Corporate Social Responsibility: Specificity, Formation Mechanism, Estimation of Management Efficiency

I.A. Ivanova¹, M.V. Bikeeva²

Abstract:

The analysis of ways and methods for increase of efficiency of role of the business in economy stabilization, environment protection, improvement of population's life quality, and therefore social responsibility of business is a topical problem which solving has both theoretical and practical value.

Research objective is development of theoretical propositions and methodical and practical recommendations for estimation of efficiency of enterprise restructuring on the basis of holistic marketing and degree of its social responsibility.

Research tasks: clarification of definition and specificity of "business social responsibility" concept, development of the methodical approach to estimation of its condition, modelling of integral indicator of its development, clusterization of industrial enterprises on its basis.

Methodology: The method of hierarchies' analysis is a proved tool for solving of multicriteria problems with hierarchical structures including complex system of factors affecting selection of solution for improvement of image of domestic enterprises.

Results: Theoretical analysis of evolution of researches of corporate social responsibility was carried out; the essence of social responsibility concept of the Russian enterprise, its restructuring on the basis of holistic marketing, specificity of formation proceeding from analysis of its essence in foreign and domestic economic science were specified;

- internal and external factors influencing development of corporate social responsibility of the organisations were determined, algorithm of multi-criteria estimation on the basis of hierarchies' analysis method taking into account most the representative indicators characterising efficiency of efforts was developed and tested.

Conclusion / importance. The authors draw the conclusion that propositions developed in the work and received results can serve as a basis for development of enterprise management strategy focused on a long-term stable development taking into account interests of various interested parties of the company.

Key Words: Enterprise, management, social responsibility, expert estimations, hierarchies' analysis, holistic marketing

_

¹ PhD (Economics), Associate Professor, Department of Statistics, Econometrics and Information Technology in Management, Ogarev Mordovia State University, Saransk, Russian Federation, ivia16@mail.ru

² PhD (Economics), Associate Professor, Department of Statistics, Econometrics and Information Technology in Management, Ogarev Mordovia State University, Saransk, Russian Federation, mbikeeva@yandex.ru

1. Introduction

1.1 Introduce the Problem

The analysis of existing modern tendencies leads to necessity of reframe of corporate relations essence. A new theoretical model of business corresponding to profound changes in innovative economy should be developed. The important direction of such a theoretical development is focusing on a wide range of interested business groups. This model is based on increased role of interaction between the interested groups involved in active and passive participation forms in business operations.

Implementation of this model changes conditions of entrepreneurial activities. In the present situation, economic efficiency of manufacture cannot be end in itself of business, but should promote well-balanced and effective development of the society as a whole. Business is considered as the most powerful institute of the modern society, as a source of social responsibility, since business relates to well-being of population, to satisfaction of its material, social and intellectual requirements, to reduction of inequality and unemployment, and thus to improvement of population's life quality and formation of social well-being zones around itself. Social responsibility of business is an objective stage in its progressive development, the response to challenges of dynamically changing environment and global economy. These circumstances prove the necessity of detailed studying of business social responsibility concept, and necessity to develop a procedure for estimation of its level.

Various aspects of theory and methodology of social responsibility are described in the economic literature. Works of the following foreign authors: Davis, 1973, Drucker, 1984, Carroll, 1999, Kramer, 2006, Levitt, 1958, Post, Preston, 2002), Porter, 2006, Friedman, 1970, etc. are devoted to the corporate social responsibility as a tool of company management. Formed scientific schools study problems of business ethics, strategic role of responsible behaviour of a company in detail. The conceptual approaches allowing to unite different elements of social activity of business into the uniform system of corporate social responsibility accompanying solving of strategic problems of the company were developed.

The analysis of management practice of companies introducing programs of corporate social responsibility is an active sphere of modern domestic researches. The following researches should be mentioned first of all: Lvov, Litovchenko, Turkin, Tulchinsky, etc. Researches of social responsibility from the perspective of administrative approach as a strategic goal of a modern company, implementation of its capabilities in creation of positive image and strengthening of business reputation were written by the team of scientists of Federal State Educational Institution of Higher Vocational Education "Financial university under the government of the Russian Federation" under the guidance of Belyaeva and Eskindarov (Corporate social responsibility: administrative aspect, 2008).

168

There are the following practical researches in the sphere of social responsibility of domestic business researches: "Report on social investments in Russia – 2004", "Report on social investments in Russia – 2012", "Large-sized Russian business: social role and social responsibility (position of the population and expert estimation)", "Large-sized business in regions of Russia: territorial development strategy and social interests. Analytical report", "From Russia with love. National contribution into global context of CSR", etc. These works stress importance and topicality of research of application of a mechanism of social partnership between business and authorities within the scope of cooperation with local communities and implementation of social policy of the regions.

The topicality of the present research is caused by increasing social activity of organizations, variety and originality of existing practices, but insufficient theoretical comprehension and systematization of its forms, absence of tools for analysis, estimation and efficiency of socially responsible behaviour, its analytical and organizational support.

1.2 Importance of the Problem

Social responsibility of business is a multi-aspect and complex phenomenon, therefore approaches to conceptualization of it are various, and there is still no final concept.

Objective of research is development of theoretical propositions and methodical and practical recommendations for analysis and estimation of level of business socially responsibility, improvement of enterprise management focused on a stable development:

- clarification of definition and specificity of "business social responsibility" concept;
- development of the methodical approach to estimation of restructuring efficiency of the industrial enterprise on the basis of holistic marketing, proved tools for solving of problems with hierarchical structures including complex system of factors affecting selection of a solution;
- substantiation of administrative decisions for increase of business social responsibility level;
- classification of industrial enterprises on the basis of integral indicator of social responsibility.

The key provisions and results received in the work can serve as a basis for estimation of a level of development of business social responsibility, development of an enterprise management strategy, increase of its competitiveness focused on a long-term stable development taking into account worldwide trends providing well-balanced economic, social and ecological development of a society. The scientific propositions, conclusions and recommendations stated in the work are proved by

theoretical solutions and experimental data received in the work, and do not contradict existing points of economics, since they are based only on proved conclusions and empirical data.

1.3 Review of Literature

Results of research have shown that the American economist Bowen (1953) has laid the basis of the modern approach to corporative social responsibility in his work "Social responsibility of entrepreneur" where he gave a definition of the term of business social responsibility for the first time: "... it concerns to obligations of businessmen to observe such a policy, to make such decisions and to follow such guidelines which are the most advisable in the context of purposes and values of our society". He assumed that hundreds of the largest companies are key centres of power and decision-making, and that actions of these companies affect lives of citizens and many relations.

Another American theorist Brennan writes that in the changing world good economic results of corporation activity are closely allied with positive "realization of different kinds of social and political responsibility and response to them. Even the minimal fulfilment of these requirements is an indispensable condition of "survival of free competition system" and, hence, the business" (Brennan, 1979).

Some critics state breach of a principle of profit maximization and growth of costs because of allocation of a certain part of business funds to social needs, and decrease in competitiveness of business in whole (Mescon, 1988) as negative sides of social responsibility concept. This nature of considered problematics allows to mark out several most wide spread directions in the international practice with different interpretation of business social responsibility (Figure 1):

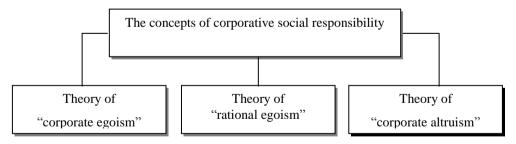


Figure 1. Existing concepts of business social responsibility

According to the theory of "corporate egoism", the only responsibility of business is increase in profit of shareholders. This point of view was formulated by Nobel prize winner Friedman, in 1971. He writes in his book "Capitalism and freedom": "Business has one and only one social responsibility in the conditions of free economy - to use its resources and to carry out actions directed on increase of its profit, until it meets rules of a game, i.e. to participate in open and free competition

without deceit and swindle" (Friedman, 1970). Thereby Friedman tries to assert ethics of business or at least a part of it named "business social responsibility" only on one motive of a profit. Friedman affirms that heads of corporations should not distract on studying, estimation and solving of any social problems of a society, but should execute their key responsibilities, i.e. organize production of goods and services. Thus social problems relate to the area interests of the interested parties, state and community (Management of social and economic development of Russia: concepts, goals, mechanisms, 2002).

Friedman is not the only researcher adhering to such an opinion. Another one scientist, Levitt (1958) who is the opponent of business social responsibility stated that "Function of business is production of steadily high profit. The essence of a free enterprise is gaining profit in any way corresponding to survival as the economic system. Well-being and society do not relate to the corporative sphere of interests. The key task of a corporation is to make money, not gentle music".

It goes without saying that the basis of creation of any enterprise is the economic target - gaining of profit. Such an approach means the enterprise should fulfil economic function of production of goods (services) required for the society. It also provides the control over financial and economic activity of the enterprise increasing its assets. Special functions of such an enterprise are limited to support of employment of citizens, gaining the maximum profit and compensation for shareholders. However social responsibility of business cannot be limited only to these minimal requirements, in the modern conditions of economic management. The point of view of Friedman does not provide the main direction of modern comprehension of social responsibility (Bikeeva, 2012).

The second approach is a theory of "corporate altruism" which is opposite to the theory of Friedman. This theory has arisen after publication of a sensational article of Friedman, and was composed by the Committee on economic development. The main idea of the theory is that business should care not only of increase in profit, but also make a possible contribution to solving of social problems, improvement of population and community life quality, and in environment protection. The Committee stressed in the recommendations that "corporations are obliged to make significant contribution to improvement of quality of the American life". The companies cannot dissociate themselves from social problems, because they are open systems, actively participating in lobbying of laws and other state resolutions, sponsoring different parties and other public associations (Corporate social responsibility: administrative aspect, 2008).

We consider the third position - the theory of "rational egoism" as the most interesting and scientifically proved. It assumes that business should limit its current profits in order to create prerequisites for a successful long-term development, for favourable social environment of employees and territories of its activity. Expenses

of business for socially responsible policy are long-term investments directed on improvement of business conditions.

Besides of the mentioned variants of socially responsible business concept, the integral approach to social responsibility assuming focusing of social activity of a company on one certain area which is closely related to the basic direction of activity of the enterprise was formed in 1990th. This approach to interpretation of the essence of social responsibility of business was named as socially important directions of activity. Its main advantage consists in tempering of contradictions between interests of business and a society using all tools of the business for this purpose; thus social programs are not considered as sources of inefficient expenses.

Therefore, the presented points of view prove the fact that currently there is no unified international definition of business social responsibility. However, despite inconsistent nature of the studied problematics, the most representatives of business circles consider that both state and business bear equal civil responsibility for their actions because of being the most powerful state institutes.

Increasing interest to social responsibility of business can be explained by the following circumstances.

First of all, it is a result of growing mistrust and disappointment in ability of the government to solve social problems. Social orientation of economic policy of the Russian Federation through implemented state target complex programs and strategic documents is rather ineffective. Mistrust of the population to the state causes a need to appeal to other forces and institutes in a society, and first of all - to business.

Secondly, economic globalization, intensification of international competition and membership of Russia in the World Trade Organization and conformity to all requirements and rules established by this organization change conditions of functioning of domestic business essentially. This circumstance brings the Russian companies to comprehension of necessity to observe the international standards, and particularly in the field of corporative behaviour and ethical standards of modern business.

Thirdly, business influences on a certain society while functioning in its environment. Thus this influence is diverse and has both positive and negative sides. In these conditions business is a social institute which is obliged to take into account influence of its decisions on larger social system and to base its activity on the interests of the whole group connected with it and having own interest in this business. These carriers of interests are various subjects of market interaction, thus they are not limited to borders of business.

Some theoretic and applied questions devoted to social responsibility in Russia and abroad have general-theoretical character focused on revealing of social and economic functions, analysis, diagnostics, estimation of level and efficiency are not solved yet.

Formation of measurement system (system of indicators and indexes) for quantitative and quality estimation of business social responsibility is another one important task, together with theoretical aspects. The development of criteria and indicators of level of business social responsibility is considered at different discussion platforms covering both international organizations and many scientific teams. The interest to this direction is being increased in Russia as well.

Results of the carried out research allowed stating the most widespread approaches to formulation of criteria and indicators of business social responsibility level (Figure 2). The first approach is based on construction of system of indicators, each reflecting certain aspects of socially-responsible behaviour of business. The second approach assumes construction of integral (aggregated) indicator, on the basis of which the level of social responsibility can be estimated.

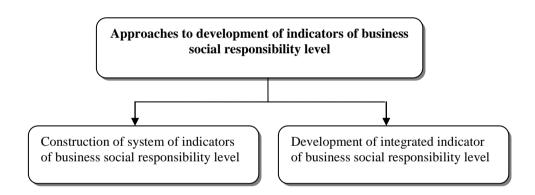


Figure 2. Classification of approaches to development of indicators of business social responsibility level

The approach based on a system of indicators is more widespread in world practice in comparison with integral indicators of business social responsibility level. However, currently there is no established and rational, uniform indicator for estimation of its level. Therefore, the main emphasis is often made on a system of indicators. It should be mentioned that development of a system of indicators of social responsibility level is rather complex procedure, requiring much information. Thus this system of indicators for estimation of social responsibility level should be developed from different scales: local (for specific enterprises), regional, national.

Results of research revealed difficulty of quantitative presentation of the effect from socially responsible activity, despite of attempts to calculate indexes of social responsibility. Currently existing methods for estimation of social responsibility of business are limited only to studying of the total amount of social investments, and to the analysis of internal and external social programs. Quantitative and qualitative indexes calculated using aggregated indicators for all enterprises participating in research provide the overall view of corporate social investments. Thus the source of information is sociological researches and inquiries of heads of enterprises (Ivanov et al, 2015).

First of all it is necessary to mention absence of connection between socially responsible behaviour of business with efficiency of its economic activities, among lacks of existing methods for estimation of social responsibility level. We consider that indicators should be developed in such a way to provide unequivocal conformity between implementation of interest of an interested group and dynamics of the corresponding indicator of business activity effectiveness.

1.4 Hypotheses and Their Influence on Research Structure

Social responsibility is the universal social and economic phenomenon mediating correlation between social and economic mechanisms and carrying out specific functions in enterprise and society and thus affecting their stable development. Restructuring of business on the basis of holistic marketing and the level of its social responsibility does not contradict aiming to profit maximization, but creates conditions for successful functioning of business in a long-term outlook. Successful economic development of the enterprise determines financial basis, ranges, quality and efficiency of implementation of its social responsibility. Thus restructuring efficiency is estimated taking into account strategic priorities. From among many possible estimating indicators, researches select those ones which specify efficiency of efforts made in the following directions of reforms:

- 1) P_1 approach focused on increase of competitiveness and efficiency of economic activities:
- 2) P_2 approach focused on relations with buyers on the basis of integrated marketing;
- 3) P_3 approach focused on long-term relations with suppliers and business partners on the basis of relationship marketing;
- 4) P_4 approach which takes into account satisfaction of the personnel on the basis of internal marketing;
- 5) P_5 approach focused on creation of favourable and comfortable environment for development of local communities on the basis of socially responsible marketing (Ivanov et al., 2015).

The experts have defined local criteria within the scope of each approach, their estimations (from 0 to 2) within the scope of three intervals of possible values (table 1).

Table 1. Local criteria for estimation of efficiency of business restructuring and their rating

Criterion	Criterion rating			
Criterion	0	1	2	
P_1 – approach focused on increase of competitiveness and efficiency of economic activities				
Rate of turnover growth, P ₁₁	Less than100%	100%	Over 100%	
Share of innovative production in enterprise's turnover, P_{12}	Less than 5%	5% - 30%	Over 30%	
Profitability of sold production, P ₁₃	Less than 5%	5% - 20%	Over 20%	
Exceeding of market cost of the business (enterprise) over its balance estimation, P ₁₄	Less than 1,0	1,0 – 1,5	Over 1,5	
Profitability of own capital, P ₁₅	Less than 5%	5% - 25%	Over 25%	
P ₂ – approach focused	on relations with k	ouyers on the basis	of integrated marketing	
Coefficient of overstocking with finished goods, P ₂₁	Over 0,11	0,05 - 0,11	Less than 0,05	
Flexibility of prices, P ₂₂	Less than 1	1	Over 1	
Level of awareness about production, P_{23}	No data on production (company)	Spontaneous recall	Recognition with a tip	
Service index, P ₂₄	0 - 0,5	0,5-1,0	Over 1,0	
Time for processing of claims, P ₂₅	No reaction of the enterprise to claims	Claims are processed, but there is no systemacy in processing	Careful processing of claims with establishment of formal procedure for definition of time required for processing of claims and	

			control of results	
Profitability of sales, P_{26}	Less than 5%	5% - 25%	Over 25%	
Share of regular customers in client base, P ₂₇	Less than 5%	5% - 20%	Over 20%	
$P_3-approach\ focused\ on\ long-term\ relations\ with\ suppliers\ and\ business\ partners\ on\ the\ basis\ of\ relationship\ marketing$				
Quality management systems certified according to MC ISO 9001:2008 (GOST ISO 9001-2011) standard at the enterprise, P ₃₁	No quality management systems at the enterprise	QMS at the stage of introduction	Introduced QMS at the enterprise	
Share of captured target market, P ₃₂	Less than 1%	1% - 10%	Over 10%	
Share of claims, P ₃₃	Over 5%	5%	0%	
Timeliness of deliveries of raw materials, materials accessories, P_{34}	Non-observance of contract obligations	Partial observance of contract obligations	Observance of contract obligations	
Coefficient of financial leverage, P ₃₅	Over 2,0	1,0 – 2,0	Less than 1,0	
Coefficient of urgent liquidity, P ₃₆	Less than 0,7	0,7 – 0,9	Over 0,9	
P ₄ – approach which takes into account satisfaction of the personnel on the basis of internal marketing				
Fulfilment of a plan on increase of labour efficiency, P ₄₁	Less than 50%	50% - 100%	Over 100%	
Coefficient of turnover of employees, P ₄₂	Over 15%	10% - 15%	Less than 10%	
Rates of social investments growth, P ₄₃	Less than 100%	100%	Over 100%	
Investments for carrying out of environment protection measures Ethical code, P ₄₃	No ethical code	Code contains from 4 to 9 chapters from 10 recommended ones	Code contains all 10 chapters from 10 recommended ones	

development of local communities on the basis of socially responsible marketing			
Coefficient of solvency on current obligations, P_{51}	More than 12 months	3 – 12 months	Less than 3 months
Investments for carrying out of environment protection measures, P ₅₂	Actions of the enterprise within the scope of environmental law	Activity directed on environment protection and support of industrial safety as integral part of a business	Introduction of the best available technologies with high economic and ecological indicators, effective application of power and natural resources is a priority at expansion and modernization of manufacture
Investments into large social projects and charitable programs, P ₅₃	No charity	Charitable programs of the enterprise are unfocused and incoherent; often they reflect personal belief and values of the top management	Active participation of the enterprise in the sphere of corporate charity
Nonfinancial accounting, P ₅₄	No nonfinancial accounting	Partial information, presented once in 2 years	Full information, presented annually on the enterprise's website

2. Method

Social responsibility connected with functional activity of the enterprise is a multicriteria task with hierarchical structure including complex system of factors affecting administrative decisions, and serves as a necessary condition for efficient economic activities of the enterprise, provides stability of its development and long-term competitiveness, and is subject to measurement. The rational tool for estimation of social responsibility of the enterprises is the method of hierarchies' analysis (Saaty, 2008).

Possibilities of hierarchies' analysis method for estimation of enterprise restructuring efficiency on the basis of holistic marketing and the level of enterprise's social responsibility by selection of alternatives by multi-criteria rating taking into account expert estimations were implemented in this research. Expert estimation in the research was carried out on the basis of questioning of several tens experts -

professionals in the field of management, economy, administration, marketing. Various statistical methods for check of coordination of expert opinions (or classification of experts, if there is no coordination) and averaging of expert opinions in the coordinated group were applied for analysis of opinions. In particular, check of coordination and averaging of opinions of the commission were carried out by means of Kemeny median as empirical mean in spaces of non-numerical nature (Kemeny, 1960):

$$M^*(P_1,...,P_m) = Arg \min \sum_{k=1}^m d(P,P_k)$$
 (1)

$$\sum_{k=1}^{m} d(P, P_k) = \sum_{i < j} \sum_{k=1}^{m} d_{ij}(P, P_k)$$

Despite of insignificant deviation of experts commission structure on random causes, Kemeny median is stable, i.e. it approximates to a certain limit which can be considered as a true opinion of expert group. Calculation of Kemeny median is a task of integer programming, thus its complexity grows with number of local criteria and quantity of experts. In particular, various algorithms of discrete mathematics and particularly based on a method of branches and borders or on idea of random search are used for calculation of this median. We used the algorithm developed and described in the work of Litvak (1982) using computer software [Program complex of statistical modelling Simwek 1.0. Certificate on official registration of computer software program // Federal service on intellectual property, patents and trade marks: Certificate No.2005612656, registered in the Register of the software programs.].

By means of questioning of expert group, we determined priorities and built matrixes of pair-wise comparisons (relations) for each expert on their basis, within the limits of each local criterion of business restructuring efficiency on the basis of holistic marketing and the level of social responsibility of the enterprise which elements characterize the levels of preference of a certain estimation specified by each expert, of the following form:

$$\mathbf{e}_{jk} = \begin{cases} 0, & \text{if} \qquad a_j < a_k \\ 1, & \text{if} \qquad a_j > a_k \end{cases}$$

where j. k=1,2,...,m.

Thus e_{jk} – elements of E matrix of pair-wise comparisons of m elements (enterprises) by each I expert (i=1,2,...,n).

Then we built matrixes of losses which elements are determined as

$$r_{ij} = \sum_{k=1}^{m} d_{ij}(P, P_k)$$
 (3)

The calculated Kemeny medians are results of ranging of local criteria of estimation of enterprise image (see tab. 2).

Further we made a compression of each matrix of pair-wise comparisons into a vector, and then we normalized the calculated vectors and multiplied matrixes of pair-wise comparisons by normalized vectors corresponding to them (Ivanova et al., 2014).

The importance of criterion is determined for each of proposed criteria for estimation of enterprise's social responsibility level by building a scale of relative importance of approaches (tab. 1) and determination of priority vector (tab. 2) using the method of hierarchies' analysis of criteria. The integrated indicator of business restructuring efficiency on the basis of holistic marketing and the level of its social responsibility is calculated taking into account the importance of criterion, and is determined as:

$$\begin{split} I &= \left(0.071 \cdot P_{11} + 0.057 \cdot P_{12} + 0.071 \cdot P_{13} + 0.071 \cdot P_{14} + 0.043 \cdot P_{15} + \right. \\ &+ 0.027 \cdot P_{21} + 0.036 \cdot P_{22} + 0.036 \cdot P_{23} + 0.036 \cdot P_{24} + 0.027 \cdot P_{25} + 0.045 \cdot P_{26} + \\ &+ 0.045 \cdot P_{27} + 0.031 \cdot P_{31} + 0.039 \cdot P_{32} + 0.023 \cdot P_{33} + 0.031 \cdot P_{34} + \\ &+ 0.039 \cdot P_{35} + 0.023 \cdot P_{36} + 0.042 \cdot P_{41} + 0.033 \cdot P_{42} + 0.025 \cdot P_{43} + \\ &+ 0.025 \cdot P_{44} + 0.045 \cdot P_{51} + 0.034 \cdot P_{52} + 0.034 \cdot P_{53} + 0.011 \cdot P_{54} \right) \cdot 100 \end{split}$$

Integrated indicator *I* taking into account values of local criteria (Table 2) possesses a value from the interval from 0 to 200.

Table 2. Rating of local criteria for estimation of business social responsibility taking into account processing and averaging of expert opinions within the scope of each approach

Criterion	Rank
P1 – approach focused on increase of competitiveness and efficiency of economic activities	5
Rate of turnover growth, P ₁₁	
Share of innovative production in enterprise's turnover, P ₁₂	

Profitability of sold production, P ₁₃	5
Exceeding of market cost of the business (enterprise) over its balance estimation, P_{14}	5
Profitability of own capital, P ₁₅	3
P_2 – approach focused on relations with buyers on the basis of integrated marketing	4
Coefficient of overstocking with finished goods, P ₂₁	3
Flexibility of prices, P ₂₂	4
Level of awareness about production, P ₂₃	4
Service index, P ₂₄	4
Time for processing of claims, P ₂₅	3
Profitability of sales, P ₂₆	5
Share of regular customers in client base, P ₂₇	5
$P_{\rm 3}$ – approach focused on long-term relations with suppliers and business partners on the basis of relationship marketing	3
Quality management systems certified according to MC ISO 9001:2008 (Γ OCT ISO 9001-2011) standard at the enterprise, P_{31}	4
Share of captured target market, P ₃₂	5
Share of claims, P ₃₃	3
Timeliness of deliveries of raw materials, materials accessories, P ₃₄	4
Coefficient of financial leverage, P ₃₅	
Coefficient of urgent liquidity, P ₃₆	
$P_4-\mbox{approach}$ which takes into account satisfaction of the personnel on the basis of internal marketing	2
Fulfilment of a plan on increase of labour efficiency, P ₄₁	5
Coefficient of turnover of employees, P ₄₂	4
Rates of social investments growth, P ₄₃	3
Investments for carrying out of environment protection measures Ethical code, P_{43}	3
$P_{5}-$ approach focused on creation of favourable and comfortable environment for development of local communities on the basis of socially responsible marketing	2
Coefficient of solvency on current obligations, P ₅₁	4
Investments for carrying out of environment protection measures, P ₅₂	3
Investments into large social projects and charitable programs, P ₅₃	
Nonfinancial accounting, P ₅₄	

3. Results

The research allowed to develop classification of the enterprises (Table 3) and characteristic of their social responsibility level accordingly for the intervals of integrated indicator values presented in the table.

Table 3. Classification of enterprises by integrated indicator of business restructuring efficiency on the basis of holistic marketing and the level of its social responsibility

Class	Integrated indicator <i>I</i>	Characteristic of the enterprise
1 st		High level of social responsibility is characterized by:
	[150; 200)	- importance of relations with buyers and increase of their satisfaction and awareness level;
		 good organization of internal business processes of the enterprise, strong relations with suppliers and business partners;
		- training of the personnel and increase of personnel's satisfaction from work; availability of the ethical code;
		 external social projects, charitable programs, introduction of the best available technologies with high economic and ecological indicators, effective application of power and natural resources;
		- liquidity, flexibility, solvency of the enterprise.
		Significant level of social responsibility is characterized by:
		- importance of relations with buyers and increase of their satisfaction and awareness level, QMS at the stage of introduction, emphasis at quick reaction to claims and guaranteed elimination of malfunctions;
		- strong relations with suppliers and business partners;
2 nd	[100; 150)	- training of the personnel and increase of personnel's satisfaction from work; availability of the ethical code;
		 external social projects, charitable programs reflecting personal beliefs and values of top management of the enterprise, activity on environment protection and support of industrial safety as integral part of the business;
		- enterprise in a normal economic condition - indicators and criteria of solvency, profitability are fast optimal, though there is backlog in certain aspects.
	[50; 100)	Moderate level of social responsibility is characterized by:
3 rd		 orientation only at financial goals, focusing at limited circle of marketing activities which promote their achievement;
		- importance of relations with buyers and increase of their satisfaction level, low level of awareness on production, QMS at introduction stage, no systemacy in processing of claims;
		- emphasis on long-term relations with suppliers and business partners;
		- absence of wide range of social programs and privileges for the

		personnel; ethical code is available;
		- absence of external social projects, charitable programs, no non- financial reporting, investment in environment protection activities within the scope of the current legislation;
		- low profitability of sold production, minimal profit.
	[0; 50)	Low level of social responsibility is characterized by:
4 th		- orientation only at financial goals, focusing at limited circle of marketing activities which promote their achievement;
		- focusing on specific segment of buyers and market;
		 frequent change of suppliers because of non-observance of contract obligations;
		- absence of a wide range of social programs and privileges for the personnel; no ethical code;
		 absence of external social projects, charitable programs, no non- financial reporting, investment in environment protection activities within the scope of the current legislation;
		 low profitability of sold production, instability and illiquidity of the enterprise.

The results of estimation of the enterprises using integrated indicator of business restructuring efficiency on the basis of holistic marketing and level of its social responsibility can be considered as relevant, because they are based on mathematical modelling with application of hierarchies' analysis method, mathematical methods of expert estimations processing with building of matrixes of comparison and estimation of coordination of the whole hierarchy taking into account each local index of coordination and priority of a corresponding criterion.

The key results defining scientific novelty of the research consist in the following:

- conceptual and term mechanism for specification of "business restructuring efficiency" concept on the basis of holistic marketing and level of its social responsibility was developed on the basis of systematization of approaches of domestic and foreign scientists to the problem of corporate social responsibility;
- the system of local criteria for estimation of business restructuring efficiency and their interval estimations taking into account approaches focused on increase of competitiveness and efficiency of economic activities, on improvement of long-term relations with interested groups, on optimization of marketing services and creation of favourable and comfortable environment for development of local communities was offered;
- mathematical model of integrated indicator of enterprises' restructuring efficiency on the basis of holistic marketing and level of their social responsibility by means of multi-criteria rating taking into account expert estimations and application of hierarchies' analysis method was developed;
- comparative estimation and clusterization of industrial enterprises according to the level of their social responsibility was carried out;

- technique of a complex estimation of business restructuring efficiency on the basis of holistic marketing and level of its social responsibility was tested at development of system of management of industrial enterprises of Republic of Mordovia in order to increase their competitiveness.

Conclusions

The present research allows to develop recommendations for estimation of social responsibility level of a business, creation of strategy of business management, increase of its competitiveness focused on a long-term and stable development taking into account international tendencies providing well-balanced economic, social and ecological development of the society.

References

- Bikeeva, M.V. (2012), "Signs of socially responsible business", Economics and Entrepreneurship 2 (25), p 196-198.
- Bikeeva, M.V. (2012), "Social responsibility of business: pros and cons", Economics and Entrepreneurship 4 (27), p 297-299.
- Bikeeva, M.V. (2012), "Social responsibility of business: theory, methodology, practice", St.-Petersburg: Publishing house of polytechnic university, p 138.
- Bowen, H. (1953), "Social responsibilities of the businessman", Harper & Row: N.Y.
- Brennan, D. (1979), "Managing Public Issues by Objectives", Corporate Social Reporting in the United States and Western Europe, Washington, United States, p 147.
- Carroll, A. B. (1999), Corporate social responsibility: evolution of a definitional construct. Business and Society 38 (3), p 268-295.
- Corporate social responsibility: administrative aspect, 2008, Moscow: KNORUS, p 504.
- Davis, K. (1973), "The case for and against business assumption of social responsibilities", Academy of Management Journal 16 (2), p 312-322.
- Drucker, P. F. (1984), "The new meaning of corporate social responsibility", California Management Review 26 (2), p 53-63.
- Friedman, M. (1970), "The social responsibility of business is to increase its profits", New York Times Magazine. September 13, p 32-33.
- Ivanova, I. A., Bikeeva M. V. (2015), "Estimation of efficiency of restructuring of business and its social responsibility: modern methodological approach", Management in Russia and abroad 1, p 89-96.
- Ivanova, I. A., Sysoyeva E. A. (2014), "Estimation of competitiveness of the Russian lighting equipment enterprises on the basis of hierarchies' analysis method", Economic analysis: theory and practice 26 (377): 48.
- Kemeny, J. G. & Snell, J. L. (1960), Finite Markov Chains. Princeton, NJ: D. Van Nostrand. Levitt, Th. (1958), "The dangers of social responsibility", Harvard Business Review. 36 (5), p 41-50.
- Litvak, B. G. (1982), "Expert information, Methods for collection and analysis" (p. 184). Moscow: Radio i svyaz.
- Management of social and economic development of Russia: concepts, goals, mechanisms (2002), Moscow: Ekonomika, p 702.
- Mescon, M. H., Albert M. & Khedouri F. (1988), Management, New York, p 799.

- Program complex of statistical modelling Simwek 1.0. Certificate on official registration of computer software program // Federal service on intellectual property, patents and trade marks: Certificate No.2005612656, registered in the Register of computer software programs.
- Porter, M., & Kramer M. (2006), "Strategy and society: the link between competitive advantage and corporate social responsibility", Harvard Business Review 84 (12), p 78-92.
- Post, J., Preston L., & Sachs S. (2002), "Redefining the corporation: stakeholder management and organizational wealth", Stanford University Press: Palo Alto (CA).
- Saaty, Thomas L. (2008), "Relative Measurement and its Generalization in Decision Making: Why Pairwise Comparisons are Central in Mathematics for the Measurement of Intangible Factors. The Analytic Hierarchy/Network Process". RACSAM (Review of the Royal Spanish Academy of Sciences, Series A, Mathematics) 102 (2), p 251–318.
- Social policy implementation: regional aspect, (2015), Saransk: YurEksPraktik, p 252.