

Proceedings of the International Conference Digital Age: Traditions,

Modernity and Innovations (ICDATMI 2020)

# Organization and Planning of Implementation of Managerial Innovations in the Management System of Retail

Julya Sergeevna Valeeva Kazan State Power Engineering University Kazan, Russia Valis2000@mail.ru

Lyudmila Borisovna Tarenko University of Management «TISBI Kazan, Russia Elvira Arslanovna Gatina Russian University of Cooperation Kazan, Russia gatina\_ea@mail.ru

Olga Valentinovna Fedorova University of Management «TISBI» Kazan, Russia fiodorova\_olga@rambler.ru

Lilia Şargu University of European Studies of Moldova Chisinau, Republic of Moldova lsargu@mail.ru

Abstract—In modern conditions of development of Russian retail chains, it is important to apply in practice the tools of intensive management development that bring a rational effect in optimizing business processes in the retail chain. The goal is to consider the practical application of the quality management system in the network's activities through the prism of the algorithm for implementing management innovations. As research methods, we use the method of comparing existing approaches to the organization and implementation of management innovations of the service enterprise. The system method allowed us to build an algorithm for implementing management innovations. Methods of strategic planning provided the development of a classification of service development strategies based on the introduction of innovations. The paper presents a model for managing the intensive development of retail retail chain services, consisting of 8 stages, taking into account the features of the process organization in order to introduce innovations to a retail facility. Using the system of interrelation of indicators of the level of intensive development and the typology of innovations, three types of trading enterprise strategy are presented, such as the strategy of radical advance, the strategy of maintaining the achieved positions, and the strategy of imitation development. In addition, there is a detailed description of the stages of organizing and planning the implementation of innovative technologies in the management system of the retail chain is presented. The implementation of the innovation implementation algorithm made it possible to form specific recommendations for the

regional retail chains of Bahetle and recommendations are outlined within the 3 main business processes of purchasing and supply management, warehouse operations with assortment flow, sales organization and sales. Collection analysis allowed us to draw conclusions about the relationship of trade turnover with retail space, as well as the cost of management innovations. The correlation model made it possible to predict the trade turnover until 2020. In contrast to existing works, the presented study identifies the features of regional development of retail chains, namely, in the field of implementation of management innovations and their possible practical application in the activities of retail chains.

Keywords—retail chain, innovation, management, quality management

### I. INTRODUCTION

Over the last quarter of a century, the quality management system (QMS) that meets the requirements of the international standard ISO 9000 series has become the most popular and generally recognized unified system of internal corporate management. The implementation of the QMS focuses the company on continuous improvement of all internal processes and thus allows to achieve positive production and economic effects. Although the standard does not imply mandatory certification, companies usually conduct it, and the resulting



ISO 9001 certificate is used to demonstrate their achievements to external parties. According to the International organization for standardization, more than one million certificates were issued in 184 countries at the beginning of 2013. Among certified companies, industrial companies predominate: in the world their share is 83%, in Russia – 94%

Ambiguity in the interpretation of the consequences – the effects of the introduction of the ISO 9000 QMS – raises the question of the reasons - factors that encourage owners and top managers of companies to make a decision on the implementation of the system and its voluntary certification. Identifying both internal and external factors, taking into account the specifics of the institutional environment, is important for developing recommendations for stimulating the implementation and certification activity of Russian industrial enterprises.

### II. LITERATURE REVIEW

The theoretical origins of the quality management model embodied in the ISO 9000 standard lie in the concepts of the founders of the theory of Total Quality Management (TQM) V. Shuhart, A. Feigenbaum, W. Deming, J. Juran, K. Ishikawa.

In the study, the theoretical aspects of the analysis of factors motivating the introduction of QMS are understood in the context of the approach of the new institutional economic theory, formed by R. Coase, O. Williamson, D. North and developed by W. R. Scott, P. J. DiMaggio, W. W. Powell, J. Hodgson, E. G. Furubotn, R. Richter. At the same time, we take into account the ideas of Russian scientists - A. A. Auzan, G. B. Kleiner, and A. E. Shastitko – who develop a neoinstitutional approach to the analysis of the Russian economy. In order to understand the theoretical aspects of the study of the effects of QMS implementation, the concepts of the new institutional economic theory are used along with the ideas of the theory of economic information and signal theory presented in the works of J. Akerlof, M. Spence, J. Stiglitz, J. Barzel, And J. Stigler. In addition to General theoretical approaches to the analysis of the effects of QMS implementation, the results of empirical works by M. A. Delmas, I. Guler, M. Gwillen, J. McPherson, P. Ingram, B. Silverman, who performed an institutional analysis of strategic management practices and standardization of management systems, as well as A. Terlaak, A. king, M. Potoski, A. Prakashch, J. Klaugerty, and M. Grajek, who studied the signal role of the ISO 9001 certificate in the market.

The first group of studies, which mainly uses mononational samples to analyze how internal and external characteristics of companies affect their readiness to implement QMS, is not numerous. Here we can mention the works [Yousef, Al-Ghamdi, Koch, Dolan, 2005; Prajogo, Sohal, 2009; Neumayer, Perkins, 2004; Correa, Fernandes, Uregian, 2010; Freitas, 2009] based on regression analysis. Cross-country studies are relatively small, usually limited to 3-4 countries, and the analysis does not affect Russia and the CIS countries. The authors do not agree on the set of factors that contribute to the implementation of the QMS, and the question of the features of these factors for the transition

economy remains unclear. The research group on the effects of implementing the ISO 9000 OMS is more extensive. Many foreign empirical studies analyze two groups of effects internal and external. Significant results demonstrating the relationship between QMS implementation and company achievements were obtained using the methods of variance and regression analysis in [Costa, Martinez-Lorente, Choic, 2008; Benner, Veloso, 2008; Terlaak, King, 2005; Levine, Toffel, 2008; Feng, Terziovski, Samson, 2008; Sharma, 2004], as well as the method of event analysis in [Corbett, Montes-Sancho, Kirsch, 2004; Ferreira, Sinha, varble, 2008; lo, YEUNG, Cheng, 2007]. The conclusions reached by the authors regarding the internal and external aspects of the impact of the ISO 9000 QMS and the degree of such impact on the company's performance are not clear. Some papers provide convincing evidence of the positive effects of implementing the ISO 9000 QMS, while others either challenge the existence of effects or point to conditions that limit their manifestation. There are very few empirical studies motivational factors and the effects of implementation on the Russian material. The results of research are rarely justified by quantitative methods on a representative population. Quantitative analysis of effects is reflected in [Svitkin, Matsuta, 2008; Watson et al, 2004; Dickenson, Campbell, Azarov, 2000; Selivanova, Eklof, 2001]. Significant results demonstrating the relationship between QMS implementation and company achievements were obtained using the methods of variance and regression analysis in [Costa, Martinez-Lorente, Choic, 2008; Benner, Veloso, 2008; Terlaak, King, 2005; Levine, Toffel, 2008; Feng, Terziovski, Samson, 2008; Sharma, 2004], as well as the method of event analysis in [Corbett, Montes-Sancho, Kirsch, 2004; Ferreira, Sinha, varble, 2008; lo, YEUNG, Cheng, 2007]. The conclusions reached by the authors regarding the internal and external aspects of the impact of the ISO 9000 QMS and the degree of such impact on the company's performance are not clear. Some papers provide convincing evidence of the positive effects of implementing the ISO 9000 QMS, while others either challenge the existence of effects or point to conditions that limit their manifestation. There are very few empirical studies on motivational factors and the effects of QMS implementation on the Russian material. The results of research are rarely justified by quantitative methods on a representative population. Quantitative analysis of effects is reflected in [Svitkin, Matsuta, 2008; Watson et al, 2004; Dickenson, Campbell, Azarov, 2000; Selivanova, Eklof, 2001].

To achieve this goal, the following tasks were solved: 1.to identify the institutional nature of ISO 9000 and the role of institutional pressure in the formation contributing to the implementation of QMS factors and signaling properties of ISO 9001 in education-effects of introduction; to test the approach proposed: - to evaluate the factors of QMS implementation in companies of countries with economies in transition, describing the main cross-country differences and Russian features action of these factors; - taking into account the identified factors, evaluate the short-term and long-term effects of implementing the ISO 9000 QMS at Russian enterprises.



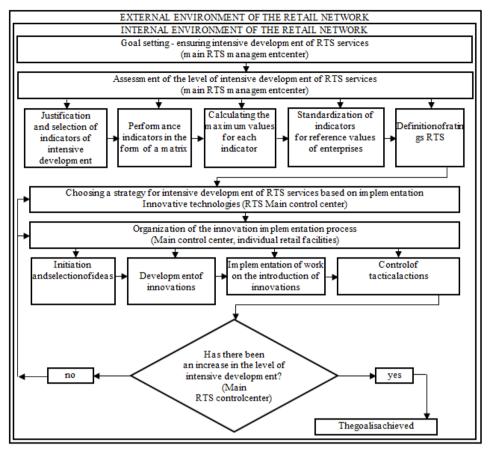


Fig. 1. Algorithm for implementing management innovations in the management system of retail enterprises

## III. METHODS AND RESOURCES

The methodological base of the research is formed by analytical and structural logical methods. An empirical study of motivating factors and effects was performed under the assumption that the fact of implementing a quality management system is certified as a result of its certification for compliance with the requirements of the main standard of the series - ISO 9001 and recorded by issuing the appropriate certificate.

The model for managing the intensive development of retail chain services, shown in figure 1, is an algorithm consisting of successive stages, the implementation of which is aimed at increasing the level of intensive development of retail chain services.

The first stage of the process of managing the development of retail chain services is setting a goal, within which development priorities are identified. Development priorities are determined based on an analysis of external and internal environmental factors. For example, if a retail chain enters a certain regional market, the competitive situation, the level of development of the retail infrastructure, the level of concentration of the retail business in the region or a particular city, and so on are analyzed.

Based on the assessment of the level of intensive development of retail chain services, carried out at the second stage of the above model, the strategic direction of innovation in the activities of retail chains is selected. The strategic approach to the development of retail retail chain services based on the introduction of innovations provides for the choice/change of strategy in accordance with the value of the indicator of the level of intensive development of the retail chain.

Development types of development strategies, services trade networks through the implementation of innovations was carried out taking into account the relationship of indicators of the level of intensive development and innovation:

- strategy of radical advance. This strategy is typical for retail chains with a high level of intensive development. Further actions of the trade network are limited to maintaining the achieved level and monitoring external innovations that have a radical novelty in the trade industry on the Federal, regional or municipal market;
- strategy for maintaining the achieved positions. This strategy is typical for retail chains with an average level of intensive development. Further actions of the retail chain management within the framework of the strategy are reduced to monitoring and implementing



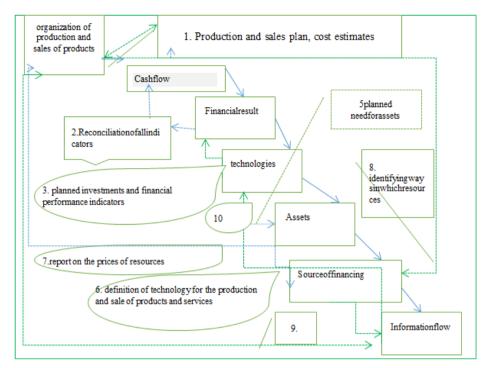


Fig. 2. Description of the stage of organizing and planning the introduction of innovative technologies, (item 9. – reports on the availability and cost of calculated sources of financing in the process of developing and implementing innovative technologies in the activities of retail chains, item 10. determination of compliance and necessity for information technologies)

both external and internal innovations by retail chain objects. The choice of types of innovation depends on the availability of financial and human resources of the retail network in a certain time interval;

• simulation development strategy - low level of intensive development. Further actions of the retail chain management in the framework of the strategy are reduced to the fact that the retail chain for the purpose of intensive development borrows (duplicates) innovative implementations. This strategy can be effective in cases where the trading network is far behind its competitors or is developing a new trading format.

At this stage, it is necessary to build a reasonable forecast of the dynamics of performance indicators of retail chain enterprises. It is important to determine not only the list of indicators, but also to justify them for the impact of planned innovations on their growth rates. In a competitive environment, the best indicators of competitors can serve as targets. Naturally, the problem is the complexity of obtaining financial information from competitors, while you can use your own data for previous periods. When calculating the growth rate of indicators of intensive development, it is very important to use financial data in comparable prices to cut off inflationary influences.

The fourth stage is the stage of innovation implementation, which should be implemented taking into account the specifics of retail chains:

- initiation and selection of ideas. The choice of an idea, its adjustment and detailing are carried out directly by the main management center of the retail chain, since the distribution of economic resources is mainly carried out by the center. Implementation of the stage is possible through the use of expert methods, including the "Delphi" method".
- development of innovations. Depending on the type of innovation and its significance, the development of innovations can be carried out within the entire retail chain with the interaction of the main control center and individual retail facilities. Innovations can be "pilot" in nature, and their diffusion will be carried out at the level of individual retail outlets or individual store formats that are part of the retail network.
- implementation of works on introduction of innovations in the activities of retail chain objects and their control. At this stage, the implementation of measures to introduce innovations is carried out either at the level of individual retail facilities, or the entire retail network as a whole, depending on the scale of innovations being implemented.

Control over the implementation of measures is carried out both at the level of a separate retail facility and at the main center of the retail chain. The implementation of the stage can be carried out jointly with a third-party organization, if we are talking about technical and technological innovations. The implementation of the process of introducing innovations in the practice of the retail chain, according to the proposed



TABLE I.	STRATEGIC AND TACTICAL DIRECTIONS FOR INCREASING THE LEVEL OF INTENSIVE DEVELOPMENT OF THE "BAHETLE" RETAIL CHAIN
	SERVICES»

Strategy for maintaining innovative positions				
Typesof innovation	Technological	Marketing	Organizationalandmanagement	
External	self-service ticket offices (Self-Checkout)	technologies for promoting offline retail outlets (the Solomon concept)	mastering the loyalty management technology using the NPS index	
Internal	development of e-Commerce, lighting and animation structures, electronic tablets, pos materials	development and promotion of products under their own brands	personnel training programs (development of competencies necessary for the implementation and use of innovations), implementation of matrix- project management	

stages, allows you to improve the efficiency of managing the intensive development of retail chain services.

At the same time, the implementation of work on the introduction of innovations should be carried out in several stages.

At the fifth stage of the process of managing the intensive development of retail chain services, an assessment is made of the achievement of the goal (ensuring a certain level of intensive development). If it is not achieved, it is necessary to determine when mistakes were made: at the time of choosing a development strategy or at the implementation stage.

The subjects of management in a centralized management structure of a retail chain are its management center and directly the management of individual stores in the retail chain. Functions are implemented directly within the model for each stage of management. Management of this area of activity of the retail chain involves the use of organizational and economic methods.

Most retail chains have a centralized management system. The unified management center delegates to stores the functions that are minimally necessary for participating in logistics operations for product movement (ordering, inventory, revaluation).

The cost reduction and efficiency of using the management apparatus when it is concentrated in a single center are obvious and significant. This model has an effect when all the company's business processes are strictly regulated and unified, while management is carried out in a continuous manner, including in relation to the directions of innovation implementation.

We will describe the main directions of managing the innovative activity of the "Bahetle" retail chain. The functional structure of this retail chain is represented by the following departments: sales Department; development Department; Finance Department; purchasing Department; own production; personnel Department.

Based on the assessment of the level of intensive development in the framework of the relevant strategy, employees of the main office of the management of this retail chain should develop guidelines for the implementation of innovations for heads of departments and Directors of retail facilities in the field. Directly in each Department and store, middle-level managers work to initiate ideas of innovations among sales staff using the methods of "brainstorming", free

associations, inversion, and control questions. Thus, the search for innovation ideas within the retail network is underway. At the same time, marketing research of the external environment should be conducted in order to study consumer preferences, which, in turn, can serve as ideas for innovative implementations. Work on the selection of ideas for innovations is carried out by the main Department of the retail chain. The selection is based on the possibilities of practical implementation of innovations, the availability of funding and taking into account the strategy for developing services based on innovation.

So, for example, at the moment, according to the strategy of maintaining the achieved positions and the values of indicators of intensive development, the Bahetle retail network needs to pay attention to the introduction of those innovations that will increase such indicators as labor productivity - technical, technological, organizational and managerial innovative management solutions, revenue per square meter - marketing innovative management solutions. As tactical measures within the framework of this strategy and based on the calculated indicators of innovative activity of the retail network, we can recommend certain types of innovative management solutions presented in table 1.

The development and implementation of innovations are carried out by departments that are responsible for implementing measures to improve commercial activities within the framework of the corresponding strategy - the sales Department (marketing innovative management solutions), the development Department - technological and organizational management, as well as the management of individual stores. Control of tactical measures to implement innovations is delegated to managers and heads of departments of the Central management level.

The implementation of the presented model for managing the intensive development of retail retail chain services leads to the need to clarify a number of management doctrines. Introduction of innovations in the retail chain is a special type of activity for purposeful coordination of actions of participants in the process of joint work. The success of the retail chain is largely determined by effective management decisions within the framework of the designated strategy of intensive development.



TABLE II. SET OF RECOMMENDATIONS FOR IMPROVING BUSINESS PROCESSES FOR FURTHER DEVELOPMENT OF THE RETAIL CHAIN

«Organization of procurement, procurement,	«Warehouse operations with	«Salesorganizationandsales»
supply and order management»	assortment flow»	3
1	LLC ''Bakhetle'' (''Prospectors»)	J
Control of the volume of purchases depending on the volume of sales in the absence of overstocking. The creation of appropriate conditions for storage of goods.  More attention should be paid to this business process when promoting STM products. It is advisable to develop the direction of home-made food, as well as its own brand (STM). At the moment, in the assortment of LLC "Bahetle", there are products under its own brand, but their share in the total share of the assortment is low. In foreign supermarkets, the share of STM products in the total range is up to 20%. You should also pay more attention to the choice of the manufacturer that will produce STM products in the future.  Lower prices for products under the brand "Bahetle". When entering other regions, it is worth reviewing the range of the retail chain based on national or regional consumer preferences, the standard of living of the population. It is also necessary to study the market of local wholesale suppliers and manufacturers of products. The feasibility of centralized procurement should be evaluated. Perhaps independent purchasing management in each region	Optimization of this business process is universal for any chosen direction of development. A big role should be given to the storage of goods. Shortcomings in the activity of this business process lead to large losses of the retail network, in addition, they lead to consumer dissatisfaction with the final product. At this stage, it is necessary to pay attention to the accurate storage of goods in accordance with the requirements for storing this product; sorting the goods; detecting defects, observing the expiration date, preserving the integrity of the package, etc.	If the promotion of private label goods great attention should be paid to advertising of the product. Another promising way of development for LLC "Bakhetle" can be considered to go to the regions. In this way of development, the main advantage of the supermarket is national, in particular Tatar cuisine, which is quite rare in other regions. However, it should be taken into account that this method of development involves considerable financial investments, which at the moment LLC "Bakhetle" does not have. In this regard, it is advisable to consider this development path only in the long term. It is also necessary to take into account the fact that in maintaining the quality of products of our own production, which we have identified as a strong point, an important role is played by personnel: their qualifications, efficiency, and interest in work. It is necessary to create appropriate working conditions and review employee motivation. When entering the regions, the personnel issue is paramount: you have to choose between training new personnel on the spot and transporting qualified employees.
can be more effective.		
	endations for "Essen "LLC" WHOI	
hundred retail outlets in Tatarstan, it is necessary to pay more attention to the logistics of purchases, the organization of transport flows, so that goods are delivered on time. As for the choice of suppliers, more attention should be paid to domestic manufacturers, and direct supply contracts should be concluded with manufacturers and large wholesale bases. You should also constantly monitor sales volumes and analyze consumer preferences so that the volume of deliveries for a certain period is equal to the volume of sales. These recommendations are universal regardless of the choice of the way of further development. However, it would be advisable for the Essen retail chain to use its own brand as a further development path. To implement this development path, there are the following prerequisites.  1. Trading network "Essen" form a large distribution network that allows us to implement it in large volumes.  2. the trade network "Essen" is a part of one of the largest holdings of the Republic of Tatarstan "Akbarsholding", which already includes enterprises that produce food. The holding can also assist in the creation of a new production facility.	The implementation of this business process directly affects the quality of the product. Improper storage and storage leads to damage to the product: both the quality characteristics of the product and its appearance change. Due to the fact that most of the goods sold are food products, even the slightest deviations from the storage conditions make the product unsuitable for consumption. You must create storage conditions that match the conditions and shelf life specified on the label	In our opinion, this business process is the weakest in the Essen retail chain. To optimize it, first of all, you need careful work by employees who are directly in contact with customers. The survey of buyers showed that consumers consider the sellers of the "Essen" retail chain rude, dishonestly performing their functions, as well as untidy. To optimize this business process, you need to take the following measures.  -Develop rules and norms of employee behavior in the workplace, then carefully monitor their compliance.  -Carefully monitor compliance with sanitary and hygienic standards by employees and their appearance.  -Monitor the cleanliness of the trading floor.  -Increase the number of ticket offices to avoid queues.  -Pay more attention to the layout of the goods in the Windows; timely withdraw from the counter products with expired shelf life.  When choosing the quality of ways to develop access to other cities of the Republic, it is necessary to conduct marketing research in order to identify the need for economy -class stores in small cities, as well as urbantype settlements. It is necessary to search for areas in such settlements for the organization of retail premises.

# IV. RESULTS AND DISCUSSIONS

Research has shown that these innovative management solutions contribute to improving the efficiency of personnel management, the use of retail space, and marketing, which, in turn, is reflected in an increase in a number of indicators (labor productivity, capital productivity, revenue per square meter) and an increase in the level of intensive development of services for retail chains in General.

Making a forecast for the development of the retail chain. In order to assess the further development of retail chains, we made a forecast using correlation and regression analysis. It takes into account the influence of internal factors with unchanged external factors.

The implementation of the above-mentioned innovations is associated with costs that affect the financial results of this retail chain. In this regard, we have built a correlation and



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TABLE III.	RESULTS OF CORRELATION ANALYSIS

	Costs for marketing innovative management solutions	Costs for organizational and managerial innovative management solutions	Costs for technical and technological innovative management solutions	Numberofpersonnel	Retailspace	Productt urnover
Costs for marketing innovative management solutions	1	-	-	-	-	1
Costs for organizational and managerial innovative management solutions	0,414524	1	-	-	-	1
Costs for technical and technological innovative management solutions	0,448104	0,899558	1	-	-	-
Numberofpersonnel	0,557449	0,90845	0,899194	1	-	-
Retailspace	0,72444	0,479994	0,529457	0,724444	1	-
Productturnover	-	-	-	-	-	1

regression model that characterizes the impact of intensive factors (costs for innovative management decisions ) and extensive factors (retail space and number of employees) on the growth of turnover. At the stage of selecting factors that affect the formation of trade turnover in the retail network, we considered it appropriate to include retail space, the number of employees, the cost of marketing, technical and technological, and organizational and managerial innovative management solutions . The source of information about the trade turnover of the retail chain is form No. 2 "Report on financial results" revenue (net) and profit (loss) for the reporting year. The source of information about the amount of costs for marketing, technical and technological, organizational and managerial innovative management decisions are the forms of acceptance of fixed assets for accounting and current statements for accounts 01"Fixed assets" and 44 "Commercial expenses".

Our correlation analysis revealed the relationship between trade turnover and independent factors, which are presented in table 2.

Thus, the results of the correlation analysis allow us to draw the following conclusions: the highest correlation exists between trade turnover and retail space (90%), the lowest between trade turnover and technical and technological innovations. This is due, in our opinion, to the fact that in modern conditions, trends in the turnover of retail chains mainly due to the increase in its retail space, the least impact on the turnover is made by the costs of technical and technological innovative management solutions.

The overall correlation between turnover and other elements of the model under study is 97%. Since the overall correlation is higher than for individual elements of the model, this indicates that the set of selected indicators characterizes the turnover better than any of the indicators separately.

Using the method of regression analysis, we obtained the following formula for calculating the turnover of a retail network:

$$Y = -1047,95 + 71,90X_1 + 254,4X_2 + +144,5X_3 + 0,07X_4 + 0,102X_4(1)$$
 (1)

where X1 is the cost of marketing innovative management solutions:

 $X2\mbox{ -} costs$  for organizational and managerial innovative management solutions ;

X3-costs for technical and technological innovative management solutions;

X4 – number of sales staff;

X4 – retailspace.

A high value of the free coefficient equal to - 1047.95 shows that the calculation model does not take into account a number of significant factors. The deterministic coefficient of this model is 94 %. This indicator characterizes how much the values of the trade network's turnover obtained by calculating according to the formula correspond to the actual values. The obtained figure of 94% indicates a strong correlation between the obtained model and the actual indicators of the trade turnover of the trading enterprise.

The degree of influence of independent indicators on the turnover of a trading enterprise is characterized by the coefficient of t-statistics.

Calculations of t-statistics coefficients are presented in table 3, and the indicators are placed in accordance with the degree of influence on the turnover indicator.



TABLE IV.	T-STATISTICSCOEFFICIENTS

	t-statistics
Y -intersection	-0,85598
Costs for marketing innovative management solutions	1,340405
Costs for organizational and managerial innovative management solutions	2,417473
Costs for technical and technological innovative management solutions	-2,24494
Numberofpersonnel	0,051924
Retailspace	3,944338

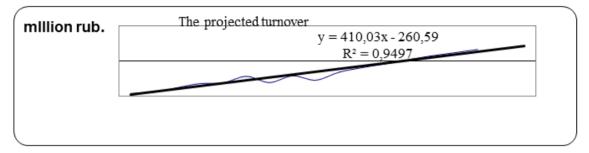


Fig. 3. Forecast of changes in the turnover of the Bahetle retail chain for 2014-2019

As can be seen from the table, the greatest influence on the turnover indicator is exerted by the indicator "retail space" (t-statistics coefficient – 3.94), followed by a group of other indicators: the indicator "costs of organizational and managerial innovative management decisions" (t-statistics coefficient – 2.41), the indicator "Costs of marketing innovative management decisions" (t-statistics coefficient – 1.34), etc.

Thus, we have developed a regression model for predicting the turnover of a retail network based on the assessment of intensive and extensive factors. We have established that this model meets the requirements sufficient for the application of this model in practice by the set of characteristics we have studied.

We used this model to build a forecast of the turnover of LLC "Bakhetle" for 2014-2019. the model is graphically presented in Fig.3.

The study showed that there is a positive trend in this indicator. As an additional forecasting method, we used the trend method, the results of which almost coincide with the forecast obtained from the regression model, which also confirms the adequacy of the model.

The forecast of trade turnover of retail chains in 2020 is presented in table 4.

We will describe the main directions of managing the development of the Bahetle retail chain using innovative management technologies. The functional structure of this retail chain is represented by the following departments: sales Department; development Department; Finance Department; purchasing Department; own production; personnel Department.

Based on the assessment of innovation activity and within the framework of the corresponding strategy, employees of the

main office of the retail chain should develop instructions for implementing innovations to heads of departments and Directors of hypermarkets in the field. Directly in each Department and store, middle-level managers work to initiate ideas of innovations among sales staff using brainstorming, free Association, inversion, and control questions, thus searching for ideas of innovations within the retail network. At the same time, marketing research should be conducted on the external marketing environment in order to study consumer preferences, which in turn can serve as ideas for innovative implementations. The selection of ideas innovation is the main management of sales network, selection is based on possibilities of practical implementation of innovations, availability of financing and taking into account the strategy of innovation. For example, at the moment, according to the conservation strategy development and indicators of intensive development of a trading network "Bahetle" you should pay attention to the introduction of those innovations that will improve such indicators as labor productivity - technological organizational-managerial innovation managerial decisions, revenue per square meter - marketing innovation management solutions.

The development and implementation of innovations are carried out by departments whose competence includes the implementation of measures to improve commercial activities within the framework of the corresponding strategy – the sales Department (marketing innovative management solutions ), the development Department – technological and organizational management and management of individual stores.

Control of tactical measures for implementing innovations is delegated to managers and heads of departments at the Central management level.

The Edelweiss and Essen retail chains have innovation activity indicators of 4.07 and 3.48, respectively, which is



TABLE V. FORECAST OF RETAIL CHAINS 'TURNOVER IN 2020

	Projected turnover depending on the cost of innovative technologies
Essenretailchain»	$y=22+14X_1+72,4X_2+144,5X_3+2.2X_4+0,4X_4$
Tradingnetwork "theEdelweiss»	$y=-40+18X_1+23.4X_2+73.41.4X_4+18.4X_4$

100% (since this chain has the highest rating value) and 78%, respectively. If the level of innovation activity is low, it is possible to apply an innovation simulation strategy. The strategy of innovative imitation is reduced to the fact that the retail chain borrows (duplicates) innovative implementations from the outside. The implementation of this strategy possible using the technology of benchmarking. Benchmarking is a method of objective systematic comparison of one's own activities with the work of the best companies (divisions of one's company), understanding the reasons for the effectiveness of partners ' business, organizing appropriate actions to improve one's own indicators and implementing them. Implementation of benchmarking procedures is possible according to the following steps:

- establishment of a reference retail network with which performance indicators will be compared, including in innovation activities;
- determination of ways to achieve a high level of innovation activity by the reference network;
- identification of what needs to be done to bring the indicators of innovation activity to the optimal level;
- develop a plan for implementing the received ideas in order to bring the business in line with the standards and gain superiority over them;
- implementation of the planned plans.

To perform competitive intelligence and analysis of competitors, you should use specialized software, an example of this today is the program "Consi - Benchmarking and competitive intelligence".

These retail chains can adhere to this innovation strategy, however, in order to improve their technological development and increase their competitiveness, it is necessary to improve the process of innovation implementation.

Recommendations for improving indicators of intensive growth include:

- the gradual introduction of more modern equipment, primarily systems of complex mechanization and automation, is based on the use of a system of machines, equipment, and automata that allow you to completely replace the physical labor of workers and control machines and control their work using automation tools. The role of a person is reduced to the development and implementation of control programs, monitoring and adjustment of automation devices. Complex automation excludes human participation in both technological and managerial operations.
- review the system of merchandising stores of these retail chains, namely the display of goods in the trading

floor. Currently, an innovative approach in the merchandising of retail halls is the design of light lighting of shopping areas. Food products require careful and attentive attitude. This is especially true for perishable foods and beverages that are exposed to heat. It is allowed to emphasize and enhance the desired qualities of the product – juiciness, freshness, brightness of color, but lighting should not radically change the appearance of products and mislead the buyer. At the same time, it is possible to use led energy-saving lighting, which is used to replace traditional energy-consuming light sources. Led lighting and illumination based on energy-efficient LED technologies can already radically solve the problem of lack of electrical capacity. Every day, led lights and lamps are becoming more popular, as they have decisive advantages over traditional incandescent, halogen and fluorescent lamps. Using led lighting, you can significantly (several times) reduce the cost of electricity consumed, so the use of LEDs as a light source is the most economical solution. The use of these innovative technologies will allow retail chains to create favorable conditions for purchasing goods and reduce the costs associated with utility bills.

• implementation of measures in personnel work that allow to increase labor productivity. Almost all companies in the retail sector are in the stage of expansive development. Accordingly, there is a rapid growth of the company's staff. Mass recruitment is required, primarily for point-of-sale personnel. To do this, a wide search is organized in the labor market, and a huge number of interviews with applicants are conducted. After that, new employees must go through a number of personnel activities: training, training, internship, exam. The organization of these events is quite complex and requires both large human resources in the form of specialists in recruitment and training and certification, and causes an avalanche of personnel document flow.

Automated personnel management systems (ASMS) for retail businesses allow you to automate the processes of recruitment, training and certification of personnel. Let's explain how this works with an example. Heads of structural divisions receive information about the company's personnel from the system. Managers leave their recruitment requests in the system, which in turn are sent to the recruitment Department. At the same time, there are pre-entered employee profiles in the system. Employees of the recruitment Department start selecting candidates based on the received applications, and each candidate is compared by the system with the corresponding employee profile, indicating the candidate's shortcomings or the need for additional training. It



should be noted that this automation of recruitment significantly saves time for specialists. Further, information on the selected candidates is sent to the personnel training and development Department, where, having data on various employee profiles, planned measures are taken for their training and certification.

It should be noted that employees of retail chains should regularly take part in scientific events, including innovative ones. This allows you to track the development of trading technology. Among such events as the annual trade forum at Prodexpo (Moscow), the annual conference "Retail in Russia" (Moscow), the conference "innovation management in trade and public catering" (Moscow), etc.

Whatever strategy the organization follows, the innovative activity of the retail chain, which consists in the introduction and development of innovations, should be of a process nature and be developed taking into account internal and external factors. Before implementing any type of innovation, it is necessary to monitor existing innovations in the industry. specialized exhibitions, scientific conferences, and information resources serve as sources of information. The analysis of the internal development of the enterprise should be aimed at identifying problems at this or another stage of the trade and technological process and finding ways to solve them with the help of innovative implementations, taking into account the financial capabilities of the trade organization.

Innovation should be implemented based on the principles of continuity, economic feasibility, complexity and continuity of planning. The process of implementing innovative transformations in the practice of a retail chain should begin with the process of planning innovations: detailing the goals of innovation and bringing them to individual structural units and performers; establishing the composition of implemented innovation activities; distributing tasks to participants of innovative projects; determine the composition of the necessary resources, agree on the order and timing of individual work, and create conditions for completing tasks set for each time period. The organization of innovation implementation should be carried out by the appropriate method. Innovative implementations should be monitored for effectiveness and innovation activity should be evaluated in order to assess the innovative development of the retail chain, which is one of the factors of competitiveness.

Managing the innovation activity of a retail chain allows you to purposefully ensure its sustainable functioning and increase its innovation activity, which leads to high-quality economic growth. The developed methodology was tested on the example of the retail chains "Bahetle", "Edelweiss", "Essen". As a result of the calculations, it was found that:

- 1. the Bahetle retail chain has the highest indicator of innovation activity among the indicators; this network is recommended to adhere to the strategy of maintaining innovative positions maintaining the achieved level of innovation activity and its continuous improvement through the constant introduction of innovations;
- 2. the Edelweiss and Essen retail chains have a low level of innovation activity, so these retail chains should adhere to the

application of the innovation simulation strategy. The strategy of innovative imitation is reduced to the fact that the retail chain borrows (duplicates) innovative implementations from the outside. The implementation of this strategy possible using the technology of benchmarking.

The implementation of tactical measures should be carried out according to the stages of the process of introducing innovations in the commercial activities of the retail network.

### V. CONCLUSION

The conducted study allowed to develop an algorithm of management of innovative activity of retail trade networks, which consists of the following stages: setting the objectives of development of retail chains, the strategy of innovation in the activities of the retail network, estimation of innovative activity, strategy, innovation, implementation of innovation, definition of innovation, based on the values of indicators of intensive development, the organization of the process of innovation, monitoring the implementation of tactical activities in the framework of the chosen strategy, analysis of indicators of economic growth of retail chains provided by the introduction of innovations.

# References

- [1] D Jiménez-Jiménez, M Martínez-Costa, L Para-Gonzalez Implications of TQM in firm's innovation capability// International Journal of Quality & Reliability Management
- [2] The Interdependencies of Quality Management, Knowledge Management and Innovation Performance. A Literature Review M Zizakov, S Vasic, M Delic, M Orosnjak... - ... on Advances in ..., 2020 – Springer
- [3] Total Quality Management and Innovation: Linkages and Evidence from the Agro-food Industry P Sotirelis, E Grigoroudis - Journal of the Knowledge Economy, 2020 – Springer
- [4] Quality and lean practices synergies G Onofrei, B Fynes, H Nguyen... International Journal of ..., 2020 emerald.com
- [5] Socially and environmentally responsible value chain innovations: New operations management research opportunities HL Lee, CS Tang -Management Science, 2018 - pubsonline.informs.org
- [6] Business model innovation: How the international retailers rebuild their core business logic in a new host country L Cao, J Navare, Z Jin -International Business Review, 2018 – Elsevier
- [7] Innovation drivers in retail industry E Pantano International Journal of Information Management, 2014
- [8] Sustainable development concept and creation of innovative business models by retail chains K Bilińska-Reformat, B.Kucharska... -Management, 2019 - emerald.com
- [9] Modeling the consumer journey for membership services George M, Wakefield K // Journal of Services Marketing (2018)
- [10] Lu Qinghua Establishment of A Comprehensive Service Management System for Retail Stores Advances in Economics, Business and Management Research, volume 118 //International Conference on Management Science and Industrial Economy (MSIE 2019)
- [11] Wang Xiaohui. Analysis of the Status Quo of Space and Category of Network Retail Stores in Anhui Province[J].Journal of Honghe University,2018,16(05) // Establishment of A Comprehensive Service Management System for Retail Stores.
- [12] Jiao Danlin. On the establishment of a comprehensive service management system for retail stores [J]. Modernization of shopping malls, 2017 (07): 12-13. Establishment of A Comprehensive Service Management System for Retail Stores.