THE STUDY OF APPROACHES TO RISK MANAGEMENT IN PHARMACY

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The article is devoted to peculiarities of risk management in pharmacy. The sources and objects of the risk with their division into internal and external ones have been studied. For each of the risk factors those components of the organization being affected at first have been defined. Therefore, the internal factors include the level of management, the stage of the life cycle of the organization, its financial condition, production and innovation potential, the quality management system, etc. The external factors include the impact of public health policies, domestic and international law, the political and economic situation in the country, etc. The data of literature regarding methods of risk management has been summarized. The methods, which are proposed for use in risk management, have been determined. Thus, the most common version of the classification, which is the most appropriate for practice activity, includes evasion, dispersion, compensation and location. In our opinion, limitation as a way to manage certain forms of risk should be added.

Risk management is aimed at reducing the level of losses associated with economic risks. Methods and measures for prevention and management of unexpected situations are based on the results of planning and economic activities of the organization, determination and risk assessment, economic analysis of the potential, the internal and external environment of the enterprise, the current legislation. Therefore, risks are an integral part of the enterprise’s strategy, and they deserve special attention for study [2-8].

In view of the aforesaid the aim of our study is the peculiarities of risk management in pharmacy.

Materials and Methods
The objects of the research are theoretical and methodological principles of risk management in the pharmaceutical branch. General scientific and special methods of the system analysis and the analytical method were used in our work.

Results and Discussion
All the factors determining the level of risk are usually divided into two groups – objective (external) and subjective (internal) ones [2, 9, 10]. Objective factors are not connected directly with a particular enterprise. Subjective factors directly characterize the company. These groups of factors are closely related and interact with one another. For risk assessment and decision-making it is necessary to have full information regarding the internal and external environment and risk carriers. According to the abovementioned the analysis, which allows obtaining information about the sources of risk, conducting their identification and classifying them by the degree of impact, is carried out. The sources of risks associated with the activity of pharmaceutical organizations are shown in Fig. 1.

Each of these factors has a specific influence on the organization, refers to different areas and has different frequency of manifestations, and most importantly – different degrees of impact. The following table discloses the relationship of risk sources and objects which are under their influence (Table).

In real business situations various ways of risk management affecting all directions of activity of the company can be used. Despite the large number of publications on this problem there is no unified approach to the classification of methods of risk management among experts [2, 3, 4, 6, 7, 11-17]. One of the variant that are used in business practice is division of risk management methods into four types: avoidance, minimization, diversification, and limitation. Another variant of the classification includes the following kinds: evasion, dispersion, compensation and localization. In our opinion, it is advisable to use the second variant, but also to include the method of limitation, which comprises setting the maximum volume of commercial transactions per a counterparty, the maximum size of stocks, the maximum time limit or loan amount provided to the counterparty, the maximum amount of the borrowed funds. This addition is because the aforementioned method is widely used by pharmaceutical companies as a crisis management measure. The most common methods used in pharmaceutical organizations are presented in Fig. 2.
**Fig. 1. The sources of key risks.**

**EXTERNAL FACTORS**
- The economic situation of the country, region
- Domestic and international legislation
- The level of competition
- The political situation
- The level of incomes
- The level of solvency of patients, pharmacies, distributors, healthcare facilities and other healthcare institutions
- The potential of bank system
- The state policy in the field of Health and Social Welfare
- The level of bureaucracy and corruption
- The production potential
- Human resource management
- Personnel
- Intellectual capital
- Innovation systems
- Logistic system
- The stage of the life cycle of the organization, technologies, products or services
- Finances
- The level of management
- The formation of labour resources, their number and quality of training
- Social and cultural factors
- Infrastructure
- Demographic factors
- The natural environment
- The structure and level of morbidity
- The technological structure of the country
- The extent and speed for introducing new technologies

**INTERNAL FACTORS**

**METHODS OF RISK MANAGEMENT**

**Avoidance**
- Refusal of risk projects
- Refusal of untested partners
- Search of guarantors
- Insurance
- Hedging (reducing of price risks by concluding futures contracts)
- "Swap" operations
- Deleveraging

**Dissipation (division)**
- Division of responsibilities between partners

**Diversification**
- Diversification of the supply and distribution system
- Diversification of business
- Diversification of security portfolio
- Diversification of the product range
- Diversification of investments
- Compensation

**Self-insurance**
- Introduction of fines, penalties and other forms of financial sanctions
- "Risk premium"
- Creation of reserve funds (to cover unforeseen costs)

**Limitation**
- Setting the maximum volume of commercial transactions per a counterparty
- Setting the maximum amount of stocks
- Setting the maximum term or size of credit available to the counterparty
- Setting the maximum amount of borrowed funds

**Localization**
- Creation of separate business units to perform risk projects

**Fig. 2. Methods of risk management.**
Risk management can be carried out on the basis of specially created programmes. After identifying negative trends and factors a complex of measures that are used for correction of the business unit activity should be developed. The above methods of risk management are the basis for formation of this complex. The final step is to compare the results of risk management with predicted indicators, i.e. controlling of risk management.

**Table**

| Internal factors                                      | The object of the risk impact                                      |
|-------------------------------------------------------|-------------------------------------------------------------------|
| The production potential                             | Performance indicators; assets; resources; terms and schedule; ecology |
| Personnel                                             | Organization resources; quality of products; standards of the customer service; terms and schedule; reputation |
| Intellectual capital                                  | Income, performance; the level of introduction of new technologies; the product policy; reputation |
| Finances                                              | Income, profit, the property status, costs, staff; terms and schedule, successful management performance (survival, effectiveness); solvency; resources |
| The stage of the life cycle of the organization, technologies, products or services | Financial and economic indicators, income; costs |
| Logistic system                                       | Costs, the customer service standards, reputation, commercial secret |
| Information systems                                   | The stability and efficiency of the subsystems of the organization; intangible assets (reputation) |
| The level of management                               | Quality of products and services; performance management; professional liability |
| Innovations                                           | Profit, performance, intangible assets (reputation); ecology |
| The level of incomes                                  | Income; the assortment and product policy; the pricing policy |
| The level of solvency patients, pharmacies, distributors, healthcare facilities and other healthcare institutions | Income; the assortment and product policy; the pricing policy |
| The economic situation of the country, region         | Gains; income; expenditure (for activities); staff; performance; solvency of the organization; resources |
| The level of bureaucracy and corruption               | Gains; successful management indicators (existence and survival) |
| Legislation                                           | Profit; costs; staff; resources; indicators of economic performance; successful management indicators (existence and survival) |
| International law                                     | Gains; expenditure (for activities); staff; the product policy; the pricing policy; the manufacturing and innovative potential of the organization |
| The political situation                               | Gains; expenditure (for activities); performance management success (survival) |
| The quality of suppliers' work                        | The production subsystem of the organization; the logistic subsystem organization; intangible assets (reputation) |
| The potential of bank system                          | The innovation potential; solvency of the organization; costs; indicators of economic performance; successful performance management |
| The state policy in the field of Health and Social Welfare | Gains; successful performance management (effectiveness) |
| The level of competition                              | Gains; indicators of economic performance; successful performance management (effectiveness) |
| Social and cultural factors                           | Income; the product and assortment policy |
| The formation of labour resources, their number and quality of training | Gains; the innovation potential; the intellectual capital; indicators of economic performance; successful performance management (effectiveness); intangible assets (reputation) |
| The technological structure of the country            | Innovation potential; indicators of economic performance |
| Infrastructure                                         | Gains; staff; indicators of economic performance; successful performance management (effectiveness) |
| The structure and level of morbidity                  | Income; the product and assortment policy |
| Demographic factors                                   | Income; the product and assortment policy |
| The natural environment                               | The assets; resources; performance; ecology |
CONCLUSIONS

Summarizing the data the conclusion can be made that the system ensuring stability of the organization existence in difficult market conditions should have such component as risk management within its general structure.

The key conclusions:
1. The structure of sources of risk for a pharmaceutical organization with their division to internal and external ones has been created.
2. The relationship of risk sources and objects (components and indicators of the organization’s activity) being under their influence has shown.

Further refinement of the list of objects is the basis for development of risk management standards in the pharmaceutical business.
3. The literature data regarding the methods of risk management have been summarized. Methods of risk management for a pharmaceutical company have been determined.

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ИЗУЧЕНИЕ ПОДХОДОВ К УПРАВЛЕНИЮ РИСКОМ В ФАРМАЦИИ

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Ключевые слова: риск-менеджмент; источники риска; объекты влияния риска; фармацевтические организации

Статья посвящена особенностям риск-менеджмента в фармацевтике. Исследованы источники и объекты воздействия риска с распределением их на внутренние и внешние. Для каждого из рискообразующих факторов выделены те составляющие организации, которые подвергаются влиянию в первую очередь. Так, к внутренним факторам относят уровень менеджмента, этап жизненного цикла организации, ее финансовое состояние, производственный и инновационный потенциал, систему управления качеством и др. К внешним факторам относят влияние государственной политики в области здравоохранения, отечественное и международное законодательство, политическое и экономическое положение страны и т. п. Обобщены данные литературы относительно методов управления рисками. Определены методы, предлагаемые для использования в системе управления рисками фармацевтической организации. Так, чаще всего встречается и является наиболее адекватным для практической деятельности такой вариант классификации, который включает в себя уклонение, рассеивание, компенсацию и локализацию, и к которому, на наш взгляд, следует добавить лимитирование как инструмент, позволяющий управлять определенными формами риска.