. At the same time, the American court did not take it into account and took into account the provisions of the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases of 15.11.1965, and also did not take into account the absence of any direct or indirect connection between the Russian defendant and the territory of Texas.

According to the established American judicial practice, the main criterion for the proper notification of a foreign defendant is the compliance of the notification with the procedural legislation of the country of dispute resolution. At the same time, non-compliance with the law of the country of the place of notification (its violation) is not a sufficient reason for terminating further consideration of the dispute and making a decision against a foreign defendant in his absence (*Bishop, Service of Process and Discovery in International Tort Litigation // Tort & Insurance Law Journal. 1987. Vol. 23. N 1. P. 70 - 146*).

This conclusion is supported by the precedent of the New York State Court in the case of *Morgenthau v. Avion Resources Ltd.* (*Morgenthau v. Avion Resources Ltd.*), in which the defendant (*Avion Resources Ltd.*), residing in Brazil, was notified by registered mail, despite the fact that according to the procedural legislation of Brazil, notification of the defendants of a legal dispute located on its territory is allowed only by delivery of notification through diplomatic channels. The New York State Court of Appeals recognized such notification as a registered letter - the proper way to notify the party. The Court pointed out that the plaintiff lawfully and reasonably chose the method of notification provided for by the legislation of the state of New York, that is why a possible violation of the procedural legislation of the country of notification (Brazil) has no legal force.

Note that Article II of the US Federal Rules of Evidence of 1975 (Federal Rules of Evidence, "FRE") consists of a single rule - Rule 201. FRE 201 covers judicial notification of judicial acts that concern the parties to the trial, but not of legislative facts that are of a general nature.

FRE 201 (c) notes that a court notice may be permissive or mandatory. According to the wording of the rule, a court notice is permissive if the court accepts such a notice independently, and mandatory if it is requested by a party and the necessary information is provided to the court.

When determining the procedure for notifying a foreign party, the courts take into account federal public laws and treaties, state public laws and official regulations of both federal and local authorities.

FRE 201 (f) establishes that the effect of judicial notification of the court differs in civil and criminal proceedings. In a civil court, the fact in question may be considered definitively proven, the party may apply for improper notification without the procedure of initiating a separate meeting in this regard. In a criminal case, the defendant has the right to challenge every fact within the framework of one process or several processes (i.e., to take the fact of improper notification out of the main process), which may indicate his incrimination, including judicial notification. Separately, we note that issues of foreign law are subject to permissive judicial notification.

An interesting practice has been emerging over the last decade, according to which the parties and the court can use forms of alternative notification. Facebook, Instagram, for example. So, in one of the cases, the plaintiff found the defendant's accounts in the specified social networks and found out the email address in them. The plaintiff only believed that they belonged to the defendant, but the plaintiff could not provide the court with indisputable confirmation of this. For this reason, the plaintiff asked to recognize as appropriate the notification of the second party, made simultaneously at her last known place of residence, and by e-mail and via Facebook. Separately, we note that issues of foreign law are subject to permissive judicial notification.

Another decision that received wide coverage in the foreign press was issued by the U.S. District Court for the Eastern District of New York, USA, in the case of *Ferrarese v. Shaw* (No. 1:15-cv-03738, 2016 (E.D.N.Y. Jan. 19, 2016)). The case received such publicity in connection with the plaintiff's notification of the defendant of the claim via Facebook.

The case dealt with a family dispute concerning the residence of a minor child with another parent, after a short stay with a parent with whom, according to a previously issued court decision, this child should live.

The plaintiff, who was obliged to notify the defendant, could not do it in person or by mail due to the fact that she systematically changed both her residential address and her name. Her sister lived at the last known place of residence of the defendant, who refused both to accept the documents for transfer to the defendant and to inform her of her current place of residence.

Considering the case, the court noted that under the New York State Code of Civil Procedure of 1846 § 308(5), the court, if notification in the usual way is practically impossible, may instruct to notify the party in another way at its discretion, if such a method reasonably takes into account the interests of all parties and allows for compliance with constitutional law for consideration the dispute within the framework of due process of law ("dueprocess").

The Court referred to court precedents in which notification by e-mail was allowed if the message "with a certain degree of probability" ("likely") reaches the defendant (*D.R.I. Inc. v. Dennis*, No. 03 CV 10026, 2004 WL 1237511), and notification via Facebook, on the contrary, is allowed only as an auxiliary notification method (*F.T.C. v. PC Care 247 Inc.*, 2013 WL 841037).

Note that no substantial evidence has been provided that the e-mail address data and the Facebook account belong to the defendant, the court nevertheless allowed them to be used as additional notification methods, along with notification by mail at the defendant's last known place of residence.

Despite the fact that the main thing in this case was the notification at the last known address of residence, the court recognized an alternative version of the notification as possible. Thus, the use of social networks as auxiliary notification methods is also not something new.

Nevertheless, this case is interesting because the court was quite loyal to the plaintiff's claims that the email address and Facebook account belong to the defendant. These conclusions were made by the plaintiff based on the similarity of the address and account with the name of the defendant and the fact that he recognized her in the account photo. The defendant herself did not confirm that these data relate specifically to her (unlike in the case of *Maughan v Wilmot*, where the defendant indicated his email address in the application). In a situation where the court already knew that the defendant did not live at her last place of residence, the judicial act issued could well lead to the fact that none of the notification methods could achieve the goal of actually notifying the defendant. Perhaps this approach of the court was due, among other things, to the procedural abuse of the defendant herself, who actively evaded receiving notification of the process by repeatedly changing her place of residence and name.

3.3. Features of the legal regulation of the issue in the UK

According to English law, the *lex fori* principle and the possibility of notifying a foreign defendant in any way not prohibited by the legislation of the defendant's country of residence are applied.

Although the *lex fori* principle, according to which notification of a foreign defendant is carried out only in the manner provided for by the legislation of the country of the court, prevails in the legislation of most States, the latest codifications in the field of international civil procedure contain certain deviations from this principle. Article 6.40 of the Rules of Civil Procedure of England and Wales 1998 establishes that notification of a foreign defendant can be carried out not only in the manner provided for by an international treaty /using diplomatic channels/ by means of a court order, but also in any way not prohibited by the legislation of the country of notification. At the same time, the party carrying out the notification is not granted the right to violate the legislation of the country of the notification. Thus, the law of England provides for the possibility of alternative notification of the party about the trial.

The consolidation in the Rules of Civil Procedure of England and Wales 1998 of the right of a party to notify a foreign defendant in any way not prohibited by the procedural legislation of the country of the court has two purposes:

1) it is better to protect the interests of the plaintiff by giving him the right to notify the foreign defendant in the most effective way not prohibited by the legislation of the country of notification, thereby ensuring procedural savings;

2) to increase the enforceability of English judicial acts by eliminating the possibility of refusal to recognize them due to improper notification.

Separately, it is worth paying attention to alternative notification methods. The decision of the Family Affairs Board of the High Court of Justice (*High Court of Justice, Family Division*) in the case of *Maughan (Wilmot)*, issued back in December 2015, but published relatively recently, attracted the attention of commentators to allowing the notification of the party by e-mail.

The applicant, the defendant in the family dispute, filed an application for the cancellation of a previously issued court order for the payment of alimony due to the fact that he was notified only by e-mail. At the same time, the defendant himself had previously filed applications to the court by e-mail, and subsequently the defendant asked not to use the only postal address specified by him (law firm) for correspondence. The Court found out that the defendant, a British citizen, works as a civil aviation pilot and is constantly on the move. He owned and used residential premises in the UK and on the Isle of Man, but visited these places only occasionally. His place of work was the airline's address in Turkey, but in fact the defendant was not there. The defendant tried to appeal the court's decision on appeal, but the right to appeal was denied to him. When attempting

to appeal, the defendant did not refer to the improper notification. He referred to the fact that the Family Procedure Rules 2011 (Family Procedure Rules), are in contrast to the Rules of Civil Procedure of England and Wales 1998. They do not explicitly provide for the possibility of notifying a person located out of the UK by "alternative means" at the discretion of the court. Instead, according to the respondent, the notification procedure provided for by The Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases of 15.11.1965 should be applied.

The Court assessed the norms of the Family Court Rules of 2011, the Rules of Civil Procedure of England and Wales of 1998 and the Hague Convention, as well as earlier court decisions (*Bayat Telephone Systems International Inc & Ors v Lord Michael Cecil & Ors* [2011] EWCA Civ 135), where the court also allowed notification by e-mail), and concluded that in this situation notification by e-mail is possible.

The Court noted that in modern conditions, when access to e-mail is possible by using almost any mobile device, it is incorrect to talk about the "place" of delivery of the notification by e-mail - it is more important whether the message was received by a specific person. The court also noted that an email message once read remains on the server and can be read again. Such features of modern methods of communication, according to the court, require a revision of the established views on the delivery of court documents abroad.

As a consequence, the court pointed out that the defendant, due to his actions in the process, lost the right to refer to improper notification of a court order, and the general Rules of family proceedings 2011 concerning the right of the court to determine the notification procedure allow, among other things, the use of e-mail to notify a party abroad.

Thus, the novelty and revolutionary nature of this solution is not as great as one might assume at first glance. Notification by "alternative means at the discretion of the court", including parties outside the UK, is expressly permitted by the Rules of Civil Procedure of England and Wales 1998 in civil disputes, and there are precedent decisions of the priority of these rules over the procedure established in the Hague Convention. In addition, the defendant's conduct in the case clearly indicated an abuse of procedural rights (*Preface by C. Bernasconi and H. van Loona: A practical guide to the Application of the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases. 3rd ed. / Ed. N.A. Zhiltsov. M., 2007. P. VII of the Charter*).

Nevertheless, it is of interest that the court is ready to broadly interpret not only the FPS norms, but also the very concept of "place of notification" in the context of the transmission of e-mail messages using mobile devices. This is a clear example of the flexibility of English legal proceedings and the willingness to use broad judicial powers to adapt outdated legal norms to modern realities, which can be both a boon and a danger for the party, depending on the situation.

At the same time, it should be noted that the prohibition on violation of the procedural legislation of the country of implementation of the notification has generated significant uncertainty about the consequences of such a violation. Let us consider the precedent of the English court in the case of *Habib Bank v. Bank of Khartoum* (*Habib Bank v. Bank of Khartoum*. [2006] EWHC 1767 (Comm).), in which, within the framework of a dispute being considered by an English court, it became difficult to notify the defendant (Bank of Khartoum) located on the territory of Sudan, since, in accordance with the procedural legislation of Sudan, only the courts of that country are authorized to notify the defendant. At the same time, Sudan does not participate in the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases dated 11/15/1965. or another international treaty imposing the obligation to provide international legal assistance, and the instructions of foreign courts to implement the notification are not executed by the Sudanese courts. Due to the inability to comply with the requirements of the legislation of Sudan on the implementation of the notification, the plaintiff

(Habib Bank) notified the defendant by directly delivering the notification to the address of its registration.

Subsequently, the defendant tried to recognize such a method of notification as improper, based on the fact that it does not comply with the procedural legislation of Sudan and, as a result, violates Article 6.40 (or Article 6.24 as amended at the time of the decision) of the Rules of Civil Procedure of England and Wales 1998. Such an argument was rejected by the English court, which pointed out that, based on the disposition of the given article, the notification of a foreign defendant can be considered improper only if its implementation is an offense under the legislation of the country of the notification (*Born, International Civil Litigation in United States Courts: Commentary & Materials. New York, 1996*). The mere non-compliance of the notification with the legislation of the specified country does not entail its invalidity, provided that it was carried out in the manner provided for by English law.

Such an approach was confirmed in the precedent of the Supreme Court of Great Britain *Abella v. Baadarani* (*Abela v. Baadarani*. [2013] UKSC 44.), in which it also became necessary to notify the defendant located in Lebanon, whose courts do not provide international legal assistance in the delivery of notifications and who was not a party of the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases dated 11/15/1965. As in the previous precedent, the plaintiff notified the defendant using diplomatic channels, as well as directly to the address of his registration. Subsequently, the defendant tried to recognize such a method of notification as improper and inconsistent with the procedural legislation of Sudan and, as a consequence, violating Article 6.40 of the Rules of Civil Procedure of England and Wales 1998. The English Court, rejecting the defendant's arguments, pointed out that within the meaning of Article 6.40 of the Rules of Civil Procedure of England and Wales 1998. notification of a foreign respondent will be deemed improper only if its commission constitutes an offense in accordance with the legislation of the country of the foreign notification.

As in the previous case, the plaintiff notified the defendant by means of diplomatic channels, as well as directly to the address of his registration. Subsequently, the defendant tried to recognize this method of notification as improper, since it does not comply with the procedural legislation of Sudan and, as a result, violates Article 6.40 of the Rules of Civil Procedure of England and Wales 1998. The English Court, rejecting the defendant's arguments, indicated that within the meaning of Article 6.40 of the Rules of Civil Procedure of England and Wales 1998. notification of a foreign respondent will be considered improper only if its commission constitutes an offense in accordance with the legislation of the country of the foreign notification.

3.4. Features of the legal regulation of the issue of notification of the respondent from Russia

Both Russia, the United States and the United Kingdom are parties of the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases dated 11/15/1965, while the procedure for notifying the parties specified in the convention, namely by consular authorities, is problematic in modern conditions.

The Convention provides for the following ways of serving judicial and non-judicial documents: 1) sending a request to the central authority of the requested State (Article 3 of the Convention), whose functions in the Russian Federation are assigned to the Ministry of Justice of the Russian Federation; 2) with the help of its diplomatic or consular agents (Article 8 of the Convention), provided that there are no objections from the requested State (*Preface by C. Bernasconi and H. van Loona: A practical guide to the Application of the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases. 3rd ed. / Ed. N.A. Zhiltsov. M., 2007. P. VII of the Charter*).

However, in accordance with art. V Declarations of the Russian Federation under the Convention "diplomatic and consular agents of foreign States are not entitled to deliver documents on the territory of the Russian Federation in accordance with Article 8 of the Convention, except in cases when the document must be delivered to a citizen of the requesting State." In this regard, such a way of notifying a Russian citizen is directly prohibited; 3) using the ways provided for in Article 10 of the Convention. In particular, this norm provides for the following. "If the requested State does not object, this Convention does not prevent: a) the ability to directly mail court documents to persons located abroad; b) the ability of judicial and other officials or other competent persons of the requesting State to serve court documents, reporting directly to the services of judicial and other officials or other competent persons of the requested State; (c) The ability of any person participating in the judicial proceedings to serve a judicial document by directly resorting to the services of judicial and other officials or other competent persons of the requested State." However, in accordance with Article VI of the Declaration of the Russian Federation under the Convention, "the service of documents by the methods provided for in Article 10 of the Convention is not allowed in the Russian Federation." (Norros, M. *Judicial Cooperation in Civil Matters with Russia and Methods of Evaluation*. University of Helsinki, 2010. P. 348.).

In accordance with the Convention, the competent authorities of foreign states send court orders to the territory of the Russian Federation for the delivery of documents to Russian citizens. Court orders from foreign courts are received by the Ministry of Justice of the Russian Federation, appointed by the central state body for the implementation of the Convention (Decree of the President of the Russian Federation of August 24, 2004 No. 1101), which checks them for compliance with the norms of the Convention and, with proper execution of instructions, sends them to one of the main departments of the Ministry of Justice of the Russian Federation, which are authorized by Order No. 146 of the Ministry of Justice of the Russian Federation dated May 21, 2009 to receive requests for legal assistance from the competent authorities of foreign states through the Ministry of Justice of the Russian Federation in civil, family, criminal and other cases and sending them for the organization of execution to other state authorities within the federal district."

In this regard, it should be noted that alternative notification options, including messengers, e-mail, judicial intermediaries, the Russian side concerning the process in the UK and the USA may be blocked by Article 10 of the said convention. But this is not prohibited within the framework of receiving notification by the parties from the UK and the USA concerning the lawsuit in Russia.

4. Conclusion

Thus, the analysis of these US and UK precedents allows us to conclude that, as a general rule, the inconsistency of the notification with the procedural legislation of the country of notification does not prevent further settlement of the dispute in the English court. At the same time, an exception to this rule is allowed only if such notification constitutes an offense in accordance with the legislation of the country of notification. Separately, it is worth noting that the only legally permitted way to notify the Russian side about the process in the United States and Great Britain is consular procedures. But it does not exclude the use of alternative notification methods, which in turn may lead to the problem of the enforceability of court decisions rendered abroad in Russia (Yarkov, V.V. *Judicial notices in international civil proceedings (on the example of notification of Russian citizens by the courts of Great Britain)* // Law. 2012. N 8. P. 33-38.).

Speaking about proper notification, it is worth bearing in mind the practical side of this aspect. International courier services do not work in Russia; the Russian Post delivers

letters for several months. This means that notifying Russian defendants in an era of unprecedented sanctions against Russia is becoming more difficult.

Relatively recent decisions rendered by the courts of the United Kingdom and the United States demonstrate how the concept of proper delivery of a court notice is increasingly interpreted mainly in favor of electronic technologies.

At the same time, the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Cases of 15.11.1965 explicitly prohibits notifying the parties of the process from Russia by alternative means outside the consular authorities. But the complex geopolitical situation and the huge array of sanctions against Russia can form a new practice and, at least in the context of marital and family disputes, it is highly likely that a Russian citizen may find himself in the role of a party to a case resolved by the courts of the UK or the USA and the approaches of the courts described above about alternative methods of notification using e-mail and social media accounts networks may be relevant.

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THE METHODOLOGY OF ORGANIZING STUDENTS' RESEARCH WORK ON THE EXAMPLE OF SOLVING THE TECHNICAL PROBLEM "SELECTION OF A STEERING DRIVE FOR AN AIRCRAFT STABILIZATION SYSTEM"

The relevance of the problem under study is due to the need to form, develop and improve students' skills in applying the theoretical knowledge gained from the course of higher mathematics, the studied mathematical methods to solving specific technical problems related to future professional work. One of these technical problems is the calculation of the necessary parameters for selecting the best steering drive. To solve the problem, students of the areas of training 11.05.01 "Radio-electronic systems and complexes" and 24.05.06 "Aircraft control systems" under the supervision of teachers used the method of standard coefficients. The students did the required calculations, analyzed the results obtained and formulated problems for the following studies. The need to form and develop the professional and mathematical culture of the future engineer is an important up-to-date task of higher professional education. The content of the article will be interesting for teachers and students.

Keywords

research work of students, mathematical training of students, steering drives, stabilization system, method of standard coefficients

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1. Introduction

As part of the student's research work, the fifth-year students were given the task of selecting a steering drive.

The work on this problem included the following steps:

- 1) study of technical literature covering this issue;
- 2) choice of research topic, setting the research goal - selection of a steering drive;

- 3) setting tasks: a plan for conducting the necessary experiments, conducting experiments, doing calculations;
- 4) analysis of the obtained results;
- 5) selection of the optimal steering drive

2. Methodology and results of the research

1) The study of the technical literature on steering drives and stabilization systems allowed the students to summarize the following.

Steering drives are designed to rotate the motion controls and stabilization of a guided rocket or a guided projectile in accordance with the commands received at the input of the system.

The rocket stabilization system is part of an autonomous control system designed to control the flight of the rocket. Such a system performs the following functions: stabilization of the angular position of the rocket in space relative to three mutually perpendicular axes: the axis of rotation, the yaw axis and the pitch axis. The axis of rotation is the longitudinal axis of the rocket. The yaw axis is a transverse axis located in the plane of stabilizers I and III. The pitch axis is a transverse axis located in the plane of stabilizers II and IV.

The stabilization system controls as well the lateral movement of the center of mass of the rocket and the program change in the position of the longitudinal axis of the rocket during controlled flight (program turn).

The stabilization system acts on the rocket's executive controls (steering drives) through three channels:

- 1) through a channel that provides stabilization of the rocket movement in the firing plane (by pitch angle);
- 2) through a channel that provides stabilization of lateral movement (by yaw angle and lateral deviation);
- 3) through a channel that provides stabilization of the rocket movement around the longitudinal axis (by the angle of rotation).

When synthesizing a stabilization system in the longitudinal plane of a statically stable aircraft for two flight modes - maximum (V_{\max}) and minimum (V_{\min}) speeds, it is necessary to select the appropriate steering drive to ensure automatic control of the aircraft (Afanasyev, 2010).

2) The students together with the teachers formulated the research topic - "Selection of steering drive for the aircraft stabilization system".

The following transfer functions of short-period aircraft movement in the longitudinal channel are available for selection (Afanasyev, 2010):

$$W_{\delta_B}^{\dot{\theta}}(p) = \frac{K(T_1 p + 1)}{T^2 p^2 + 2\xi T p + 1}; \quad W_{\delta_B}^{j_H}(p) = \frac{KV}{T^2 p^2 + 2\xi T p + 1}; \quad W_{j_H}^{\dot{\theta}}(p) = \frac{T_1 p + 1}{V},$$

where K - is the transmission coefficient, T, T_1 - time constants, ξ - damping or attenuation coefficient, V - speed, p - Laplace operator, $\dot{\theta}$ - rate of pitch angle change, j_H - normal overload, δ_B - angle of deviation of the elevator.

The calculation of the steering drive is done at the maximum speed of the device. If the designed stabilization system meets the technical requirements, then it will also meet them when flying at minimum speed.

As a result, the students formulated the purpose and objectives of the research: to calculate the steering drive at the maximum speed of the device, to analyze the transfer

functions, and also to find out whether the steering drive meets the basic technical requirements.

Let the transfer functions describing the dynamics of the aircraft movement at the maximum speed of movement (Fedotov, 2012) have the form:

$$W_{\delta_B}^{\dot{g}}(p) = \frac{0,613(1,193p + 1)}{0,048^2 p^2 + 2 \cdot 0,058 \cdot 0,048p + 1}.$$

$$W_{\delta_B}^{j_H}(p) = \frac{459,75}{0,048^2 p^2 + 2 \cdot 0,058 \cdot 0,048p + 1}.$$

$$W_{j_H}^{\dot{g}}(p) = \frac{1,193p + 1}{750}.$$

When analyzing the transfer functions, it was found that the steering drive does not meet the requirements. The analysis showed the absence of a number of characteristics (a dash opposite the characteristic in the table). (Table 1).

TABLE 1. RESULTS OF THE PRIMARY ANALYSIS OF THE STABILIZATION SYSTEM

Characteristic	At minimum speed	At maximum speed
Maximum overload value	+	+
Transition time	-	-
Static error Δj_H	-	-
Static error $\Delta \dot{g}$	-	-

The main purpose of the stabilization circuit is to improve the quality of the aircraft's response to the control command (Morozov, 1995).

2) The choice of methods for solving the problem.

As a result of the analysis, the following technical task was formulated - to synthesize the stabilization circuit and select the steering drive, or rather, the parameters of the steering drive, in order to make the system more stable and improve its characteristics. (Parafes, 2009)

Students were offered a choice to study several mathematical methods of solving. Then, with the help of teachers, the students compared the advantages and disadvantages of the studied methods and chose the **standard coefficients method**. ((Attetkov, 2003)

The idea of this method is that the transfer function of a closed system is reduced to the standard form:

$$\Phi_{U_H}^{j_H} = \frac{\Omega^4}{p^4 + \Omega \cdot A_3 \cdot p^3 + \Omega^2 \cdot A_2 \cdot p^2 + \Omega^3 \cdot A_1 \cdot p + \Omega^4},$$

where A_1, A_2, A_3, Ω are standard coefficients.

The values of the coefficients A_1, A_2, A_3 determine the type of transition process, and the value Ω is related to the duration of the transition process. (Akopov, 1995)

It is assumed that the dynamic properties of a system with a known transfer function satisfy the given initial properties of the system.

Coefficients A_1, A_2, A_3 are known: $A_1 = 2,7; A_2 = 3,4; A_3 = 2,1$.

It is necessary to select the parameters of the real transfer function of a closed system so that its coefficients are equivalent to the coefficients of the standard transfer function found. (Parafes, 2011)

The real transfer function of a closed system has the following form:

$$\Phi_{U_n}^{j_n} = \frac{K^*}{B_4 \cdot p^4 + B_3 \cdot p^3 + B_2 \cdot p^2 + B_1 \cdot p + B_0}, \text{ where}$$

$$\left\{ \begin{array}{l} K^* = \frac{K \cdot K_{PII} \cdot V}{1 + K_0}, \\ B_0 = 1, \\ B_1 = \frac{2 \cdot \xi \cdot T + 2 \cdot \xi_{PII} \cdot T_{PII} + K_1 \cdot T_1}{1 + K_0}, \\ B_2 = \frac{T^2 + 4 \cdot \xi_{PII} \cdot \xi + T_{PII}^2}{1 + K_0}, \\ B_3 = \frac{2 \cdot T \cdot T_{PII} (T \cdot \xi_{PII} + T_{PII} \cdot \xi)}{1 + K_0}, \\ B_4 = \frac{T^2 \cdot T_{PII}^2}{1 + K_0}, \\ K_0 = K \cdot K_{PII} \cdot K_{\Delta I}^* + K \cdot K_{PII} \cdot K_{\Delta IV}^* \cdot V = K_I + K_{II}. \end{array} \right.$$

K_{PII} - steering drive gain, $K_{\Delta I}^*, K_{\Delta IV}^*$ - differential gyroscope and linear acceleration sensor gains, K_I, K_{II} - product substitution coefficients.

If we bring the transfer function into a more convenient form for comparison, we get:

$$\Phi_{U_n}^{j_n} = \frac{K^*}{p^4 + (B_3 / B_4) \cdot p^3 + (B_2 / B_4) \cdot p^2 + (B_1 / B_4) \cdot p + (B_0 / B_4)}.$$

We equate the coefficients with the corresponding degrees to the standard ones:

$$\frac{B_3}{B_4} = \Omega \cdot A_3; \quad \frac{B_2}{B_4} = \Omega^2 \cdot A_2; \quad \frac{B_1}{B_4} = \Omega^3 \cdot A_1; \quad \frac{B_0}{B_4} = \Omega^4.$$

Let's introduce relative values:

$$\frac{T_1}{T} = \bar{T}_1; \quad \frac{T_{PII}}{T} = \bar{T}_{PII}; \quad \Omega \cdot T = \bar{\Omega}.$$

As a result, we obtain the following system of equations:

$$\left\{ \begin{array}{l} \bar{\Omega}^4 = \frac{1 + K_0}{\bar{T}_{PII}^2}, \\ A_1 \cdot \bar{\Omega}^3 = \frac{2 \cdot \xi + 2 \cdot \xi_{PII} \cdot \bar{T}_{PII} + K_1 \cdot \bar{T}_1}{\bar{T}_{PII}^2}, \\ A_2 \cdot \bar{\Omega}^2 = \frac{1 + 4 \cdot \xi \cdot \xi_{PII} \cdot \bar{T}_{PII} + \bar{T}_{PII}^2}{\bar{T}_{PII}^2}, \\ A_3 \cdot \bar{\Omega} = \frac{2 \cdot \xi_{PII} + 2 \cdot \xi \cdot \bar{T}_{PII}}{\bar{T}_{PII}}. \end{array} \right.$$

The latter system presents four equations and five unknown variables. These variables are relative magnitude $\bar{\Omega}$, relative drive time constant \bar{T}_{PII} , damping coefficient ξ_{PII} , coefficients K_I, K_{II} . ((Obolensky, 2011)

From the resulting system, we express the unknown variables:

$$\xi_{PII} = \frac{\bar{T}_{PII}(A_3 \cdot \bar{\Omega} - 2 \cdot \xi)}{2}$$

$$K_I = \frac{\bar{T}_{PII}^2 \cdot A_1 \cdot \bar{\Omega}^3 - 2 \cdot \xi - 2 \cdot \xi_{PII} \cdot \bar{T}_{PII}}{\bar{T}_I}$$

$$K_{II} = \bar{T}_{PII}^2 \cdot \bar{\Omega}^4 - K_I - 1$$

$$\bar{T}_{PII} = \frac{1}{\sqrt{A_2 \cdot \bar{\Omega}^2 - 2 \cdot \xi \cdot A_3 \cdot \bar{\Omega} + 4 \cdot \xi^2 - 1}}$$

To solve the system, it was necessary to set the value of the variable $\bar{\Omega}$ and calculate all the other parameters.

Next, the students had to determine which steering drive would be used in the system. Students systematized all the necessary parameters of various types of drives in the form of a table. (Table 2).

TABLE2. STEERING DRIVE LIMIT VALUES

Type of SD Parameters	Electric	Pneumatic	Hot gas drive	Hydraulic
Time constant $T_{PII \text{ пред}}, c$ (sec.)	0,016	0,011	0,0053	0,008
Frequency $f_{PII \text{ пред}}, \Gamma_{II}$ (hertz)	10	15	30	20
Cyclic frequency $\omega_{PII \text{ пред}}, c^{-1}$	62,8	94,2	188,4	125,6
Frequency on a logarithmic scale $lg \omega_{PII \text{ пред}}$	1,8	1,97	2,28	2,1
Relative drive time constant $\bar{T}_{PII \text{ пред}} = \frac{T_{PII \text{ пред}}}{T}$	0,3404	0,234	0,1128	0,1702

A curve of the steering drive relative time constant dependence on $\bar{\Omega}$ was plotted for a graphical analysis of the steering drive optimal type choice. The chart shows the following limitations: $T = 0.048 c$, $\xi = 0.058$. (Fig. 1).

Based on the required ratio of the time constants of the aircraft and the steering drive, a limit $\bar{T}_{PII} \leq 0,3$ is set. According to the empirically obtained ratio between the

time constants of the aircraft and the stabilization system, it is necessary to choose $\bar{\Omega} \geq 2$. (Fig. 1).

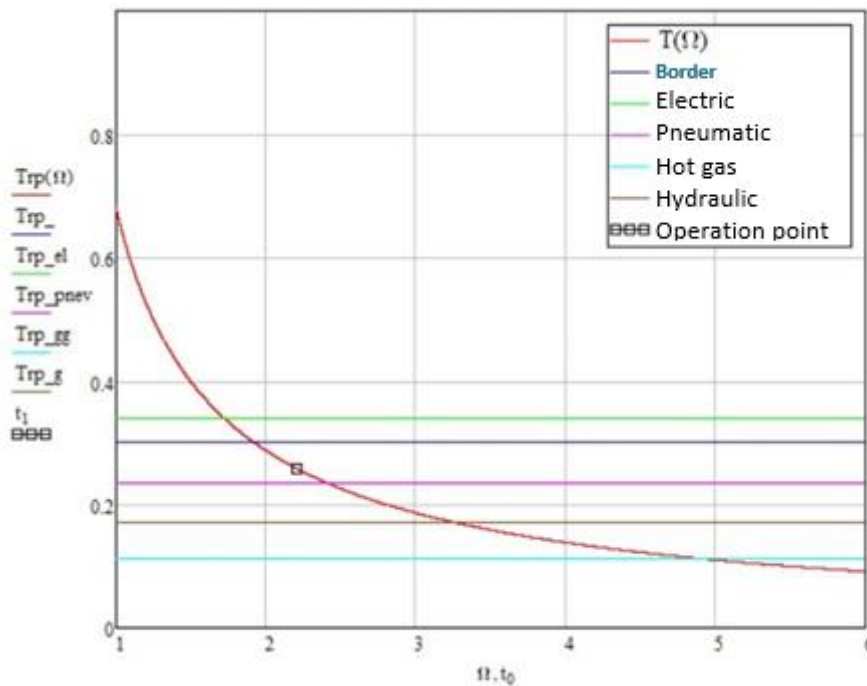


FIGURE 1. DEPENDENCE $\bar{T}_{PII}(\Omega)$ AND \bar{T}_{PII} FOR DIFFERENT DRIVES.

As a result, the following dependence was obtained:

$$\bar{T}_{PII} = \frac{1}{\sqrt{A_2 \cdot \bar{\Omega}^2 - 2 \cdot \xi \cdot A_3 \cdot \bar{\Omega} + 4 \cdot \xi^2 - 1}}$$

Based on the last expression, limits and graph in Figure 1, the students concluded that in this case for the stabilization system being developed any of the considered drives, except electric, is suitable. The advantages and disadvantages of each type of steering drive were also noted. For example, the hydraulic drive is accurate, but has a complex design and is quite expensive. The hot gas drive requires an additional energy source and has a complex design as well. ((Topchiev, 1974)

Thus, it was concluded that the optimal choice would be a pneumatic drive with characteristics obtained from the middle of the selected interval. (Fig. 1).

The main parameters and indices were determined for the pneumatic drive:

$$\bar{\Omega} = 2,2022, \bar{T}_{PII} = 0,2585$$

$$T_{PII} = \bar{T}_{PII} \cdot T = 0,2585 \cdot 0,048 = 0,012 \text{ c}$$

$$\xi_{PII} = \frac{\bar{T}_{PII}(A_3 \cdot \bar{\Omega} - 2 \cdot \xi)}{2} = \frac{0,2585(2,1 \cdot 2,2022 - 2 \cdot 0,058)}{2} = 0,5827$$

$$\bar{T}_1 = \frac{T_1}{T} = \frac{1,193}{0,048} = 24,8542$$

$$K_1 = \frac{\bar{T}_{PII}^2 \cdot A_1 \cdot \bar{\Omega}^3 - 2 \cdot \xi - 2 \cdot \xi_{PII} \cdot \bar{T}_{PII}}{\bar{T}_1} =$$

$$= \frac{0,2585^2 \cdot 2,7 \cdot 2,2022^3 - 2 \cdot 0,058 - 2 \cdot 0,5827 \cdot 0,2585}{24,8542} = 0,0607$$

$$K_{II} = \bar{T}_{PII}^2 \cdot \bar{\Omega}^4 - K_I - 1 = 0,2585^2 \cdot 2,2022^4 - 0,0607 - 1 = 0,5109$$

$$K_0 = K_I + K_{II} = 0,0607 + 0,5109 = 0,5716$$

As a result of the work, the students received the parameters of the transfer function of the pneumatic steering drive for the flight mode with maximum speed, which were presented in Table 3.

TABLE 3. RESULTS OF PARAMETER CALCULATION

Method for calculating the stabilization system	Parameters of the stabilization system (I mode / II mode)	
	K_I	K_{II}
Standard coefficient method	0,0607	0,5109

For the calculation, it is necessary to know the maximum guidance signal $U_{H \max}$, which gives the maximum normal acceleration $j_{H \max}$, defined as:

$$j_{H \max} = K^* \cdot U_{H \max} = \frac{K \cdot K_{PII} \cdot V}{1 + K_0} \cdot U_{H \max}$$

It should be noted that the maximum normal overload must be less than or equal to the permissible: $j_{H \max} \leq j_{H \text{ don}}$.

Then:

$$K_{PII} \leq \frac{\bar{T}_{PII}^2 \cdot \bar{\Omega}^4}{K \cdot V} \cdot \frac{j_{n \text{ don}}}{U_{H \max}} = \frac{0,2585^2 \cdot 2,2022^4}{459,75} \cdot \frac{7 \cdot 9,81}{4,5} = 0,0522 \text{ pad/B}$$

The transfer function of the steering drive takes the final form:

$$W_{PII}(p) = \frac{0,0522}{0,000144p^2 + 0,01398p + 1}$$

The analysis of the characteristics of the steering drive action together with the linear acceleration sensor and the differentiating gyroscope has led to the results presented in Table 4. The "plus" sign marks those characteristics that take permissible values.

TABLE 4. THE RESULTS OF THE ANALYSIS AFTER THE ADDITION OF THE STEERING DRIVE

Characteristic	Stabilization system (minimum speed)	Stabilization system (maximum speed)
Maximum overload value	+	+
Transition time	+	+
Static error Δj_n	-	-
Static error $\Delta \dot{j}$	+	-
Maximum deviation in angle of ascent	+	+

Thus, using the method of standard coefficients, the students solved the problem. Analysis of the results showed that the quality of the system has improved distinctly, but not all the requirements are met yet. Therefore, such a stabilization system needs to be improved. Thus, the prospects for further research were outlined.

3. Conclusion

Thus, with the help of teachers, students formulated an urgent technical problem. It was necessary to choose mathematical methods to solve it. They examined a number of existing mathematical methods applicable to solving such problems, compared the advantages and disadvantages of certain methods, and chose ultimately the method of standard coefficients. Then the future engineers made an appropriate mathematical model - expressed a technical problem in the form of a system of equations. The students successfully coped with the mathematical part, and moved on to the analysis of the results obtained. The results obtained were systematized, presented in tables and graphically, which made it possible to choose the best solution. In addition, they noted the shortcomings of the found solution, which determined the direction of further research work for future engineers.

Undoubtedly, the organization of such student activities to solve a specific technical problem forms and develops the research skills of future specialists.

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HOW MONEY TURNOVER AFFECTS THE CREDIT PROCESSES

Adam Smith defended the idea that the market was born spontaneously. The market would be inherent in human activity. "Natural inclination to all people: to barter and exchange one thing for another". Exchange is therefore at the origin of the organization of human societies, even before capitalism appeared. The market emerged from its marginality between the twelfth and eighteenth centuries in Western societies, when it could be organized, monitored, regulated. The market is therefore a matter for institutions. It is considered that the economy is developing in the direction of systematization and structuring while not having an exact classification (humanities or technical science), and yet it should be understood that despite the accuracy of economics from the point of view of mathematics, this matter is still not accurate and moderately abstract. The main economic problem is the limited resources with an infinite need for them, which is what many economists are trying to "mitigate" by developing theories and patterns of actions where a need for something is the motive of economic activity. It is evident that the amount of money in the world is limited which means that it is possible that people use the exact same banknotes all over the world but what is the chance to have the same bill two times per life? This article provides the economic basis for understanding the beforementioned probability and it's bound with credit system which is quite important in the modern society.

Keywords

Credit, money turnover, behavioral economics, lending cycle, human factor

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1. Introduction

1.1. *Economic basis*

The economy is trying to answer the questions:

1. What to produce?
2. How to produce?
3. For whom to produce?

Behavioral economics is aimed at explaining people's behaviour in specific situations to understand and prevent the causes of economic crises, as well as to explain human nature in general. So, in general, it can be concluded that economics brings people closer to understanding themselves and others.

Each decision made by an individual is based on a method that consists of comparing the costs and benefits of each possible alternative in order to make the decision that seems (at the time of decision-making) the most rational possible in the sense that the alternative chosen is the one for which the benefits outweigh the costs the most. The question of the rationality of the individual is fundamental in economics.

The opportunity cost measures what you have to give up to get something. The cost of each decision taken must take into account the fact that the resources mobilized for one decision are lost for another.

1.2. *Economic machine*

Adam Smith's notion of the "invisible hand" founded neoclassical microeconomics. A higher natural order would make it possible to organize economic activities for the community's well-being.

It is not the kindness of the butcher, the baker or the beer merchant from whom we are waiting for our dinner, but the care they take for their interests.

The selfish individual is led by an invisible hand to advance an end that is not part of his intention. By pursuing personal interest, a person is often more effective for the society, rather than if he really aimed at contributing into this community.

The market of pure and perfect competition (PPC) corresponds to this intuition of Adam Smith. Neoclassical economists have established the conditions (mathematical in particular) for the existence of this type of market.

The functioning of "neoclassical" markets is based on the rationality of economic agents. It is based on the autonomy of decision-making and on a behavior of maximization of their individual interests. Consumers maximize their satisfaction through the act of consumption, and producers maximize their profit through the act of production.

In the neoclassical microeconomics, consumer behavior is assumed to be "rational". In reality, the rationality of consumers is limited. The consumer does not have the ability to consider all the possible choices to make an optimal choice, the choice that maximizes his satisfaction. Therefore, an individual will only make a satisfactory choice based on the information readily available and the time he has to make this choice. Several experiments confirm the "irrationality" of consumer choices.

2. Money turnover and income

2.1 *Banknote turnover*

In this section, a certain postulate will be proved, which will be used to substantiate subsequent statements. Let's call it *Postulate-1*. According to this affirmation, the money that the one spends, another person gains, which means that after a certain cycle exact money unit can be returned to the first owner. So, let's say there is a state Z. The state Z is a legal, democratic organization of social and legal authority, whose actions are aimed at performing a number of functions. As in many states, State Z has an internal and external economy, and to prove the *Postulate-1* (the expenses of one individual are the incomes of another), it will be necessary to consider only the internal component.

To begin, that *Postulate-1* is true given that the money supply put into circulation on the territory of the state is distributed among its residents (citizens), that is, money passes "from hand to hand" and there is even a possibility that they will return to the same owner more than once.

Let's prove it:

The following grounds to prove the fact that the bills (banknotes) can be returned to the owner who once exchanged them:

1. A bill (banknote) can be in circulation for no more than two years (then it is replaced by another due to unsuitability).
2. There are 3 billion bills (banknotes) of the same denomination in circulation (for example, 5000).
3. Every month a person receives 100 bills (banknotes) and spends 100 bills (banknotes).

So, a person has 100 banknotes. In the first month, he gives them all away (let's say it was set "A") and received 100 new ones. After a month, the probability of receiving at least one banknote from set "A" is equal to $P_1 = 1 - \left(\frac{3 \times 10^9 - 100}{3 \times 10^9}\right)^{100}$ (subtraction from one the probability of getting 100 bills, none of which were in set "A"), which is approximately $P_1 = 0.000003333278333393$.

Now the next month comes and the person has given 100 banknotes again. There are now 200 banknotes in set "A" (given ones). Let's calculate the same probability of getting at least one bill from set "A": $P_2 = 1 - \left(\frac{3 \times 10^9 - 200}{3 \times 10^9}\right)^{100} = 0.00000666664466671457770$. To calculate the probability of receiving a banknote from set "A" for the first and second month, the formula $P_{1,2} = P_2(1 - P_1) + P_1$ is used.

Let us continue such an operation and calculate this probability in 2 years (24 months). In set A there will be $100 \times 24 = 2400$ bills. Then $P_{24} = P_{24} * (1 - P_{23}) + P_{23} = \left(1 - \left(\frac{3 \times 10^9 - 2400}{3 \times 10^9}\right)^{100}\right) \left(1 - 1 + \left(\frac{3 \times 10^9 - 2300}{3 \times 10^9}\right)^{100}\right) + 1 - \left(\frac{3 \times 10^9 - 2300}{3 \times 10^9}\right)^{100} = 0.000156654$. This number is less than 0,01 (1%).

2.2. Probability of getting 1 same banknote 2 times during life

Overall, after getting 0.000156654 as the probability of receiving the same banknote 2 times per 2 years, this cycle continues further. Moreover, according to the condition, the turnover of these banknotes "A" ceases to increase. Continuing further, then by 876 months (73rd year of life-the average life expectancy in the world), the probability of 0.36748967 will turn out. Likewise, every third person at least once held in their hands a bill that they used earlier in country Z.

2.3. Income differentiation

However, for proof, the case is presented when Postulate-1 means that if one person begins to earn more, then the entire population will experience the slightest increase in income. Money exchange (purchases / sales) takes place every day in country Z, which composes a certain part of the country's economy. At the same time, this process needs an example: a worker at a factory, let's say for the manufacture of radio components, worked for a month and received a salary (personal income) equal to, for example, 2000 units. Immediately, the worker goes to the store to buy the necessary products and, let us say, he gives 40% of his income, which is 800 units, to the seller in order to purchase the necessary goods for a month. Now imagine that the company has increased its productivity and, consequently, has increased the salaries of its employees. Let's say now a worker gets 2200 units. According to the fundamental economic and psychological foundation: the more money a person has, the more he spends (of course, it cannot be argued that this is always true for everyone, but in general, single exceptions can be ignored since they do not significantly affect the overall picture).

Therefore, even without comprehending that a person is tend to spend more with an increase in income. Let us imagine that a worker spends the same 40% of income despite the temptation to supplement the list of goods. So, the worker will already spend 880 units on his purchases which means the seller began to receive additional 80 units. Hence, it is clear that with the growth of one's expenses, the income of the another one grows, and it happens in many spheres of human life due to the general interconnection.

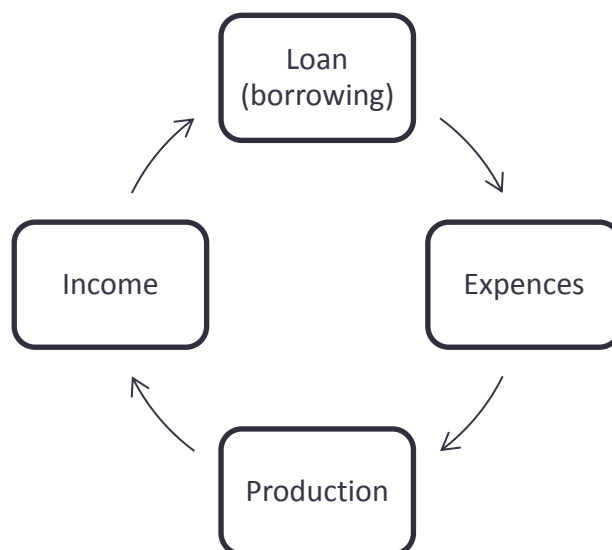
3. Credit and money turnover

3.1. Lending and its role in macroeconomics

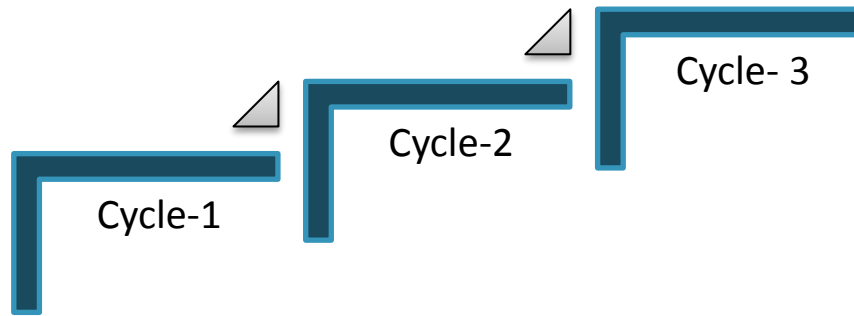
The formation of the credit process has its roots in ancient times in Egypt. Credit is one of the most important because of its irreplaceability, and probably the least understood part of the economy because of its variability. The lending process allows you to expand the labor market by adding creditors and debtors to consumers and seller, where creditors want to increase their available capital while debtors want to buy what is currently unavailable to them (real estate, business) in terms of their monetary volume. When the debtor undertakes to pay the borrowed amount of money to the creditor, which must be legally supported, a loan is formed between them. After the conclusion of the loan agreement, the loan turns into debt, which is the creditor's asset and the debtor's obligation. So, the loan is significant because, according to the Postulate-1 (the expenses of one are the incomes of another), a person can have a larger personal income in a short time, which, consequently, increases the incomes of others. Of course, it is clear that this is a very slight increase, but if there are a plenty of debtors, this leads to the increase in the volume of money turnover in the state. Consequently, considering the whole situation as a chain of successive events, an infinite cycle of four stages appears: loan, expenses, production, income.

3.2. Cycles of money

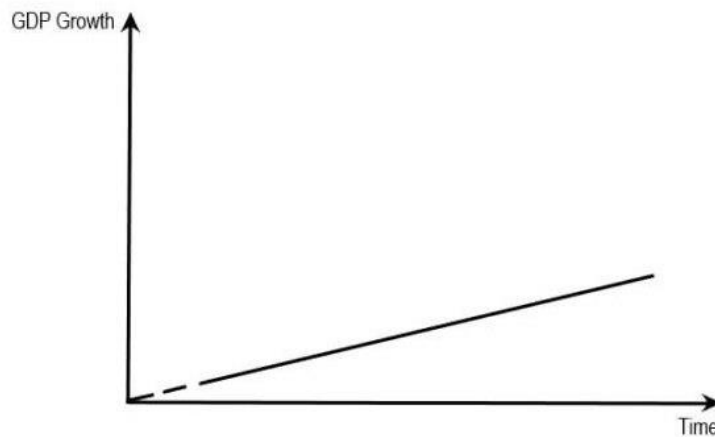
For instance, considering the example taken while describing Postulate-1, the salary can be replaced by a loan (there is no difference what is the source of money for this cycle). Therefore, after a person borrows some money, he or she spends it (expenses). Expenses of a one is the part of another person's income (in this example it is considered that person who borrows does not simply give money to another person but spends it in different kinds of market or invests it in business). Hence, the part of this person's income is spent on production (in case of spending money for goods, money spent for them are spent to buy new goods (production); in case of spending money on business, the loan is spent on production directly). The money spent on "production" compose the part for income of people who worked (market stuff in the first case and the supplier, for example, in the second case).



Since loans in cycles are constant and after one cycle another one comes, then, continuing the chain of cycles, it can be represented as:



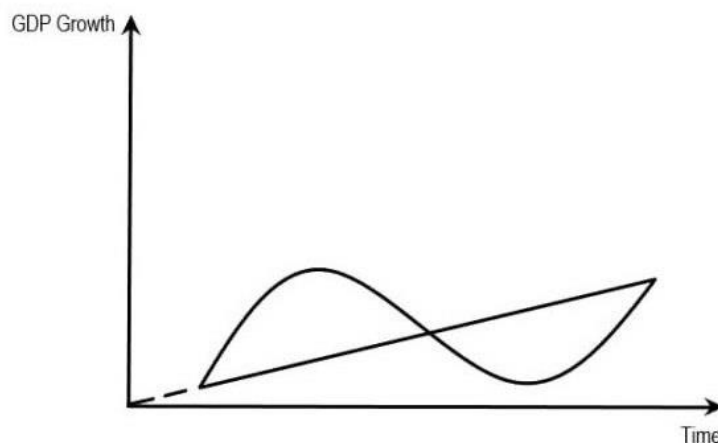
Or graphically:



GRAPH 1. LONG-TERM ECONOMIC DEVELOPMENT

This hierarchical arrangement of cycles is not accidental. It takes into account the fact that every time incomes grow due to borrowing of funds. This production cycle should be considered in the long term since the entire process takes some time.

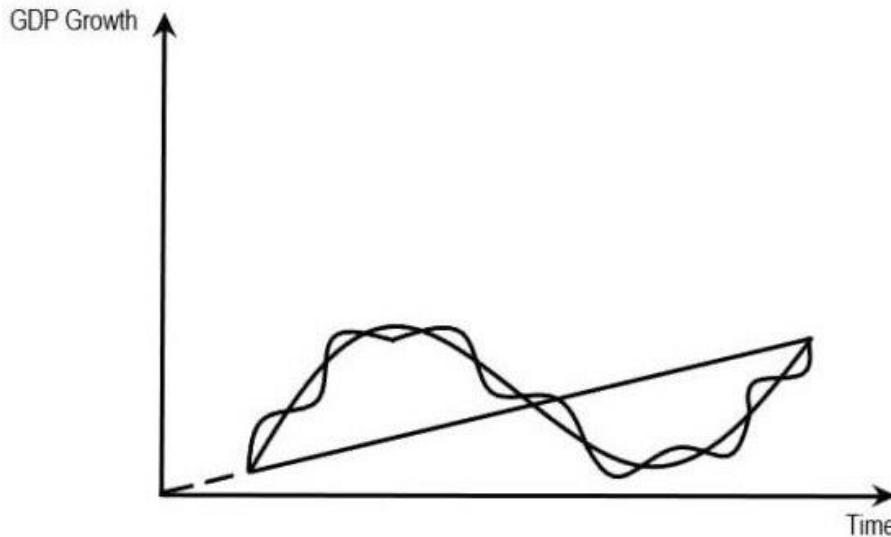
However, considering the lending process in this way, a wave-like curve (then growing, then decreasing) appears since the loan allows to consume more than a person produces at the time of its acquisition and forces to consume less than a person produces at the time of its repayment.



GRAPH 2. LONG-TERM AND MIDDLE-TERM ECONOMIC DEVELOPMENT

Debt fluctuations last from five to ten years, and their total cyclicity (from crisis to crisis) is 75-100 years. Let's put three graphs on top of each other.

A short-term loan model combined with a long-term loan model which is applied for a productivity model. So, it can be concluded that the above graph gives an approximate idea of the relationship between credit and people's incomes, which makes up the main money supply in the world.



GRAPH 3. LONG-TERM, MIDDLE-TERM AND SHORT-TERM ECONOMIC DEVELOPMENT

Regarding the system of functions from a mathematical point of view, then it is worth noting that the functions are defined from 0 to ∞ or $(0; +\infty)$, since production is never zero, otherwise it is not production. Also, the "general" function is increasing, neither even nor odd.

Thus, credit is an integral part of economic science.

4. Psychological components of the economy

4.1. Securities and psychological aspects

According to experts, the securities market is a poorly organized crowd that constantly argues about the rise or fall of prices. Stocks are assets that are evidence of property relations between issuers and owners, which reproduce the procedure for their sale in the course of financial transactions.

An effective stock market is a market where people who do not have insider information about a company cannot make a profit other than normal profit, and where it is difficult to make this profit even for people with insider information since prices in an effective market instantly react to the receipt of information.

Usually, financiers believe that the value of stocks, most often "shares", depends on the actions of companies (and not only those that are directly related to the enterprise, but also those that relate to the personal lives of their heads). However, the value of shares often does not depend on the work of the company itself, but on what the masses think about this work. Hence, the misinformation can either dramatically increase the value of shares or make an organization bankrupt.

So, the value of shares directly depends on rumors, on what opinion consumers and owners of assets have. This process can be explained with the following example: a company X has issued shares that allow shareholders to participate in the general voting and indirectly manage the organization. Let the company (its board of directors) own 80% of the shares, and some other company Y wants to merge the companies (for this, it is enough

to take a controlling stake in company X-51% of the shares). The price for a controlling stake in company X does not suit company Y, or even company X does not want to merge. After that, company Y decides to falsify some documents allegedly reflecting the impending collapse of company X or decides to independently provide such data based on the past of organization X (respectively negative). Perceiving all this, those 20% of the shares that belong to external natural persons and legal entities are cashed out by their owners and the price per share drops sharply. Therefore, investments (a significant part of the capital of organization X) decrease, which leads to the fact that the company cannot be secured financially (pay salaries, engage in entrepreneurship). Then company Y comes to their rescue and “kindly” buys up the larger percentage of shares at a low price and, thereby, carries out the merger. From this example, it is perfectly clear that a simple rumor can increase the percentage of unemployed in a country and, consequently, lower its GDP.

With the help of shares the following processes are realized:

- Mobilization of funds to finance targeted state and local programs
- Maintenance of the turnover of ownership rights to financial assets;
- Financing of the state budget deficit;
- Exchange between individuals and legal entities.

In general, there are different types and, consequently, different names of securities, but they represent the same goal-the expansion of the world economic system in terms of exchange. In other words, securities represent an additional monetary unit. Shares are liquid, which allows them to be quickly sold or converted into money.

4.2 The human factor in credit

The human factor is the ability of an individual to make a decision in a given situation, using the qualities inherent to a human being (illogicality, irrationality, fallacy).

Human factors in economics are factors that are differently related to different behavior (choice) of a person and are often devoid of logic (a person uses a minimum of logic to make a choice).

In general, the human factor is very unusual within the framework of economics in the sense that economics provides for the rational behavior of an individual, but economics is not an exact science, and the illogicality of human actions fits within its boundaries.

Consider the lending process. A person takes out a loan to meet their needs at a given time. Often, due to ignorance about the possibilities of obtaining a loan, people criticize loans, but it should be clearly understood that loans are provided by banks only because of their desire to make money on it, and they do everything to make it happen. So, banks impose many levels that ensure their security in economic terms (take into account the earnings of a potential debtor, alternate options for paying the debt, the purpose of obtaining a loan, etc.). However, often people make loans with banks because of their irrationality and excessive desire to satisfy their needs. So, people take loans for an apartment, a car, or a phone, not realizing that if they just save money for these goods, they will save. Therefore, with such ill-considered actions, the country suffers potential losses since if the debtor's loan was invested in a self-paying sphere, this would cause an increase in the state's GDP and wages (according to Postulate-1).

Thus, the irrationality of people forces them to overpay the banks themselves, which in any case remain the winners.

5. Conclusion

Behavioral economics is quite complex and unpredictable since people behave differently in different situations, and it is quite difficult to choose a one hundred percent pattern of actions that correspond for everyone.

The research on the influence of the amount of money in society and its impact on legal lending via banks shows that the ability of people to lend some money is quite useful. From that point of view, when a person who has money and does not have an idea gives finances to a person with no money but with a big idea so everybody can benefit from this. Moreover, money turnover affects the credit process indeed due to the fact that the financial liquidity aids to bring money to different groups of the society.

William Shakespeare wrote: "What a masterful creation - a man! How noble of mind! How limitless in his abilities, appearances, and movements! How precise and wonderful in action! How like an angel he is in deep comprehension! How he looks like a certain god! The beauty of the universe! The crown of all living things!"

This quote is a concentration of accurate descriptions of the individual as a whole. Shakespeare was not alone in his admiration for the human mind. Each of people thinks exactly in the way that is presented above and similar ideas about a person are reflected in economics since its key idea is rationality. And from this point of view, everybody is an economist to some extent.

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DESACRALIZATION OF LINGUISTIC WORLDVIEW: CASE STUDY OF THE PROVERB: «DO NOT DIG A HOLE FOR SOMEBODY ELSE, YOU YOURSELF WILL FALL INTO IT»

The purpose of the paper is to describe the process of the axiological significance loss of paremiological units. The results of psycholinguistic (associative) experiments reconstruct the specific character of the actualization of the psychological meaning of a word in the individual's linguistic consciousness. Such an approach is also very promising in the study of associations for fixing the active transformation of individual sectors of the idiomatic fund, in which the linguistic division of the world is correlated with the associative fields typology. The paremiological worldview reflects culturally based image of the world, once fixed in idiomatic meanings, and conventionalized in the cognitive mechanisms of their correlation with the value dominants of Russian linguistic culture. Language, by means of fixed paremiological units, is accumulating and translating the ways of formation and existence of knowledge about reality. A set of the latter in the individual, group consciousness makes up a picture of the world.

Keywords

desacralization, idiom, linguistic consciousness, linguistic worldview, neoparemiias, paremiological view of the world, proverbs

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1. Introduction

In linguistics, the first decade of the twenty-first century was marked by a particular interest in the human factor in speech activity, in its everyday consciousness and in ordinary speech practices, which remains the research dominant today. An interdisciplinary approach to the communication analysis as the main role conducted by the language in society makes it possible to reveal its features and to describe it as a specifically human phenomenon (*Salikhova, 2015*). The language system, including its paremiological subsystems, is determined by its communicative function and it contributes to the language acting as a means of forming and expressing cognitive and emotional content. One of the most important semantic functions of fixed units (phraseology, paremiology in the wide

interpretation given by N.M. Shansky) is their (ac)cumulative function - fixing, accumulating and transmitting information about the comprehended reality to next generations (Alefirenko, 2018). Particular attention is paid to the pragmatic functions of paremiological units, since they not only designate and name objects of reality and concepts about them, but also are "a special language tool for expressing a variety of emotional and evaluative attitudes of the speaker to everything that happens in his / her inner world or outside it" (Kushnareva, 2021: 103). The imperative function should be distinctly emphasized, i.e., the influence function (including emotional) on the listener / reader, obviously due to the semantic specificity of the words that are components of an idiom and a proverb. According to many linguists, paremias are the manifestations of everyday consciousness in human speech. For this reason, the study of the language idiomatic fund, the paremiological worldview in particular, seems promising in the aspect of studying the linguistic consciousness of not only an individual, but also of an entire ethnocultural community. The knowledge presented in fixed units is based on the everyday experience of native speakers, on their traditions, beliefs and customs (Salikhova, Mursalimova, 2013; Salikhova, Mursalimova, 2022).

Following N.N. Semenenko and G.S. Krivosheev, the paremiological worldview is considered as "a specific linguo-mental formation" the structure of which is conditioned by culturally determined meanings. Paremias as "tools for modeling a linguistic picture of the world" are characterized in the aspect of a "culturally determined component" (the term used in (Semenenko, Krivosheev, 2019)) of paremic meanings and "cognitive mechanisms for the formation of the most important cultural stereotypes in their correlative connection with certain value dominants of Russian linguoculture (ibid.).

2. Materials and Methods

Modifications of paremiological units are set by the pragmatic goal of the speaker, who introduces new relevant information into the language space, which implies an axiological rethinking of statements. The research methodology is based on psycholinguistic, lexicographic, linguopragmatic and linguoculturological methods of analysis, involving the study of linguistic phenomena as a means of organizing social experience in speech communication process. This involves both the identification of language units and structures, and the description of the conditions for their selection and functioning. The subject of the analysis are examples of paremiological transformations characteristic of student discourse: desacralization, the formation of new meanings of idioms, lexical and structural changes in fixed expressions.

Lexicographic, linguo-pragmatic and linguo-culturological analysis of the neoparemia material obtained as a result of a series of psycholinguistic experiments and sociolinguistic surveys (2012-2020) with first-year students of the Ufa State Aviation Technical University (Kushnareva, 2020; 2021), students of Muslim and Orthodox educational institutions of Bashkortostan (Mursalimova 2012 (a), 2012 (b), 2018; Salikhova, Mursalimova, 2015) shows an active process of transformation of the considered language means. We tend to believe that the dominant trend in these semantic and conceptual changes is the desacralization of biblical derived fixed expressions.

By linguistic / speech sacralization, we mean "a universal metacategory that defines the value-semantic existence of a person in the ethical, aesthetic, legal, political sense, in which there is faith and trust in God and the world" (Salikhova, Mursalimova, 2021: 196; Shkuran, 2020: 55-56). When completing a task in an associative experiment, the participants had to continue or create neoparemias (their own original proverbs) based on the initial part of a well-known proverb. While associating, the respondents often resorted to use a paremiological variation strategy, the essence of which is to replace the components of fixed expressions and to change their structure by increasing new meanings.

Linguistic desacralization is “the loss of significance and deep sacred content in the semantics of words, phrases and phraseological units in order to secularize concepts and their secular depreciation in the media and in the oral speech of native speakers, stimulating a reorientation to other values and “shrines” and contributing to the destruction of the highest values of the individual” (Salikhova, Mursalimova, 2021: 197). Desacralization (in a wide interpretation - reframing (Selezneva, Severskaya, 2021)) of fixed language units of biblical origin is the result of the digitalization processes activation, as well as a consequence of the democratization of religious views inherent in modern secular society.

3. Results and discussion

In the speech practice of native Russian speakers, there are not only individual units of biblical origin that have lost their initial religious semantic content, but also expressions - proverbs, phrase combinations (idioms). So, an Old Testament proverb *Do not dig a hole for somebody else, you yourself will fall into it*, warns a person against committing unkind deeds towards other people. V.M. Mokienko gives the following meaning of this proverb: “Do no harm to another person, this evil will return to you. It is an expression used for preventing a bad deed or stating the fact of an accomplished retribution” (Mokienko, 2012: 405). Similar expressions are found in Aesop and Cicero and other writers of antiquity, which indicates the proverb’s folklore character with a moralizing attitude. The proverb itself has been known to many nations since ancient times and goes back to the idea of a hunter digging a hole to catch game (Mokienko, 2012: 406).

The German paremiologist W. Mieder states, that this proverb is known in different versions in eighty-four languages around the world, which allows us to conclude that it expresses universal human values. The author, having studied literary sources in German, has traced a long path of development of this proverb from a biblical quotation (1602-1991), to the status of a proverb (1800 - to the present) and to the status of “an anti-proverb” (1800 - to the present) (Mieder, 2010: 392-394). The transformation of a proverb into an invariant semantic form has been lasting for more than two hundred years. In the explanatory dictionary of the German language “Wahrig” (Wahrig, 2003: 425) there is no indication of the biblical origin of the paremia, according to the dictionary - it is “*Sprichwort*”, i.e. proverb. In modern sources in Russian, there is also no indication of the biblical origin of the proverb. In the “Phraseological Dictionary of the Russian Language”, the phraseological unit derived from the proverb is given *To dig a hole for someone*. This phraseological unit is related to the colloquial style of speech and is noted as expressing a contemptuous attitude towards the interlocutor, which indicates a significant desacralization of meaning (Stepanova, 2012: 605). The proverb *Do not dig a hole for somebody else you yourself will fall into it*; is used as headlines for mass culture products designed for different age groups: There are series of the film magazine “Yeralash” (No. 126, 1998, directed by B.Yu. Grachevsky) and an episode of the TV show “Spokoynoy noch, malyshi” (“Good night, kids”). There is an episode of the television series “The Next” (season 1, episode 287, 2008, directed by Yu.V. Kharnas) and a fragment of the humorous program “Kalambur” (directed by Yu.A. Stytskovsky) for adult audience. In these programs and films, situations are presented that reveal the meaning of the proverb, but they do not give any references to its biblical origin. The choice of the heading testifies to the significant educational and pragmatic potential of the proverb, the disclosure of which and the decoding of its propositional part are counted on by its creators.

The paremiological worldview correlates with the linguistic worldview as part of the whole and therefore incorporates the rules of behavior and moral norms accepted in the linguocultural society (Alefirenko, 2018: 310; Salikhova, Mursalimova, 2022). In order to illustrate the desacralization level in the actual meaning of the proverb *Don’t dig a hole*

for another, you yourself will fall into it, let's consider the results of a directed associative experiment conducted in 2020 with students at the Ufa State Aviation Technical University. The experiment participants were asked to come up with their own expressive proverbs (neoparemmas) based on the proposed keywords (S).

According to the basic provisions of the theory of linguistic personality introduced by Yu.N. Karaulov, the verbal-semantic level reflects the degree of proficiency in ordinary language practice. From a research standpoint, this level is interesting for the traditional description of the means expressing certain concepts: its units are individual words, and stereotypes are phrases, as well as simple sentences representing an invariant of the language norm. The verbal-semantic level of a linguistic personality is represented primarily by "blitz reactions" (using the word "blitz" in the name of reactions type, we mean the brevity of the actualization process, its exhaustion and completeness). These are reactions of the surface lexicon level, they are associated with the perception of the form and with the understanding of the direct (basic) meaning of stimuli (S). They can be qualified as a reflection of clip thinking in speech. The term "clip thinking" refers to a person's instant reaction to information coming from outside. Habitual actions of the brain in conditions of accelerating information flows do not fit into the standard scheme "attention-perception-thinking-memory-imagination-reproduction". Having adapted to external changes, thinking compresses these complex processes to the action of the "attention-short term memory" algorithm. With such "decoding of what comes from outside, the concept, judgment, reasoning and inference are not formed when receiving images, fragments and short texts" (Salikhova, Mursalimova, 2021: 197). The examples of blitz-reactions are: НЕ РОЙ ДРУГОМУ ЯМУ - забей / это тяжело / бесплатно / не трать силы / время / ты же слишком ленив для этого. (Russian: DO NOT DIG A HOLE FOR SOMEBODY ELSE - forget it / it's hard / for free / don't waste your energy / time / you're too lazy for this). An individual strategy consists in trying to respond as quickly as possible without thinking. To confirm the specifics of "naive" axiology manifestation, as well as the conditions and mechanisms for the selection and functioning of phraseological and paremiological transformations characteristic of student discourse, let us turn to the data comparison of rephraseologisation and desacralization processes and to the new meaning formation of idioms in German.

The associative vectors in the Russian and German languages differ and are primarily related to the peculiarities of the paremia structure: the German version of *Wer andern eine Grube gräbt, der fällt selbst hinein* (German: He who digs a hole for others will fall into it himself - hereinafter the author's translation) is a complex sentence with an attributive clause. The German "anti-proverbs" are primarily focused on the personality of the "digger" - his profession or personal qualities can be characterized: *Wer andern eine Grube gräbt, ist ein Bauarbeiter / Totengräber / Grubengräber / Totengräber seines eigenen Charakters* (German: Whoever digs a hole for others, that is a builder / gravedigger / gravedigger of his own character) (Mieder, 2010: 393); the fee for such activity is often played up: *Wer andern eine Grube gräbt, wird nach Leistung bezahlt / bekommt Lohn für seine Arbeit / wird nach Tarif bezahlt / wird selber Chef*. (German: He who digs a hole for others is paid according to his deserts / receives money for his work / he is paid according to the tariff / will become his own boss) (Mieder, 2010: 396). Another characteristic feature of German neoparemmas is their "gloomy" connotation. According to the explanatory dictionary, the main component of "Grube" - "pit" means "grave" (an obsolete, poetic word) (Wahrig, 2003: 425). *Wer andern eine Grube gräbt, der geht über Leichen / kann sich begraben lassen / möchte, dass er in der Versenkung verschwindet* ("Whoever digs a hole for others, he walks over corpses / can bury himself / would like others to disappear into oblivion") (Mieder, 2010: 397). In Russian, the proverb is a warning implemented with the help of the imperative mood, so the main associative vector is

a reaction (R) to the stimulus verb (S) “РОЙ/ КОПАЙ” - (“dig”), which requires a direct object : *Рой колодец - пригодится воды напиться / вскопай себе огород / лучше себе проложи тропу / рой себе погреб - продукты на зиму хранить / рой окопы, они лучше для войны / сделай себе бассейн / рой карьер*. (Russian: *Dig a well, it will give you some water/ dig yourself a vegetable garden / pave a path better yourself / dig a cellar to store food for the winter / dig trenches, they are better for the war / make yourself a pool / dig a quarry*). We consider it important to correlate the images of situations presented in the linguistic consciousness of the respondents with a choice from a certain set of assumed meanings exactly what is relevant for understanding the constructed unit. As a result of the imposition of the real situation image and the transformations image produced from the original part of the proverb, the “effect of deceived expectation” arises (term combination from (Semenenko, Krivosheev, 2019)). The given neoparems from the student discourse correlate with the article from the “Russian Associative Dictionary” on S-КОПАТЬ, in which the most frequent reaction is *the pit* (60 answers). Fragments of paremiological world view contain similar anti-proverbs in Russian and German: *Wer andern eine Grube gräbt, der braucht erst mal einen Spaten* (German: *Whoever digs a hole for another needs a shovel first*). Compare with the Russian version: *не рой другому яму, лучше возьми лопату и копай* - (*Do not dig a hole for somebody else, better take a shovel and dig*). Visual-kinetic reactions are identical for Russian and German: *Wer andern eine Grube gräbt, der schwitzt* (German: *Who digs a hole for others sweats*); *Wer andern eine Grube gräbt ist selbst ein Schwein* (German: *He who digs a hole for others is a pig himself*). Let us compare with the answers proposed by the students of the USATU: *не рой другому яму, грязным станешь - мыться придется / перед народом некрасиво*. (Russian: *Do not dig a hole for somebody else, you will become dirty - you will have to wash / it is ugly in front of the people*).

4. Conclusions

As it can be seen from the results of the experimental material analysis, the emerging relationship between the original part of the proverb and its derivative transform reflects the action of cognitive mechanisms that represent a typical situation in speech practice and changes in its conventional image in the associative process under experimental conditions. This logical-syntactic connection is actualized by the theme (*Do not dig a hole for somebody else*) - by what the listener / reader already knows, and by the rheme - by the new one that is introduced by the producer of the transform in the proposed fragment continuation. An indivisibility is known to be a distinctive feature of a proverb. The indivisibility implies the unity of the theme and rheme when included into another statement. Theme-rhematic relationships within the phrase are also established, since the communicative essence of fixed expressions is set up by culture. Nevertheless, the results of the undertaken research illustrate the idiom potential to take a rhematic position in an utterance. The following examples demonstrate this position: *не рой другому яму, пока тебе не заплатили / попроси в начале аванс / найми гастарбайтеров / найми экскаватор / найми рабочих* (Russian: *do not dig a hole for somebody else until you have been paid / ask for an advance payment at the beginning / hire guest workers / hire an excavator / hire workers*). In their answers, students interpret “the process of creating a hole for their neighbor” as a job, while the communicative meaning is being formed in parallel with the components corresponding to the constructed image, which translate the direct meaning of the physical efforts associated with digging a hole. The original meaning of the idiom is lost. The conventional idiom conveys the meanings that form the new that is communicated in the topic of the utterance - *the pit* and the physical actions associated with it: the value judgment in the rheme position is reflecting

compensation for the efforts spent. In neoparemsias in Russian, the opposition “*I and others*” clearly emerges, expressing a pragmatic meaning valuable for the researcher. There is also an orientation “*on yourself*”: *займись своей жизнью / лучше о себе позаботься / а то поясницу надорвешь / перенапряжешься - сессию не сдашь* (Russian: *take care of your life / take better care of yourself / otherwise you will break your lower back / if you overstrain - you won't pass the session*). A positive attitude towards other people and teamwork is reflected in the following neoparemsias: *Рой третьему с любовью / рой с другим / вдвоем веселее / роите вместе* (Russian: *Dig for the third with love / dig with someone else/ it's more fun when together / dig together*). Some neoparemsias testify to a negative attitude towards other people: *Не рой другому яму, убей морально / кремировать дешевле*. (Russian: *Do not dig a hole for somebody else, kill morally / cremating is much cheaper*).

The described transformations are associated with desacralization and dephraseologisation processes. These processes have recently been arising naturally as a result of response to changes in various fields. The revealed structural-semantic dynamics of the transition from the “old” to the “new” idiom is the essence of the change in ideas about reality (Selezneva, Severskaya, 2021; Shkuran, 2020).

In the cases we have analyzed, the result of desacralization is the formation of a multilevel subject-predicate structure of neoparemsias. At the logical-semantic level, two scenarios for structuring neoparemsias unfold: (1) the key fragment of the original unit, acting as a stimulus, “absorbs the meanings transmitted by the new reference situation” and acquires thereby a new meaning; (2) the key fragment of the original unit predicates the content of neoparemsias, “integrating into its semantic structure in the form of an evaluative component” (Semenenko, Krivosheev, 2019: 107). At the same time, the formed transforms are likened to paroemia components, for which the extensive linguocultural context acts as a semantic predicate.

According to paremiologists, idioms (proverbs in particular) “accumulate specific information about typical life and conceivable situations, objects and relationships” (Semenenko, Krivosheev, 2019: 108), and transform into an effective “tool for conceptualizing reality, performing the function of sign substitution not only the object of the figurative nomination, but also the speaker’s evaluative attitude towards it” (Semenenko, Krivosheev, 2019: 109). We would submit that the idioms present not only conceptual schemes, but also, according to M.L. Kovshova, “the naive ethics of the people, their moral principles and ideological and aesthetic views of the world are convex and capaciously revealed as in a magnifying glass” (Kovshova, 2013: 80). It should be noted that one of the main communicative intentions in the restructuring process of the linguistic worldview is a creative possibility of the linguistic personality, which predetermines such strategies for deploying information that teleport the associating subject as a communicant into the world of the discourse formed by him / her. In such a discourse, the laws of representation of a “special” view of the situation restructured by neoparemsias operate.

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