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COMMERCIAL TRUST AS AN ECONOMIC PARADIGM OF SOCIETY

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Annotation. Nowadays, the world trade and commercial relations form the basis of the of the vast majority countries' economies. The most important basis for such relations is the level of trust among the subjects of trade. The aim of the article is to study commercial trust as an economic paradigm of society. The article analyses issues of commercial trust. Historical approaches to the term "commercial trust" were defined. It has been established that cash flow has significantly accelerated, which has led to an increase in profits and an increase in capital. In the center of it was the rule of "trust" in banks. It was determined that one of the reasons for the slowdown in the activity of small and medium businesses is the restriction of access to financial resources, in particular, to cover the period of delivery of goods, raw materials, components from an exporter to a foreign buyer. A model of calculating a possible level of commercial trust was presented. It was concluded that the problem of determination the level of trust in the economic environment has increased significantly with the advent of blockchain technologies, trust protocols and distributed registries. In this case, the two-dimensional model of the "product-money-product" formula becomes narrowly targeted and should give way to models with a third dimension, for example, the level of confidence in the economic system. The method for determining the level of trust in systems with a distributed registry and an infinite number of participants was proposed, which can be provided in a certain segment of the economy.

Keywords: world trade, blockchain, commercial trust, blockchain technologies.

INTRODUCTION

World trade and commercial interactions form the ground basis of the of the vast majority countries' economies. The most important item of such relations is the level of trust between the trading subjects. The concept of "trust", that used to be a psychological, has now transformed into the economic concept, requiring its first quantitative content, semantic content, making it essentially economic indicator that affects the general turnover, the turnover

of funds, the proceeds of trade and others. The society concerns now with new accounting technologies for commercial operations, the degree of trust in partners, banks, logistics systems, etc. In particular, we can talk about distributed ledger technologies, about blockchain.

The aim of the article is to study commercial trust as an economic paradigm of society.

The novelty of the study: this study is aimed at creating a possible model for calculating commercial trust.

The object of the study: commercial trust

The objectives of the study:

1) analyze the theory of commercial trust;
2) to study approaches to quantifying commercial trust;
3) offer a model for calculating commercial confidence

The methods applied:

1) logical and comparative analysis of literature;
2) academic literature synthesis;
3) methods of statistical analysis;
4) document analysis have been applied to data evaluation and analysis.

THE IMPORTANCE OF DEFINING COMMERCIAL TRUST

In the context of the trade that emerged in the ancient world, the level of trust between the buyer and the seller was minimal. The seller could sell low-quality goods as high-quality ones. The buyer could pay off with fake money, and made seller went bankrupt. The reseller risked money reserved for the time of the sale. The lender could not fully trust the borrower of funds, trust the supporting documents of the credited entity. And if they do not inspire confidence, or if someone doesn't appear who will act as the guarantor of the financial transaction, the loan will not be issued. The depositor is distrustful of the bank regarding the return of the deposit amount, which the bank is reluctant to do, because the cash flows of the loan and the deposit are out of sync etc.

Subsequently, together with the money, a person created an accounting register (ledger), in which he placed records of transactions, data on the product, services, and payment of the transaction, when their number was measured in hundreds, and the number of people (N) participating in them was measured in thousands. Such accounts became trust documents in which notes were made on the reliability of such transactions. In 1494, Luca Pacioli for the

first-time systematized knowledge on writing accounting documents, including ledgers. But even after this, the hostility between church and business didn't subside [1]: a good Christian could not be a money-lender or entrepreneur, and even less, keep accounting ledgers with a double recording system in the accounting records designated by Leonardo Fibonacci as the basis of his modern economy, without which no mercantile deals then provided.

There is an opinion [2] that it was the double accounting in accounting that spread in Europe at the end of the 15th and beginning of the 16th centuries that became the basis for the emergence of capitalist relations in the feudal economy of individual countries (Britain, Holland, Spain). But even after that, legal accounts remained the main document confirming the trust of transactions and financial flows.

An example is the rapid ascent of bankers of Medici House from Florence, without the knowledge of whom not a single trade transaction was carried out in medieval Europe. One of the important arguments for conducting financial business in Old Europe was precisely the accounts for such transactions, the owner of which had an influence on the entire segment of the trading business. Based on this database, the Medici House could control almost the entire economy of the Italian Dukes, the kings of France, Spain, and German rulers with full confidence in this House. Because, thanks to the records of debit and credit records, as a double accounting system, it was possible to retrospectively track the reliability and legality of most transactions.

Using further the system of double accounts, the emerging banking system could carry out money transfers without their physical delivery. The cash flow accelerated significantly, which entailed an increase in profits, an increase in capital. Everything was based on the trust to the banks [3].

The fact that centralized systems of management, for example, banks, cannot be subjects of trust, proves by a lot of cases. For example, the experience of Lehman Brothers, which according to reports had a profit of $ 4.2 billion in 2007, and went bankrupt t the following year [4], having fictitious balances and failed transactions, hidden debts, financial records and investor valueless related to these are the possible risks [5].

One of the reasons for the slowdown in the activity of small and medium businesses is the restriction of access to credit financial resources, in particular, to cover the period of delivery of goods, raw materials, components from an exporter to a foreign buyer. The degree of distrust in the accompanying documentation of small and medium businesses is very high

and not unfounded. The danger of making an error, or more often, deliberate duplication of accepted funds on the security of a consignment of goods, is becoming one of the global problems for the development of such business in the context of promoting high-tech products on the foreign market. The use of distributed blockchain registries and the creation of trustworthy indestructible protocols would allow all participants in the movement of goods to trace such duplication at any time and completely eliminate such risks. According to the most conservative estimates, small and medium businesses at the rate of turnover for every $ 1000 could have an additional income of $ 80-200.

But already in 2005, the famous cryptographer Ian Grieg from Systemics proposed creating a third account in the form of specially programmed content, as an independent registry of records, accessible to all users for viewing, but protected from any changes, which protected such an account from any fraud. And in several years Satoshi Nakamoto appeared...

Trust protocols and a system of double keys: publicly available and purely individual, have restored the everyday use of the term “trust”. For the first time, an accounting system was introduced to the fact that it does not require state support. The subjects of the system could control it, but not change it at their discretion.

The good old ledger guaranteed the fact of the transaction, was a tool to maintain a degree of trust. The modern distributed registry and blockchain trust technologies put accounting systems at the level of decentralized trust in all partners in the system. Accounting registry, compiled according to the rules of technology and allows to get absolutely reliable recording. This record can play the role of truth, which can always be referenced.

Therefore, the question of the economics of the term “trust” may have a basis.

Modern blockchain technologies simply make us consider trust as the most important economic substance. Is it really so? Anonymized trust protocols known to all participants in the system allow avoiding centralized management and control, making a huge number of problems solved depending on the delegated trust of each participant.

Centralization of trust comes instead of decentralization of information [6]. This formula requires not only the restructuring of the legislative framework of many countries of the world, but also the changing relations between people. Blockchain technologies, when they are used extensively, will require more trust from people under the guarantees of everyone else. Psychologically, this is very difficult if we take into account the degree of global distrust that exists in the world between individuals, religions, nations, interest groups, and finally, national

governments of almost all countries without exception. Now we have a system of total distrust in society. First of all, it is connected with total social inequality, which is being cultivated as one of the ways to ensure competitiveness between people and to escape from artificial, social equality. Society will have to solve the global task of finding the essence of reconciliation, harmony, trust, goodwill in human communication, the rules that are best set forth in religious literature, in particular, in the Bible, Quran and others one and a half to two thousand years ago.

"A decentralized economy also requires centralized trust" [3]. This old truth, which was born and developed in the works of the young socialists Saint-Simon, R. Owen, the young Marx, P. Kropotkin and others, but so far has not found adequate application. And it can become the most insurmountable obstacle in the global spread of blockchain technology in modern society about the fact that a decentralized economy is yet unresolved and unresolvable about the contradictions in the world. However, the management of companies, neither the governments of individual countries, nor financial interstate institutions are ready for the transfer of central authority to the distributed registers of participants. A lot of time must pass in anticipation and the emergence of new technologies like the blockchain, their mass implementation in practice. We should aware of inevitability of evolutionary change in economic vision and building economic democracy, compare it with the economic chaos, as it happened with the ideas of Kropotkin anarchism, mutilated by history and turned into its absurd opposite.

The highest degree of trust is the individual responsibility for their actions in relation to all participants in a certain set of transactions.

HOW TO QUANTIFY CONFIDENCE?

In the sociological science, trust is defined as a bet on the future unforeseen actions of others [7]. In psychology, it is an independent relatively independent form of faith based on an act of relationships. F. Fukuyama gives the concept of trust as "... the expectation that members of society will behave honestly, showing willingness to mutual understanding in accordance with generally recognized norms [8]. In economics there is the concept of trust, as the positive expectations of certain actions of others, which influence on the choice of the individual, when he must begin to act before, actions of others will be known.

Predicts such as " unforeseen actions ", "form of faith ", " expectation " clearly does not contribute to quantitative assessments of the subject of study. Methods of a sociological survey

were used, methods of analysis of actual data, which also do not give quantitative assessments to the subject of research. In paper [9], an attempt was made to determine the quantitative indicator of the composite confidence index using empirical indexes, which reflect the results of a sociological survey and the indexes obtained by calculating the statistical data of certain groups of indicators. According to the author, this is an assessment method that is valid for a narrow circle of economic systems.

Information on how to quantify commercial trust can be given to us by blockchain technology, which is based on distributed knowledge protocols that require maximum and voluntary trust from all participants in the system. One of the possible calculation options is by the number of participants in a trust transaction. One person can trust another. You can trust two, three friends. This does not change the situation. This is one level of trust. And if you have to trust a dozen people, and even one of them is unfamiliar with you, then this is a different level of trust. Moreover, trusting the doom or six dozen partners - also has no fundamental difference. A simple conclusion suggests itself: as a first approximation, the level of trust is the decimal logarithm of the number (N) of participants in the trust process. L = 0 means a complete lack of trust due to the fact that this is a purely centralized system. L 2 means that in trust relationships are at least one hundred or more people. L 3 means that thousands of people enjoy mutual trust. This is a certain logical scale of confidence. And the scale of responsibility to all.

T. Friedman described our Internet world as the plane in which the economy, society, and culture [10] dwell outside hierarchies and censorship. Modern two-dimensional (planar) the digital economy of the "money-goods -money " in the form of numerical series, did not provide the third dimension, for example, in the form of agreed confidence actions of individuals at the next level, without the intervention of central banks (Fig. 1). With the introduction of the third coordinate - the level of trust (L = lgN) in the system, a forced surge in business activity occurs even at the first level (we see an increase in the number of transactions, and if we expect growth in the participants of the trust system, regardless of its semantic content.

The world is far from the phenomenon of distributed trust. But this phenomenon infinitely expands the range of trusting participants. If two or another number of participants take part in an ordinary transaction, then a transaction in a distributed trust system may be acceptable for an unlimited number of impersonal participants who are aware of the essence of a particular transaction (see Fig. 1). Responsibility for transactions in this case does not lie with banks, but is distributed among all participants and forces them to be cross-principals in the system.

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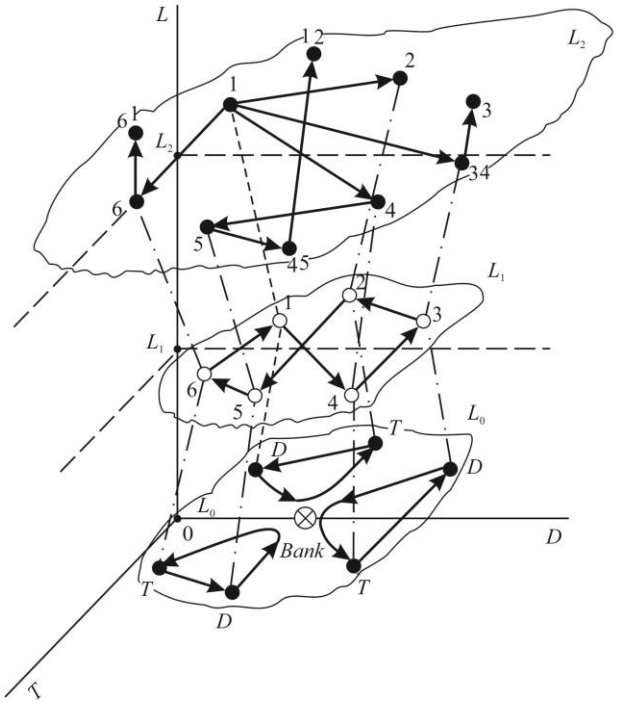

Figure 1. The system of commodity-money relations with centralized management (in the case of trust distribution registers)

Today, no one doubts that a distributed trust system is a missing element for the development of Internet networks in general [11]. In the proposed interpretation, the numerical level of confidence increases with an increase in the number of participants in transactions (Table 1).

Table 1. Possible transactions at various levels of confidence between participants (according to Fig. 1)

№№	Confidence level	The number of participants (positions), N	Number of variations	v/N
1	L_0	6	3	3/6
2	L_1	6	6	6/6
3	L_2	10	36	36/10

Quantitative estimation of confidence may be different, for example, in the forward of percent's it can contains up to 100%. But practice shows the invalidity of such assessments if modern trusting technologies are the basis for which 100% cutting of state is not ideal, but real and standard state. And conversely, a low percentage of trust completely blocks the work of the system.

CONCLUSIONS

It is now obvious that good commercial trust in itself is very valuable. It is important to note that commercial trust determines the economic value of the business itself. The

consideration of commercial trust from an individual point of view has recently become important. Therefore, models for calculating commercial confidence are becoming very important. The assumption is made that, to a first approximation, the level of trust is the decimal logarithm of the number of participants in the trust process and the higher the level of trust, the more efficient the system itself. This is at least a certain logical scale of confidence. And the scale of responsibility to all.

The problem of the trust level determination in the economic environment has increased significantly with the development of blockchain technologies, trust protocols and distributed registries. In this case, the two-dimensional model of the "product-money-product" formula has become narrowly targeted and should give way to models with a third dimension, for example, the level of confidence in the economic system. The new method was proposed for determination of the systems trust level with a distributed registry and an infinite number of participants, which can exist in a certain segment of the economy.

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