Kyiv National University of Trade and Economics

Economics and Finance of Enterprise Department

FINAL QUALIFYING PAPER

on the topic:

«Management of the creditworthiness of the enterprise»

(based on the materials of Republia Group LTD)

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АНОТАЦІЯ

Гірич В.О. «Оцінка та розвиток кредитоспроможності підприємства» (за матеріалами ТОВ "RepubliaGroup). - Рукопис

Випускна кваліфікаційна робота за спеціальністю 051 «Економіка», спеціалізація «Фінансовий менеджмент» - Київський національний торговельно-економічний університет – Київ, 2019

Випускну кваліфікаційну роботу присвячено теоретичним, методичним і практичним аспектам дослідження методів оцінки та управління кредитоспроможністю на підприємстві. Дана робота дозволяє визначити можливі напрями покращення якості оцінки кредитоспроможності та здійснити розробку заходів щодо кредитної політики підприємств.

Ключові слова: кредитоспроможність, оцінка кредитоспроможності, фінансовий стан, модель оцінки кредитоспроможності, кредитна політика.

ABSTRACT

Gyrych V.O. "Evaluation and development of theenterprise's creditworthiness" (based on materials of "Republia Group" LTD). – Manuscript

Final qualifying paperon the specialty 051 "Economics", specialization "Financial Management". – Kyiv National University of Trade and Economics. – Kyiv, 2019.

The final qualification work is devoted to theoretical, methodical and practical aspects of research of methods of assessment and management of credit standing at the enterprise. This work identifies possible directions for improving the quality of credit assessment and develops measures for credit policy of enterprises.

Key words: creditworthiness, creditworthiness assessment, financial position, creditworthiness assessment model, credit management policy.

CONTENT

INTRODUCTION

Relevance of research topic. The current state of the Ukrainian economy, what is its financial status many domestic companies had a large number of bad loans, Ukrainian banks are forced constantly improve the strategy and tactics of its lending activities. In this regard, it is relevant for the current trends in the development of the banking sector are the analysis and management of credit risk with a view reducing its level. Among the instruments for minimizing risk in the credit activity of the bank, there is a prominent place followed by an assessment of the borrowers' creditworthiness. Real conclusions and suggestions on the results of the analysis creditworthiness helps to avoid unjustified risks when conducting credit operations.

Therefore, the borrower's creditworthiness has always been and remains one of the main criteria determining the advisability of establishing a credit relationship with a client.

But the high level of bad loans is observed in the domestic loan portfolios of banks indicates the imperfection of the processes of determining the creditworthiness of borrowers. In connection with this raises the urgency of the research of modern methods and the improvement of the current methodology assessment of bank customers' creditworthiness. Given the importance of the role that evaluation plays borrowers' creditworthiness in minimizing credit risk arises in modern conditions the urgency of improving existing methods.

Analysis of recent research and publications. To solve problems of technique improvement assessment of borrowers' creditworthiness is dedicated to the work of domestic and foreign scientists - I.I. Tchaikovsky, V.V. Galasyuka, OO Tereshchenko, A. Giduliana, T. Popova and others. The results of their research have made a significant contribution to the development of the theory and practice of these areas of research.

The purpose of this work is to develop scientific, methodological, practical and advisory issues regarding the creditworthiness management.

To achieve the set goal it is necessary to solve the following **objectives:**

- to describe the theoretical basis of creditworthiness management ;
- to define the methodological approaches for creditworthiness assessment;
- to analyze the financial position and financial performance of “Republia Group” LTD;
- to carry out the asset and and capital structure of chosen company;
- to estimate the creditworthiness of the company;
- to calculate the credit schedule for “Republia Group” LTD;
- to plan the P&L, Cash Flows, Equity and liabilities of “Republia Group” LTD take into account proposed recommendations.

The objectof the researchis creditworthiness management at “Republia Group” LTD. Company "Republia Group" is a limited responsibility company, created in year 2015 according to the jurisdiction of Virgin Islands which belongs to IT sphere and make activity all over the world. The hearquarters is situated in Kyiv. “Republia Group” is rapidly growing company which started close collaboration with South Korean partners.

The subjectof diploma work – theoretical principles and methodical approaches of enterprise’s creditworthiness and approaches to its management.

The methodological and theoretical basis for the work consists of Ukrainian and foreign scientists works, legislative and regulatory acts of Ukraine, instructions and regulations, financial statements of “Republia Group” and data from other open sources. In the process of writing the diploma work there were used different methods: general scientific methods: analysis, synthesis, comparison, system analysis, graphic image method, etc., and special methods of financial analysis: horizontal, vertical methods and ratios method.

The practical significance of the results is to implement the recommendations of improvement creditworthy management at the enterprise.

The information base is made up of analytical, economic and research, as well as statistics information and data from the media, international organizations and other sources of information.

Approbation. The main thesis of this research were published in the article "Creditworthiness management: case of IT companies" whish were published in journal "Economics and finance of an enterprise", P.II, 2019. – pp. 217-222.

Structure of the work. Diploma research consists of 57 pages and carries out 23 tables, 3 figures. Literature review consists of the 50sources.

CHAPTER 1
THEORETICAL AND METHODICAL APPROACHES TO THE CREDITWORTHINESS EVALUATION AND DEVELOPMENT

In today's economic situation an effective business activity of an enterprise is hardly possible without the permanent attraction of additional capital: debt or equity capital. The involvement of the borrowed capital company promotes not only the increase of the economic activity efficiency, but also the acceleration of the movement financial and material resources, increasing the efficiency of capital use, reducing the payback period of investments, expanding the volumes and spheres of activities, forming various funds, and ultimately - increase of enterprise market value. Along with obvious advantages, rising debt capital is characterized by a number of shortcomings, the main of which is the risk of non-payment. This necessitates the application of an integrated approach to managing the enterprise creditworthiness. The quality of an enterprise creditworthiness management affects all aspects of its operation, investment and financial activities. In connection with this, there is a need to study new priority areas for improving the creditworthiness management for the company, which will be the basis for the effective use and timely and complete return attracted financial resources.

Need for credit assessment arises both for enterprises wishing to attract financial resources on attractive terms and for banks that seek to minimize credit risks. There are different approaches to defining the category of "creditworthiness", which are based on certain criteria that form the essence of creditworthiness (Table 1.1) [1].

To maintain an adequate level of creditworthiness and to remain sustainable development must take into account the reserves of enterprises (especially financial). Financial resources can be in the required volume formed only if effective the work of an enterprise that can provide profit generation [2].

Table 1.1

Systematization of approaches to determining the nature of creditworthiness

Author	Creditworthiness – is:
V. Kolesnikov [3], O. Kirichenko [4], A.Zagorodnij [5], B. Rajsberg [6]	Availability of prerequisites for the borrower to obtain and repay the loan
O. Petruk [7], L. Prymostka [8]	the ability to settle liabilities on time and in full
The National Bank of Ukraine [9]	availability of prerequisites for the loan transaction from the borrower (counterparty of the bank) and its ability to repay the debt in full and within the terms stipulated by the contract
V. Galasiuk [10]	the ability of the borrower to specific lending conditions in fully and within the term of the loan agreement to settle its debt obligations solely with cash generated by the borrower in the ordinary course of business
O.Zinchenko, S. Sviatenko, V. Marchukova [11]	the ability of the borrowing company to fully and within the timeframe specified in the loan agreement to calculate on its own obligations at the expense of available financial and economic potential
O. Vovchak, N. Meda [12]	the borrower's ability to accumulate cash flows sufficient to repay the debt in a timely manner in accordance with a pre-agreed loan repayment schedule and interest payment
A. Gidulyan [13]	the possibility of executing credit facility loans on terms of repayment, maturity and payment, or, in other words, the ability to make a loan agreement

The definition of creditworthiness of I. A. Blank deserves a separate selection. The author states that creditworthiness is a system of conditions for determining the ability of an enterprise to raise and repay borrowed capital. However, whenever it comes to a system, it is appropriate to clarify the elements of such a system and determine the relationship between them [14].

The borrower's creditworthiness is determined by indicators that characterize his / her ability to pay on loans previously received, his / her current financial position, ability to mobilize funds from different sources and ensure prompt conversion of assets into liquid assets. Ukrainian banks develop their own internal regulations and techniques for analyzing the borrower's creditworthiness, which are usually based on the National Bank of Ukraine's methodological recommendations for assessing the borrower's creditworthiness and financial stability.

Banks determine the creditworthiness and solvency of the borrower during the granting of the loan, during the term of the contract with the periodicity, determined by the Regulation on the procedure for formation and use by banks of Ukraine of reserves to compensate for possible losses on active banking operations, and in case of change of initial terms of the contract, including related to the borrower's financial difficulties [15].

The scientific literature pays sufficient attention to identifying the differences between solvency and creditworthiness. Scholars are unanimous in concluding that credit is a narrower concept and concerns only the ability to repay credit obligations.

Therefore, unlike its solvency, the borrower's creditworthiness not only captures the insolvency of the past period or of some date, but also predicts its solvency for the future. It is estimated on the basis of a system of indicators that reflect the placement and sources of current assets, the results of economic and financial activities of the borrower. The choice of indicators depends on the type of economy, the degree of development of market relations, features of balance sheet construction and other forms of reporting of borrowers, their industry peculiarities, ownership.

The main criteria for assessing the creditworthiness of the enterprise-borrower should include the following [16, p. 11]:

- providing the enterprise with its own funds at least 50% of the total amount of expenses it incurs;

- reputation of the company (qualification and abilities of the manager, observance of business ethics, contractual and payment discipline);

- estimation of the manufactured goods, availability of orders for its realization, nature of services provided (competitiveness in domestic and foreign markets, demand for products and services, export volumes, degree of dependence of demand for products on seasonality, etc.);

- economic environment (prospects for development of the borrower, availability of sources for financing and investments);

- market conditions (prospects for the market development of a given product or service, positioning of the product or service of the borrower, market growth rate, seasonality and other factors affecting its development). Therefore, in order to manage credit, it is necessary to consider a certain strategy and tactics of actions, which in the foreign literature are called credit policy.

Table 1.2

Types of Creditworthiness management strategies [16]

Objective	Strategy	Method	Advantages	Disadvantages
Improve its investment capacity	minimize the receivables	-negotiate payment terms reductions with your customers against discount -discount your receivables (factoring, discount of bills of exchange) -aggressive collection of your receivable -negotiate down payments	massive reduction of working capital and increase of your investment capacity	cost and profitability impact
Maximize profitability	secure your receivables	use credit insurance or bank guarantees systematically	limitation of risk of default low cost	- high working capital - negative commercial impact
Develop its sales	Flexibility towards customers	- grant long payment terms - no request of guarantees or down payments - flexible collection process	contribute to the sales development at short term	- high risk of unpaids and high working capital - loss a credibility if collection is too flexible with customers

Other approach of managing creditworthiness in long period is controlling the Z-score rating according to one of different discriminant models.

The current NBU Regulations in Ukraine accumulate the basic principles of calculating the financial position of borrowers of Ukrainian banks, which reflected in an advanced evaluation methodology the creditworthiness of borrowers - legal entities. According to this technique, the bank determines the rating class of debtor - a legal entity, depending on the value of the integral index with enterprise size (large, medium, or small). The classification is based on the method discriminatory analysis, which is widely used in the global credit risk assessment practice. Integral indicator calculations the financial status of the borrower – legal entity is carried out using the multivariate discriminant model according to the formula 1.1 [17, 18]:

$$Z = a_1K_1 + a_2K_2 + a_3K_3 + a_4K_4 + a_5K_5 + + a_nK_n - a_0; \qquad (1.1)$$

where Z is the integral index;

- K1, K2 ... Kn are financial ratios that are determined on the basis of financial data reporting of the debtor - legal entity;
- a1, a2 ... an are the parameters that are determined in terms of weight and digit financial ratios and are updated annually by the National Bank of Ukraine on the basis of the debtors' financial statements - legal entities.

We propose use modified Altman Z-score model created in 1995 [19; 20, p.187], because it completely match to private service companies as it proved in [21; 22]:

$$Z'' = 6,56X1+3,26X2+6,72X3+1,05X4 \qquad (1.2)$$

Ratios in this model match initial Z-model created in 1968. This modified model is suitable for analysis of creditworthiness for non-production industrial enterprises, as well as for enterprises operating on emerging markets.

Creditworthy models respond to the question of whether the company is financially sound, or has financial difficulties. The method of scoring is significant that the values of selected financial indicators are transformed into points using a scale. These scales are usually determined by expert methods. Simple, respectively. weighted sum of points is then variable, under which predicts the next financial development of the company. Depending on the construction point scale in some methodologies considered positive for the greatest number of points in others the least number of points [23].

Obtained Z-score model is interpreted in following way: financially stable companies have Z-score greater than 2.6, enterprises operating in the grey zone have Z-score in an interval between 2.59 -1.11, financially unsuccessful companies have Z-score smaller than 1.11.

Altman classified the enterprises credit rating based on Z-score model, equivalent to creditworthiness classification used by the agency for credit rating monitoring S&P [26, p. 187]. Namely Altman performed the adaptation of Z-score model by involving the constant 3.25. So adapted model is calculated as it shown in formulae 1.3.

$$Z'' = 3{,}25+6{,}56X1+3{,}26X2+6{,}72X3+1{,}05X4 \quad (1.3)$$

Obtained results are used in classification explaining credit rating degree i.e. it evaluating company's creditworthiness and may be taken as goal indicators for creditworthiness management (table 1.3) [24, p.314].

Table 1.3

Comparative review of the Z-score and S&P rating

Zone	Rating	Z"-score Treshold
Safe Zone	AAA	>8,15
	AA+	8,15
	AA	7,6
	AA-	7,3
	A+	7,0
	A	6,85
	A-	6,65

Continue Table 1.3

	BBB+	6,4
	BBB	6,25
Grey Zone	BBB-	5,85
	BB+	5,65
	BB	5,25
	BB-	4,95
	B+	4,75
Distress Zone	B	4,5
	B-	4,15
	CCC+	3,75
	CCC	3,2
	CCC-	2,5
	D	<1,75

According to Stanicic [25, p68.] Z"-score model can be transformed into bankruptcy probability with the help of formula 1.4:

$$P = 1 - e^{Z}/(1+e^{Z}) \quad (1.4)$$

Obtained value P interpret the probability of going to bankruptcy during the next two years.So to our opinion both indicators Z"-score and P are completely appropriate for management creditworthiness as a control parameters or a goal indicators.

Thus, methods for comprehensive evaluation of enterprise creditworthiness excel in a certain transparency, but lose due to its inaccuracies. It is necessary that financial analysts to clarify the financial health of a company while simultaneously use several methods of assessing prognosis. Every financial analyst can assess the financial situation of enterprises generate their own model. In terms of the results achieved financial and economic analysis financial manager should be focused on one indicator summaries on which could prolong the situation in which the company is located [25].

Practical cases of creditworthiness controlling evidence that Z-score or KPI assessment is not enough for continuing stable financial position and creditworthiness. Permanent creditworthiness can be provided with an effective credit management policy.

Credit management policy is an operational document defining a number of operating rules for the sales process that must be followed by the entire company including of course the credit team. It defines the standard conditions of sale (standard payment terms, early payment discount rate... etc.) and the processes to apply the rules (how to open an account, how to set a credit limit, how to recover the bills ...etc.). These rules intended to do "good" sales and to converge business strategy, commercial stakes and financial issues (credit risk, cash, profitability, working capital improvement).

The establishment of a procedure for credit management is necessary and critical in business since the number of employees exceeds ten and unwritten rules that are no longer appropriate. It defines the rules of operation at each stage of the sales process and clarifies the responsibilities in line with the business strategy.

Thus, it limits the internal conflicts that inevitably appear when the personal interests of the people involved differ. For example, it is common that the commercial, focused by the sale, cares little for the solvency of its potential buyer. However, an accountant or financial manager care more of the cash position and the risk to grant a credit to an insolvent client.

The policy of credit management clarifies the objectives of the company and set best practices that must be followed by the entire organization.

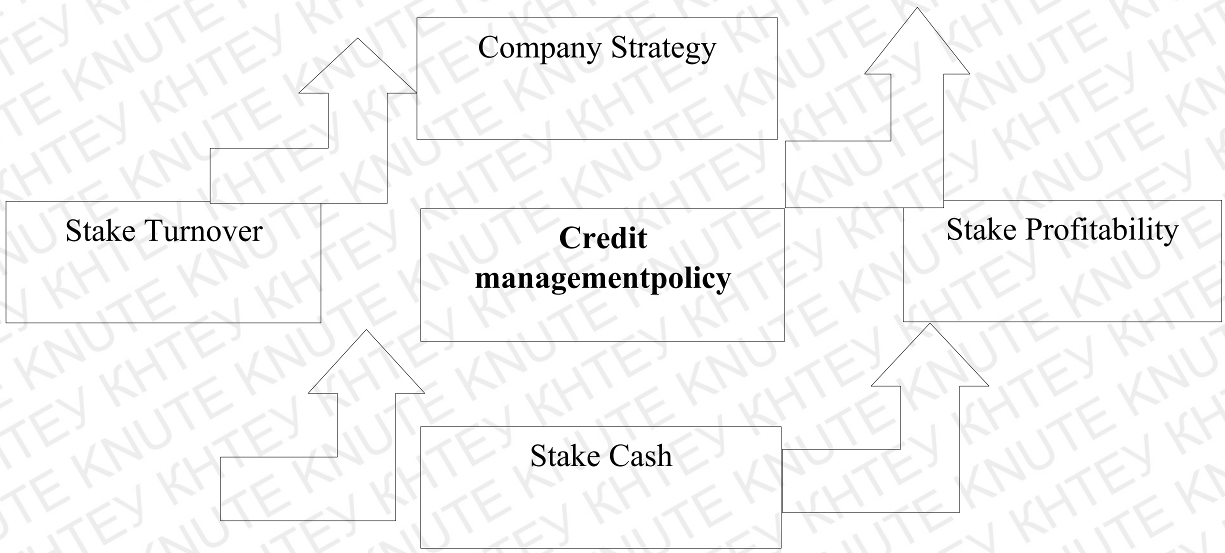

Figure 1.1. Components of credit management policy [26]

Key factor of success, it must be shared between vendors, business management and finance department. It is a document which specifies operating "standard" modes for all stakeholders while providing rules for exceptions. Indeed, the principle of the trade is to be specific to a business relationship to another, from an economic context to another. Each company must be able to adapt its offer to it and sometimes depart from the rules of running operations it has set itself.

The credit policy does not include irremovable rules. It is not a static document for financial controller which gathering dust in a corner office. This is an operational document which sets operating modes in accordance with the interests of the company whose ultimate goal is to be paid by its customers.

The division of tasks between employees can generate antagonists interests, as may be the case between finance and sales department. But the supreme interest of the company must prevail. This is the role of the procedure for credit management. It reconciles interests by setting limits to each of them and providing for arbitration in specific cases.

Operating rules established by the procedure may in some cases be overridden but within a framework defined in advance. Thus, it includes a chart of authority which determines for each decision committing an additional risk to the company the power of validation of each actor. For example, sending a new order for a customer who is in default of payment for more than 30 days may be subject to the validation of the CFO.

In addition to clarifying responsibilities, adherence to such a procedure is used to circulate information in the vertically (hierarchically subordinate) and horizontally (across multiple services) [27, p.37].

It promotes communication and mutual understanding of the different stakeholders. It therefore avoids the "silos" generated by the withdrawal of each service who does not understand the attitude of other services. Finance and commerce are not intended to quarrel but to understand each other because everyone has a share of the primary interest of the company.

Of course a company must sell and develop its sales, obviously it must ensure its sustainability by avoiding overdue and bad debts. These issues are not exclusive, quite the contrary. This is what helps the establishment of a procedure of credit.

The purpose of the credit management policy is to define rules on all steps that are likely to generate business risk by committing financial resources. This is done in order to manage this risk and to minimize them. Well managed, a risk can become an opportunity. For example, if you have evaluated a customer as insolvent, you can request a payment in advance against an interesting discount. This helps to improve cash flow of the business while avoiding any credit risk [28].

Changes related to risks, losses and conditions of progressive world crisis has become the norm of today. Unless the company is flexible with changes that span the entire modern world, it will suffer significant losses and go bankrupt. In our view, in today's economic environment, only leaders of change can survive - those who adapt quickly to the trends of change, using all possible prospects for crisis resolution. Therefore, businesses need to view change as a new opportunity to find new ones ways that will be most effective for the internal and external activities of the enterprise [29].

At present, it is important to develop and implement an enterprise credit management toolkit. In our opinion, important methods in credit management remain regulation of balances in the settlement and loan accounts of the enterprise, asset management, work with debtors and creditors, sound sales policies, promotions competitiveness of products, development of thoughtful business plans.

We believe that the management of the creditworthiness of the enterprise involves the formation of a system of target parameters for managing the financial condition, namely: asset management, financial stability, liquidity of assets, business activity, profitability, we manage investment risks by managing liquidity.

By managing financial sustainability effectively, we have the ability, on the one hand, to reduce the level of investment risk associated with the structure of formation of investment resources, and on the other - we can increase the rational use of sources of financing the production activity of the enterprise, which are significant moments for the investor.

By effectively managing profitability, we thus increase profitability and increase the creditworthiness of the enterprise. And also the primary step in improving the creditworthiness of the company is to find the optimal ratio of equity to debt provided minimal financial risk with maximum return on equity [30].

CHAPTER 2

ANALYSIS OF FINANCIAL POSITION AND CREDITWORTHINESS OF "REPUBLIA GROUP LTD"

2.1. Financial position and performance analysis of "Republia Group LTD"

Analyzing and evaluating the financial position of an enterprise is a necessary step for the development of financial plans and forecasts, including financial recovery of enterprises. The financial condition of an enterprise means the extent to which it is provided with the necessary financial resources to carry out its efficient operations and to make timely payments on its obligations. Financial condition depends on the results of production, commercial and financial and economic activities of the enterprise. Therefore, it can be objectively estimated not through one, albeit the most important, indicator, but only by a system of indicators that detail and comprehensively characterize the economic situation of the enterprise, reflect the availability, placement and use of financial resources [32].

The balance sheet data will also be used to calculate the current ratio, quick ratio, and net working capital, as well as provide an explanation of each as well as the meaning of changes from year to year. Liquidity ratio analysis refers to the use of several ratios to determine the ability of an organization to pay its bills in a timely manner [36].

This analysis is especially important for lenders and creditors, who want to gain some idea of the financial situation of a borrower or customer before granting them credit [34]. There are several ratios available for this analysis, all of which use the same concept of comparing liquid assets to short-term liabilities.

Liquidity ratio analysis allows to reveal company solvency in short-term period. Liquidity ratio analysis represented in the tab. 2.1.

Table 2.1

Liquidity ratio dynamics of "Republia Group" LTD for 2015-2018 years

Ratio	2015	2016	2017	2018	Deviation, p.p.		
					2016 to 2015	2017 to 2016	2018 to 2017
Current ratio	2,82	3,62	2,64	3,04	0,80	-0,99	0,41
Short ratio	2,68	3,52	2,50	2,92	0,84	-1,02	0,42
Cash ratio	0,66	1,47	1,01	0,92	0,81	-0,46	-0,08
Working capital	12,60	19,34	17,78	23,07	6,75	-1,56	5,29
Net working capital	10,67	17,43	12,60	20,97	6,77	-4,83	8,37

Analysis of the company liquidity showed that the company has excess liquidity during the whole period of activity, the current liquidity index exceeded 2 in 2016 and 2018, in the same years the absolute liquidity ratio exceeded 1. that is, the enterprise has a state of excess cash, so the issue of their effective financing is very relevant. The company has significant amounts of working capital, which decreased only in 2017. Over 4 years, working capital has almost doubled to 23.07 million at the end of 2018.

Though it can be useful to engage in liquidity ratio analysis, the results can lead one to be overly optimistic or pessimistic about a potential borrower or creditor, for the following reasons:

- Timing. There may be a cash inflow or outflow that falls just outside of the requirements of a ratio that could have a severe impact on the target entity. For example, there may be a balloon payment on a loan that is due in just over one year, and so is not classified as a current liability.
- Seasonality. The balance sheet information upon which these ratios are based may be entirely different in a few months, if the entity is subject to seasonal influences.
- Bad debts and obsolescence. The accounts receivable and inventory in different versions of the liquidity ratios can include varying amounts of assets that will never be converted into cash. If so, they will skew the results of these ratios to give the target entity an enhanced appearance of liquidity that is not really the case.

Table 2.2

Financial stability ratio dynamics of "Republia Group" LTD for 2015-2018 years

Ratio	Years				Absolute deviation		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Independence ratio	0,71	0,76	0,71	0,78	0,05	-0,06	0,07
Debt ratio	0,29	0,24	0,29	0,22	-0,05	0,06	-0,07
Financial leverage ratio	0,41	0,31	0,41	0,28	-0,10	0,11	-0,13
Financial stability ratio	2,47	3,25	2,41	3,51	0,78	-0,84	1,10
Long term financing ratio	0,88	0,89	0,86	0,87	0,02	-0,03	0,01
Maneurability of net working capital	0,49	0,58	0,23	0,35	0,09	-0,35	0,12
Maneurability of working capital	0,47	0,55	0,38	0,44	0,08	-0,17	0,06

Financial stability of an enterprise is a state of financial resources, theirs distribution and use that ensures development enterprises based on growth of profit and capital, while maintaining solvency and credit worthiness under conditions of possible level of risk. The most essential form of enterprise sustainability is its ability to evolve in an internal and external environment. For this, the company must have a flexible structure financial resources and, if necessary, be able to raise loans [31].

The ratio between equity and borrowed capital characterizes the financial stability of the enterprise and the level of its financial risk. Than the greater the share of liabilities is equity, the more stable the enterprise and the lower its bankruptcy. The analysis of financial stability indicates the stable position of the company, due to the superiority of equity over debt. 71% by 29% in 2017 and 78% by 22% in 2018. Accordingly, enterprise has a low level of risk, as evidenced by the ratio of financial leverage, which within 4 years did not exceed 1 and amounted to 0.28 at the end of 2018. Equity and working capital maneuverability are also high, but their ratios slightly smaller than normative values (0.5 and 0.7, respectively).

Type of financial stability analyzed in the table 2.3.

Table 2.3

Financial stability type dynamics of “Republia Group” LTD for 2015-2018 years, mln UAH

Item	Years			
	2015	**2016**	**2017**	**2018**
Equity	21,81	30,17	38,68	46,99
Non-current assets	11,14	12,74	26,07	26,02
Net working capital	10,67	17,43	12,60	20,97
Long-term liabilities	5,13	5,11	8,37	5,29
Working capital	15,79	22,54	20,98	26,27
Short-term debts	0	0	0	0
Total sum of inventory financing	15,79	22,54	20,98	26,27
Inventories	0,95	0,73	1,48	1,36
Surplus/lack of sources of NWC financing	14,85	21,80	19,50	24,90
Type of financing stability	absolute	absolute	absolute	absolute

Analysis of table 2.3 showed that for 4 years the company had absolute type of financial stability. this means that the operating activities were fully financed by continuing sources of financing (equity and long-term liabilities. This is confirmed by the analysis of net cash flows performed in Table 2.8. Over the whole period, there is an excess of net working capital, which indicates the existence of potential. The analysis of profitability indicators presented in table. 2.4.

These ratios are related to sales and resource performance indicators.The dynamics of profitability coefficients decline in 2017, when the largest growth of enterprise resources was observed, and increases in 2018. Company is highly profitable as its asset return exceeds 15% in 2016 and 2017 and reaches 24% in 2018. The return on equity at the end of 2018 was 32.9%, up 11.2 pp over 2017. Return on invested capital is also rising in 2018, reaching 28.3%.

This testifies to the high efficiency of the management of the company and its investment attractiveness.

Table 2.4

Profitability ratio dynamics of "Republia Group" LTD, %

Ratio	Years				Deviation, p.p.		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Gross margin, %	43,5	41,7	39,5	37,4	-1,8	-2,2	-2,2
Operatin margin, %	15,5	11,7	7,9	6,1	-3,9	-3,8	-1,8
Net profit margin, %	11,5	10,7	9,5	15,5	-0,8	-1,2	6,0
Cost margin, %	19,1	13,8	9,0	6,8	-5,3	-4,8	-2,2
Return on assets, ROA, %	-	19,9	15,8	24,5	19,9	-4,1	8,6
Return on equity, ROE %	-	26,8	21,6	32,9	26,8	-5,2	11,2
Return on invested capital, ROIC %	-	22,4	18,1	28,3	22,4	-4,3	10,3

To summarize our analysis, "Republia Group" LTD is a rapidly growing successful IT company which have enough cash for investing in new commercial projects and propose for customers innovative IT solutions.

The statement of scientist that from the point of view of the need to improve the management of business activity in the current crisis conditions of operation of business activity of an industrial enterprise can be defined as a process to ensure the achievement of the goals of enterprise development in the sphere of production and sale of products, which includes such basic stages as:

1) study of changes in the external environment of the enterprise and timely response to them by effective measures;

2) ensuring the efficiency of the main activity on the basis of reducing operating costs and improving the profitability of production;

3) creation of competitive advantages of industrial enterprise in the markets of goods on the basis of introduction of new technologies, satisfaction of consumer demand according to their needs at different intervals of time [4, p. 107].

In modern conditions, business activity of enterprises in the mobilization of internal resources of economic growth and activity in the external economic environment are distinguished. Internal activity is expressed in the growth of economic potential of enterprises (Table 2.5).

Table 2.5

Business activity ratio dynamics of "Republia Group" LTD for 2015-2018 years

Position	2016	2017	2018	Absolute deviation		
				2016 to 2015	2017 to 2016	2018 to 2017
Asset turnover	1,48	1,67	1,58	1,48	0,18	-0,09
Current assets turnover	2,25	2,84	2,88	2,25	0,59	0,04
Inventory turnover	34,98	42,97	40,00	34,98	7,98	-2,96
Accounts receivables turnover	3,57	5,01	4,68	3,57	1,44	-0,34
Accounts payables turnover	4,11	5,21	5,13	4,11	1,09	-0,08
Period of Assets turnover	245,80	218,79	231,66	245,80	-27,02	12,88
Period of current assets turnover	162,07	128,62	126,82	162,07	-33,46	-1,80
Period of inventory turnover	10,43	8,50	9,12	10,43	-1,94	0,63
Period of receivebles turnover	102,14	72,81	78,05	102,14	-29,33	5,24
Period of payables turnover	88,73	70,08	71,21	88,73	-18,64	1,13
Operating cycle	112,58	81,31	87,17	112,58	-31,27	5,87
Financing cycle	23,85	11,22	15,96	23,85	-12,63	4,74

From Table 2.5 we can see that the inversion ratio of total assets at "Republia Group" LTD has a slight stable upward trend (2016 - 1.48, 2017 – 1,67, 2018 – 1,58). It should be noted that this ratio is one of the most important indicators of the efficiency of capital use and indicates the speed of its transition from the stage of production to finished products and the speed of conversion of products into a direct monetary form.

The same trend demonstrate the current assets turnover ratio – slight growth for the 3 years of company activity. Given this, it can be argued that such dynamics testify to the efficiency of the assets used in the enterprise under study. Inventory turnover and account receivables turnover grew in 2017 and slightly decrease in 2018 year.

According to the table 2.5 data it can be concluded that 2017 was the year of the highest business activity of "Republic Group" LTD.

Company has long operating cycle that was 112,58 days in 2016 and decreased to 87 days in year 2018. This indicates a positive trend and improved business activity of the company. The financial cycle of the company also decreased, which is a positive trend, but its value exceeds zero, which indicates that there is a cash gap between the received bills and the paid ones.

However, since payables are less than receivables, the positive value of the financial cycle does not have a significant negative effect.

2.2 Analysis of property status and financials "Republic Group" LTD

In order to carry out business activities, an enterprise must have property belonging to it. All property that is owned by an enterprise and is reflected in the balance sheet is called its assets. Assets are resources controlled by an enterprise as a result of past events, the use of which will lead to an increase in economic benefits in the future [30, p.64].

The formation of the assets of the enterprise occurs at the expense of equity and borrowed capital.

Capital is the money that an enterprise owns to operate in order to make a profit. The functioning of the enterprise capital in the process of its use is characterized by the process of its constant circulation.

The main purpose of capital formation is to meet the needs of the enterprise in the acquisition of assets and to optimize its structure in terms of ensuring the conditions for its efficient use.

When conducting capital analysis, it should be borne in mind that:

- the capital of the enterprise is the main factor of production;
- capital characterizes the financial resources that provide it with income;
- capital is the main source of wealth for its owners
- the capital of the enterprise is the main measure of its market value;

- capital dynamics is the main indicator of the level of efficiency of its economic activity.

In the process of analyzing the capital of an enterprise, first of all they determine changes in its structure, composition and give them an objective assessment from the point of view of investors and the enterprise. Yes, banks and other investors are mostly interested in the share of equity in its total size (it should be at least 50%). In internal analysis, more attention is paid to the study of the dynamics and structure of equity and borrowing capital, identify the causes of changes in individual components of equity and borrowed capital, and evaluate these changes. Particular attention is paid to the movement of sources of borrowed funds, which are divided into long-term, short-term loans and borrowings, accounts payable, current payment obligations.

The analysis reveals trends in changes in the volume and share of bank loans and loans that are not repaid on time. They also compare the structure of assets and liabilities of the balance sheet, assess the factors that affect the ratio of equity to debt, and therefore the financial stability of the enterprise.

Of great importance is the structure of loans funds, that is, the ratio between long-term and current liabilities. Current ones the obligation is the debt of the enterprise to suppliers, insurance, payment labor, budget, short-term bank loans and other accounts payable. Such commitments arise when an entity has a shortage of resources to finance its current operations, that is, current assets. In addition, current obligations in terms of their urgency repayments are more risky than long-term ones. Therefore, it is considered that the smaller the structure liabilities of current liabilities, the better the capital structure and the higher its solvency.

The sources of financing of the “Republic group” LTD analyzed in the table 2.6.Analysis of the capital structure showed a significant advantage of equity over debt - 77.85 at the end of 2018. During 4 years, the share of equity increased gradually. At the beginning of the start-up, the capital was dominated by 71%. own capital accounts for the largest share of additional capital and retained earnings, which is a positive feature.

Table 2.6

Equity and Liabilities structure of "Republic Group" LTD, for 2015-2018 years, %

Position	Years				Absolute deviation, p.p		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Current Liabilities							
Accounts Payable	2,4	2,2	4,5	4,3	-0,1	2,3	-0,2
Other Current Liabilities	13,3	9,4	8,2	6,0	-3,9	-1,3	-2,1
Total Current Liabilities	22,6	18,7	19,9	18,7	-3,9	1,2	-1,2
Long Term Debt	6,3	4,8	9,5	3,5	-1,5	4,6	-6,0
Other Liabilities							
Minority Interest	10,4	8,1	5,8	5,3	-2,3	-2,3	-0,5
Total Liabilities	28,8	23,5	29,3	22,2	-5,3	5,8	-7,1
Stockholders Equity	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Registered capital	1,1	2,6	1,9	1,7	1,5	-0,7	-0,2
Retained Earnings	40,9	46,6	44,4	50,3	5,7	-2,2	5,9
Treasury Stock	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Capital Surplus	29,1	27,2	24,3	25,7	-1,8	-2,9	1,4
Total Stockholder Equity	71,1	76,5	70,7	77,8	5,3	-5,8	7,1
Total Equity and Liabilities	100,0	100,0	100,0	100,0	0,0	0,0	0,0

The enterprise is also financed by long-term liabilities whose share has changed unevenly and did not exceed 10% in the liability structure. The share of current liabilities gradually decreased from 22b6% to 18.7% over the years. Accordingly, the total share of liabilities decreased from 28.85% to 22.2%. Therefore, the capital structure of the enterprise is low-risk and sustainable.

"Republic Group" LTD increased its equity at the expense of profits, which increased its capitalization and, accordingly, investor confidence.As Equity is the main sourse of "Republia group" financing, investigate its structure and dynamics for 4 years.

Table 2.7

Equity dynamics of "Republia Group" LTD, for 2015-2018 years, mln UAH

Stockholders' Equity	Years				Growth, %		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Registered capital	0,34	1,04	1,04	1,04	205,9	0,0	0,0
Retained Earnings	12,6	18,4	24,3	30,4	46,5	32,3	25,0
Capital Surplus	8,9	10,7	13,3	15,5	20,5	23,9	16,7
Other Stockholder Equity	0	0	0	0			
Total Stockholder Equity	21,8	30,2	38,7	47,0	38,3	28,2	21,5

Equity for the independence of the enterprise is of great importance. For creditors and investors, it is desirable to have a significant share of equity, since in this case they will have less financial risk and they will have confidence in the return on their investments. But in practice, borrowing capital efficiency is usually higher than equity.

For businesses that are unable to raise funds from external financial sources (due to low creditworthiness or investment attractiveness, insufficient credit facilities), internal financing is the only way to secure financial resources. However, a significant problem that arises is the problem of ownership control over the efficient use of financial resources.

From table 2.7 it follows that the dynamics of the company's equity was positive throughout its period of operation. Overall, equity increased by 115%, equaling 25.2 million hryvnia equivalents, reaching 47 million by the end of 2018.

As a part of equity capital, the following items have gained the most gains: retained earnings increased with maximum growth. In 2018, this capital item increased by 25% and in previous years by 32% and 45% respectively. At the end of 2018, retained earnings stood at UAH 30.4 million, up UAH 17.9 millions more than in 2015. Overall, the company's retained earnings increased by 142%.

Additional capital also showed growth throughout the period, but the growth rate was slower. Thus, the largest increase in additional capital was in 2017 - 23%.

On the whole, additional capital increased by 174% over the past four years, amounting to UAH 6.6 million and amounted to UAH 15.5 million at the end of 2018.

Equity and liabilities dynamic is represented in the table 2.8. Both the amount of assets and the amount of capital in 2015-2018 increased almost in twice. Total growth rate of company capital was 99%. With regard to equity, its amount was steadily increasing. It experienced the greatest growth in 2016 and in 2017 yy. As of 01.01.2019, the growth of equity was 21.5%. The dynamics of borrowed capital was different. In particular, long-term bank loans appeared in 2015 with the company establishment. Their use increased during 2017 and slightly decreased in 2018 y. In terms of short-term capital, its amount is characterized by an ambiguous trend, but is mainly increased. Thus, in 2016, short-term liabilities increased by 6,6%, in 2017 it significantly increased by 47,3%, in 2018 it sharply grew again by 4%. This was mainly due to an increase in the amount of accounts payable (by 183% in 2017).

Table 2.8

Equity and Liabilities dynamic of "Republia Group" LTD for 2015-2018 years

Position	Years				Absolute deviation, mln. UAH			Relative deviation, %		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017	2016 to 2015	2017 to 2016	2018 to 2017
Current Liabilities										
Trade Accounts Payable	0,72	0,88	2,49	2,60	0,16	1,61	0,11	21,5%	183,0%	4,5%
Other Accounts Payable	2,12	2,78	2,78	3,91	3,91	5,04	0,66	1,13	1,13	31,3 %
Other Current Liabilities	4,07	3,72	4,46	3,65	-0,36	0,75	-0,81	-8,8%	20,1%	-18,2%
Total Current Liabilities	**6,92**	**7,38**	**10,86**	**11,29**	**0,46**	**3,49**	**0,43**	**6,6%**	**47,3%**	**4,0%**
Long Term Debt	1,93	1,91	5,17	2,09	-0,02	3,27	-3,08	-1,2%	171,6%	-59,5%
Other Liabilities										
Minority Interest	3,20	3,20	3,20	3,20	0,00	0,00	0,00	0,0%	0,0%	0,0%
Total Liabilities	**8,84**	**9,28**	**16,04**	**13,39**	**0,44**	**6,76**	**-2,65**	**4,9%**	**72,8%**	**-16,5%**
Stockholders' Equity										
Registered capital	0,34	1,04	1,04	1,04	0,70	0,00	0,00	205,9%	0,0%	0,0%
Retained Earnings	12,55	18,39	24,32	30,40	5,84	5,93	6,08	46,5%	32,3%	25,0%
Capital Surplus	8,92	10,75	13,32	15,55	1,83	2,57	2,23	20,5%	23,9%	16,7%
Total Stockholder Equity	**21,81**	**30,17**	**38,68**	**46,99**	8,36	8,51	8,31	38,3%	28,2%	21,5%
Total Equity and Liabilities	**30,65**	**39,45**	**54,72**	**60,38**	**8,80**	**15,27**	5,66	**28,7%**	**38,7%**	**10,3%**
Net Tangible Assets	14,55	22,76	18,94	27,46	8,21	-3,82	8,52	56,4%	-16,8%	45,0%

The financial condition of the enterprise depends to a great extent on the optimal balance between equity and debt, its rational placement in the assets of the enterprise.

The total sources of financing of the "Republia group" LTD analyzed in the table 2.9.

Table 2.9

Equity and Liabilities structure of "Republia Group" LTD for 2015-2018 years, mln UAH

Position	Years				Absolute deviation, p.p		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Current Liabilities							
Trade Accounts Payable	2,4	2,2	4,5	4,3	-0,1	2,3	-0,2
Other accounts Payable	6,9	7,1	7,2	8,4	0,1	0,1	1,2
Other Current Liabilities	13,3	9,4	8,2	6,0	-3,9	-1,3	-2,1
Total Current Liabilities	22,6	18,7	19,9	18,7	-3,9	1,2	-1,2
Long Term Debt	6,3	4,8	9,5	3,5	-1,5	4,6	-6,0
Minority Interest	10,4	8,1	5,8	5,3	-2,3	-2,3	-0,5
Total Liabilities	28,8	23,5	29,3	22,2	-5,3	5,8	-7,1
Stockholders Equity							
Registered capital	1,1	2,6	1,9	1,7	1,5	-0,7	-0,2
Retained Earnings	40,9	46,6	44,4	50,3	5,7	-2,2	5,9
Treasury Stock							
Capital Surplus	29,1	27,2	24,3	25,7	-1,8	-2,9	1,4
Total Stockholder Equity	71,1	76,5	70,7	77,8	5,3	-5,8	7,1
Total Equity and Liabilities	100,0	100,0	100,0	100,0	0,0	0,0	0,0

Analysis of the capital structure showed a significant advantage of equity over debt - 77.85 at the end of 2018. During 4 years, the share of equity increased gradually. At the beginning of the start-up, the capital was dominated by 71%. Equity capital accounts for the largest share of additional capital and retained earnings, which is a positive feature. The enterprise is also financed by long-term liabilities whose share has changed unevenly and did not exceed 10% in the liability structure.

The valuation of changes in the capital structure may differ from the point of view of investors and the position of enterprises. Thus, for investors, in particular banks, the situation is higher when the equity of clients is higher because it eliminates financial risk. To analyze the change in the structure of sources of financial resources determine the proportion of own and borrowed funds in their total amount at the beginning and end of the reporting period, the results are compared.

The results of the analysis of the structure of sources of financial resources should show, on which mainly capital the enterprise operates - own or borrowed, whether there is a risk in the formed structure for factors, or whether this structure is favorable for efficient use of capital.

Capital structure of “Republia Group” LTD detailed in the diagram (2.1).

Figure 2.1. Structural dynamics of the capital of “Republia Group” LTD

The share of current liabilities gradually decreased from 22,6% to 18,7% over the years. Accordingly, the total share of liabilities decreased from 28.85% to 22.2%. Therefore, the capital structure of the enterprise is low-risk and sustainable. The chart clearly shows the dominance of equity capital and its growing dynamics compared to debt capital.

Of great importance is the structure of loans funds, that is, the ratio between long-term and current liabilities. Current ones the obligation is the debt of the enterprise to suppliers, insurance, payment labor, budget, short-term bank loans and other accounts payable. In addition, current obligations in terms of their urgency repayments are more risky than long-term ones.

Thus, it can be concluded that the management of equity capital in compliance is conducted in accordance with a conservative policy - to ensure the dominant financing of all activities at the expense of equity and thus achieve sustainability, solvency and low risk.

Assets are items of value an organization owns or controls. Assets are resources controlled by an entity as a result of past events, which are reflected in the balance sheet provided that their valuation can be well defined and expected to be received at the future economic benefits associated with them using. Profit-making firms acquire assets at a measurable cost and use them for generating earnings. As a result, assets must justify their place on the Balance sheet by bringing in returns. The firm's asset structure represents its strategy for earning from its asset base [31].

Understandably, then, a company's asset structure is central to two kinds of questions that managers and owners face throughout a company's life:

- Firstly, how should the firm acquire assets? This question is asking: How much of the asset base should they obtain through equity funding and how much through debt funding?
- Secondly, How does the company maximize returns on its asset base?

The first question—about funding—deals with the "Liabilities and Equities" side of the Balance sheet, leverage, and investor returns.

Assets, equity and liabilities structure reflected in the table 2.10.As to the structure of the assets of "Republia Group" LTD, we observe that current assets prevailed non-current assets.

So, for 2015-2018, their shares approached the equilibrium state with a small predominance of non-current assets, however, in 2018, the share of current assets decreased decreased to almost 56,9%, while the non-current ones increased from 36,4% to 44,1%.

Table 2.10

Assets structure of "Rebublia Group" LTD for 2015-2018 years, %

Position	Years				Absolute deviation, p.p		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
1	2	3	4	5	6	7	8
Current Assets							
Cash And Cash Equivalents	14,9	27,5	20,0	17,3	12,6	-7,5	-2,7
Short Term Investments							
Net Receivables	45,7	38,3	29,6	37,4	-7,3	-8,7	7,7
Inventories	0,5	0,4	0,5	0,6	-0,1	0,1	0,1
Other Current Assets	2,6	1,5	2,2	1,6	-1,2	0,7	-0,5
Total Current Assets	63,6	67,7	52,3	56,9	4,1	-15,4	4,6
Long Term Investments							
Property Plant and Equipment	11,3	11,7	9,1	8,7	0,3	-2,6	-0,3
Goodwill	9,7	7,7	14,1	14,7	-2,0	6,4	0,7
Intangible Assets	14,0	11,1	22,0	17,6	-2,9	10,9	-4,4
Accumulated Amortization							
Other Assets	1,4	1,8	2,5	2,0	0,5	0,7	-0,5
Deferred Long Term Asset Charges	0,5	0,8	0,6	0,7	0,3	-0,2	0,1
Total Assets	100,0	100,0	100,0	100,0	0,0	0,0	0,0

In 2018, this trend increased further: the share of non-current assets amounted to 44,1%, and current assets – 56,9%. This asset structure was created as a result of the Goodwill reevaluation and purchase of a large number of intangible assets, along with a reduction in accounts receivable and cash.

Talking about the structure of non-current assets, we conclude that about 10% of their amount occupy fixed assets (Tab. 2.10), intangible assets and goodwill. In the possession of "Republia Group" LTD there are no long-term investments, incomplete capital investments.

Instead, the structure of current assets differs. Thus, in 2015 and 2016, the largest share in the overall structure was occupied by aggregate accounts receivables and cash (38,3% and 27,5% respectively). Inventories and other current assets were the rest in 2015, and in 2016 other current assets were not available at all. In 2018, the share of cash and other current assets decreased significantly along with a significant increase in receivables for goods, works and services, accounts receivable. There were no more significant changes in the structure of current assets.

So, we can conclude that assets structure of “Republia Group” LTD company is more likely the assets structure of production enterprise than of the service company.

Assets dynamics of “Republia Group LTD” is presented in the tab. 2.11. Assessment of positive and negative dynamics of inventories, accounts receivable, financial investments, cash should be made on the basis of comparison with the dynamics of financial results. In the case of varying efficiency in the use of working capital, the growth of inventories in one case may be regarded as evidence of expansion of activity and in the other - as evidence of a decline in business activity and a corresponding increase in the period of circulation of funds.

As a result of horizontal analysis we can conclude that total volume of the assets increased twice during 2015-2018 yy. Maximum growth were in 2017 years when was the favourable tendency of world market It growth. Current assets grew more than non-current ones – 20% in 2018 and 36,9% in 2016 yy. Non-current assets grew slightly: intangible assets (software, computer programs and applications) have a decrease in 2018 (-11,7%) after strong increase in 2017 (175,1%). Significant increase in non-current assets had Goodwill in 2017 (154%). Property, plants and equipments had slight increase during the analyzed period 2017 and 2018, but increased a lot in 2016 year. In 2016year there were significant increase in cash (138,1%), and in 2017 year account receivables grew by 75,9%.

Table 2.11

Assets dynamic of "Republia Group" LTD for 2015-2018 years

Position	2015	2016	2017	2018	Absolute deviation, mln. UAH			Relative deviation, %		
					2016 to 2015	2017 to 2016	2018 to 2017	2016 to 2015	2017 to 2016	2018 to 2017
Current Assets										
Cash And Cash Equivalents	4,56	10,85	10,96	10,44	6,30	0,10	-0,52	138,1%	0,9%	-4,7%
Net Receivables	14,01	15,13	16,21	22,57	1,12	1,09	6,35	8,0%	7,2%	39,2%
Inventory	0,14	0,16	0,28	0,37	0,01	0,12	0,09	10,1%	75,9%	33,1%
Other Current Assets	0,80	0,57	1,20	0,99	-0,23	0,62	-0,21	-28,3%	108,2%	-17,4%
Total Current Assets	19,51	26,72	28,65	34,36	7,20	1,93	5,72	36,9%	7,2%	20,0%
Property Plant and Equipment	3,47	4,61	4,96	5,27	1,13	0,35	0,32	32,7%	7,6%	6,4%
Goodwill	2,96	3,03	7,69	8,89	0,07	4,66	1,20	2,2%	154,0%	15,6%
Intangible Assets	4,29	4,38	12,04	10,64	0,08	7,67	-1,41	1,9%	175,1%	-11,7%
Other Assets	0,42	0,72	1,38	1,22	0,31	0,66	-0,17	74,2%	91,0%	-12,0%
Deferred Long Term Asset Charges	0,15	0,32	0,34	0,43	0,17	0,02	0,09	109,1%	7,8%	27,1%
Total Assets	30,66	39,45	54,72	60,38	8,80	15,27	5,66	28,7%	38,7%	10,3%

Consequently, we can conclude that in the early ages of company activity their managers didn't create a good policy of asset management. That's why growth rates of all the assets changed very unevenly.

2.3. Creditworthiness analysis of "Republia Group" LTD

Modern methods of determining the creditworthiness of borrowers who used by domestic banks are very different. Each bank develops its own rating system creditworthiness of clients, which is fixed in the internal bank documents and regulated

Regulation "On the Procedure of Forming and Using Banks of Ukraine for Reserves for Compensation possible losses on active banking operations »[1]. Until the beginning of 2013, the Regulations "On the Procedure for Forming and Using Reserves for compensation for possible losses on active credit transactions", approved by the Resolution NBU Board № 279 back in 2000 [2]. This Regulation contained methodological recommendations which allowed banks at their own discretion to set regulatory values and calculate points each indicator, as well as independently select additional criteria for the analysis of financial condition the borrower, according to which the decision was made as to the expediency of the loan.

On the basis of the NBU Resolution No. 23 of 25.01.2012, which approved the new Regulation "On the Procedure of Formation and Use of Reserves by Banks for Compensation of Possible Losses on Active Transactions" [1], the domestic banks had to bring into compliance by 01.01.2013 calculation of reserves for active operations.

Evaluate the creditworthiness of "Republia Group" LTD according to the NBU approach (tab.2.12).

The approval of the new regulation was an important step towards the approximation of banks' credit risk assessment systems to the Basel II requirements and EU regulations. The main objective of the innovations is to reduce the proportion of problem assets that are in bank portfolios.

Table 2.12

Evaluation of “Republia Group” creditworthiness during 2016-2018 yy according to NBU methodology

Financial ratio (Ki)	Value of financial indicator (МКі), %			Indicator Xi			Ratios of logistical model indica-ting according to weight of indicator	Value of ratio Xi in accordance to its weight in logistic model		
	2016 y	2017 y	2018 y	2016 y	2017 y	2018 y		2016 y	2017 y	2018 y
free variable of logistic model	1,719	1,719	1,719	1,719	1,719	1,719	x	1,719	1,719	1,719
K 6 - debt coverage by the gross profit ratio	2,92	1,94	2,53	1,495	0,566	1,495	0,662	0,990	0,375	0,990
K 7 - interest coverage by operating profit ratio	0,94	0,77	-	0,218	0,218	1	0,476	0,104	0,104	0,476
K 8 - trade liabilities turnover ratio	70,97	83,49	72,59	0,137	0,137	0,137	0,596	0,082	0,082	0,082
K 9 - receivables turnover ratio	84,85	75,33	90,83	-0,801	-0,801	-0,801	0,468	-0,375	-0,375	-0,375
K 5 - inventories turnover ratio	1,53	2,16	2,40	0,105	0,105	0,24	0,648	0,07	0,07	0,16
Value of Z	Z = 1,719 + 0,648 · X5 + 0,662 · X6 + 0,476 · X7 + 0,596 · X8 + 0,468 · X9							2,5872	1,9722	3,046
Class of the borrower - enterprise								class 3	class 4	class 2

In this credit assessment methodology, a model for the economic activity code "telecommunication and other information services" was used. This model uses indicators of inventory turnover, receivables turnover, payables turnover, as well as debt coverage and interest coverage ratios for gross and operating income, respectively. X values were selected for medium-sized enterprises.

Therefore, according to Table 2.12, during the last three years of its activity, the company “Republia Group” LTD has been changing its creditworthiness class.

Thus, in 2016, the company had a third class of creditworthiness, in 2017, the class of creditworthiness deteriorated to the 4th, and in 2018, the creditworthiness of the company increased to the second class.

The second class of creditworthiness means that the company is creditworthy and the risks of its lending are relatively low.

Thus, the analysis of the advanced methodology proposed by the NBU allows us to highlight a number of innovations in order calculation of creditworthiness of borrowers - legal entities, namely:

- determining the list of economic indicators for each type of economic activity;
- taking into account the industry specificity of economic entities;
- determining the rating of the borrower based on the size of the enterprise (large, medium or small).

For a more detailed analysis of the creditworthiness of an enterprise, let's analyze its cash flow statement and determine what activity the company raises cash, and what activity the enterprise spends money on.

Table 2.13

Cash-flow dynamics of "Republia Group" LTD for 2015-2018, mln UAH

Indicator	**2015**	**2016**	**2017**	**2018**	**Absolute deviation, mln. uah**			**Relative deviation, %**		
					2016 to 2015	**2017 to 2016**	**2018 to 2017**	**2016 to 2015**	**2017 to 2016**	**2018 to 2017**
1	2	3	4	5	6	7	8	9	10	11
Net Income	5,98	6,98	7,45	14,08	0,99	0,47	6,63	16,6%	6,7%	89,1%
Operating Activities, Cash Flows Provided By or Used In										
Depreciation	1,68	2,38	3,48	4,27	0,70	1,10	0,78	41,5%	46,3%	22,5%
Adjustments To Net Income	1,50	1,48	2,25	2,15	-0,03	0,78	-0,10	-1,9%	52,5%	-4,3%
Changes In Accounts Receivables	-2,92	-1,04	-0,11	-6,84	1,88	0,93	-6,73	-64,3%	-89,8%	6320,%
Changes In Liabilities	5,34	0,46	3,49	0,43	-4,88	3,03	-3,06	-91,4%	659%	-87,7%
Changes In Inventories	0,00	-0,02	-0,08	-0,09	-0,02	-0,06	-0,01		300,%	12,5%

Continue of table 2.13

1	2	3	4	5	6	7	8	9	10	11
Changes In Other Operating Activities	0,95	0,62	-0,40	-3,50	-0,33	-1,03	-3,10	-34,4%	-164%	769,3%
Total Cash Flow From Operating Activities	12,55	10,9	16,08	7,50	-1,7	5,22	-8,6	-13,4%	48%	-53,4%
Investing Activities, Cash Flows Provided By or Used In										
Capital Expenditures	-6,44	-8,80	-15,27	-5,66	-2,4	-6,5	9,61	36,6%	73,5%	-62,9%
Investments	0,00	0,00	0,00	0,00						
Other Cash flows from Investing Activities	-0,50	-0,50	-0,50	0,41	0,00	0,00	0,91	0,0%	0,0%	-182%
Total Cash Flows From Investing Activities	-6,94	-9,30	-15,77	-5,25	-2,3	-6,5	10,5	34,0%	69%	-66,7%
Financing Activities, Cash Flows Provided By or Used In										
Dividends Paid	-1,80	-0,90	-1,20	-3,90	0,90	-0,3	-2,7	-50,0%	33,3%	225,0%
Debt repayment	-1,92	-0,10	-0,60	-3,04	1,82	-0,5	-2,4	-94,8%	500%	404,1%
Other Cash Flows from Financing Activities	-1,20	5,29	1,31	1,08	6,49	-3,9	-0,2	-539%	-75,%	-17,2%
Total Cash Flows From Financing Activities	-4,93	4,29	-0,49	-5,86	9,22	-4,8	-5,4	-187%	-111%	1087%
Effect Of Exchange Rate Changes	0,39	0,44	0,28	0,08	0,05	-0,2	-0,2	12,8%	-36%	-71,4%
Cash for the beginning of period	3,49	4,56	10,85	10,96	1,07	6,30	0,10	30,6%	138%	0,9%
Change In Cash and Cash Equivalents	1,07	6,29	0,10	-0,52	5,22	-6,2	-0,6	488,7%	-98%	-607%

The analysis of cash flow shows that the company only generates cash flows from operating activities, at the expense of which it manages to both finance investments and repay bank loans.

An analysis of the dynamics of cash flows from operating activities shows that the dynamics are very uneven. In 2018, net cash flow from operating activities declined substantially from previous periods - by 40%, which is UAH 5,05 million.

Investment activity generates output cash flow, which also varies unevenly. Thus, the largest amount of investment money was spent in 2017 - 15.77 million UAH, the least - in 2018 - 5.25 million UAH.

Financial activity generates a cash outflow, which is also characterized by uneven dynamics and changed from negative to positive. The maximum amount of funds for financial activities was spent in 2016 - 4.93 million UAH. In 2018, the company had a positive net cash flow from financial activities - 5.86 million UAH.

The dynamics of net cash flows from different activities is shown in Fig.2.2.

Fig. 2.2 shows that the company had a positive free cash flow throughout its period of operation. Free cash flow was maximum in 2015 and 2018 – 5,61 and 5,25 respectively, and declined in 2016 and 2017 to 1,56 and 0,32 respectively.

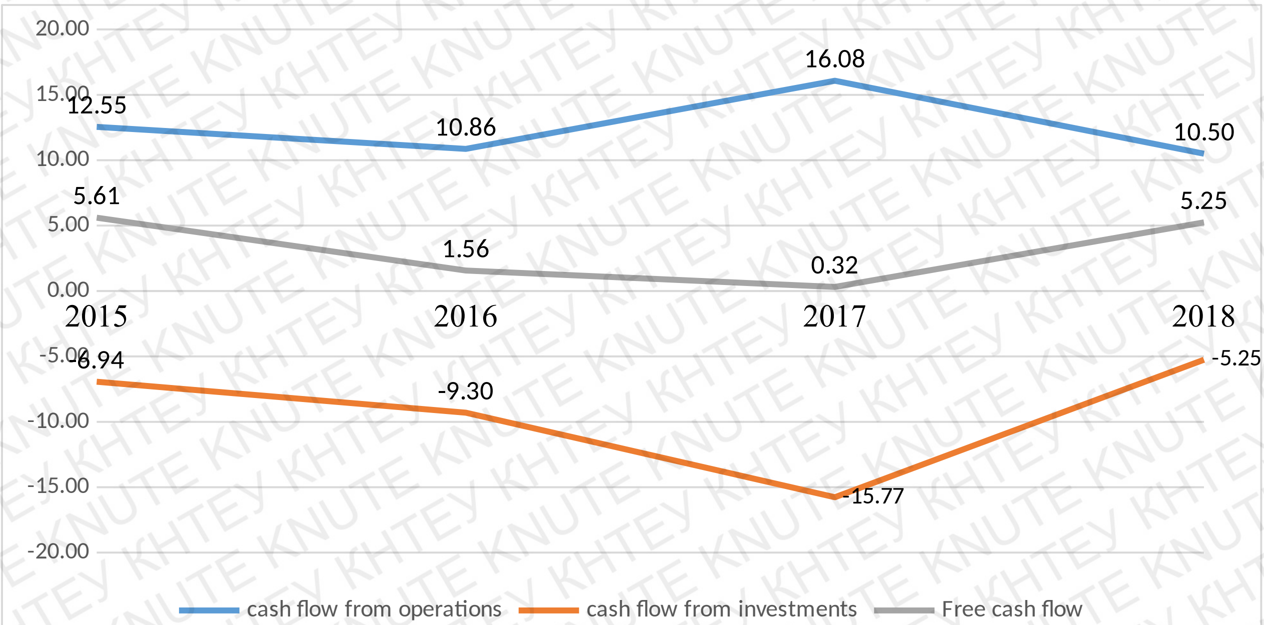

Figure 2.2 Net cash flow dynamics of "Republia Group" LTD

We estimate the coefficients of cash flow, which is the main report for assessing creditworthiness in foreign practice.

Table 2.14

Cash-flow ratios dynamics of "Republia Group" LTD for 2015-2018 years, %

Ratio	Year				Absolute deviation, p.p.		
	2015	2016	2017	2018	2016 to 2015	2017 to 2016	2018 to 2017
Operating cash flow ratio (Cfo/sales)	24,	16,7	20,5	8,3	-7,4	3,8	-12,2
Free cash flow ratio (FCF/ Sales)	10,8	2,4	0,4	5,8	-8,4	-2,0	5,4
Asset efficiency ratio (CFO/Assets)		31,0	34,2	18,2	31,0	3,2	-15,9
Coverage ratio (CFO/currliab)	181,4	147,2	148,0	93,0	-34,2	0,8	-55,1
FCF coverage ratio (FCF/ currliab)	81,1	21,2	2,9	46,5	-59,9	-18,3	43,6
Long term debt coverage ratio (CFO/l t debt)	244,7	212,7	192,1	198,4	-31,9	-20,7	6,3
Cash generating power ratio (CFO/CFO+inv inflows +fin inflows)	100,0	67,	92,5	90,6	-32,8	25,2	-1,8

According to the table, we can conclude that the debt and debt coverage ratios are better than those calculated on Form 2. The company has high debt and interest coverage ratios, long term coverage ratios and cash generating power ratios also stayed on high level: first ratio decreased smoothly from 244% to 198% but stayed high. Second ratio demonstrated the same dynamics and stayed high.

Operating cash flow ratio decreased for 4 years by 16 pp, free cash flow ratio decreased to 2017 year by 10 pp and then smoothly increased to 5,8%. Assets efficiency ratio also decreased in 2018, but FCF coverage ratio increased from 2,9% to 46,5%.

Thus, the uneven dynamics of indicators confirm the changes in the creditworthiness of "Republia Group" LTD, although in 2018 it was slightly worse in 2016 than in 2016 and higher in accordance with the NBU methodology.

CHAPTER 3
DIRECTIONS FOR IMPROVING THE CREDITWORTHINESS MANAGEMENT OF “REPUBLIA GROUP” LTD

Analysis financial position and creditworthiness of the company showed that it is able to pay off the loan. Therefore, we invite the companies to use a loan from Oschadbank to realize their future project.Oschadbank provides revolving credit lines for legal entities and individuals - business entities to replenish working capital for the purchase of raw materials, materials, administrative or current production costs, sales, deferrals with debtors and more.

Lending is subject to the following conditions:

- crediting term - up to 3 years;

- lending currency - hryvnia, US dollar, euro;

- loan interest rates:

  - from 16% per annum in UAH;
  - from 10.5% pa in USD;
  - from 9.8% pa in euros;

- one-time commission for granting a loan - from 0,5%;

- repayment of the loan - monthly / quarterly / in equal parts

- interest payment - monthly;

- special condition - obligatory annual full repayment of the whole loan or each individual tranche of not more than 12 months;

- the amount of the requested credit limit must match the current size of the activity;

- securing credit - real estate and movable property, property rights, surety;

- compulsory property insurance - depending on the type of collateral provided by the Oschadbank accredited insurance company.

Thus, we see that loans to replenish the working capital offered by Oschadbankto its clients are very attractive for the price as they are provided at a low interest rate.

At the end of 2018, the company “Republia Group” LTD had on its balance sheet 10.44 million cash, total liabilities amounted to 11.29, ie net debt amounted to 0,85 million UAH.

Free cash flow of the company in 2018 amounted to 5.25 million UAH, which means that the company will be able to repay the body of the loan and interest on it.

So, in order to develop cooperation with foreign partners, in particular from South Korea, the company plans to implement a project of development of new software for clients that needs further investments

Table 3.1

List of capital expenditures for new investment project

Budget item	**Amount, UAH**
Purchase of softwear	5 500 000
Startup Equipment	3 310 158
Telecom License	2 000 000
Working Capital	4 000 000
Closing Costs	500 000
Total	15 310 158

Since the company has 5,25 million UAH of free cash flow and 10,44 million UAH. in the current account, we see that some of the project will be financed at its own expense. As the company needs to repay its current debts, it is assumed that at the start of the project the company can finance UAH 5 million for its own funds and during the project activity it will still be able to finance 5 million. Therefore, the amount of the loan that will be needed for the project implementation will be:

15 310158 – 10000000 = 5 310158 UAH.

In Table 3.2, we compile an estimated loan repayment schedule to determine the total interest income the Oschadank will receive. To facilitate the calculations, the entire loan amount was taken into account as a single loan issued at the beginning of the 2019 planned period for a period of 12 months.

Table 3.2

Loan repayment schedule, UAH

№ of repayment	Loan balance at the beginning of the period	Loan body	Interest payment	Total payment
1	5310158	442513,17	70802,11	513315,27
2	4867644,83	442513,17	64901,93	507415,10
3	4425131,67	442513,17	59001,76	501514,92
4	3982618,50	442513,17	53101,58	495614,75
5	3540105,33	442513,17	47201,40	489714,57
6	3097592,17	442513,17	41301,23	483814,40
7	2655079,00	442513,17	35401,05	477914,22
8	2212565,83	442513,17	29500,88	472014,04
9	1770052,67	442513,17	23600,70	466113,87
10	1327539,50	442513,17	17700,53	460213,69
11	885026,33	442513,17	11800,35	454313,52
12	442513,17	442513,17	5900,18	448413,34
	0	5310158,00	460213,69	5770371,69

Therefore, from table 3.2 we can conclude that the estimated total amount of financial expenses from the resources provided on credit will make 460 ths. UAH, which is 8.67% of the loan amount. This percentage of return is explained by the fact that interest is accrued on the balance of the loan body and the loan is paid monthly according to the standard scheme.

The maximum amount of financial expenses on the loan is in the first months of the loan, and further interest expenses reduced.

According to the loan repayment schedule, the company will incur additional financial expenses in the form of bank interest in the amount of UAH 70,000 to UAH 11,000 per month throughout the year, and cash repayments of the loan will be UAH 442,000 per month. We calculate whether our company will be able to repay this loan. We first calculate the effect of financial leverage to the end of year 2018.

$EFL = (ROA_{EBIT} – \text{Int. rate}) \text{ x } (1 – \text{Tax}) \text{ x Debt/Equity}$

$EFL_{2018} = (0,13 – 0,16) \text{ x } (1\text{-}0,18) \text{ x } 13,39/46,99 = \text{-}0,71\%$

So we can see that in 2018 year financial conditions “Republia Group” LTD won’t be available to increase its profitability using additional debts with interest rate 16%. That’s why company will be able to repay planned loan only with increasing profitability and with involvement planned cash flows from the project for loan repayment. For increasing Profitability company management plans such a improvements as:

- locating areas in business that could be improved or made more efficient - e.g. general business processes or administration;
- using key performance indicators (KPIs) to analyse strengths and weaknesses - e.g. rising costs or falling sales;
- assessing general business costs - e.g. overheads, how discounted deals with loyal customers affect your profits, how productive a staff are;
- reviewing areas of business waste and reduce them - e.g. power supply costs;
- regularly reviewing the pricing of products;
- testing the prices of any products review before making the changes permanent;
- improving profitability through best customers - use up-selling, cross selling and diversifying techniques to improve your profit margins;
- identifying areas of expenditure and limit these by bargaining with suppliers;
- long-term deals with suppliers to negotiate a better price on products;
- researching new opportunities in your business sector and identifying where you could expand the market;
- put monitoring systems and processes in place - e.g. benchmarking.

As a result of these actions it is planned that expected revenue growth rate will rise to 25% as it was in year 2016, and growth rate of COGS will stay the same level – 19,6%.

Growth rate of Selling and Administrative expences won’t change also, total other non-operation income will be stable in revenue structure on the level of 2018. Planned Profit and Loss statement is presented in the tab. 3.3.

Table 3.3

Profit and Loss Plan of "Republia Group" LTD for 2019-2020 (without loan), mln. UAH

Item	2018	plan 2019	plan 2020	Growth rate 2020 to 2018
Revenue				
Total Revenue	90,68	113,35	141,68	56,3%
Cost of Revenue	56,79	67,92	81,23	43,0%
Gross Profit	33,89	45,43	60,45	78,4%
Operating Expenses				
Research & Development	0,00	0,00	0,00	
Selling General and Administrative	24,12	27,02	30,26	25,4%
Others	4,27	4,27	4,27	0,0%
Total Operating Expenses	80,91	99,20	115,76	43,1%
Operating Income or Loss	5,50	14,14	25,92	371,5%
Total Other Income/Expenses Net	11,67	14,62	18,28	56,6%
Earnings Before Interest and Taxes	5,50	28,76	44,20	704,0%
Interest Expense	0,00	0,00	0,00	
Income Before Tax	17,17	28,76	44,20	157,5%
Income Tax Expense	3,09	5,18	7,96	157,5%
Net Income	14,08	23,59	36,25	157,5%

Analyzing the table 3.3 we can conclude that in 2019 company can cover interest loan repayment by operating income:

EBIT 14,14 mln> Interest repayment 0,46 mln UAH

And operating income will be enough to cover the loan body:

EBIT 14,14 mln> Interest repayment 0,46 mln + Loan body 5,3 mln UAH

Draw up a cash flow plan to determine if the company can repay the loan in 2019. According to the "Republia Group capital budget:

- Planned capital expenditures for 2019 year without loan – upgrade computer software and hardware – 10 mln. UAH;
- Depreciation – 5,5 mln. UAH;
- Expected changes in working capital - - 8mln. UAH;

- Long term debt (taken in 2017) – 2 mln. UAH;
- Year 2020 forecasted including actual growth rates;
- Expected net income in 2019 (with loan repayment) will be:

  (28,7 – 0,46)x(1-0,18) = 23,1 mln. UAH;

Table 3.4

Free cash flow calculation and checking loan repayment availability of "Republia Group" LTD, mln UAH

Item	**2018**	**Plan for 2019**	**Forecast for 2020**
Net income	14,08	23,1	34,2
Depreciation	4,27	5,5	6
Changes in working capital	-7,84	-10	-12
Capital expenditures	-5,25	-8	-10
Free cash flow	5,25	10,6	18,2
Loan body	-3,04	-7,3	
Coverage ratio (FCF/Loan body)	1,73	1,45	

Thus, the planned calculations for 2019 show that the company remains able to repay the planned loan and the full amount of interest on it. In 2020 company expected to be able cover about 18 mln. UAH.

So, we will make a planned balance sheet and a planned statement of income and losses, taking into account credit for 2019 and 2020.

Table 3.5

Planned Profit and Loss Statement of "Republia Group" LTD For 2019-2020, mln UAH

Item	**2018**	**Plan 2019**	**Forecast 2020**	**Growth rate 2020 to 2018**
1	**2**	**3**	**4**	**5**
Total Revenue	90,68	113,35	141,68	56,3%
Cost of Revenue	56,79	67,92	81,23	43,0%
Gross Profit	33,89	45,43	60,45	78,4%
Operating Expenses				
Research Development	0,00	0,00	0,00	
Selling General and Administrative	24,12	27,02	30,26	25,4%

Continue table 3.5

1	2	3	4	5
Others	4,27	4,27	4,27	0,0%
Total Operating Expenses	80,91	99,20	115,76	43,1%
Operating Income or Loss	5,50	14,14	25,92	371,5%
Total Other Income/Expenses Net	11,67	14,62	18,28	56,6%
Earnings Before Interest and Taxes	5,50	28,76	44,20	704,0%
Interest Expense	0,00	1,50	2,5	
Income Before Tax	17,17	27,26	41,70	142,9%
Income Tax Expense	3,09	4,91	7,51	142,9%
Net Income	14,08	22,36	34,20	142,9%

Profit planning shows that by implementing cost control measures, revenue tracking and calculations, a company with 25% revenue growth will be able to increase its net profit by 143% over two years, which will usually have a positive impact on its creditworthiness. Also we can see that company “Republia Group” LTD is able to increase its leverage and attract additional debt capital without losing financial stability. Planned Balance Sheet represented in the tab. 3.6.

Table 3.6

Planned Balance Sheet of “Republia Group” LTD, mln UAH

Item	**Base 2018**	**Weigh t, %**	**Plan 2019**	**Weig ht, %**	**Fore -cast 2020**	**Weigh t, %**	**Structural deviation, pp.**		
							2019-2018	**2020 - 2019**	2020-2018
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Registered capital	1,04	1,7	1,04	1,4	1,04	1,1	-0,3	-0,3	-0,6
Capital surplus	15,55	25,7	15,55	21,5	15,55	17,2	-4,3	-4,3	-8,6
Retained earnings	30,4	50,3	42,76	59,0	56,95	62,9	8,7	3,9	12,5
I.Total equity capital	46,99	77,8	59,35	81,9	73,54	81,2	4,1	-0,7	3,4
II. Long-term ldebt	2,09	3,5	7,39	10,2	10,39	11,5	6,7	1,3	8,0
TradeAccounts Payable	2,60	4,3	1,14	1,6	2,32	2,6	-2,7	1,0	-1,7

Continue table 3.6

1	2	3	4	5	6	7	8	9	10
Other accounts payble	5,04	8,4	2,00	2,8	2,06	2,3	-5,6	-0,5	-6,1
Other Current Liabilities	3,65	6,0	2,57	3,6	2,26	2,5	-2,5	-1,1	-3,6
III. Total Current Liabilities	11,29	18,7	5,72	7,9	6,64	7,3	-10,8	-0,6	-11,4
Balance	60,38	100	72,46	100	90,57	100	-	-	-

According to the results of the forecast in tab. 3.6, during 2019-2020 there will be an increase in the company's debt capital mainly due to the increase in the share of long-term bank loans in 2019-2020 Accounts payable and other liabilities position stayed the same. Retained earnings will increase significantly in absolute terms and in the share in total capital. But company is planning to pay dividends 10 mln.UAH in 2019 and 20 mln. UAH in year 2020. Long term debt capital of the company will increase in value but decrease in weight because of significant profit growth. Short term debts will decrease.

We test the new scheduled reporting in accordance with the modified Altman model given in formulae 1.3 (chapter 1).

Table 3.7

Testing the default probability of the planned indicators of "Republia Group" LTD

№	Indicator		Value	
	Numerator	**Denominator**	**2019**	**2020**
1	Working capital	Total assets	0,487	0,389
2	Retained earnings	Total assets	0,590	0,629
3	Profit befor taxes	Total assets	0,376	0,460
4	Total equity	Total liabilities	10,376	11,077
Z		=	**21,790**	**22,579**

Thus, weseethatthevalueoftheintegralindicatorisat a veryhighlevel, soitcanbeconcludedthatthecreditworthinessofthecompanywillincreaseduetothepropose dsteps.

CONCLUSIONS AND PROPOSALS

In the conditions of limited financial resources, a large number businesses use loans, most often in the form of credit. Getting a loan from the financial institution preceded by the collection of the necessary documents, the time spent by lawyers and accountants on acquaintance with the terms of credit and cooperation. However, not all businesses issued loans to banking institutions, which is why there is a need for implementation in the enterprise valuation creditworthiness in the internal control system.

Investigation contemporary issues of creditworthiness management we found out that aborrower's creditworthiness not only captures the insolvency of the past period or of some date, but also predicts its solvency for the future. It is estimated on the basis of a system of indicators that reflect the placement and sources of current assets, the results of economic and financial activities of the borrower.

Practical cases of creditworthiness controlling evidence that Z-score or KPI assessment is not enough for continuing stable financial position and creditworthiness. Permanent creditworthiness can be provided with an effective credit management policy.

Credit management policy is an operational document defining a number of operating rules for the sales process that must be followed by the entire company including of course the credit team. The study of credit management was carried out on the example of the “Republia Group” LTD company.

A detailed study of the financial position and financial results of the company showed a high level of financial stability, liquidity, profitability and business activity. “Republia Group” LTD has surplus of liquidity during the whole period of activity 2016-2018 years, the current liquidity index exceeded 2 during all the years of company activity. In the 2016 and 2018 years the absolute liquidity ratio exceeded 1 when the normative meaning is 0,2-0,35.

During 4 years the company had absolute type of financial stability. Financial stability ratios also reflect the high level of financial stability. According to the operational activity analysis it can be concluded that 2017 was the year of the highest business activity of “Republic Group” LTD. Company is highly profitable as its asset return exceeds 15% in 2016 and 2017 and reaches 24% in 2018. The return on equity at the end of 2018 was 32.9%, up 11.2 pp over 2017. In addition, the company has a stable capital structure, with equity at the end of 2018 at almost 80%.

The creditworthiness of the enterprise was evaluated according to the NBU methodology according to the code of economic activity of the enterprise. In this credit assessment methodology, a model for the economic activity code "telecommunication and other information services" was used. This model uses indicators of inventory turnover, receivables turnover, payables turnover, as well as debt coverage and interest coverage ratios for gross and operating income, respectively. X values were selected for medium-sized enterprises.

According to this method, the company had a high credit rating in 2016 and 2018 (the highest), and in 2017 the middle class. In accordance with the methodology for calculating the coefficients on the statement of cash flows, the company had high credit standing throughout the period, because all the years of its existence had a positive free cash flow.

Defects in the credit management of the company can be considered as the reason for the change in the value of creditworthiness.

To improve credit management, we have suggested that the company take a number of measures to manage and control income and expenses. It was also suggested to take a loan for the partially financing implementation of the project to launch a new product. Total amount of investments will be 15 mln UAH, in which 5,3 mln supposed to finance by bank loan.

Calculation of the effect of the financial leverage on the book of 2018 showed that the company will not be able to increase its profitability by using a loan, so at the same time as obtaining a loan, it is necessary to take measures to improve budgeting of income and expenses.

Planning for income, expenses and profit taking into account the improvement of budgeting showed that the company will be able to repay the loan, will not lose profits and will increase its creditworthiness in future periods.

Planning and forecasting of the capital structure in 2019 and 2020 showed that, despite the increase in the share of long-term liabilities in the capital of the enterprise, its financial autonomy will grow due to the high increase in net profit.

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APPENDIXES

Balance Sheet

(All numbers in million)

Year Ended December 3

	2016		
	2015	2016	
Current Assets			
Cash And Cash Equivalents	4,56	10,85	10
Short Term Investments	-	-	-
Net Receivables	14,01	15,13	15
Inventory	0,14	0,16	0,1
Other Current Assets	0,80	0,57	0,5
Total Current Assets	**19,51**	**26,72**	**26**
Long Term Investments	-	-	-
Property Plant and Equipment	3,47	4,61	4,6
Goodwill	2,96	3,03	3,0
Intangible Assets	4,29	4,38	4,3
Accumulated Amortization	-	-	-
Other Assets	0,42	0,72	0,7
Deferred Long Term Asset Charges	0,15	0,32	0,3
Total Assets	**30,66**	**39,45**	**39**
Current Liabilities			
Accounts Payable	0,72	0,88	0,8
Short/Current Long Term Debt	-	-	-
Other Current Liabilities	4,07	3,72	3,7
Total Current Liabilities	**6,92**	**7,38**	**7,3**
Long Term Debt	1,93	1,91	1,9
Other Liabilities			
Deferred Long Term Liability Charges	-	-	-
Minority Interest	3,20	3,20	3,2
Negative Goodwill	-	-	-
Total Liabilities	**8,84**	**9,28**	**9,2**
Stockholders' Equity			
Misc. Stocks Options Warrants	-	-	-
Redeemable Preferred Stock	-	-	-
Preferred Stock	-	-	-
Common Stock	0,34	1,04	1,0
Retained Earnings	12,55	18,39	18
Treasury Stock	0,00	0,00	0,0
Capital Surplus	8,92	10,75	10
Other Stockholder Equity	0,00	0,00	0,0
Total Stockholder Equity	**21,81**	**30,17**	**30**
Total Equity and Liabilities	**30,65**	**39,45**	**39**
Net Tangible Assets	14,55	22,76	22

Income Statement

(All numbers in million)

	Year Ended December 31			
	2016		2017	
	2015	2016	2016	2017
Revenue				
Total Revenue	52,05	65,08	65,08	78,56
Cost of Revenue	29,40	37,93	37,93	47,50
Gross Profit	**22,66**	**27,14**	**27,14**	**31,06**
Operating Expenses				
Research Development	-	-	-	-
Selling General and Administrative	12,90	17,17	17,17	21,37
Non Recurring	-	-	-	-
Others	1,68	2,38	2,38	3,48
Total Operating Expenses	42,29	55,10	55,10	68,87
Operating Income or Loss	**8,08**	**7,59**	**7,59**	**6,20**
Income from Continuing Operations				
Total Other Income/Expenses Net	-0,78	9,02	9,02	10,98
Earnings Before Interest and Taxes	8,08	7,59	7,59	6,20
Interest Expense	0,000	-8,10	-8,10	-8,10
Income Before Tax	7,30	8,51	8,51	9,08
Income Tax Expense	1,31	1,53	1,53	1,63
Minority Interest	3,20	3,20	3,20	3,20
Net Income From Continuing Ops	**5,98**	**6,98**	**6,98**	**7,45**
Non-recurring Events				
Discontinued Operations	-	-	-	-
Extraordinary Items	-	-	-	-
Effect Of Accounting Changes	-	-	-	-
Other Items	-	-	-	-
Net Income				
Net Income	**5,98**	**6,98**	**6,98**	**7,45**

Cash Flow

(All numbers in million)

Year Ended December 31

	2016		2017		
	2015	**2016**	**2016**	**2017**	**20**
Net Income	**5,98**	**6,98**	**6,98**	**7,45**	**7,**
Operating Activities, Cash Flows Provided By or Used In					
Depreciation	1,68	2,38	2,38	3,48	3,
Adjustments To Net Income	1,50	1,48	1,48	2,25	2,
Changes In Accounts Receivables	-2,92	-1,04	-1,04	-0,11	-0
Changes In Liabilities	5,34	0,46	0,46	3,49	3,
Changes In Inventories	0,00	-0,02	-0,02	-0,08	-0
Changes In Other Operating Activities	0,95	0,62	0,62	-0,40	-0
Total Cash Flow From Operating Activities	**12,55**	**10,86**	**10,86**	**16,08**	**1**
	12,55	**10,86**	**10,86**	**16,08**	**1**
Investing Activities, Cash Flows Provided By or Used In					
Capital Expenditures	-6,44	-8,80	-8,80	- 15,27	- 15,2
Investments	0,00	0,00	0,00	0,00	0,
Other Cash flows from Investing Activities	-0,50	-0,50	-0,50	-0,50	-0
Total Cash Flows From Investing Activities	**-6,94**	**-9,30**	**-9,30**	**- 15,77**	**- 15,7**
Financing Activities, Cash Flows Provided By or Used In					
Dividends Paid	-1,80	-0,90	-0,90	-1,20	-1
Sale Purchase of Stock	-	-	-	-	-
Debt repayment	-1,92	-0,10	-0,10	-0,60	-0
Other Cash Flows from Financing Activities	-1,20	5,29	5,29	1,31	1,
Total Cash Flows From Financing Activities	**-4,93**	**4,29**	**4,29**	**-0,49**	**-0**
Effect Of Exchange Rate Changes	0,39	0,44	0,44	0,28	0,
cash for the beginning of period	**3,49**	**4,56**	**4,56**	**10,85**	**1**
Change In Cash and Cash Equivalents	**1,07**	**6,29**	**6,29**	**0,10**	**0,**