



## Russian Construction Companies Financial Management

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### Abstract

The article provides methodological tools for the management of accounts receivable construction companies. These tools are based on modern methods used in corporate financing. Implementation of an adaptive approach to factoring in the construction industry will help increase the efficiency of economic agents' activities and reduce construction companies' costs on monitoring accounts receivable and assessing buyers' solvency. This study discusses analytical data on the construction of residential buildings in the Russian Federation and the Stavropol Region. Also, this study shows a comparative analysis of factoring and loans.

**Disciplinary:** Construction Financing Management, Economics.

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## 1 Introduction

Construction is one of the crucial and strategic spheres of economic activities which largely predetermines the speed of social and economic activities and helps solve current challenging issues in Russia (Garnova, 2018). Construction is the real sphere of the economy which stipulates the structural reorganization of the industry. Moreover, construction determines the efficiency of both reorganization and the functioning of the economy in general.

Almost every construction company deals with a shortage of current assets, which increases accounts receivables. Thus, the issue of efficient management of accounts receivable is quite topical. Whereas loans for business are not profitable, considering the current Russian economic

environment, financing contracts for the transfer of financial claims (factoring) concluded with banks or specialized companies make an alternative source of financing of accounts receivable (Tyll et al., 2018).

Factoring is a modern financial instrument and integral financial product provided by a bank or specialized company (factor) to a customer-supplier by exchange for transfer (sale) of accounts receivable (Čulková et al., 2018, Kulikov et al., 2019). Currently, factoring is widely used, considering its application rate by economic agents. Thus, according to the Association of Factoring Companies (AFC), the aggregate market portfolio, which indicates the scope of credit risks accepted by the factors, is RUB 1 trillion 219.77 bln as of October 1, 2021.

Issues related to the application of factoring as a corporate financing tool are widely covered in works by foreign and Russian authors (Kashirtseva, 2017). The following economists studied features of factoring operations from the legal viewpoint: Arkhangelskaya and Salin, 2021; Kononov and Kononov, 2021; Lazarenko et al., 2019; Stroeva et al., 2015. Integrated research and assessment of reliability, efficiency, and risks of factoring in banking activities are described in work (Gazman, 2011).

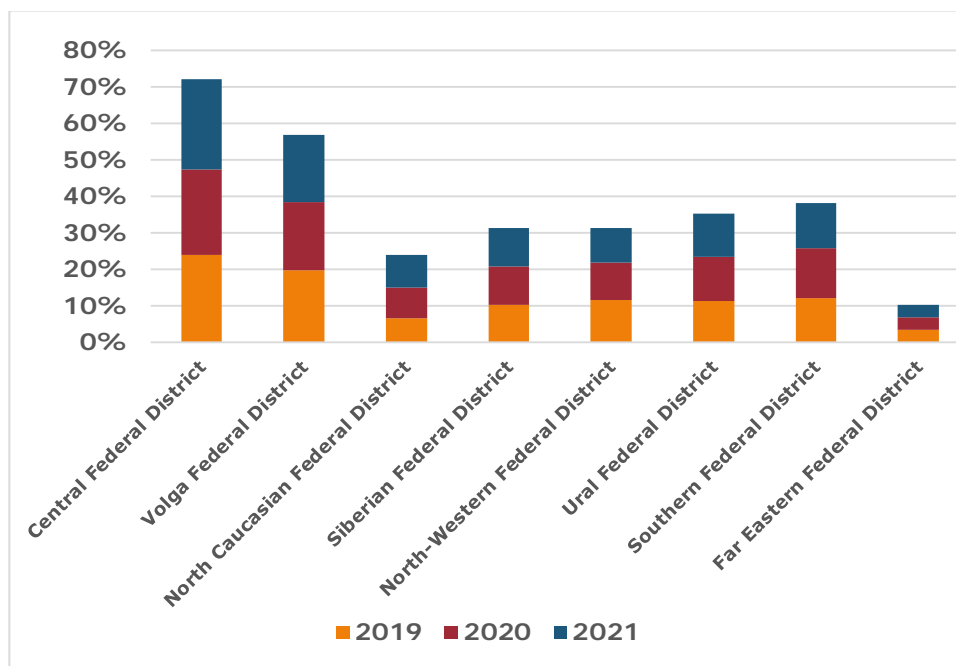
Moreover, the integral application of factoring in the construction industry is not widely covered in scientific works (Chen and Chen, 2012; Khanyile et al., 2019). Therefore, the applicability and importance of theoretical and practical problems development, related to using the mechanism of factoring in construction, determine the research purpose and tasks. The purpose of the research is the development of recommendations for efficient application of mechanism of factoring in the construction industry, taking into account the competitive nature of the banking market.

For defining directions for improvement of factoring operations in construction, it is advisable to use a complex of existing research performed by Russian and foreign economists and current Russian regulatory documents that make the legal basis of factoring.

Methods and practices for analysis and synthesis, comparison, induction and deduction, economic and statistical methods for information collection and processing, etc., are used as methodological tools.

## **2 Materials and Methods**

Despite the continuous period of crisis social and economic phenomena, the demand for residential property is still high. Indeed, it is due to the measures taken by the Government of the Russian Federation and aimed at support of mortgage market and mortgage borrowers, implemented local housing programs. However, the growth rate of housing construction cannot reach the required level. According to the statistics, the average residential penetration rate across the country is a maximum of 20 m<sup>2</sup> per capita, yet the said value shall be 1.5 times higher (Saenko, 2014).



**Figure 1:** Share of commissioned buildings (residential and commercial) by constituent entities, Federal Districts of the Russian Federation in 2019-2021, %

According to the data given in Figure 1, the highest share of commissioned buildings is registered in the Central Federal District (leaders are Moscow and Moscow Oblast– 57 % of the total amount of commissioned buildings in the federal district). Volga Federal District is the second by the quantity of commissioned buildings, the leader in this region is the Republic of Bashkortostan - 37 % of the total amount of commissioned buildings). Stavropol Region is the leader in the amount of commissioned buildings (37 %) in the North Caucasian Federal District.

Thus, the highest shares of housing quantity are registered in economically developed regions with high people's endowments.

According to the estimates of the Ministry of Economic Development of the Russian Federation employees, residential housing construction is one of the most promising and effective directions of state GDP increase. Thus, one ruble invested in residential housing construction makes 55 kopecks of GDP. Moreover, the development of residential housing construction stipulates a decrease in social and economic tension in the society and a solution to the problem of the housing shortage (Valinurov, 2014).

Visual data given in Figure 1 show that to ensure the Stavropol Region leadership in the construction industry as compared to other Russian Federation constituent entities, it is necessary to increase the growth rate of commissioned residential housing. For assessment of the data provided by the Federal State Statistics Service on the construction of residential buildings in the Stavropol Region as compared to other regions, see Table 1.

Analysis of the data given in Table 1 shows that construction performed by individual developers is predominant both in the Russian Federation and Stavropol Region, and construction performed by housing societies is not popular. Thus, in Stavropol Region, the share of residential houses in the total amount of commissioned houses within the period under consideration is 44.4

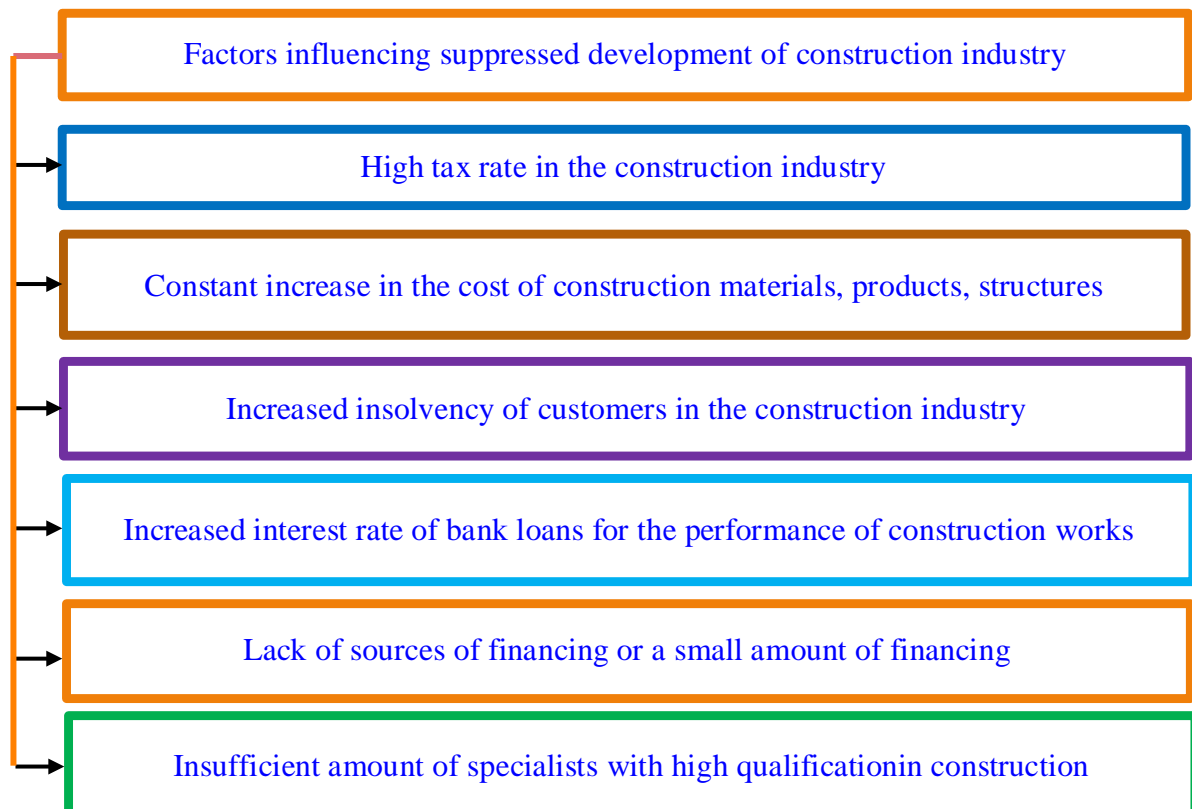
% and 50.1 %, respectively. The total area of residential houses constructed in the Russian Federation in 2021 is 81.7 mln m<sup>2</sup>, in Stavropol Region, the total area is 9.8 mln m<sup>2</sup>.

**Table 1:** Analytical data on the construction of residential buildings in the Russian Federation and Stavropol Region in 2020-2021

Region	Total constructed, mln m <sup>2</sup>	including:		Share of residential buildings in the total amount of commissioned buildings, %	
		by individual developers	by housing societies	of individual developers	of housing societies
2020					
Russian Federation	79.2	33.0	0.8	41.6	1.0
Stavropol Region	8.8	3.9	0.009	44.4	1.1
2021					
Russian Federation	81,7	46,0	0,9	56,3	1,1
Stavropol Region	9,8	4,9	0,010	50,1	0,10

Currently, a certain recession is detected in the construction industry. This recession is based on numerous factors: economic instability, political tension, etc. However, an increase in construction rate is observed in the Stavropol Region. This fact confirms proper solvency of people, the attractive effect of the region. All these consequences shall help improve the area's investment climate shortly soon (Volodin, 2016).

Presently, the recession of the construction industry in Russia is caused by certain factors (Figure 2) (Sutyagin, 2017).



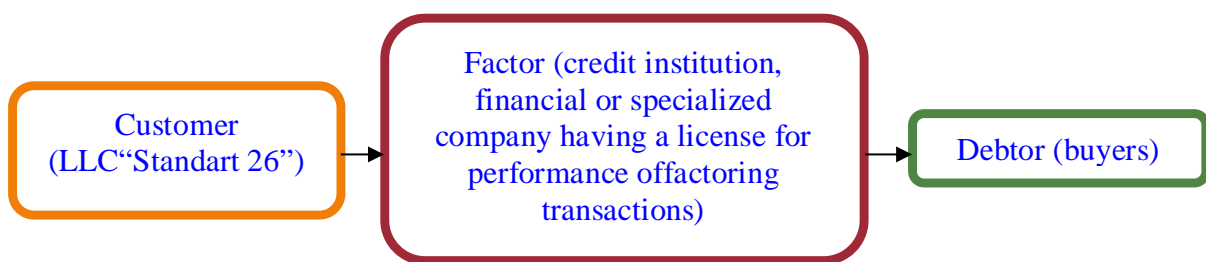
**Figure 2:** Factors influencing suppressed development of construction industry

All these problems have been observed for a long time. Currently, they impede the development of the construction industry compared to global values and lead to reducing its competitiveness. Moreover, due to the crisis consequences of the coronavirus pandemic, the problems have enlarged. Thus, it is advisable to develop a set of activities to mitigate negative forecasts concerning the development of the construction industry in the nearest future made by some analysts and experts.

In this research, mechanisms of application of corporate financing tools in the construction industry, e.g., factoring, are reviewed. Thus, the factoring market growth rate has reached 85 % for the last five years. The amount of claims settlement has reached RUB 590 bln, and the quantity of factoring contracts has reached 6.8 thousand. The strong growth of the factoring market is related to the increased amount of allocated accounts receivable.

It is advisable to apply factoring to the developing economic agents at a rapid growth stage. For example, developing companies that do not have enough funds to finance their standard activities use factoring tools for the successful growth of business and increase sales based on deferred payments to the customers.

The efficiency of factoring application is exemplified by LLC "Standart 26" (Mikhailovsk).



**Figure 3:** Parties involved in factoring activities

Thus, three parties are involved in factoring activities (see Figure 3).

When a company receives an invoice for works performed up to 90 % of the amount, it has the right to provide funds for development right after the delivery of works. As a result, turnover, sales, income, and profit increase.

Indeed, factoring is profitable for both sides of the transaction. For example, there are certain advantages of factoring for the seller (the creditor): lack of lengthy court and arbitrary procedures, no state fees, reduced additional costs of legal support of transactions (fees for qualified lawyers, travel expenses, business trip expenses, etc.). Therefore, agents that buy debts for certain remuneration are also in a fortunate position (Kovalev, 2017). Critical advantages of factoring are in Table 2.

Thus, factoring helps organizations that use it to cut risk management costs dramatically. Factoring is a popular financial instrument with numerous unmatched advantages. The use of loan products helps maintain business at a certain level and ensures its increment, though these products cannot provide its active growth (Saenko, 2014). Factoring allows to deposit current assets, maintain work with debtors (similar to the work performed by banks), transform constant

expenses on loans into variables, and ensure the connection with sales of apartments and contractual payments.

**Table 2: Advantages of factoring as a way to reduce financial risks**

Advantages	Brief description
No pledge	According to the factoring contract, as compared to the loan agreement, the factor does not impose strict requirements for loans that ensure financing. As a rule, accounts receivable transferred to the factor perform the said role (Makarenko, 2016).
Minimum risks	When making factoring transactions, the factor shall accept part of the risks related to the activities of the company. The fixed commission fee is set for such services (Kazakova, 2014).
Increased turnover	Factoring helps to transform accounts receivable into more liquid assets, i.e. monetary funds, in the short term. Reduced collection of accounts receivable reduces the time for transfer of funds into accounts receivable (Kazakova, 2014).
Possible budgeting of expenses on factoring operations in short-term and mid-term periods	When concluding a factoring agreement, the agent usually makes a table with interest payments for provided financing. The interest rate varies depending on the number of customers attended by the factor. Thus, the higher is the turnover and the larger is the circle of customers from the developer, the more favorable service conditions are (Kovalev, 2017).
Monitoring of accounts receivable	The factor accumulates customers' accounts receivable, controls flows of payments transferred to the settlement account, registers timeliness of payments, issues customers' reports on the current status of accounts receivable, and maintains statistics of transfers and settlement status (Kazakova, 2014).

It is advisable to represent key differences between factoring and loans in the form of comparative assessment of mentioned types of corporate financing in the context of the following criteria: security, amount of financing, financing periods, source of debt settlement (Table 3) (Kazakova, 2014).

**Table 3: Comparative analysis of factoring and loans**

Type of corporate financing	Criteria			
	Security	Amount of financing	Financing periods	Source of debt settlement
Loans	Strict requirements on security, pledges, insurance	The amount is set in advance (max. 75 % of pledge value)	Short-term loans – max. 180 days, the penalty for delayed payments	At the customer's expense
Factoring	Security is generally not required	Increase depending on the growth of sales volumes	Max. 180 days for each sale, including grace period (max. 270 days), within this period penalties are not imposed	At the expense of the funds received from debtors

Market environment and entry into the less competitive housing market in Mikhailovsk predetermine consistent demand for offered housing property. Nevertheless, as the construction company mentioned in the research works under deferred payments for max. 360 days, this fact negatively impacts turnover of accounts receivable. Thus, the average margin per 1 m<sup>2</sup> of residential housing is 25 %. Furthermore, constructions materials are supplied from local suppliers for LLC "Standart 26" within 3 days upon payment.

For this research devoted to the construction company, the following options are offered: without the use of factoring and with use of factoring (in this case, the total commission of the factor will be equal to 8% of the amount of supply, applications for financing of accounts receivable are processed within 1 day, non-recourse factoring).

### 3 Results and Discussion

If assume that the initial scope of supplied construction materials for construction in LLC “Standart 26” is RUB 60000 th. Sales revenue in 2020 is RUB 100000 th. Within 60-360 days (depending on the time limits specified in equity agreements), the said amount transferred to the settlement account will be invested in the financing of construction. In three days, construction materials will be used in the construction of apartments, the price is RUB 45 th per m<sup>2</sup>. The revenue will be received after-sales within 60-720 days.

The results achieved by LLC “Standart 26” within the given period are in Table 4.

**Table 4:** Economic performance of LLC “Standart 26” by operations (without the use of factoring)

Economic indicators	Value	
	2020	2021
Revenue, th. rub.	100000	152000
Cost of sales, th.rub.	87080	95214
Sales profit, th.rub.	12920	14358
Profitability, %	14,8	15,08

In case of LLC “Standart 26” decides to cooperate with a factoring company, financial resources will be transferred to the company’s settlement account within one settlement day. These resources will be immediately invested in construction.

The data given in Table 5 show that the average rate of sales revenue growth with the use of factoring tools is 14%.

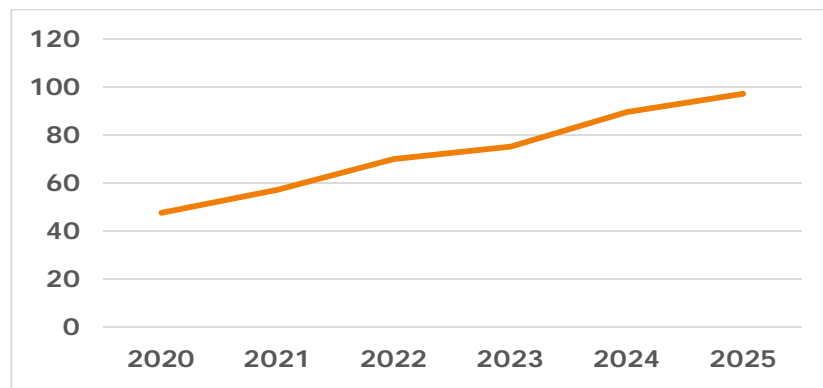
**Table 5:** Economic performance of LLC “Standart 26” by operations (with the use of factoring)

Economic indicators	Value	
	2020	2021
Revenue, th. rub.	114000	129960
Cost of sales, th.rub.	94046	102831
Sales profit, th.rub.	19954	27129
Profitability, %	21,2	26,4

The described situation includes several conditions: acceptance of all financial claims by the factoring company, assumption about the absence of a tax factor, assumption about financing in 100 % of pecuniary claims. Moreover, the given calculations confirm the efficiency of the application of factoring. Therefore, an increase in the economic performance of the construction company under analysis is achieved by using a factoring mechanism to maintain a high sales rate and ensure the promotion of the construction.

When comparing economic indicators of LLC “Standart 26” in the context of two situations, the following conclusions can be made: profitability of the company’s sales increased by 6.4 % in 2020 and by 11.32 % in 2021. Irrespective of the high commission rate, sales revenue with the use of factoring increased by RUB 7617th in 2021, as compared to the values of the given year, but without the use of factoring. Moreover, sales revenue with the use of factoring increased by 29.96 % between 2020 and 2021 (from RUB 100000 th to RUB 129960 th).

Within the framework of this research, we find it advisable to make a forecast concerning changes in the profitability level of LLC “Standart 26”, provided that factoring tools are used within the next 5 years, and based on the following forecasting methods: extrapolation and S-shaped growth curves with due consideration of inflation expectations adjustment (see Figure 4). Calculations are made with the use of Microsoft Excel, forecast validity is more than 90%.



**Figure 4:** Long-term forecast estimations of profitability ratio of LLC “Standart 26” with the use of factoring tools (until 2025), %

The graphical data given in Figure 4 confirm the previous conclusions about the efficiency of the adaptive application of factoring operations in LLC “Standart 26”.

## 4 Conclusion

The analysis of results obtained helps to conclude that non-recourse factoring is one of the most efficient ways of business development, especially in the context of market saturation and steady demand for residential housing. The advantages of factoring mentioned in this research show that it is a preferable method of corporate financing than loans. However, the involvement of a third party in relations between the seller and the customer can alert both the management of the construction company and buyers. As the modern construction market is marked by many dishonest developers, a third party's participation in fulfilling obligations can be found suspicious. Yet, there will be no further concerns when contractual relations are duly formalized. The developer has to pay for the factoring company's services, but it shall pay off soon as the customers shall be keen on making payments in due time to avoid arrears. Analytical calculations given in this article show that the adaptive application of factoring in LLC "Standart 26" shall help to focus key tasks of an economic entity on construction and sales, to reduce extra costs on monitoring accounts receivable and assessment of buyers' solvency.

## 5 Availability of Data and Material

Data can be made available by contacting the corresponding authors.

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