

# Research Journal of Pharmaceutical, Biological and Chemical Sciences

## Intellectual Capital of the Pharmaceutical Care: Problems of Structuring and Measuring.

Inna M. Razdorskaya\*

3, Karl Marx Street, Kursk, 305041, Russia.

### ABSTRACT

The problems of structuring of the intellectual capital of the pharmaceutical care are presented. Pharmaceutical care is presented as the object of the practical application of its components – a medicine's and a pharmaceutical care's intellectual capital. The classification of the human capital of the pharmaceutical care as the basis for the formation of the innovative client oriented technologies has been worked out. The results of the research of the intellectual capital of the pharmaceutical care as the quantitative indexes of the human, client and structural capital have been generalized. The concept of the intellectual share of the market value of the pharmaceutical care has been worked out.

**Keywords:** intellectual capital, pharmacy, quantitative indexes

*\*Corresponding author*

## INTRODUCTION

At the pharmacies, the greater part of the obtained profit becomes the result of the usage of the special knowledge, the level of investment in the personnel's training and the development of its competences in interaction with the consumers. Intellectual capital (IC) becomes the stable competitive advantage in a greater extent than the physical assets or financial capital. The importance of the competitive advantages of IC causes the necessity of its detailed studying and measuring at the pharmacies. Research and development of the applied aspects of the theory of IC in relation to the pharmacy system are relevant not only from the point of view of a specialist who wishes to identify the factors influencing the key business processes of the pharmacy. The usage of IC provides the opportunity to optimize the impact of these factors and to obtain the positive effect in case of their proper further implementation.

The main feature of IC is the presence and dominance of tacit knowledge in its structure. Personal, non-formalized (implicit) knowledge stored in the heads of employees, a pharmacy's corporate culture and unique business processes become the objects of study more often.

The origin of the notion 'Intellectual capital' is very contradictory. Historically, there were many definitions that preceded the emergence of the notion of intellectual capital: the invisible assets, professionally important intellectual qualities, knowledge, basic competence, strategic assets, basic capabilities, intangible resources, organizational memory and others. Now some researchers believe that intellectual capital is a 'new and mysterious' phenomenon. At the same time, others point out that 'intellectual capital' existed long ago: it appeared when the first traveling healer had established good relations with the consumers. These contradictions are a clear sign of firstly, how deep the divergence of researchers' views on the nature of intellectual capital is, and secondly, how deep and diverse the content of the phenomenon under study is.

Intellectual capital is an asset representing implicit knowledge inseparable from the employees, and the knowledge embodied in the results of intellectual activity (structures, intellectual property, customer relationships). It does not matter, if the object of the intellectual property (patent or know-how) is acquired from the third parties or created in the organization, because the main feature is that it is the result of mental activity [4].

The mind becomes the property when under the influence of freely acting forces of the brain something useful that has a specific form (the list of information, database and the description of the process) is created. Intellectual capital is the accumulated useful knowledge, which is formed, attached to the organization and used to produce more valuable advantages. Intellectual capital is considered to be the result of thinking, processing of data, information and acquiring knowledge. We can say that intellectual capital is the knowledge embodied in a form more tangible than a thought.

Almost all researchers of this problem distinguish the three components of the intellectual capital [5]: human capital, structural capital, client capital.

Human capital is that part of the intellectual capital, which is directly related to a person and the manpower at the organization level. It includes the knowledge, practical skills, creative abilities of people, their moral values, labor culture.

Structural capital is that part of the intellectual capital that is relevant to the organization as a whole and determines its material, intellectual, and innovative tools that the employees use in their activity. It includes hardware and software, organizational structure, patents and know-how. Structural capital is largely the property of the company and can be relatively independent object of sales.

Client capital is that part of the intellectual capital that is formed in the process of interaction with customers (stable relations with the clients, marketing opportunities, client database).

Due to the complexity of the phenomena under study, it is necessary to take into account the interaction of the structural elements and their role in the formation of the innovative approaches to the increasing of competitiveness and market value of a pharmacy.

## MATERIALS AND METHODS

The object of the research is the intellectual characteristics of the pharmaceutical care. In the process of the research, we were using the following methods: systemic, analytical and graphic.

## DISCUSSION

Today in Russia's pharmaceutical system, there is a shift from the simple process of the sales of medicines and parapharmaceutical goods to the formation of complex social complex 'Medicine + Service → Consumer + His/Her preferences', the maximum involvement of the consumer in the process of buying and usage of the medicinal product, provision of the opportunity to capture the consumers' individual tastes and to satisfy them immediately.

Pharmacy traditionally views the drug as the object of analysis (pharmaceutical, biopharmaceutical, phytochemical, microbiological, biological, toxicological, etc.). We have defined the characteristics of a medicinal product, which are the specific aspects of its study in practical pharmacy. Only pharmacy considers a drug to be a commodity and object of competition, simultaneously endowing pharmaceutical information about it with 'commodity' properties; pharmacy is considering a drug as an object associated with environmental and ethical standards and, finally, as the object of intellectual activity of the participants of the system of provision of pharmaceutical care [3].

A pharmacy's intellectual capital (PIC) can't be structured without the object of the practical application of its advantages and characteristics. Pharmaceutical care as the established scientific pharmaceutical category has every reason to include a set of intellectual components in its structure and activity. Structuring of ICPC (Intellectual Capital of the Pharmaceutical Care) is a necessary procedure together with the structured economic resources and financial capital.

The notion of intellectual capital of the pharmaceutical care can be used in a narrow and broad sense. In a narrow sense, intellectual capital of the pharmaceutical care refers to intangible assets, which represent the unity of knowledge of its staff (human capital) and the result of the realization of this knowledge in the other intangible assets: internal structural and client capital. In a broad sense, the intellectual capital of the pharmaceutical care is the sum of all intangible assets of the organization, including those that are not the result of mental activity.

Along with the basic component of the intellectual capital of the pharmaceutical care (ICPC) - intellectual capital of a drug (Bolubash, 2011), we consider it necessary to introduce the notion of 'IC of the pharmaceutical service' as the significant and meaningful addition to the main context. Pharmaceutical service is a pharmacy's activity for the formation of the attributes of functional, aesthetic, emotional and communication nature, the results of which are expressed in the useful effect that satisfies human needs to be physically, socially and spiritually healthy [2].

Intellectual capital of the pharmaceutical care can be represented as the sum of its parts: Intellectual capital of pharmaceutical care = intellectual capital of a drug + intellectual capital of pharmaceutical service.

Innovative ideas arise in the depths of the human capital of the organization. Thus, the greater the amount of knowledge and its quality is, the better the experience of using this knowledge, the more perfect the professional quality of employees of the pharmacy's staff and the level of corporate culture in this team is, the more often the productive and effective innovative ideas are developed in the process of the organization's professional activity.

HCPC (Human Capital of the Pharmaceutical Care) is defined as generalized and non-material component of the pharmaceutical care and is presented by the following structure:

- HC of a pharmacy's staff (labor resources) is laid and objectified in the competencies, job satisfaction, professional qualifications of the pharmacy's staff, new personnel technologies, standards of good pharmacy practice and management of its knowledge.

- HC of the medical professionals is objectified in the competences, professional qualifications, the doctor's preferences in the administering a drug, the basis of argumentation, psychosocial and professional attitudes, ethical standards of the interaction between the doctor and the pharmacist, since the quality provision of medical care is impossible without the interaction of pharmaceutical and medical workers.
- HC of the consumers of pharmaceutical care is the preferences of customers, their awareness, loyalty, ethical behavior. A pharmacy's customer buys and appreciates not only the drug but also the intangibles – the art of sales, consultations, the attitude of the pharmacist and efficiency of the usage of competencies. Human capital of the consumers of care is involved in the provision of pharmaceutical care by participating in the decision-making process about the purchase and forms the zero moment of truth [7].

Development and final formation of the innovative idea in the pharmaceutical system takes place in the process of marketing research.

The marketing approach of the objectification of human capital of pharmaceutical care presupposes the following sequence of stages:

1. Creation of the resource base for the formation of HC (the investment activities of the enterprise).
2. Working out the technologies of providing PC, the selection of ideas, formation of the concepts of improvement.
3. The implementation stage, when the introduction of new working methods produced by the human capital achieves the planned results.
4. The stage of the development of HCPC is a tool for increasing the level of efficiency of a pharmacy's activity, the part of the process in the form of profit closes the loop and ensures its continuous development by means of the investment in the development of HC.

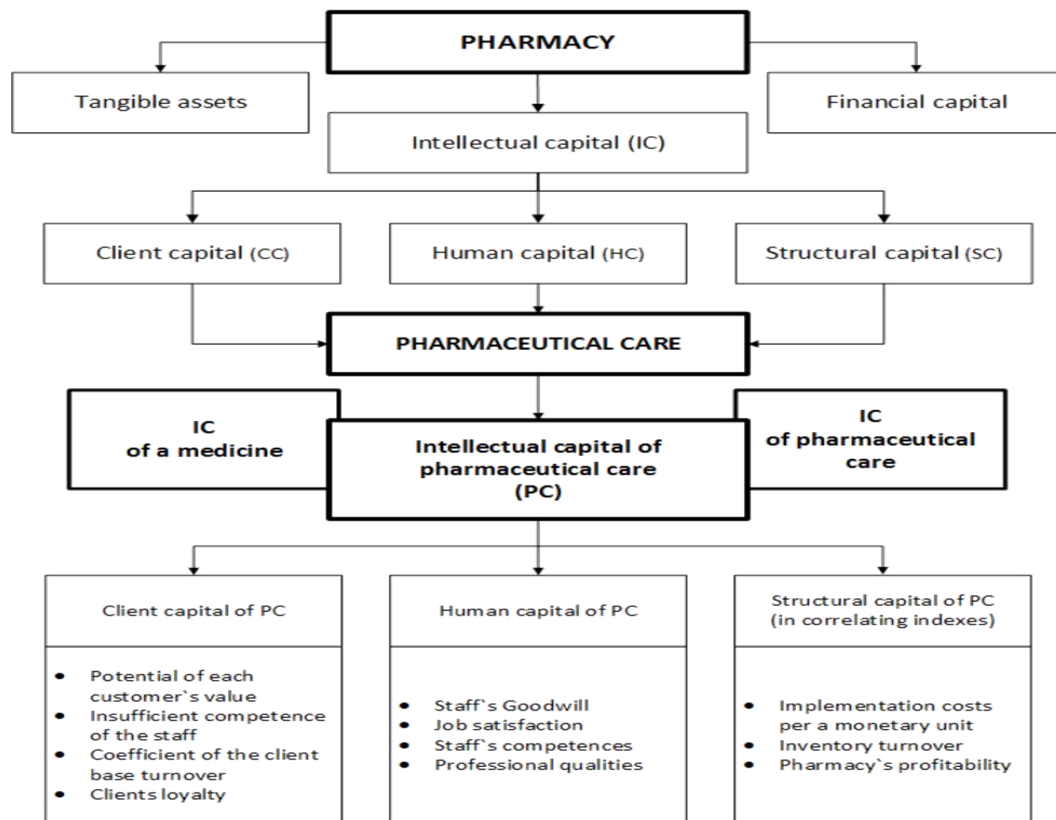


Figure 1. Intellectual component of the market value of performing pharmaceutical care.

The problem arises when estimating the share of profit received in the result of the objectification of intellectual capital. To solve this problem we propose to introduce the notion of the intellectual component of

the market cost of the provision of PC (Figure 1). Quality characteristics of all types of ICPC are represented in the quantitative terms and are calculated as follows [1]:

1. Quantitative characteristics for measuring the human capital of the pharmaceutical care:
  - Goodwill of the staffing potential is determined for each employee separately and displays a real, individual 'value' (cost) of the employee as a particular person who is able to perform specific functions and have the necessary competences. Goodwill allows us to determine the amount of investment in training and staff motivation [8].
  - Job satisfaction (method of survey according to the questionnaire designed by the author).
  - Professional and personal competences of the staff (the method of critical incidents adapted to the pharmaceutical practice, method of survey according to the questionnaire designed by the author).
  - The staff's professional qualities (method of survey according to the questionnaire designed by the author, method of 360 degrees).
  
2. Formation of customer (client, consumer) capital is impossible without the permanent customer database that allows the employees to determine how valuable a consumer is. The purpose of the customer capital is to make the consumer regular and to ensure a share of profitability contributed by each customer. We have proposed quantitative characteristics to measure the customer capital of pharmaceutical care:
  - The potential value of each customer (PVEC) determines the potential of a pharmacy's customers to the creation and increasing of additional value, which is a competitive advantage. PVEC allows you to calculate the number of customers, creating the additional value as a result of the influence of a pharmacy's employees' HC on the sales process. This index is the basis for management of customer base, customer flow and employee knowledge.
  - Insufficient competence of the staff (ICS) – its indicator is the level of reduction in purchases and, accordingly, profit at the insufficient level of development of the staff's competence.
  - The rate of flow of the customer base (RFCB) of the retail link allows to define the tendencies of its development during the year and characterizes the stability of the customer base in the quantitative indices in the range from minimum to maximum (the absence of the outflow of customers – resistance of CB, the increase of the outflow - instability of CB).
  - Loyalty of the customers of retail and medical organizations in quantitative indicators demonstrate the level of relationship between a pharmacy and the consumers of pharmaceutical care and characterizes the view of the object of application of the pharmaceutical care of the quality of cooperation.
  
3. The main characteristic of the structural capital is the ability to transform the implicit knowledge into formalized. Structural capital of a pharmacy is more of the economic category, performing the transforming processes in the economic and intellectual paradigm of pharmaceutical management. Evaluation of the structural capital is carried out, as a rule, in order to select the optimum system of pharmacy management. Structural capital 'nourishes' the activities of human and customer capital utilizing them.

Structural capital, therefore, provides the intellectual capital with the relevant competitive advantages. Assuming the correlation between the intangible assets of the structural capital and financial results of a pharmacy's activity [6], we have proposed to determine SC using structured manufacturing indicators, such as:

- a pharmacy's profitability;
- turnover of the stocks of goods;
- implementation costs per a monetary unit.

#### CONCLUSION

Implementation of the definitions of ICPC in pharmacy practice, development of its structure and methods of calculation creates the conditions for the transformation of consumer behavior in the process of

the sales of goods and services from the pharmacies, generates the competitive advantages in the process of establishing the consumer's 'Moment of Truth' and turning the visitors into the customers.

Transformation of consumer behavior is viewed by us as the elimination of a consumer's psychological barriers when purchasing the product in conditions of negative demand for medicines, the elimination of consumer's worry in the process of provision of pharmaceutical care, the possibility of replacing the goods generating the image and products generating the cash into the generators of the flow of the goods, i.e. the creation of conditions for changing the role categories of drugs and obtaining additional profit.

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