Mutual Trust as a Booster of Credit and Investment Activities of Banks and Development of Small Industrial Firms

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Abstract
The article proves the importance of boosting the level of trust in the interaction between small industrial businesses and banks. The problems in the relations between these economic entities in Russia have been identified and the ways of solving them by moving to a partnership-based model of cooperation of banks with small enterprises have been outlined. The defined model of cooperation is based on the adaptive credit and investment consulting (ACIC) method proposed by the authors. This method assumes mutual trust between the economic agents that appears while ensuring complete transparency of information among the participants of credit transaction. It also assumes their interest in long-term and sustainable relations and adaptation of the services provided by the bank to the certain economic condition of a small firm. It is shown that the implementation of ACIC in the practice of bank’s lending to small enterprises will ensure an increase in the level of mutual trust between them and boost their credit and investment activities. The work reviews and classifies methods for quantifying the level of trust between various economic entities; a synthetic index that measures the level of trust between banks and small industrial enterprises is developed; and a methodology for an approximate estimation of the economic effect of the ACIC application is proposed. The results of the study can be adapted for the conditions of other countries with similar problems in the interaction between banks and small firms.

Keywords: Mutual trust; Credit and investment resources; Banks; Small industrial business; Adaptive credit and investment Consulting.

1. Introduction
Small business is the basement of modern economy nowadays and its growth is a major task of any economic policy. Credit and investment resources are an important booster of small businesses because small firms normally lack their own funds and frequently use their personal savings. This is especially true for small industrial enterprises that have capital-intensive asset structure and low maneuverability in a changing environment.

Funds of banking organizations are the main type of credit and investment resources but some problems often arise in lending to small businesses (higher credit risks, lack of collateral, low legitimacy of small firms and lots of routine work in the analysis of enterprises).

A particular problem is the lack of trust between banks and small enterprises that is regarded as required condition for their efficient interaction.

The concepts of credit and trust are essentially connected, i.e. they are related by nature. It can be confirmed by the etymology of these words. The interpretation of the term “credit” goes back to the Latin “credo” and means “believe”, “trust”. This is why lending is based on the principle of credibility of relations between the agents participating in this transaction and it assumes fair execution of the contract obligations by them.

The practice reveals a close relationship between the level of trust, lending activity of banks and the development of small businesses. Small businesses are better developed in those countries where the level of trust is higher, and vice versa. This is largely due to the fact that a high level of trust underlies intensive lending to small firms and boosts the growth of small businesses in general.

Russia is an example of such a country with a negative combination of all three factors: insufficient development of small businesses, low level of trust and passive credit and investment policies of banks towards SMEs.

Small business in Russia stands behind other sectors of the national economy. Its share in GDP is 21% and it employs less than 20% of the able-bodied population in the country. Meanwhile small business in highly developed countries accounts for about 50-60% of GDP, and the share of employees involved in small and medium-sized businesses ranges between 60 and 90% of the total number of employees.
Russia has long been on the list of countries with a lack of trust\(^1\). For example, the WVS studies across 29 countries in 2011 revealed that only 27% of the respondents in Russia were prone to confidential relations with an average level of 47% (Strana Nedoveriya, 2013). The Edelman Trust Barometer index in Russia fixed a very low level of institutional trust in 2018 – 36%, while this figure was 43% in the US and Italy, 49% in Canada, and 74% in China (Edelman Trust Barometer, 2018).

The passive position of Russian banks can be described by the disproportional structure of financial resources allocated for small businesses. For example, the share of the most widespread "informal" sources (including usury) amounts up to 50-60%, while the share of bank sources is no more than 10-20% of the needs of small businesses. At the same time, foreign banks account for up to 50% of the market for credit and investment resources of small firms abroad. Russian banks have sufficient lending potential that turns out to be unrealized. According to Academician Aganbegyan (2016) the overall potential of the Russian banking sector is used for less than 50% (about 1.3 trln rub.). This potential exceeds the volume of the provided investment loans that amounted to 1.1 trln rub. as of 01.01.2015 (Aganbegyan, 2016). Studies of the authors allow to estimate the potential additional investments in small businesses only by the top 30 Russian banks at 0.7 trln rub. by early 2015 and 1.7 trln rub. by early 2016\(^2\).

The significance of the stated problem predetermines the importance of methods of intensifying banking credit and investment activities in the industrial segment of small business by the example of Russia.

2. Literature Review

The phenomenon of trust that accompanies transactions of various market participants has been actively studied by scientists from different countries. The research in the area of public trust level becomes especially relevant in the years of economic crises, stagnation and economic downfall. During the above-mentioned periods the level of trust of economic agents usually reduces along with the entrepreneurial activity, which further aggravates stagflation and crisis. Nowadays when economic sanctions and trade wars are actually an expression of mistrust international relations, trust as a factor has a direct impact on the economy of various countries and is of particular importance. This fact has determined the increased attention of the scientific community to this problem and the large amount of publications on this subject in the last 5-10 years.

There is no unambiguous definition of trust but Russian and foreign researchers agree that it is a multicomponent and multifaceted concept. Fukuyama (2004) the founder of the theory of trust, defines it as an expectation that other members will behave more or less predictably, honestly and with attention to the needs of others, in accordance with certain general norms.

The Nobel Prize laureates J. Stiglitz and K. Arrow paid a lot of attention to the role of trust in the modern social development. Stiglitz (2005) defined trust as the most important driver of economic growth: "The market system operates largely due to trust. Investors are simply forced to hand over their savings to other people, and they expect at least not to be deceived when they decide on this". K. Arrow believed that "trust... increases the entire system performance... it can also be stated that the economic backwardness in the world is largely due to a lack of mutual trust".

Management specialists (Mescon, M. Albert and F. Khedouri) noted the importance of trust in management systems: "information flows and the accuracy of information in its exchange between people in the organization increase in an atmosphere of trust" (Mescon et al., 1997). The above statements confirm that entrepreneurship and small businesses in particular are more successful in developed countries, where the system of economic relations is built on a higher level of trust.


Large-scale studies of trust were conducted by major organizations (VCIOM, Levada Center, University of Michigan, PR agency Edelman, etc.). In particular, according to the OECD (Organization for Economic Cooperation and Development), "...investing in trust should be regarded as a new and central approach to restoring economic growth and strengthening social cohesion, as well as an indication of how public authorities can learn from the crisis... " (Monitoring Obrschestvennogo Doverya, 2016).

Quantitative assessment of trust is of particular importance for economic research but its specificity (subjectivity, versatility, etc.) complicates its measuring. Rich experience in the quantitative assessment of trust exist at present. For example, the works of the audit consulting company FBK (Russia, trust in the economic sector) Nikolaev et al. (2006); Autonomous nonprofit organization Levada Center (Russia, public trust) (Confidence Indices of ANO Levada Center, 2018); Alfa Bank (Russia, investor trust) (JSC., 2017); NAFI and HSE (Higher School of Economics) (Russia, trust between population and financial institutions) (Index Of Trust In Financial Institutions NAFI Analytical Center, 2018); Bank for Small Business Support – MSP Bank (Russia, trust of small businesses in the financial sector, including the MSP Findex and the Financial Crossroads Index (MSP, 2016); the Financial condition and expectations of small and medium enterprises) (Financial Crossroads Index, 2015-2016); (Financial Condition and Expectations of Small and Medium-sized Businesses, 2015) the GfK Group analytical company (Germany, consumer trust) (Consumer Sentiment Index GfK, 2017); the largest private PR agency

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1 World Value Survey (WVS), International Social Survey Programme (ISSP), European Social Survey (ESS).
2 Estimations of the authors as of 01.01.2017.
Edelman (US, public trust, including the Edelman Trust Barometer) (Edelman Trust Barometer, 2018) and University of Michigan (US, consumer trust, including the Consumer Sentiment Index) (Michigan University Consumer Sentiment Index, 2018) etc.

Some authors (Knack S. and Keefer, 1997; Knack Stephen., 2001; La et al., 1997; Newton, 2012; Roth, 2009b; Zak and Knack, 2001) studied the quantitative interrelation of the influence of trust on the economic growth indicators. The correlation was generally positive and this fact allowed to conclude that the increase in the level of trust led to an improvement in economic indicators. In particular, it was revealed that the trust increase by 7% led to an increase in the share of investment in GDP by 1%, and the trust increase by 15% led to the increase in average annual per capita income by 1% (Knack S. and Keefer, 1997; Knack Stephen., 2001; Zak and Knack, 2001). At the same time Canadian economist John F. Heliwell studied the performance of 17 OECD member states in 2000 and concluded that there was no correlation between the level of trust and economic growth (Roth, 2009b). However, this study was nearly the only one that carried out such an idea. Perhaps, there were other dominant growth factors for his sample of countries.

The literature review indicates that the problem of trust analysis and its quantitative assessment has not been solved yet.

3. Main part
3.1. Acic as a Method of Transition to a Partnership-Based Model of Interaction Between Banks and Small Enterprises

There are various models of interaction between small businesses and banks today. This interaction is based on partnership and mutually beneficial relations in many developed countries. For example, consulting support for small businesses is widespread in Europe. A special section for small and medium-sized enterprises (SMEs) is posted on the European Commission's website (Entrepreneurship and Small and Medium-Sized Enterprises, 2018) providing extensive information on policies and specific tools for supporting small firms in the EU countries, legislation, taxation, search for partners, terms of participation in support programs, etc. Rastushchyi Malyy i Sredniy Biznes v Rossii i za Rubezhom (2010) Specialized projects have also been developed with the purpose to increase competitiveness and develop innovation Competitiveness and Innovation Framework Programme (2018) as well as to train and improve the skills of entrepreneurs and managers (for example Tempus (2018), Erasmus Mundus – Scholarships and Academic Cooperation (2018).

The European Enterprise Network for SMEs’ support established in Europe is a free web portal with business support information resources that allows to quickly get information about the opportunities for the company's development, and most importantly – to get direct contacts of the fund that could provide financial assistance in the enterprise development (Fink, 2012).

The existing model of interaction between Russian banks and small businesses significantly differs from "partnership", as it contains elements of consumer and even predatory attitude to small firms. Since the repayment of the loan and obtaining interest rate from the client is the major task of the bank, it is of a little concern for the fate of a small enterprise that has taken a loan at a high interest rate. The relationship between a bank and a small firm is short-term, and therefore the bank is no longer interested in further development of the enterprise. Credit, investment and information consulting that is carried out in the banking practice implies a detached, formal role in the transaction where the bank has little interest: it is more convenient for a bank to lend to one large enterprise than to dozens or hundreds of small ones.

In its turn, a small enterprise is also interested in obtaining its highest profit and, accordingly, in a lower interest rate and comfortable debt repayment terms. Due to a low level of trust, entrepreneurs are usually reluctant to disclose information about their company's activities and even hide the real data (while the real "picture" of business can be either worse or better). While the main objective of credit institutions is to ensure repayment of the borrowed funds and respective penalty payments by any means, the business owners take a number of measures in response not to repay loans (shut down companies, declare bankruptcy, split the business into smaller companies, withdraw assets from the balance, change owners, etc.).

As such, the current interaction between Russian banks and small firms is described by:
- the standardized approach: loan agreements are typical and take the needs and characteristics of client entrepreneurs into account only formally. Banks are not prone to changing the contract terms;
- the dominant position of banks: a bank and an enterprise are in clearly unequal positions in the Russian practice. A bank "rules the game", and a business follows these rules;
- the imperfection of the Russian banking legislation that has appeared much later than in developed countries, where the legal basis of business have been improving for decades.

There has been a recent trend in Russia for a slow move to a partnership-based model of interaction with small businesses. In particular, programs "Own business" and "Business environment" have been developed by Russian Sberbank. Since these programs have appeared recently, it is impossible to evaluate their efficiency. Both of them are focused on advising small businesses. Meanwhile, "Own business" helps entrepreneurs to the successfully perform their businesses (reminders for paying taxes, legal aid, counterparty checking services, online promotion and advertising of goods (Own Business, 2018) and "Business Environment" implements educational information products (training courses, information and recommendations from experts on starting a business, potential risks, necessary resources, etc. Zykova and Kukol (2011). The drawback of these programs is that the bank's interests still dominate over the interests of small businesses. In fact, they allow the bank to earn additional income even before
lending to a business (since some of services are paid); many banking products that may prove attractive to small businesses are not represented on the website. Entrepreneurs are poorly informed about these programs, and the number of small enterprises participating in these programs is still insignificant.

In general, the imperfection of these programs for SMEs does not allow them to explicitly improve credit and investment interaction between SMEs and banks. This is why the authors suggest ACIC as a method of transition to a more loyal and partnership-based model of cooperation. ACIC is defined as a systemized provision of a complex of information and consulting services on public and private loans and investments by a bank to both current and start-up entrepreneurs considering the changes in external environment and aiming to achieve current goals and objectives of SMEs in the best way.

The key differences between the suggested method and the established practice of interaction between businesses and banks are the following:

- complexity: the enterprise is aware of all the possible credit and investment instruments of the bank;
- combination: credit and investment bank instruments are combined and adapted to the capabilities and current needs of small businesses;
- focus on long-term cooperation: consulting is aimed at establishing long-term and mutually beneficial partnership between a bank and SMEs;
- taking macro- and meso-factors into account: assessment of not only of micro-, but also of meso- and macroeconomic factors that could have potential impact on business in general and the ability to execute contractual obligations fairly in particular.

The suggested partnering model of cooperation will allow to achieve the following results in the long term: 1) reduction in the number of refusals by banks (a bank will be interested in finding an efficient way to fund a business even if the primary analysis of the situation leads to a negative decision), 2) increase in the financial literacy and awareness of the enterprise management. As such, the partnering credit and investment consulting will allow to transform the role of the bank from the position of just a creditor and recipient of interest ("predator") to a more confidential category – a supplier of credit, investment, information, and consulting services at a qualitatively different level ("partner").

### 3.2. Methods for Measuring Trust

Measuring trust as a growth factor remains an important stage in the study of credit and investment interaction between banks and SMEs.

Classification of the existing methods of quantitative measurement of trust and its impact on the economy is given in Figure 1.

**Figure 1.** Classification chart of the main methods for measuring trust and its impact on economic indicators

<table>
<thead>
<tr>
<th>Method Type</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Direct</td>
<td>Measuring trust by a selected set of economic indicators.</td>
</tr>
<tr>
<td>Backward</td>
<td>Measuring the influence of trust on a selected number of indicators.</td>
</tr>
<tr>
<td>Universal</td>
<td>A wide range of different parties (m – large).</td>
</tr>
<tr>
<td>Specialized</td>
<td>Limited spectrum of parties (m – small).</td>
</tr>
<tr>
<td>One-sided</td>
<td>Measurement of one party’s trust to another.</td>
</tr>
<tr>
<td>Mutual</td>
<td>Measurement of trust between parties.</td>
</tr>
<tr>
<td>Expert and heuristic</td>
<td>Based on surveys; Measurement of public trust in financial institutions (NAPI)</td>
</tr>
<tr>
<td>Statistical</td>
<td>Based on the analysis of statistical data.</td>
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</tbody>
</table>

The analysis and generalization of the existing methods allows to conclude that an integral approach to the measurement of trust should be used. This approach should integrate the advantages of the previous studies.

The integral index of mutual trust between SMEs and banks $D^\text{int}$ is the composition of two particular indices. Index $D^\text{e}$ reflects economic and institutional aspects and can be calculated the following way:

$$D^\text{e} = D^\text{e} \times D^\text{i}, \quad (1)$$

Particular index of mutual trust ($D^\text{i}$) represents economic component. It is based on using statistic data on a number of certain economic indicators. This component can be presented by the following formula:

$$D^\text{i} = \sum_{i=1}^{n} w_i \times \frac{l_i}{l^\text{p}}, \quad (2)$$

**Legend:** $D$ is the level of mutual trust, $l_i$ is the $i$-th indicator, $i = (1...n)$, $n$ is the number of indicators, $S_j$ is the $j$-th party, $j$ is the party number, $j = (1...m)$, $m$ is the number of parties, $S_j^\text{p}$ is the chosen subject.
where: $I_i$ is the current value of the selected economic indicator, $I_i^0$ is the base value of this indicator; and $w_i$ is the weight coefficient that is found expertly.

Some hypotheses have been adopted to select indicators and find index $D'$ (Table 1). The significance of the selected indicators is determined by the method of peer review with the following conditions:

$$
\begin{align*}
0 & \leq w_i \leq 1 \\
0 & \leq w_i + \ldots + w_n \leq 1 \\
i & = (1 \ldots n)
\end{align*}
$$

(3)

<table>
<thead>
<tr>
<th>Indicator $I_i$</th>
<th>Justification of the hypothesis</th>
</tr>
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<tbody>
<tr>
<td>Coverage of the SMEs’ need for money by bank loans (volume of loans granted to SME in relation to the SME turnover)</td>
<td>It indirectly reflects the banks’ trust to SMEs with scale of activity is related to lending.</td>
</tr>
<tr>
<td>Indicator of the bank activity in the field of credit and investment support for SMEs (share of the SMEs’ loan portfolio in the bank’s assets)</td>
<td>It reveals the intensity of cooperation in the field of credit and investment cooperation, and, accordingly, the existing level of trust.</td>
</tr>
<tr>
<td>Return on the SMEs’ assets</td>
<td>It is one of the key indicators for the bank when deciding on credit and investment cooperation (the better is the business performance, the higher is the level of the bank’s trust in it).</td>
</tr>
<tr>
<td>Spread of the loan rate for SMEs (difference between the loan and the funds rate)</td>
<td>It indicates how credit risks are assessed (the smaller is the spread, the greater is the trust).</td>
</tr>
<tr>
<td>Bank’s capital</td>
<td>It indicates the bank’s stability (the higher the bank’s capital is, the more reliable it is for entrepreneurs and the higher the trust is in it).</td>
</tr>
<tr>
<td>State support for the SME sector (SME loan portfolio in relation to the government support for the SME sector)</td>
<td>It indicates the concern of government in the development of the SME sector (the more state financing goes for SMEs, the more attractive the business is for banks and the more active are the entrepreneurs in taking loans).</td>
</tr>
</tbody>
</table>

The institutional component is based on a survey of experts for a selected range of enterprises and banks. The results are processed according to the NAFI methodology (Index Of Trust In Financial Institutions NAFI Analytical Center, 2018).

The economic effect from the ACIC implementation can be approximately estimated using the methods proposed by Zak and Knack (2001), Knack Stephen. (2001), Knack S. and Keefer (1997) and others, based on the established quantitative dependencies between the trust growth and the most significant economic indicators. Using these ratios for the SME sector, where there was an increase by $\Delta I_D$, the potential growth in investments in the SME sector can be found – $\Delta I_{\text{SME}}$, as well as the increase in the contribution of small firms to GDP – $\Delta \alpha$, and the expected growth in tax revenues from small businesses – $\Delta I_{\text{TSM}}$

4. Results

1) The problems of interaction between small industrial businesses and banks in Russia have been revealed: low level of trust between the above-mentioned economic entities, small amounts of lending to entrepreneurs, higher risks for banks and inefficient state support for SMEs.

2) The conclusion has been made about the necessity to improve the interaction between banks and small enterprises by increasing the level of trust between them. Relations based on trust will allow switching to a partnership-based model of interaction.

3) The method for solving the problems of interaction between banks and small firms and intensification of their credit and investment activity has been proposed – ACIC, which is based on the integrated and combined approach when choosing banks’ instruments. This method aims to establish long-term partnership between banks and small businesses and this will lead to a more intensive development of the small business sector.

4) The studies on the quantitative measurement of trust have been generalized and classified; the conclusion has been made about the imperfection of the existing methods and the need to develop a synthetic index based on the integrated approach. The approach should consider for the economic and institutional component of the interaction.

5) The synthetic index has been proposed and in comparison with the index of the audit and consulting company FBK (the nearest analogue) it includes not only the selected range of economic indicators from official statistics but also considers for the socio-institutional aspect based on experts’ judgment about the explored economy sectors.

6) The scope of using the integral index $D'$ has been defined. It can be applied both at meso- and microlevels and it can guide the situation in financing SMEs as well. The dynamics of this index depict the changes in the relations both between sectors (bank and SMEs) and between certain enterprises and banks.

7) It has been shown that an increase in the level of information security and transparency between small firms and banks due to ACIC will lead to an increase in the trust index $D'$. The approximate economic effect obtained as a result of the increase in the level of trust $\Delta D'$ is expressed in the growth of investments in SMEs, tax revenues and
contribution of the SMEs to GDP. The results can be estimated using the inverse methods (Zak and Knack (2001), Knack Stephen. (2001) and Knack S. and Keefer (1997) etc.) containing the quantitative relationships (relationship between the increase in the level of trust in the country and economic growth).

5. Conclusion

Increasing the level of trust in the modern society is regarded as an important and necessary field of economic thought. The issues of trust are closely related to the trust analysis and measurement but these problems have not been solved yet.

Numerous researches on the topic have been published. These studies are not complete and it is therefore important to develop both practical methods of trust (transition to ACIC) and methods for measuring trust – in particular, modification of the indices used to measure it.

The results of the authors’ research can be adapted for other countries and are of great importance for social and economic policies of those countries where insufficient level of trust in the society, stagnation in the small business development and low activity in credit and investment support of SMEs still exist.

References