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ENSURING THE SUSTAINABLE DEVELOPMENT OF SMALL AND MEDIUM ENTREPRENEURSHIP

The paper presents the sustainability algorithm for small and medium entrepreneurial system in the conditions of disturbing influences of business environment. Implementation of the above algorithm is based on the system analysis of the conditions and development of small and medium entrepreneurial system in the light of polycyclic development.

Keywords: *sustainability; small and medium entrepreneurship; lifecycle phases.*

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ЗАБЕЗПЕЧЕННЯ СТАЛОГО РОЗВИТКУ МАЛОГО ТА СЕРЕДНЬОГО ПІДПРИЄМНИЦТВА

У статті представлено алгоритм забезпечення стійкості розвитку системи малого та середнього підприємництва в умовах збурюючих факторів впливу на підприємницьке середовище. Реалізація представленого алгоритму ґрунтується на результатах проведеного системного аналіза умов і процесу розвитку малого та середнього підприємництва з урахуванням поліциклічності розвитку.

Ключові слова: *стійкість; мале і середнє підприємництво; фази життєвого циклу системи.*

Табл. 2. Літ. 26.

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ОБЕСПЕЧЕНИЕ УСТОЙЧИВОГО РАЗВИТИЯ МАЛОГО И СРЕДНЕГО ПРЕДПРИНИМАТЕЛЬСТВА

В статье представлен алгоритм обеспечения устойчивости развития системы малого и среднего предпринимательства в условиях воздействий на предпринимательскую среду. Реализация представленного алгоритма основывается на результатах проведенного системного анализа условий и хода развития системы малого и среднего предпринимательства с учетом полицикличности развития.

Ключевые слова: *устойчивость; малое и среднее предпринимательство; фазы жизненного цикла.*

Problem setting. Development of small and medium entrepreneurship (SME) is conditioned by continuous external and internal disturbing influences. That is why system sustainability is a very essential issue. Active actions on prevention, elimination or mitigation of negative influences on development processes are the important concepts in entrepreneurship.

Development of social and economic systems, including entrepreneurial systems, is of cyclical nature. It complies with certain regularities. This is a basis for algorithmization of sustainable development of the SME system. The relevance of development and implementation of such algorithms is that they establish a methodological framework for development of sustainability mechanisms, available for a wide range of entrepreneurs.

For the purpose of elaborating specific proposals, aimed at reduction of entrepreneurial uncertainty and risks, the differentiated methodical approach is required,

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which would let not merely pass through various crisis situations, but also get to a new qualitative level at each development cycle, including the crisis one.

Recent research and publications analysis. *SME development* amid crisis is always in the focus of attention of economists, researchers and practitioners. An important contribution to investigation of the SME crisis recovery study is made by T.A. Alimova at al. (2010), I.G. Andreeva (2006), E.V. Broilo (2006), M.N. Dudyn and N.V. Lyasnikov (2009), E.A. Erokhina (2010) and others.

Problems of sustainability ensurance in entrepreneurship are reflected in the works of T.V. Epifanova (2013), T.M. Konoplyanik (2007), L.G. Kutareva (2009), N.A. Lobakhina (2011), S.S. Morkovkina (2008), S.A. Myasoedov (2010), D.V. Presnyakova (2012), O.B. Repkina (2010), F.M. Safin and P.A. Ehorushkyn (2011), G.R. Yarullina (2011) and others.

The issues of sustainable development of various economic systems are reflected in the works of such foreign authors as L.R. Brown (1981), S. Desai and Z.J. Acs (2007), D. Holtz-Eakin and H.S. Rosen (2001), D. Pearce (2000), E.F. Schumacher (1973) and others.

The research objective is methodical substantiation of sustainable development processes of SME systems in various lifecycle phases under the conditions of disturbing influences of external environment.

Key research findings. As follows from the system analysis theory, Russian entrepreneurship is currently in the lowest phase of decline and recession in small and large crisis waves. Such a condition of the SME system requires the revision of the existing approaches to further development of SME system and elaboration of development pathway with due account for its current lifecycle phase and influencing factors to ensure sustainable development.

The proposed phase algorithm of SME sustainable development will match the SME development parameters to the disturbing influence indicators, which create command (active-reactive) SME system variables.

To formalize SME sustainability processes the following notation are introduced:

$Y = (y_1, y_2, \ldots, y_n)$ – SME system development parameters;

$X = (x_1, x_2, \ldots, x_m)$ – controlled (active-reactive) SME system variables;

$Z = (z_1, z_2, \ldots, z_k)$ – indicators of disturbing influences (external and internal);

$t_1, t_2, \ldots, t_p \in [t_0, T]$ – control (reference) points of development cycle, related to a specific lifecycle phase (embedding phase transitions), used in the process of ensuring SME system sustainability;

$t_p = T$, t_0 – starting moment of development cycle (period);

$Y_r = Y(t_r) = (y_1(t_r), y_2(t_r), \ldots, y_n(t_r))$ – parameter values of the SME system development at control (reference) points $t_r \in [t_0, T]$, $r = 1, 2, \ldots, p$; $t_r \in \Phi_j = 1, 2, \ldots, 5$;

$Z_r = Z(t_r) = (z_1(t_r), z_2(t_r), \ldots, z_k(t_r))$ – indicator values of disturbing influences on the SME system at control (reference) points $t_r \in [t_0, T]$, $r = 1, 2, \ldots, p$;

$X_r = X(t_r) = (x_1(t_r), x_2(t_r), \ldots, x_m(t_r))$ – values of command (reactive or proactive, and active) variables at control (reference) points $t_r \in [t_0, T]$, $r = 1, 2, \ldots, p$;

$dY(t_r)/dt$ – derivative Y to time t, which characterizes the rate of change of its values at control (reference) point tr.

$[t_0, T] = [\Phi_1, \Phi_2, \Phi_3, \Phi_4, \Phi_5]$ – the period of SME development cycle, where Φ_1 stands for introduction; Φ_2 – growth; Φ_3 – maturity; Φ_4 – decline; Φ_5 – crisis.

System lifecycle phases: F_1 – the phase of origin and establishment; F_2 – the phase of formation and development; F_3 – the phase of maturity; F_4 – the decline phase, ageing, degradation; F_5 – phase phase of crisis, resulting in closure.

$f_{ij} = F_i \cap \Phi_j$, $r, j = 1, 2, ..., 5$ – phase states of the SME system.

Phase states create the SME phase state matrix, or the phase matrix (Table 1).

Table 1. **SME phase state matrix,** *authors'*

Phases	Φ_1	Φ_2	Φ_3	Φ_4	Φ_5
F_1	f_{11}	f_{12}	f_{13}	f_{14}	f_{15}
F_2	f_{21}	f_{22}	f_{23}	f_{24}	f_{25}
F_3	f_{31}	f_{32}	f_{33}	f_{34}	f_{35}
F_4	f_{41}	f_{42}	f_{43}	f_{44}	f_{45}
F_5	f_{51}	f_{52}	f_{53}	f_{54}	f_{55}

Let us consider the phase states of the SME system in the context of its sustainable development. We proceed from the priority of the SME system lifecycle phases in comparison with the development cycle phases. There may be several ones of the latter; their characteristics have to respond to the lifecycle flow of an entrepreneurial system. Crisis and pre-crisis phases of both cycles in the frames of our research are in the foreground as well, that is why when grouping the phase states we start from attaching to those phases.

The specific position is held by the crisis phase states. Ensurance of dynamic sustainability has to prevail over the ensurance of static sustainability. It is necessary to "leave" a crisis zone as soon as possible with minimal losses, which are unavoidable in such a situation:

$f_{51}, f_{52}, f_{53}, f_{54}, f_{55}$ – respond to the crisis phase of the entrepreneurial system lifecycle, which leads to the SME system breakdown. That is why the point is not about sustainable development as such, but the system survival by means of its state transition, and only after that about the development of the renewed system in the phases of its formation and development, which are the periods of growth;

$f_{15}, f_{25}, f_{35}, f_{45}$ – respond to the crisis phase of the certain SME system development cycle. Consequently, ensurance of sustainable development consists of the controlled development cycle termination and transition to a new development stage of the considered system;

$f_{41}, f_{42}, f_{43}, f_{44}$ – phase of decline, ageing and degradation of the system lifecycle. The following situations are possible: transition to a new SME system lifecycle; preparation of such transition; disregard of the pre-crisis manifestations and, as a consequence, true perspective of a system breakdown;

f_{14}, f_{24}, f_{34} – phase of decline of the current development cycle, which is usually followed by sustainability problems. It means that ensurance of sustainable development has to have two components: controlled sustainable termination of the SME

system development cycle and preparation of the next development cycle. Such an approach makes specific demands, occasionally controversial ones, on ensurance of the required sustainability;

f_{11}, f_{12}, f_{13} – phase of origin and establishment of the SME system inevitably correlates with pronounced development processes, somehow still transitionary ones, which means that ensuring sustainability is very relevant from the perspective of survival of a newly established SME system;

f_{21}, f_{31} – phase of formation of the next SME system development cycle. It is necessary to ensure sustainable implementation of the planned development cycle in all parameters of the selected development path;

f_{22}, f_{23}, f_{32}, f_{33} – identification of pre-crisis and crisis preconditions (for both cycles) and arrangement of conditions for their overcoming, including through transformation to a new cycle, are in the foreground when ensuring sustainability.

It is to be noted that crisis developments in the course of the SME system development cycle may arise at each phase because of an essential, previously unforeseeable change of external and/or internal conditions of entrepreneurial environment, as well as because of the mistakes discovered in planning and implementation of development processes. In such a case, transition to one of the pre-crisis or even crisis phases is probable.

Sustainability of SME system development is determined by the correspondence of development parameter values and development conditions at reference points in the interval of the allowed values. Besides, we position the mechanism of sustainable development of the SME system as an active-reactive one. That is why in its reactive part we have to consider reflex management, which is in the reaction on external influences and SME system changes, situational management, which is a set of type actions for each development phase, and preventive management, which is based on regular forecasting in relation to operations and development conditions of an entrepreneurial system.

We see the methodological foundation of SME system sustainability in the development and implementation of the relevant algorithm in the context of system approach. Algorithm ensuring SME system sustainability includes the following elements:

I. Identification and monitoring of implementation processes and adjustment of development pathway – SME system states and business environment influences at reference points, motion parameters, development of sustainability parallelepipeds.

II. Process diagnostics (monitoring of SME system development; diagnostics of sustainability of SME system development; diagnostics of crisis situations), which is concluded in the identification of the phase states of the SME system, analysis of conditions and development progress, development of recommendations on SME system sustainability.

III. Ensurance of SME system sustainability – development and implementation of the mechanism for sustainability ensurance, reactive and active measures ensuring sustainability.

The key stages of the SME sustainable development algorithm are presented in Table 2.

Table 2. **SME sustainable development algorithm,** *authors'*

Stage	Content
R	***Development pathway of the SME system***
1.1.	Identification of a development pathway for SME system
1.2	Identification of Y variables vector. Variables describe the development of SME system in the course of the current development cycle
1.3	Identification of disturbing influences on the SME system
1.4	Identification of resources and measures ensuring SME system sustainability
RR.1	***Monitoring of SME system development processes***
2.1	Monitoring of system conditions, achieved in the course of development
2.2	Monitoring of dynamic development characteristics
2.3	Monitoring of disturbing influences
2.4	Monitoring of sustainable development opportunities
2.5	Identification of the current phase state (f_{rj}) of the SME system at the present sampling time t_r
RR.2	***Diagnostics of sustainability of SME system development processes***
2.6	Determination of the current phase state (f_{rj}) position in the phase state matrix and its correlation with the previous phase state.
2.7	Diagnostics of the achieved condition and motion indicators of the SME system
2.8	Diagnostics of disturbance influences on the SME system and its capacity for resistance
2.9	Verification of fulfilment of all conditions of SME system sustainability and carrying out activities aimed at sustainable development
RR.3	***Diagnostics of crisis situations***
2.10	Identification of phase state alterations character
2.11	Identification of a crisis situation character – analysis and evaluation of the crisis situation characteristics with implementation of sustainability indicators of dynamic series $Y(t_r)$, $dY(t_r)/dt$, $Z(t_r)$ and $X(t_r)$
RRR	***Ensurance of SME sustainability***
3.1	Ensurance of SME system sustainability within the framework of the command variables $X(t_r)$ and transition to the stage 2.1 for the sampling time t_{r+1}
3.2	Termination of SME development processes, its transformation and transition to a new lifecycle and new development cycle
3.3	Discovery of causes for lifecycle troubles and their elimination, when possible
3.4	Transition to a new development cycle – stage 1.1

Identification of a development pathway for SME system depending on the phase state is the starting point in ensuring its sustainability – only stipulated and resourced system development may be considered as a sustainable one. That is why entrepreneurial system sustainability starts with and later rests upon competent planning and implementation of development programs.

Chronological and qualitative identification of phases and phase transitions of development cycle is completed at this stage. The control (reference) points of the development cycle are set, which is due to the solution of several tasks: development period assignment; identification of phase states and phase transitions; identification of a chronological sequence of stages in SME system sustainability monitoring. Pointwise SME development pathway is defined as the $Y(t)$ vector coordinates for all reference points (stage 1.2). They constitute grounds for the identification of existence or absence of sustainability.

Definition of the Π_{Y_r} parallelepipeds for all reference points means the determination of some development band (or, rather, n corridors for all Y vector coordinates), inside which every pathway is supposed, however, in compliance with specified dynamic characteristics. The parallelepipeds for X and Z variables are defined in the same manner.

Herein the transition parameters of system development are defined – direction of further motion of every reference point. In other words, the system velocity vector is determined throughout the development period.

Definition of the $\Pi^d_{Y_r}$ parallelepipeds for all reference points means the determination of some development band, or, rather, in vector terminology, a sector, inside which velocity variations on value and direction are allowed. Ensurance of SME system sustainability means the retention of a development pathway in the area, determined by the aggregate of the parallelepipeds pairs Π_{Y_r} and $\Pi^d_{Y_r}$ for all reference points.

Active (and reactive) character of SME system sustainability may be provided only in the case of correct and timely identification of sources of disturbing influences – external and internal ones. Stage 1.3 includes the following measures:

- studying the previous experience of system operation;
- studying the experience of analogues systems;
- investigation of external environment;
- discovery of "weak links" of the SME system;
- forecast analysis of processes and events, which may arise disturbing influences;
- determination of system behaviour parameters during phase transitions.

In the course of the current and the following stages the role of expert methods of analysis and evaluation is rather essential, since the investigated events are often unstructured and reluctant to formalization. As this takes place, there is usually a shortage of information (Ketko and Zarafutdinov, 2011).

Values of Z vector coordinates at the reference timepoints determine the pathway of disturbing influences of the SME system, against which certain actions ensuring entrepreneurial system sustainability have to be planned. Ensurance of SME system sustainability is carried out in the presumption of certain variations of disturbing influences Z. That is why, variation margins for every timepoint of the development cycle have to be defined during planning of a development cycle.

Resource provision for sustainable development has to be system-compatible with the SME development pathway and probable disturbing influences throughout its implementation. Otherwise, a development plan would be considered unreasonable. Definition of the X vector control parameters is a challenging task (stage 1.4). They have to meet the following requirements:

- cover all key aspects of operation and development of SME system;
- not to be excessive;
- have to be measurable and strictly interpretable;
- cause and effect relations have to be established: which of the X vector parameters are "responsible" for the neutralization of effects of various disturbing influences, as well as the enabling mechanisms of appropriate measures.

Definition of the Πx_r parallelepipeds has to meet the following requirements: to fit with the existing resources of the SME system; to be reconciled with the values of the Πz_r parallelepipeds; costs of sustainability have not to be excessive.

For every reference timepoint, the values of development parameters (stage 2.1) and its dynamic characteristics (stage 2.2) are defined. For the large-scale systems, sustainability violation is not an instantaneous event because of their inertia. That is why it is necessary to monitor the development trends and to identify the relative trend dependencies, which let define the projected values of development parameters for the next nearest timepoint.

Identifications of the parameters values at the reference points of the disturbing influences $Z(t_r)$ on the SME system (stage 2.3) and its reaction $X(t_r)$ on those influences (stage 2.4) are closely connected – reaction has to be equivalent to influences. In order to ensure it, dependencies of the relevant variables are formalized, becoming the basis for the forecast of disturbing influence values and system's reaction in the next nearest timepoint. Such an approach aims at getting the full picture of development conditions over a particular period – from the starting point of development until the present time.

Identification of the phase state f_{rj} at the moment t_r is concluded in the following four components (stage 2.5):

a) identification of the phase F_r of the SME system lifecycle;

b) identification of the phase Φ_j of the entrepreneurial system development cycle in accordance with development plan;

c) identification of the current state of the SME system development based on the analysis and assessment of actual ($Y(t_r)$, $dY(t_r)$/dt) and projected ($Y(t_{r+1})$, $dY(t_{r+1})/dt$) values of development parameters;

d) positioning of the phase state f_{rj} by utilizing the phase state matrix.

Phase state of the SME system, identified at the stage 2.5, is positioned in the phase state matrix (stage 2.6). It is discovered if it is issued from the previous phase state in accordance with the system development cycle and its lifecycle phase.

Accordance of the phase state of the SME system with cyclical behaviour does not necessarily mean the absence of threat to system development sustainability – it may still be latent and appear later on (Drogobytskiy, 2011). Herein the following variations are possible.

Phase state falls within the area of origin or establishment (respectively, lifecycle or system development: f_{11}, f_{12}, f_{13}; f_{21}, f_{31}). In the first part the processes of development cycle phase are aligned with the establishment of the system. Consequently, sustainability ensurance has to be of active character as one of the survival conditions of a newly established SME system. In our opinion, measures ensuring sustainability under pre-crisis and crisis conditions should be applied.

Crisis phase states f_{51}, f_{52}, f_{53}, f_{54}, f_{55} mean either breakdown of the SME system, or its transition to a new lifecycle and SME system development cycle in its current state, or establishment of a new SME system.

f_{41}, f_{42}, f_{43}, f_{44} – the phases of decline, ageing and degradation of a system lifecycle: transition to a new SME system lifecycle.

f_{14}, f_{24}, f_{34} – the phases of decline of the current development cycle – transition to stage 2.7. These phases are usually accompanied by sustainability problems. Consequently, sustainability ensurance has to have two components: controlled sustainable termination of the running cycle of SME system development (stage 2.7 and further) and preparation of the next development cycle (stage 1.1). Such an approach imposes specific requirements, occasionally conflicting ones, to ensure sustainability.

"Calm" phase states f_{22}, f_{23}, f_{32}, f_{33} suggest the following operations:

- routine measures ensuring sustainability of an entrepreneurial system;
- analysis of dynamical characteristics of development for the purpose of system sustainability in accordance with the projected developments.

In case the current phase state f_{rj} of the SME system does not respond to the cyclical behaviour because of the superposition of two cycles – life and development, it means that it is not issued from the previous phase state of the system. In our opinion, this has to be interpreted as a pre-crisis or crisis condition as a result of the development cycle or even system lifecycle disturbance. Anyhow, it is required to start diagnostics of such a situation, and consider it as a crisis one. It is especially applicable to lifecycle disorders, since it may lead to irrecoverable negative consequences.

Methods of diagnostics, applied within the algorithm framework (stage 2.7), are universal for all phases of SME system development. However, pre-crisis and crisis situations require investigations which are more detailed in order to elaborate the stipulated actions ensuring sustainable development of an entrepreneurial system (Levushkina, 2014). The following diagnostic operations are conducted:

- diagnostics of the achieved state $Y(t_r)$ at the timepoint t_r as a result of the SME system development and identification of appurtenance $Y(t_r) \in \Pi_{Y_r}$;
- diagnostics of the achieved motion parameter $dY(t_r)/dt$ at the timepoint t_r, identification of its appurtenance to the relevant parallelepiped;
- diagnostics of the projected state $Y(t_{r+1})$ at the timepoint t_{r+1}, identification of appurtenance $Y(t_{r+1}) \in \Pi_{Y_{r+1}}$;
- measurement of sustainability of time series levels $Y(t_k)$ for $t_k \in [t_0, t_r]$;
- measurement of sustainability of time series dynamics $Y(t_k)$ for $t_k \in [t_0, t_r]$;
- diagnostics of the projected motion parameter $dY(t_{r+1})/dt$ at the timepoint t_{r+1};
- identification of appurtenance $dY(t_{r+1})/dt$ of the defined area;
- measurement of sustainability of time series levels $dY(t_k)/dt$ for $t_k \in [t_0, t_r]$;
- measurement of sustainability of time series dynamic $dY(t_k)/dt$ for $t_k \in [t_0, t_r]$.

Diagnostics of the Z vector of disturbing influences on the SME system at the timepoints t_r and t_{r+1} is conducted at the stage 2.8 according to the actual values in the former case, and to the projected values in the latter one.

There is also conducted the assessment of sustainability of time series and their dynamic trends, determined by the Z vector at the reference points t_r. The results of such sustainability assessment are used for investigation of sustainable development in crisis situations (stage 2.11).

Procedures of the stage 2.8 have to be completed irrespectively of the results of the diagnostics held at the stage 2.7, since it may occur that the parameters of system

development are still in the acceptable frames, while the development conditions have already changed essentially. Untimely reaction to changes in development conditions may lead to crisis occurrences, which might have been eliminated at early stages.

Next step is the diagnostics of capabilities (X vector) to resist the disturbing influences (Z vector) at the timepoints tr and t_{r+1} respectively on actual and projected values (stage 2.9). This is the assessment of sustainability of time series and trends of their dynamic, determined by the X vector at the reference points t_r. The results of this assessment are also used for investigation of sustainability under crisis situations.

This stage includes diagnostics of state and motion of development processes of the SME system using forecasts. Herein one of the following actions is conducted:

- ensurance of sustainable development within standard environment;
- correction of resistance (X vector) to disturbing impulses (Z vector);
- transition to diagnostics of crisis situations.

Crisis of the SME system appears diversely for various phase conditions and phase transitions. Identification of phase state alteration character is the content of stage 2.10.

Identification of the SME crisis state types (stage 2.11) is carried out in accordance with their classification: disturbance of lifecycle flow; disturbance of development cycle flow; pre-crisis or crisis phase of lifecycle; pre-crisis of the crisis phase. The following kinds of crisis situations are considered:

- initiated by a management entity of the SME system in relation to transformation of conditions and/or goals of development;
- regular – as a cycle phase;
- forced – in relation to essential transformation of operating and development conditions.

Depending on a character of a crisis situation there is a transition to some or other measure ensuring sustainable development of the SME system.

Regardless of a character of a crisis situation there should be taken into consideration all results of sustainability measurements of all time series and sustainability of dynamic trends, obtained in the course of stages 2.7–2.8.

Ensuring sustainable development in a standard environment (stage 3.1) means that the disturbing influences $Z(t_r) \in \Pi z_r$ are eliminated by a comparable variation of command variables $X(t_r) \in \Pi x_r$.

SME system breakdown or its transformation to a new system with its own lifecycle are beyond the scope of our research. We consider such a situation only as a possible case scenario (stage 3.2). Although for an entrepreneurial system it undoubtedly means the full loss of sustainability.

Elimination of causes of SME system lifecycle troubles (stage 3.3) is possible only in the case of existing internal conflicts of nonessential nature. Particularly, this may happen when system structure does not serve its functions. It is necessary to bring the structure in line with functions and goals of an entrepreneurial system and make the required alterations to goals and development direction.

Elimination of causes of lifecycle troubles is usually not as crucial as the crisis events themselves, which are linked with the system lifecycle flow. It is to be under-

stood, that at radical changes of the SME system's conditions and goals, the development cycle may be either essentially transformed on its parameters and schedule, or terminated at any phase with transition to a new development cycle.

Conclusion. Proceeding from the above presented theoretical developments, we assume the importance of a timely identification of available and effective ways of transition of small and medium-sized business to a relatively sustainable way of development, which may consist of several development cycles. In our opinion, it is possible on the basis of research of major characteristics of entrepreneurial activity in relation to its pre-crisis, crisis and post-crisis phases.

The proposed algorithm might have its application in various SME systems, which are conditioned by both the scope of performed tasks and their specifics – industrial, territorial, resource etc. Nevertheless, in our opinion, it is possible to use the common approaches to development and implementation of such algorithms, which form the methodological basis for the mechanism ensuring SME system sustainability.

We would like to note, that among the important characteristics of the proposed algorithm of SME system sustainability are its openness, modularity and flexibility. It may be and should be adapted to particular chronotopical and resource conditions of every small and medium entrepreneurial system. Algorithm success in many respects depends on the applied information and analytical tools, as well as on individual and professional features of entrepreneurs.

References:

Алимова Т.А., Образцова О.И., Чепуренко А.Ю. Предпринимательская активность россиян в условиях кризиса // Мир перемен.– 2010.– №3. – С. 147–162.

Андреева И.Г. Методические основы осуществления анализа обеспечения экономической устойчивости субъектов малого предпринимательства // Экономика АПК: опыт и проблемы: Сборник науч. статей БелГСХ. – Белгород, 2006. – С. 5–12.

Броило Е.В. Управление экономической устойчивостью организаций сферы предпринимательства в условиях кризиса. – М.: Таглимат, 2006. – 318 с.

Дрогобыцкий И.Н. Системный анализ в экономике. – М.: ЮНИТИ-ДАНА, 2011. – 423 с.

Дудин М.Н., Лясников Н.В. Обеспечение стратегической устойчивости предпринимательских структур в условиях экономического кризиса // Путеводитель предпринимателя.– 2009.– №4–5. – С. 74–85.

Епифанова Т.В. Обеспечение устойчивости развития предпринимательских структур малого и среднего бизнеса // Учет и статистика.– 2013.– №2. – С. 129–135.

Ерохина Е.А. Развитие малого предпринимательства в кризисных условиях // Экономические науки.– 2010.– №73. – С. 226–234.

Кетько Н.В., Зарафутдинов Р.Р. Особенности развития малого и среднего предпринимательства в отдельных фазах экономического цикла // Российское предпринимательство.– 2011.– №9. – С. 94–101.

Коноплянник Т.М. Управление устойчивостью хозяйственных систем: теория и методология: Дис... докт. экон. наук. – Санкт-Петербург, 2007. – 279 с.

Кутарева Л.Г. Методы обеспечения устойчивости развития малых предпринимательских структур в условиях экономического кризиса: Автореф. дис... к.э.н. – СПб., 2009. – 19 с.

Лёвушкина С.В. Обобщенный алгоритм обеспечения устойчивости развитиясистемы малого и среднего предпринимательства // Вестник Санкт-Петербургского государственного экономического университета.– Серия: Экономика.– 2014.– №7. – С. 26–33.

Лобахина Н.А. Управление устойчивостью развития малых и средних предпринимательских структур: Автореф. дис... канд. экон. наук. – Ростов-на-Дону, 2011. – 28 с.

Морковина С.С. Управление устойчивым развитием малого предпринимательства в ЦЧР. – Воронеж: Новый взгляд, 2008. – 146 с.

Мясоедов С.А. Формирование механизма и инструментов обеспечения устойчивого развития золотодобывающей отрасли промышленности: Дис... докт. экон. наук. – М., 2010. – 187 с.

Новиков Д.А. Методология управления. – М.: Либроком, 2011. – 128 с.

Преснякова Д.В. Обеспечение устойчивости функционирования предпринимательских структур в условиях экономической нестабильности: Автореф. дис... канд. экон. наук. – Тамбов, 2012. – 17 с.

Репкина О.Б. Предпринимательская активность в условиях кризиса // Путеводитель предпринимателя.– 2010.– Вып. VIII. – С. 121–126.

Саакова Л.В. Эффективность устойчивого развития предпринимательской деятельности корпораций в условиях экономики знаний (теория и методология): Автореф. дис... докт. экон. наук. – СПб., 2012. – 41 с.

Сафин Ф.М., Егорушкин П.А. Устойчивость предпринимательских структур: системный подход // Путеводитель предпринимателя.– 2011.– №11. – С. 225–232.

Яруллина Г.Р. Управление устойчивым экономическим развитием предприятий промышленного комплекса: теория и методология: Дис... докт. экон. наук. – Казань, 2011. – 302 с.

Brown, L.R. (1981). Building a Sustainable Society. New York; London: Norton.

Desai, S., Acs, Z.J. (2007). A Theory of destructive entrepreneurship. Jena economic research paper, 85.

Godichaud, M.P. (2012). Sustainable management of end-life systems. Production Planning and Control, 23(2–3): 216–236.

Holtz-Eakin, D., Rosen, H.S. (2001). Economic Policy and the Start – up, Survival, and Growth of Entrepreneurial Ventures. Washington D.C.: United States Government Printing Ofisse, SBA.

Pearce, D. (2000). Blueprint for a Sustainable Economy. London: Earthscan.

Schumacher, E.F. (1973). Small Is Beautiful: A Study of Economics As If People Mattered. Vintage Books.

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