Evolution of strategies of retail and technological systems under broad digitalization conditions

Irina Krasyuk 1*, Yulia Medvedeva 1,2, Vladimir Baharev 1 and Grigory Chargaziya 1

1 Peter the Great St. Petersburg Polytechnic University, Polytechnicheskaya St., 29, St. Petersburg, 195251, Russia
2 Don State Technical University, Gagarin's square, 1, Rostov-on-Don, 344000, Russia

* E-mail: iri-krasjuk@yandex.ru

Abstract. Innovation development of retail is based on objective economic trends determining evolution of product circulation system. Transformation of parameters of retail and technological operations of retailers under conditions of economics digitalization makes issues of study of management architecture of retail enterprises relevant. Diffusion of innovations in retail determined by scale of retail and structure of product circulation sphere form the basis for conversion of business processes. The main factors determining innovation development of retail are the following ones: business consolidation, level of innovation development in the country and in the world, competitive situation, investment climate state, institutional and legislative regulation, culture of consumption. The determinants of retail innovation development determine basic strategic directions of retail and technological systems development which should include informatization, customization and integration. Coupling of strategic directions of innovation development of retail with basic competition strategies enables retail technological systems to plan introduction of organizational, marketing, informational, technological innovations approaching target competitive advantages.

1. Introduction
The innovation development of retail technological systems considers elaboration of methodical tools application of which establishes conditions for stable functioning of retail enterprises [1]. Enhancement of theoretical and methodical grounds of innovation activity in retail promotes higher quality of developed managerial solutions [2]. Retail activity is a complex of sequentially implemented technological and retail operations. The main format of the retail capital concentration is retail networks the activity of which considers development of unified requirements to organization and management of retail and technological processes, implementation of multiformat. The key directions of development of retail are the following: increased competition, higher effectiveness of retail and struggle for buyers. The production system of retail is a retail and technological system where a retail unit is the main organizational and technical link which is used to satisfy needs in various goods and services. Retail and technological system is a system of interrelated elements of processes providing processing of product flows from the moment of receipt till they are totally ready for selling [3, 4]. The network for the retail capital is the basis of structural isomorphism of retail so a wide assortment of goods and quality retail service suggested to the customer are not enough for effective long-term interaction: retail network –
buyer. The exclusiveness of retail offer can ensure an innovation vector of retail development. The evolution and transition character of retail development adapts the retail forms to parameters and criteria of digital economy.

The innovation character of retail transformation forms the infrastructure development complex of retail and technological systems providing not only a higher effectiveness of retail performance but determines the concept of technological breakthrough of the national economy. The conceptual nature of retail innovation development is determined by a strategy. The strategy of innovation development of enterprise is on the one part a set of tools and methods directed to approach targets of the organization and on the other part on the level of a retail company it is a determination of tools application of which will enable effective functioning of retail and technological system and can bring a retailer to new, breakthrough results (sales technologies, retail forms and formats).

2. Factors and conditions of innovation development of retail and technological systems
Retail being a standalone market space operates in specific timeserving conditions. Being an important link in a value chain retail companies immediately participate in processes of product circulation from manufacturers to customers. As in new economy innovation activity is an important component of all business processes in a chain innovation processes cover retail enterprises as well [5]. The main factors determining innovation development of retail are the following ones: business consolidation, level of innovation development in the country and in the world, competitive situation, investment climate state, institutional and legislative regulation, culture of consumption [6–8]. Key factors of retail innovation development are given in Table 1.

Table 1. Determinants of retail innovation development.

| Nature of process                  | Factors                                                                 | Directions of influence to retail                      |
|-----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------|
| Business consolidation            | Active penetration of global retailers to national markets.              | Assets consolidation allows increasing velocity of penetration to the market, increase business capitalization, diversify risks, get a synergy effect. |
|                                   | Integration processes on federal and regional levels.                   |                                                       |
| Technical level in the country and in the industry | New technological mode. ICT development. Technological development of allied industries. | Higher level of technological development of economics requires matching compliance from retail. |
| Competitive situation             | High competition level both in the industry and inside individual retail companies at the level of formats, towns and regions. | High competition level causes changed structure of main factors determining shop selection. |
| State of investment climate       | Connections with manufacturers, suppliers, inter-industrial unions.     | Integration of investment and production capital enables retail enterprises to get investments from manufacturers. |
| Institutional and legislative regulation | Governmental regulation of retail. Taxation climate.                     | Restricted sales volume in a region, antitrust laws, changes in technological processes require retail organizations to be flexible and adaptive. |
| Consumer culture                  | Consumer culture. Innovation culture Higher living standards of population or lower during crises. | Higher quality of provided goods and services. Changes in retail service processes. |
The performed systematization of factors determining the specifics of innovation development of retail given in Table 1 allows determining the directions of influence to retail. It needs to be mentioned that the scale of retail influences the conversion of business processes the contents of which is mainly determined by effectiveness of operation of retail and technological system and diffusion of innovations in product circulation field.

3. **Strategic directions of innovation development of retail and technological systems**

Transfer of economics to the information phase of development substantially influences change of conceptual orientation of retail entrepreneurship which become more intellectual, creative and client-oriented [9, 10]. Innovative nature of retail development determines strategic directions of retail and technological systems composition which should include informatization, customization and integration.

Modern retail operation considers application of internet, software and information procurement, mobile applications. It all promotes solving practical tasks of stock accounting, electronic paper flow, electronic transactions and provision of reference information to customers online and electronic processing of calls through web sites of shops. Automatization of retail business processes increase the efficiency of retail activity and reduces circulation expenses [11–13].

Customization is retention of permanent and attraction of new clients through identification. Technological basis for implementation of this direction is to collect and to estimate client information, to develop loyalty programs, launch promotion campaigns, to engineer operation of client-oriented retail and technological systems.

Integration is a stable trend in retail development for the recent several dozen years. Business globalization trends cause integration of production and wholesale enterprises, erasing of national borders that along with strengthening dictate of consumer mediated through retail sellers cause power of retailers. Network relations are generated between retail companies and manufacturers. Major retail enterprises have power and influence comparable with global level manufacturers. Scale of their activity, concentration and influence allow concluding on shift of balance of forces to the side of retailers owning shelf space and knowing about their needs more than any manufacturer [14–16]. Networking is a strategic direction of innovation activity of retail and technological systems. The tool set of this direction is rather wide and diversified and enables increasing both operational and strategic parameters.

Monitoring of coupling of basic development strategies [17] of enterprises and basic strategic directions of innovation development of retail and technological systems allows considering multiple aspects of retail offer value and servicing customers through introduction of organizational, marketing, informational, technological innovations.

**Table 2.** Coupling of basic strategies and innovation directions of development of retail and technological systems.

| Strategic developments of innovation development | Minimization of expenses | Competitive strategies | Focusing |
|--------------------------------------------------|-------------------------|------------------------|----------|
| Customization                                    | The enhancement of retail process through digitalization introduction of breakthrough marketing technologies in case of spacial location of retail points. | Covering new market segments. Design of new retail formats. | Unique service. Satisfaction of specific needs. |
| Strategic developments of innovation development | Competitive strategies |
|-------------------------------------------------|------------------------|
| **Informatization**                              | Minimization of expenses | Differentiation | Focusing |
| Reduced expenses of informatization and automatization of technological processes. | Generation of innovation channels and methods of distribution and sales. | Application of original information support for product circulation processes. |
| Optimization of technologies of product circulation, warehouse accounting, retail operations. | Optimization of information means to provide products circulation. | | |
| **Integration**                                  | Reduced expenses by means of cooperation on favorable terms with partner enterprises. | Development and implementation of additional services for the partners (storing, distribution). | Concentration on specialized business functions within integration union (warehouse base, delivery, product subsorting, etc.) |
| Reduced logistic and warehouse costs by means of partnership with competitors. | | | Focusing on development of specific format or form of retail. |
| Reengineering of existing business processes based on benchmarking. | | | |

Multi-format of retail reflects the evolutionary nature of strategic innovation development of retail and technological systems. Determination nature of conditions and factors of innovation development sets the methodic basis for retail process management which is based on system approach. Systematization of retail and technological processes considers a complex of retail and technological operations being at specific interaction with each other, going into a unity and architecture of building and functioning of retail and technological system providing implementation of retail information pertinence principle and system of long-term cooperation between the parties of product circulation system: manufacturer-retail-consumer.

4. Conclusions

Conclusion 1: Innovation progress of retail and technological systems is determined by a strategy of innovation development. The strategy of innovation development of enterprise is on the one part a set of tools and methods directed to approach targets of the organization and on the other part on the level of a retail network it is a determination of tools application of which will enable effective functioning of retail and technological system and can bring a retailer to new, breakthrough results (sales technologies, retail forms and formats).

Conclusion 2: The main factors determining innovation development of retail are the following ones: business consolidation, level of innovation development in the country and in the world, competitive situation, investment climate state, institutional and legislative regulation, culture of consumption. The design of new innovation forms of retail development makes issues of coupling of basic competitive strategies and strategic directions of innovation development relevant. The multivariance of the concept of strategy is reflected in the conjugation of areas of strategic development of companies with an innovative vector of evolution.

Conclusion 3: Developing direction of customization the retailer becomes capable to choose the strategic alternative. The enhancement of retail process through digitalization, introduction of
breakthrough marketing technologies in case of spacial location of retail points (provision of polycrerdosity of retail development) determines expenses advantage of retailer. Design of new retail formats, covering new market segments will allow building and implementing an innovation strategy of the basis of differentiation. To develop within the framework of focusing strategy the following customization tools can be used: unique service, satisfaction of specific needs. Considering rampant development of scientific and technical progress the importance of modern information technologies used in retail grows. Informatization is understood conventionally as a complex of measures aimed to provide operative access to information resources. Herewith the informatization is directly related with priority directions of innovation activity of retail and technological systems.

Integration of retail is a form of network interaction. Development of innovation formats, covering new market segments will allow building and implementing an innovation strategy of the basis of differentiation. Developing and using a specific intended to solve a specific retail and technological software issue the retail enterprise can implement innovation development within the framework of focusing strategy. Monitoring of directions of retail innovation development enable determining strategic priorities in retail, establish conditions for competitive advantages, substantiate necessity of further verification of taken retail decisions.

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