### Anna V. Shokhnekh 1

HONEKIN

:LOVEROF

### Article info: Received 11.02.2019 Accepted 14.06.2019

 $\begin{array}{c} UDC- \textcolor{red}{\textbf{xxxxxxxxxx}}\\ DOI-10.24874/IJQR13.03-10 \end{array}$ 

# THE MAIN NOTIONS, PRINCIPLES, AND PROCEDURES OF STRATEGIC QUALITY MANAGEMENT OF SMALL BUSINESS IN THE SYSTEM OF DIGITAL ECONOMY IN VIEW OF RISKS OF DRIFT: A COGNITIVE APPROACH

**Abstract:** The articles studies the main notions, principles, and procedures of strategic quality management of small business in the system of digital economy in view of risks of drift from the position of the cognitive approach; directions of strategic quality management of small business are given, which allow creating a mechanism of timely classification of risks, for the purpose of forming the algorithm of leveling the strategic drift; the developed procedures of strategic quality management of small business for adaptation in the system of making of managerial decisions are presented. Negative barriers of development of small business in digital economy, which form in the conditions of weak information capacity that hinders identification of substantial changes in external environment are determined. Rejection of very important information that goes along the routes of information and digital communications due to organizational, political, and cultural motives put small business into strategic drift, causing bankruptcy.

**Keywords:** Strategic quality management, Small business, Digital economy, Rrisks of drift.

#### 1. Introduction

Small business has the key role in supporting successful functioning, growth, and development of modern economic systems, as it ensures self-employment and creation of a large number of jobs and manifests high innovational activity. These advantages are achieved due to the specifics of small business, connected to its high flexibility, enabled by the minimum set of assets. At the same time, specifics of small business cause its instability and increased susceptibility to a drift.

In the process of a drift, small business cannot perform its duties completely. The simplest and the most accessible solution to the problem of drift of small business is reduction of quality of manufactured products and/or provided services. This solution allows for quick restoration of liquidity and paying capacity of small business due to growth of profit (reduction of cost with the stable volume of sales). positive effects of quality However, reduction are achieved only in the short-term and are false, as they start the algorithm of repeated drift and increase the risk of bankruptcy.

Corresponding author: Anna V. Shokhnekh Email: shokhnekh@yandex.ru



In the long-term, consumers realize the reduction of quality of products and/or services and shift to other suppliers. As small business usually functions in a highly-competitive environment, it cannot have large influence on the prices — which are same with all suppliers. Therefore, quality is the key tool and factor of competitiveness of small business. Reduction of the value of reputation capital (establishment of the reputation of unreliable supplier) leads to reduction of competitiveness of small business and decrease of quality and sales volume.

As a result, internal financial problems of drifting small business are supplemented by external market (marketing) problems, which leads to a long drift. It could be overcome under the condition of restoration or increase of quality of products and/or services over the initial level, accompanied by active marketing support which is aimed at restoring the reputation of small business in the market as a reliable supplier of products and/or services. In the most critical cases there might be a need for re-branding of small business, aiming at formation of the idea on small business as a new market player and allowing resetting its past market failures to zero.

Implementation of the described measures requires attraction of large financial resources, which are not accessible for drifting small business. If it is impossible to attract them, the most probable result is bankruptcy of small business. Thus, strategic quality management is the most important direction of management of the modern small business. Due to change of the economic conditions in the process of formation of digital economy, there appear a scientific problem of reconsideration of the existing theory and practice of strategic quality management of small business in the system of digital economy in view of a new market environment of this management and its new opportunities, which are available on the basis of digital technologies.

The working hypothesis of the research is that in the conditions of digital economy the risks of drift of small business grow – so there's a necessity for new principles and procedures of strategic quality management. The purpose of the article is to determine significant notions, substantiate new principles, and adapt the existing and develop new procedures of strategic quality management of small business in the system of digital economy in view of the risks of a drift on the basis of the cognitive approach.

"TOASKI"

### 2. Literature overview

The conceptual foundations of strategic quality management of small business in view of the risks of a drift are set in multiple fundamental works. The influence of a competitive environment (market situation) the possibilities and top-priority directions of strategic quality management in small business is noted in the work (Zhao et al. (2018). Murphy & Leonard (2016) states that strategic quality management is the key factor of effectiveness and competitiveness of the modern small business. Kholopane (2016)shows that strategic quality management determines sustainability of small business (by the example of South Africa).

In its turn, Sahni (2017) emphasizes the critical necessity for strategic quality management for long-term functioning and supporting break-even level of small business, providing the examples of Saudi Arabia. The necessity for fullest usage of accessible marketing tools in the process of strategic quality management of small business is noted in Danko et al. (2018); this ides is proved (by the example of eco management of a tourist company) in the work Buffa et al. (2018).

The expedience of testing of various technologies of strategic management of quality by small business in the interests of selection of the optimal set of technologies by the example of restaurant business in



Thailand is shown in Rachapaettayakom et al. (2018). The specifics of strategic quality management in micro-business, small business, and medium business are shown in Goyal et al. (2018). The importance of well-balanced strategic management of quality in small business in the aspect of technical characteristics, which create value for consumers, ecological effectiveness, and security, are shown in Barbosa et al. (2018).

:Ironehri

Increased complexity of strategic management of quality of globally-oriented (conducting active export activities) small business (by the example of Morocco) is noted in Hakmaoui & Loukili (2017). Various issues of strategic management of quality of small business are studied in previous publications of the authors of this paper: Melnikova et al. (2017), Shokhnekh et al. (2017a), Shokhnekh et al. (2016).

The transformation processes that take place in small business due to formation of digital economy and new practical experiences of functioning of small business in the system of new digital economy (by the example of developed countries) are studied in a whole range of works. Specifics of digital economy and Industry 4.0 as a new technological mode are noted in the works Bogoviz (2019), Popkova (2019), Popkova & Sergi (2019), Popkova et al. (2019), and Sukhodolov et al. (2018).

New perspectives of strategic management of quality of products of entrepreneurship and its influence on quality of population's life in the conditions of digital economy are noted in Bravi et al. (2018). The advantages of organization of online commerce for selling products via the Internet and the following increase of the volumes of sales, profits, and profitability – as a new method of strategic management of quality in small business – are shown by the example of ceramic industry Iraq in the work Alawi et al. (2018). A similar study is performed by Beachboard (2017) and Pannu et al. (2019).

· ALIARDE

The necessity for using the intellectual systems of management for strategic management of quality in small and medium business is reflected in Utepbergenov et al. (2018). The priority of strategic management quality for supporting sustainable development of small business by the example of innovative small business of Brazil is shown in Almeida & Terra (2019). The increased complexity and additional opportunities in the sphere of strategic management of quality of small business, which appear in the conditions of digital economy, are studied in previous publications of the authors of this paper: (Naumova et al. (2017) and Shokhnekh et al. (2017b).

The performed literature overview on the topic of the research showed that despite the high level of elaboration of certain aspects of the formulated problem, it is still poorly studied. In particular, the issues of strategic quality management of small business in the system of digital economy in view of the risks of a drift are not studied sufficiently and require further research. Novelty, originality, and research significance of the research consists in the fact that the issues of strategic management of quality of small business are studied not separately but in the system of digital economy with a view on the risks of the drift.

### 3. Materials and methods

Regression analysis is used for verification of the offered hypothesis. It is used for determining the dependence of various indicators of small business on the level of digitization of the market environment. The indicators of small business (dependent variables) are as follows:

- number of created new companies of small business as the indicator of business activity of small business (y1);
- share of small business that experiences drift (y2);



 share of bankrupt small business as the indicator of unsuccessful quality management in view of the risks of drift (y<sub>3</sub>).

These indicators are calculated and presented in statistical reports on small business of the OECD. The independent variable (x) is the digital competitiveness index of economy, calculated and provided by the report "Digital competitiveness rankings" by IMD. The research is conducted on the basis of data as of late 2018 – early 2019. The research objects are the countries for which there's necessary information on the studied indicators and which have the highest number of created new companies of small business according to the OECD. The initial statistical data are given in Table 1.

**Table 1.** Indicators of small business and digital competitiveness of the selected countries' economies as of early 2019

economies as of e	ariy 2019				
Country	Number of created new companies of small business, % as compared to 2012	Share of small business that experiences drift, %	Share of bankrupt small business, %	Index of digital competitiveness, points 1-100	
	<b>y</b> 1	y2	<b>y</b> 3	X	
Australia	135.69	5.70	2.59	90.227	
Austria	112.14	5.92	2.55	86.770	
Belgium	120.33	6.26	2.36	82.165	
Canada	104.62	5.40	2.73	95.201	
Germany	100.12	7.12	2.45	85.405	
Denmark	116.82	5.31	2.78	96.764	
Spain	108.39	6.92	2.13	74.272	
Finland	96.68	5.40	2.84	95.248	
France	124.05	6.37	2.32	80.753	
United Kingdom	129.85	5.51	2.68	93.239	
Hungary	122.17	9.00	1.64	57.099	
Israel	89.45	5.53	2.67	92.922	
Italy	128.85	7.91	1.86	64.958	
Japan	127.83	6.26	2.36	82.170	
Netherlands	128.54	5.47	2.69	93.886	
Norway	86.09	5.37	2.75	95.724	
New Zealand	132.11	6.08	2.43	84.534	
Portugal	133.16	7.05	2.37	73.441	
Russian Federation	91.36	7.88	1.87	65.207	
Sweden	118.55	5.27	2.80	97.453	
Turkey	104.86	9.12	1.62	56.381	
United States	112.84	5.14	2.87	100.000	

Source: compiled by the authors based on OECD (2019a), OECD (2019b), OECD (2019c), IMD (2019).

### 4. Results

4.1. Regression analysis of dependence of various indicators of small business on the level of digitization of the market environment.

Results of the regression analysis are given in Tables 2, 3, and 4.

Table 2 shows that there's reverse dependence of the studied indicators. The higher the level of digital competitiveness, the lower the number of created new companies of small business. However, precise dependence is not determined, as the results of regression analysis are not statistically significant (significance F=0.6803 – exceeds 0.05, and determination



coefficient R<sup>2</sup>=0.0087, i.e., the change of dependent variable by 0.87% is explained by the change of independent variable). Therefore, the number of created new

companies of small business does not depend on the index digital competitiveness.

Table 2. Regression analysis of dependence of the number of created new companies of small

business on the digital competitiveness index

Regression stati	stics		ICA.			
Multiple R	0.0931					
R-square	0.0087					
Normed R-	-0.0409					
square						
Standard error	15.5188					
Observations	22					
Dispersion analy	ysis					
	df	SS	MS	F	Significance F	
Regression	1	42.0974	42.0974	0.1748	0.6803	
Leftover	20	4816.6404	240.8320			
Total	21	4858.7378				
	Coefficients	Standard error	t-statistics	R-Value	Lower 95%	Upper 95%
Y-crossing	123.6590	21.5640	5.7345	1.30269E-	78.6773	168.6407
/.				05		
X	-0.1063	0.2542	-0.4181	0.6803	-0.6367	0.4241

Y-crossing	123.6590	21.5640	5.7345	1.30269E-	78.6773	168.6407	
/.				05			-
X	-0.1063	0.2542	-0.4181	0.6803	-0.6367	0.4241	$\sim$
Source: calculate	d and compiled by	the authors.		/			R
			a X				X
Table 3. Regr	ession analysis	s of depender	ice of the sh	are of small h	ousiness, which	experiences	0
	gital competiti				,	. 0	
Regression stati		1	V				
Multiple R	0.9746						
R-square	0.9498						
Normed R-	0.9473						
square	0.9473						
Standard error	0.2754						
Observations	22						
Dispersion anal	ysis						
	Df	SS	MS	F	Significance F		
Regression	1	28.6753	28.6753	378.1563	1.84466E-14		
Leftover	20	1.5166	0.0758				
Total	21	30.1919					
	Coefficients	Standard error	t-statistics	R-Value	Lower 95%	Upper 95%	
Y-crossing	13.7161	0.3826	35.8459	1.26908E- 19	12.9179	14.5142	
х	-0.0877	0.0045	-19.4462	1.84466E- 14	-0.0971	-0.0783	

Source: calculated and compiled by the authors.

Table 3 shows reverse dependence of the studied indicators. Growth of the value of the digital competitiveness index by 1 point leads to decrease of the share of small



business that experiences drift by 0.0877%. Significance F=1.84466E-14 (below 0.05). That's why regression dependence is statistically significant at the level  $\alpha$ =0.05. Determination coefficient R<sup>2</sup>=0.9498, i.e., the change of the dependent variable by

94.98% is explained by the change of the independent variable). Therefore, the share of small business that experiences drift largely depends on the digital competitiveness index and decreases in the course of digitization of the economy.

HONEKLY

**Table 4.** Regression analysis of dependence of the share of bankrupt small business on the digital competitiveness index

digital competiti		1		1	T	
Regression statistics						
Multiple R	0.9877					
R-square	0.9756					
Normed R-	0.9744					
square	0.9744					
Standard error	0.0612					
Observations	22					
Dispersion analys	is					
	Df	SS	MS	F	Significance F	
Regression	1	2.9931	2.9931	799.8444	1.33001E-17	
Leftover	20	0.0748	0.0037			
Total	21	3.0679				
	C = -(C; -;4=	Standard	t-	D Wales	I 050/	Upper
4	Coefficients	error	statistics 🗸	R-Value	Lower 95%	95%
Y-crossing	0.0493	0.0850	0.5799	0.5685	-0.1280	0.2266
8	0.0283	0.0010	28.2815	1.33001E- 17	0.0263	0.0304

Source: calculated and compiled by the authors.

Table 4 shows direct dependence of the studied indicators. Growth of the digital competitiveness index by 1 point leads to reduction of the share of bankrupt small 0.0480%. business by Significance F=1.33001E-17 (below 0.05). That's why regression dependence is statistically level significant at the  $\alpha = 0.05$ . Determination coefficient R<sup>2</sup>=0.9756, i.e., the change of the dependent variable by 97.56% is explained by the change of the independent variable). Therefore, the share of bankrupt small business largely depends on the digital competitiveness index and grows in the course of digitization of economy.

The results of regression analysis confirmed the offered hypothesis that digital economy changes the situation in sectorial markets and thus influences (statistically significant influence) the risks of drift of small business. On the one hand, the risks of drift reduce with increase of digital competitiveness of economy. On the other hand, foundation on the traditional (pre-digital) technologies reduces the efficiency of quality management in small business in the system of digital economy in view of the risks of drift, which increases the probability of bankruptcy. That's why it is necessary to modernize the modern practice of strategic quality management in small business in view of the risks of drift and adapt it to the conditions of the modern economy.

## 4.2. Conceptual foundations of strategic quality management in small business in view of the risks of drift

The main notions, principles, and procedures of strategic quality management of small business in the system of digital economy in



view of risks of drift are developed and adapted for the system of making of managerial decisions.

:Ironehri

, and POF

Strategic quality management of small business is determined by the socio-economic role in economic activities of country for:

- 1) formation of middle class of the state, which accumulates national wealth:
- 2) development and adaptation of the policy of support and development of small business on the basis of elimination of barriers and leveling of risks in top-priority directions of the activities.

In developed countries, the high socioeconomic indicators that determine high share of small business level the negative factors of strategic development of this entrepreneurship to the minimum level, due to the programs of state support. However, in Russia the negative factors of development of small business create barriers that form conditions for emergence of the risks of strategic drift, which causes further stagnation in economy.

Strategic management of small business envisages making of decisions of the planned and radical character. However, the purpose of the strategy is decisions that change each other and that come from one another under the influence of external environment and the history of existence of subjects of small business. Such algorithm of making of managerial decisions allows avoiding a "Strategic drift" that which leads termination of development. conditions of strategic drift are manifested from the start of the age of turbulent state of chaos in economy, which is replaced by order – but not for long. Very long turbulent states of economy were observed in late 20th century, as well as in early 21st century. A mistake is that managing forces make decisions based not on "logical conclusion" but turbulent environment. In their turn, turbulent conditions influence small business and define the entrance to strategic drift. Negative factors of strategic quality

management of small business cause the conditions of formation of risks of drift as a probability of bankruptcy. Manifestation of shades of unbalance in the strategy of movement of the organic system of small business leads to unbalance with external environment of digital economy. Gradual movement to insolvency of small business as a possibility of failure could take a while. Negative manifestations that are not visible for the management could lead to quick decline of the indicators of facts of economic life of small business. The turbulence effect for a specific subject of small business will be destructive - even at the stage of understanding and readiness to requirements digital economy. Any efforts of reconstruction will not achieve a socioeconomic result.

For achieving the goal of strategic quality management of small business, the following tasks should be set:

- 1) building an optimal model of market behavior of the subject ofsmall entrepreneurship, on the basis of analysis of external environment, where turbulence is viewed as a feature of macro-economic dynamics, i.e., intensive change of external environment (in modern economy, all subjects of small business are susceptible to turbulence, which shows decline of socioeconomic activity and self-implementation of Russia's population, at the same time influencing the dynamics of medium and large business. Building the mechanism of leveling the risks of strategic drift of small business led to a lot of approaches to studying the process of preventing the strategic drift);
  - 2) activating the research of negative factors of strategic quality management of small business for leveling the risks of drift in the conditions of turbulence;
  - 3) applying the tools of provision of security on the basis of procedures (processes) of minimization of the value of risk to the optimal level.

Strategic quality management of small

JEP DK



business — like other forms of entrepreneurship — should be conducted on the basis of the principles of planning, foresight development (predicting the future), accounting (financial, tax, strategic, and statistical), controlling, business analysis, and evaluation.

The principle of cognitive modeling allows defining small business as a comprehensive organic system that implements the facts of economic life on the basis of managerial and personnel structures.

The principle of keeping and search for niches of the market on the basis of opposing new rivals who possess secrets of online business, digital technologies, and innovational methods.

Optimal observation of these principles leads to development and prevention of strategic drift. The obtained information in the existing scheme of "principles and laws of successful small business" passes along the assimilative attribute in the cognitive process of studying, avoiding the process of balancing. Balancing of obtained knowledge on digitization, digital business technologies, online business, and innovational methods allows finishing such stages as knowing, possessing, and using.

## 4.3. Specifics of quality management in small business in view of the risks of drift in the conditions of digital economy

Forming the main notions, principles, and procedures of strategic quality management of small business in view of the risks of drift, it is very important to take into account the conditions of digital economy, which allows opening the potential and activating the reserves of growth of entrepreneurs of small business. Digital economy is the economy in which application of online tools of payment systems of payment and declaring in personal use and commerce is of toppriority. Digital economy, intellectualization, and computerization have positive aspects and certain negative results.

Online tools of digital economy will transform and expand the sphere of application of society's activities. Of course, there could be no other alternative in this issue: usage of modern technologies and usage of communicative technologies are a factor of commercial success of any economic subject within which factual border between countries are erased; it is a progressive mechanism that can optimize the "escort" of all significant financial and economic operations.

HONEKLY

Positive influences of digital economy: 1) application of IT technologies stimulates the reduction of tension and load of execution of public labor and changes its nature, wherein human's role is constant control; 2) transformation of communication means in society's activities (communication with any place in the world); conduct of online payments and usage of various electronic guides (e.g., Yandex maps), which allows optimizing the processes of search and movement in space; 3) erasure of territorial borders, which allows making the world global.

Negative consequences are manifested in the following: 1) unsanctioned access to the accumulated information resource of social networks' users – i.e., digitizing of personal data and insufficient level of their protection; 2) high risk of anthropogenic catastrophes: a lot of managerial functions at hazardous objects are conducted by AI; 3) processes of digital manipulations of mass conscience and public opinion; 4) erasure of information borders between countries as a positive trend may lead to disappearance of cultural and national identities.

Determination of directions of strategic quality management of small business will allow creating a mechanism for timely classification of risks, for forming an algorithm of leveling the strategic drift of small business, which envisages determining the following:

1) strategic risk (risk of strategic drift) (comes in the period of strategic



of management of internal routes information of digital communications for coordination of strategic partners in the conditions of leveling the negative factors (barriers) and in the process of fighting negative phenomena, namely: leveling the opposition to development of small business; increase of profitability; growth of socioeconomic achievement of the goal); strategic management as the key basis of small business envisages the shift of focus to the of modern structure socio-economic achievements, where drift ("stagnation", "backward movement") is predetermined by uncertainty of the political environment and international complexity of relations between the organizational and economic systems. At that, refusing the "loyalty of approaches to managing small business" causes a complexity of overcoming the stagnation, allowing for the environment of drift of strategic quality management of small business;

:Ironehri

- 2) entrepreneurial risk (threat to business, relating to a specific type of social behavior in the system of market uncertainty (turbulence), which determines the possibility of loss of economic resources and lack of strategic profits and incomes that were predicted before the risk facts of the economic life);
- 3) financial risk (threat to business activity of small business determines negative factors that lead to possible financial losses and, therefore, strategic drift);
- 4) personnel risk (possibility of appearance of negative situation, which causes absence of necessary personnel for implementing the strategy and development; small business could be managed by incompetent manager; influence of owner on business processes in small forms of entrepreneurship is high, which influences the development of the modern digital educational environment both positively and negatively; the necessity for growth of current, practice-oriented, and qualitative education by means of usage of innovational technologies, scientific

, and POF

potential of universities, and online platform of state entities and business structures);

- 5) resource risk (possibility of deficit of economic resources that are necessary for strategic quality management of small business. In this situation, it is quite possible to enter strategic drift without predicting the variants of finding the necessary strategic resource, which will lead to growth of expenditures and, therefore, to reduction of economic security. In the process of fighting the resource risk, it is important to use the methods of foresight development and forecast of sources of supply of necessary economic resources);
- 6) tax risk (possibility of the following threats: negative changes in tax law due to certain reasons; negative decision on tax credit; probability of canceling the existing tax subsidies for small entrepreneurship; growth of worries of entrepreneurs in small business regarding possible violation of law; negative tax sanctions regarding small business; distorted interpretation of tax law from tax bodies, entrepreneurs, and business partners; undeliberate distortions of facts of the economic life in tax accounting and reports. Tax risks, as negative financial consequences, influence the results of activities of small business, determining the conditions for strategic drift. They could be leveled only with tax consulting, which allows for correct usage of "tax rules of the game" as a factor of balancing between optimization of taxes and risks);
- 7) risk in contractual policy (it may arise at the stage of wrong choice of agreement, adoption of the terms of partners on the deal, terms of economic agreements for achieving the desired scenarios of development and tax consequences of the economic subject. Contractual policy of the economic subject influences the level of tax and credit risks, level of financial and investment risks, and level of personnel risk. In the conditions of tax control, foundations for applying the system of taxation by a specific small business are assessed not only through

**EROK** 



studying the activities of its rivals but of other parties that are indirectly connected to small business — suppliers of goods (performers of works and providers of services) in the whole succession of deals);

- 8) credit risk (as a threat of borrowers' (buyers' and other intermediaries') non-executing the responsibilities for paying the debt before small business, which causes limitation of inflow of money flows and increases the possibility of failure of paying the credit. Within management of small business, it is important to plan, take into account, control, analyze, and evaluate credit policy from the position of legality of application of interest rates, in interconnection to business policy with customers, consumers, and employees);
- 9) investment risk (threat of depreciation of capital investments into production, share of participation in other companies, in securities, and usage of investments not according to the target project);
- 10) risk of management (threat to strategic development is manifested in untimely situational actions of the managerial staff or owners of small business due to reasons of subjectivity and incompetence);
  - 11) accounting risk (risk of accountant or compilation of incorrect reports) could be leveled on the basis of planning, forecasting, foresight development, accounting (financial, tax, managerial, and strategic), tax analysis, control, assessment procedures of interrelations between external and internal conditions of environment, and ratios of deliberate and undeliberate actions of employees;
  - 12) market risks (threat of emergence of turbulence in the market in the process of formation of consumers' demands and offers (chaotic leaps of prices) lead to reduction of profit of small business due to reduction of market prices and are determines by the level of awareness of prices and time of reaction to incoming information. Success of small business in this case is predetermines by flexibility and maneuverability as

compared to the market, its individual skill, and experience of preventing entering the strategic drift)

HONEKLY

Risks of small business are manifested when owner, manager, or employee combine several positions (manager, chief accountant, cashier, logistics specialist, storeman, etc.). Absence of division of authorities leads to the risks of management. In Russia, small business does not use partnership that is built on contracting of social and HR interaction, raising the level of appearance of personnel risks.

The procedures of strategic management of small business are developed and adapted for the system of making of managerial decisions. The main procedures of strategic development are as follows: 1) creation and controlling of a flexible environment of management, in which it is necessary to have information online for effective strategic decisions: establishment of communication routes that are aimed at determining the threats and opportunities perspective of strategic development: 3) formation of skills and intuition for identification of information as to the level of importance; 4) formation of the mechanism of forecasting of complex target sets of strategies of development; 5) organization of controlling according to the levels of implementing the strategy; 6) formation of the mechanism of determining the risks of strategic drift in development of business; 7) constructing methodology of developing the reactive corrections for leveling the drift risks in the strategy of development of small business; 8) algorithmization of the system of feedback between analysis and evaluation of information as a result of performed procedures of strategic development; 9) analysis of the possibility of applying outsource in the system of management for determining the cognitive approach: evaluation of the old scheme of activities of small business: 10) formation of indicators in the system of assimilation of the scheme of small business; 11) increase of routes for



information routes for further balancing the cognitive scheme in the organic system of small business.

### 5. Conclusion

"Tonekn

The authors think that the essential components of the organizational paradigm of management could be changed only with the method of evolutional changes. The attempts to build a mechanism that coordinates the necessary changes in the existing paradigm will be treated by the organic structure of small business as a cultural and political threat in business activities. Coordination in development and possibilities of changing the paradigm is a large success. However, the mechanism of coordination of implementing the changes of the existing paradigm is not developed and not considered by the followers of the analytical support in management. Such modern tendency in strategic management does not allow important information to enter the phase of entering and is not assessed as a valuable information and analytical resource. Weak information capacity in small business does not identify large changes in external environment. Rejection of very important information due to organizational, political, and cultural motives put business into strategic drift, thus raising the risk of bankruptcy. It is rather strange that changes in external environment of the economic system are treated as those contradicting the existing paradigm. Therefore, cognitive modeling of the optimal

paradigm for strategic quality management of small business is possible with the help of political and cultural measures, allowing for protective mechanisms for identification and level of risks of strategic drift.

main directions of the applied procedures of strategic quality management of small business: 1) determining the key factors that restrain or stimulate strategic development; 2) determining the between the factors of strategic development; 3) decision making on starting the corresponding procedures of strategic development. Indicators-signals that are to enter the system of strategic management of small business from the position of cognitive approach are filtered, decoded, and acquire a sense in the terms of the existing paradigm of small business. Therefore, the paradigm has to be flexible, allowing interpreting the formula of actions for further transformation. Strategies that form in the system that is not flexible to the changes of the existing paradigm of small business lead to the conditions of start of strategic drift and, as a result, to insolvency (bankruptcy).

**Acknowledgments:** The article was funded by the *Russian* Foundation for Basic Research "Cognitive approach to theoretical and methodological foundations of strategic development of small businesses in the digital economy system taking drift risks into account" No. 18-010-01210 – A.

#### **References:**

, alapok

Alawi, M., Rashid, N., Al-Shami, S.A. & Al-Lamy, H.A. (2018). The determinants of E-commerce quality on small business performance in Iraq case study from ceramic industry. *Journal of Advanced Research in Dynamical and Control Systems*, 10(2 Special Issue), 1348-1360.

Almeida, M. & Terra, B. (2019). Technological strategies and sustainable management for small businesses in the Brazilian innovation context. *International Journal of Innovation and Sustainable Development*, 13(1), 20-35.



Barbosa, L.C.F.M., de Oliveira, O.J. & Santos, G. (2018). Proposition for the alignment of the integrated management system (quality, environmental and safety) with the business strategy. *International Journal for Quality Research*, 12(4), 925-940.

HONEKLY

Je POK

- Beachboard, M.R. (2017). Small business conformity with quality website design criteria in a marketing communication context. *Informing Science*, 20, 195-214.
- Bogoviz, A.V. (2019). Industry 4.0 as a new vector of growth and development of knowledge economy. *Studies in Systems, Decision and Control*, 169, 85-91.
- Bravi, L., Murmura, F. & Santos, G. (2018). Manufacturing labs: Where new digital technologies help improve life quality. *International Journal for Quality Research*, 12(4), 957-974.
- Buffa, F., Franch, M. & Rizio, D. (2018). Environmental management practices for sustainable business models in small and medium sized hotel enterprises. *Journal of Cleaner Production*, 194, 656-664.
- Danko, T.P., Kalinina, I.A., Maslennikov, V.V., (...), Sekerin, V.D. & Gorokhova, A.E. (2018). Foresight in management as a tool for the design transformation of marketing management of the potentials of small and medium-sized businesses. *International Journal of Civil Engineering and Technology*, 9(13), 1105-1113.
- Goyal, S., Sergi, B.S. & Esposito, M. (2018). Business development services for micro, small and medium enterprises literature review of past trends and future directions. *World Review of Entrepreneurship, Management and Sustainable Development*, 14(3), 312-332.
- Hakmaoui, I. & Loukili, A. (2017). Global performance management: Case of small and medium-sized businesses in Morocco. *International Journal for Quality Research*, 11(4), 835-848.
- IMD (2019). Digital competitiveness rankings, available at: https://www.imd.org/research-knowledge/articles/the-imd-world-digital-competitiveness-ranking/ (accessed: 06.03.2019).
- Kholopane, P. (2016). The impact of total quality management system on sustainability of small and medium businesses in South Africa. *IAMOT 2016 25th International Association for Management of Technology Conference, Proceedings: Technology Future Thinking*, 1934-1942.
- Melnikova, Y.V., Shokhnekh, A.V., Telyatnikova, V.S., Naumova, E.Y. & Glinskaya, O.S. (2017). Managing the transformations of economic security of educational systems in the conditions of leveling of risks of foresight development. *Audit and financial analysis*, *3-4*, 665-667.
- Murphy, W.H. & Leonard, D. (2016). Quality management (QM) leads to healthier small businesses. Journal of Small Business and Enterprise Development, 23(4), 1104-1119.
- Naumova, E.Y., Shokhnekh, A.V., Telyatnikova, V.S., Melnikova, Y.V., Gomayunova, T.M. & Glinskaya, O.S (2017). The cognitive approach to strategic management of development of small business in digital economy in view of drift risks. *Audit and financial analysis*, *3-4*, 382-385.
- OECD (2019a). Entrepreneurship at a Glance 2018 Highlights, available at: https://www.oecd.org/sdd/business-stats/EAG-2018-Highlights.pdf (accessed: 06.03.2019).
- OECD (2019b). ICT, E-Business and Small and Medium Enterprises, available at: https://proxylibrary.hse.ru:2343/science-and-technology/ict-e-business-and-small-and-medium-enterprises\_232556551425 (accessed: 06.03.2019).

### International Journal for Guality Research



OECD (2019c). Small, Medium, Strong. Trends in SME Performance and Business Conditions, available at: https://proxylibrary.hse.ru:2343/industry-and-services/small-medium-strong-trends-in-sme-performance-and-business-conditions\_9789264275683-en (accessed: 06.03.2019).

HOVEKU

- Pannu, M., Salih, Q., Yuen, C., Li, Z.H. & Tanu, E. (2019). Web based Project Management Systems for small to midsize businesses. 2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference, IEMCON 2018, 8615067, 1233-1237.
- Popkova, E.G. & Sergi, B.S. (2019). Will Industry 4.0 and Other Innovations Impact Russia's Development? Exploring the Future of Russia's Economy and Markets, Emerald Publishing, 34-42.
- Popkova, E.G. (2019). Preconditions of formation and development of industry 4.0 in the conditions of knowledge economy. *Studies in Systems, Decision and Control*, 169, 65-72.
- Popkova, E.G., Ragulina, Y.V. & Bogoviz, A.V. (2019). Fundamental differences of transition to industry 4.0 from previous industrial revolutions. *Studies in Systems, Decision and Control*, 169, 21-29.
- Rachapaettayakom, P., Wiriyapinit, M., Cooharojananone, N. & Tanthanongsakkun, S. (2018). An exploratory study on the knowledge management process, tools, and technologies in the context of small restaurant businesses in Thailand. 2018 7th International Conference on Industrial Technology and Management, ICITM 2018, 2018-January, 184-189.
- Sahni, J. (2017). Is strategic management practice important for small business enterprises? Evidence from Saudi Arabia. Proceedings of the 29th International Business Information Management Association Conference Education Excellence and Innovation Management through Vision 2020: From Regional Development Sustainability to Global Economic Growth, 3038-3052.
- Shokhnekh, A.V., Sidunova, G.I., Glinskaya, O.S., Orlova, N.V. & Vasilyev, E.S. (2017a). Approaches to parametric modeling of the socio-economic institution of the efficient self-organization and control of small business in the system of financial security. *Espacios*, 38(33), 23.
- Shokhnekh, A.V., Kalinicheva, R.V. & Akhrameev, A.N. (2014). The role of strategic controlling of harmonization of industrial and trade policy in development and effectiveness of activities of small business. *Audit and financial analysis*, *5*, 264-268.
- Shokhnekh, A.V., Sidunova, G.I., Naumova, E.Y., Telyatnikova, V.S., Melnikova, Y.V., Gomayunova, T.M. & Glinskaya, O.S. (2017b). Strategic foresight development of digital business in view of cognitive leveling of risks of drift. *Audit and financial analysis*, *3-4*, 439-442.
- Shokhnekh, A.V., Sidunova, G.I., Sidunov, A.A., Balashova, N.N., Kutuzov, A.V., Sizeneva, L.A. & Vasilyev, E.S. (2016). Modeling of optimal mechanisms of the budget strategy of management, analysis, and control in the system of economic effectiveness of business. *Audit and financial analysis*, *5*, 332-338.
- Sukhodolov, A.P., Popkova, E.G. & Litvinova, T.N. (2018). Models of Modern Information Economy: Conceptual Contradictions and Practical Examples, Bingley, UK: Emerald Publishing Limited, 1-38.
- Utepbergenov, I., Kalimoldaev, M., Skliarova, I., Muslimova, A. & Issabekova, L. (2018). Intelligent management system of production and quality products for the small and medium business enterprises | [Inteligentny system zarządzania produkcją i jakością produktów dla

JEROK



małych i średnich przedsiębiorstw]. Przeglad Elektrotechniczny, 94(1), 152-156.

Zhao, M., Dong, C. & Cheng, T.C.E. (2018). Quality disclosure strategies for small business enterprises in a competitive marketplace. European Journal of Operational Research, 270(1), 218-229.

### Anna V. Shokhnekh

Volgograd State Socio-Pedagogical University, Volgograd, Russia

hokhnekh@yandex.ru

:ILOVEPOF

CVERDE

HONEKLY

:ILOVEROF

Melegi

:ILOVERDE