

INTELLECTUAL PROPERTY OBJECTS IN THE INNOVATION DEVELOPMENT OF UZBEKISTAN

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Abstract. This article is devoted to the research of the role of the intellectual property objects in the innovation development as well as their essence. In addition, the article represents proposals aimed at correct reflection of the intellectual property objects in the accounting. Besides, the article illustrates comprehensive study of foreign experience in recognizing intellectual property objects as intangible assets.

Key words: innovation, intellectual property, invention, utility models, brands, computer software, industrial samples, company names, know-how.

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Introduction:

Currently ongoing international globalization processes in the world require a particular attention to the creation and targeted use of intellectual property objects. In this regard the creation of an innovation economy, first of all, efficient use of intellectual property requires a large amount of investment. Intellectual property objects created on the basis of innovation ideas in the countries with developed economies constitute 45-50% of the total assets of companies and firms. For example, in 2015 the total assets of companies and firms amounted to 89,0 trillion USD in the following proportion:

- assets in the tangible form accounted for 46,8 trl. USD (52,5%);
- intangible assets (including goodwill) accounted for 41,9 trl. USD (47,0 %). Intangible assets constituted 11,8 trl. USD or 28,1% out of them, and the amount of uncertain or undisclosed assets was 30,1 trl. USD or 71,9%. (*Brand Finance 2016*).

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In addition, intangible assets, including unknown (undisclosed) assets play a significant role in the structure of intellectual property objects. Undisclosed intangible assets constitute a large part of the total business value of companies and firms, but they are not entered in the balance sheet. For example, these indicators are the highest in Belgium - 41%, Switzerland - 42%, and Denmark - 61%. (*Brand Finance 2016*).

Undisclosed non-material assets represent a large part of the total business value of companies and firms, but they are not accounted in the balance sheet. The total number of intellectual property objects in the world constitutes: utility models - 95,6%, inventions - 61,9%, trademarks - 55,3% and industrial designs - 55,3% (*WIPO 2016*).

This year Uzbekistan has been assigned to develop innovation ideas and techniques as well as to encourage entrepreneurship (legal entities and individuals) to become more active in this area. The share of intangible assets, including intellectual property, accounts for 1-2,5% of the total assets (*Collection of statistical materials of the Republic of Uzbekistan, 2016*).

This is considered to be a very low indicator compared to foreign companies and firms. In addition, intangible assets (intellectual property objects) are one of the new objects of accounting. Thus it is expected to increase the volume of intellectual property objects in the Republic of Uzbekistan in 2018 under the State Program “The Year of Support for Innovative Business, Innovation Ideas and Technologies” (*Decree of the President of the Republic of Uzbekistan, 2018*).

Taking into account the aforementioned considerations it is necessary to pay a particular attention to the following aspects regarding intellectual property objects:

- to develop a precise value of intellectual property objects (in terms of money);
- to raise the volume of contracts on the transfer of rights to the objects of intellectual property (leasing contracts).

Literature review:

Currently the terms “intellectual property”, “intellectual asset”, “intellectual capital” and “intangible asset” are used synonymously. Thus there is the issue of which term has a priority. These types of approaches by various economists and experts expressed in regulatory documents do not comply with the essence of these categories and do not complement each other. So we can make a conclusion that there is no single approach to the definition of these terms.

The concept of “intellectual property” began to be used after the adoption of the Convention on its establishment by the World Intellectual Property Organization (WIPO). This organization describes IPO (intellectual property object) as follows: “Intellectual property is the result of human intelligence. It includes inventions, literary and art works as well as the symbols, images and names used for commercial purposes” (*WIPO 2018*).

A. Stewart (1997) describes intellectual capital as “Intellectual capital is a kind of intellectual knowledge, which is used to produce property that is more valuable, formed and owned by the company. It is useful valuables which have a certain form by the impact of the free movement of the mental activity: the list of data, information base, details of the process, and other similar objects”.

In intellectual capital model proposed by E. Brooklyn (1996), the intellectual property is indicated as the third category of the model and represents the patent, copyright, trademark, know-how and service mark.

K. Sveiby (1998) described intellectual capital as “intangible assets” and called it “intellectual property”. Moreover, he divided all intangible assets (intellectual property) of the company into three blocks. The following features characterize intellectual property as “internal composition”: patent, copyrights, management systems, databases and scientific developments.

A.Poltorak and P.Lerner (2002) gave the following definition to the concept “intellectual assets”:
“It is intellectual capital that has been identified, documented and available for use and replication within the company. However, intellectual assets are protected by the law”. These scientists differ the concepts of intellectual property and intellectual assets in terms of their structure.

In view of the intellectual property descriptions of I.Ivanov and V.Baranov (2008), they consider intellectual property as an absolute right of the intellectual activity of the physical or legal entity. In addition, intellectual property must have a trademark, a service mark, and a name of commodity origin.

L. Litneva (2006) in her research divides intellectual property objects as a part of the intangible assets into three components: objects of industrial production, objects of copyright and individualization of their products.

According to the legislation of the Russian Federation, the following objects are considered to be the intellectual property objects. The results of intellectual activity and equated to them means of individualization of legal entities, goods, works, services and enterprises which are provided with the legal protection- intellectual property are the following: works of science, literature and art, programs for electronic computers (computer programs), databases, performances, phonograms, broadcasts or cable of radio or television programs (broadcasting or cable TV), inventions, utility models, industrial designs, selective achievements, topologies of integrated

microcircuits, production secrets (know-how), company brands, trademarks and service marks, appellations of origin and commercial designations (*Civil Code of the Russian Federation, 2006*).

In India, intellectual property includes: trademarks, domain names, copyrights, patents, inventions, designs, geographical names of goods, complex targeted developments, legal protection of farmers and producers, biodiversity, confidential information and commercial secrets. In India, trademarks are protected both under the statutory law and common law. The Copyright Act provides that a copyright subsists in an original literary, dramatic, musical or artistic work, cinematograph films, and sound recordings. In India, the law governing patents is the Patents Act, 1970 (“Patents Act”). Geographical Indications of Goods (Registration and Protection) Act, 1999. Geographical Indications (“GI”) are those, which identify a good as originating in a place where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographical origin. Some better-known examples of GI are “Champagne,” “Bordeaux,” and “Chianti,” the first two being regions in France and the third, a region in Italy, all famous for their wines. In the Indian context, ‘Darjeeling Tea’ was the first GI registered under the GI Act. Integrated Circuits Layout Design Act, 2000 This Act was enacted in order to comply with the provisions of TRIPS and received the assent of the President of India on September 4, 2000, after it was approved by both Houses of the Indian Parliament. (*IP India 2015*).

According to the legislation of the Republic of Kazakhstan, the intellectual property objects are defined as it follows: “Intellectual property of the Republic of Kazakhstan is recognized the exclusive right of a citizen or legal entity to the results of intellectual creative activity and the means of individualization of a legal entity, the production of a physical or legal person performed by them, works or services equated to them (*firm name, brand, service mark, etc.*) The objects of intellectual property are copyright, related rights, the right to a trademark, a service mark, the right to use the place of origin of the law, patent law” (*Civil Code of the Republic of Kazakhstan, 2018*).

The concept of intellectual property has different interpretations in economic literature and is subject to various approaches in official publications. In particular, the National Encyclopedia of Uzbekistan provides the following definition to this concept: “Intellectual property is the product of creative mental activity. Industrial designs, inventions, software for computers, brands and others referred to the copyright, are considered to be the objects of intellectual property”(National Encyclopedia of Uzbekistan, 2002).

According to the Civil Code of the Republic of Uzbekistan, intellectual property is regarded as the right of a person for ownership of the results of his creative activity. As a result, the owner of the property rights for the results of intellectual activity or means of individualization owns the exclusive right for the lawful use of this intellectual property at its discretion in any form or by any means.

According the Civil Code of the Republic of Uzbekistan the following objects are referred to the intellectual property objects:

By the results of intellectual activity: works of science, literature and art, performance, phonogram, transmission of organizations of air or cable broadcasting, programs for electronic computers and databases, inventions, utility models, industrial designs, selection achievements, undisclosed information, including secrets of production (know-how).

Means of individualization of participants of civil turnover, goods, works and services: brands, trademarks (service marks), appellations of origin of goods.

Other results of intellectual activity and means of individualization of participants of civil turnover, goods, works and services in cases *stipulated by the Civil Code or other laws (Legislation of the Republic of Uzbekistan, 2017).*

In our opinion, “Intellectual property is knowledge that has been created by the human intelligence. This knowledge requires legal protection as an object or asset”. It should be noted

that all objects of intellectual property do not have their value (monetary value), which prevents their recognition as object of accounting.

Analysis:

The number of employees engaged in the creation of intellectual property objects (scientific and research-and-development staff) accounted for 35,1 thousand people in 2012 and 37,0 thousand in 2016. This illustrates 5,4% increase compared to 2012(*Collection of statistical materials of the Republic of Uzbekistan, 2016*).

This year these figures are expected to increase several times. The reason is that in Uzbekistan since 2018 it is planned that 10% of net profits received by each economic management authority and large state-owned enterprises will finance the innovation activity. This will create new forms of intellectual property and raise the amount of competition as well as provide a competitive environment among them.

Table 1

Number of employees involved in research and experimental-design developments in Uzbekistan

(thousands of people by the end of the year)

№	Indicators	Years					Change in 2016 in relation to 2012	
		2012	2013	2014	2015	2016	Amount	%
1.	Researchers	29,5	30,0	30,8	31,7	32,0	+2,5	108,4
2.	Technicians	1,7	1,7	1,7	1,8	2,0	+0,3	117,6
3.	Assisting personnel	2,0	2,0	1,9	1,9	1,7	- 0,3	0,85
4.	Other personnel	1,8	1,4	1,4	1,4	1,3	-0,5	0,72
	Total	35,1	35,2	35,8	36,8	37,0	+1,9	105,4

As it can be seen from the data the number of employees engaged in scientific research and experimental design development in Uzbekistan has grown within the by years (105,4%). This figure is expected to increase several times this year.

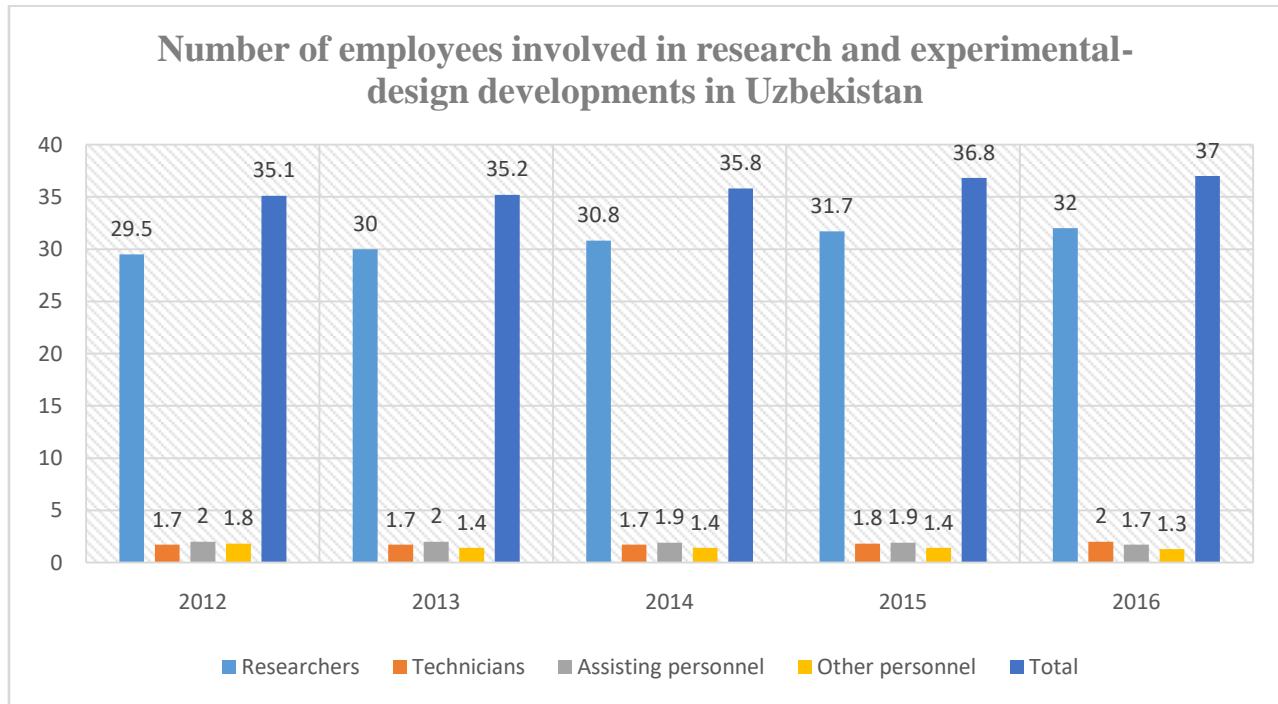


Figure-1. Employees involved in research and experimental-design developments in Uzbekistan.

Table 2

Innovation activities of enterprises and companies in Uzbekistan

№	Indicators	2012	2013	2014	2015	2016	Change in 2016 in relation to 2012	
							Amount	%
<i>Number of enterprises and companies introduced innovations</i>								
1.	Technological	164	725	819	894	893	+729	544,5
2.	Marketing	9	14	13	14	20	+11	222,2
3.	Organizational	14	22	20	27	20	+6	142,8
<i>Number of innovations introduced</i>								
1.	Technological	624	1262	1382	1737	1816	+1192	291,0
2.	Marketing	17	32	41	36	51	+34	300,0

3.	Organizational	58	40	42	46	39	-19	0,67
<i>Financial results by the innovation activity</i>								
1.	The volume of the innovation production manufactured (goods and services), billion UZS	3635,9	4614,7	7043,0	8023,6	10688,2	+70523,0	293,9
2.	Expenses on innovation, billion UZS	311,9	4634,2	3757,4	5528,3	2571,4	+2229,5	824,4
3.	Income gained by the innovation goods, billion UZS	3324,0	-19,5	3286,0	2495,3	8116,8	+4822,8	244,1

Indicators of innovation activity of enterprises and organizations in Uzbekistan illustrate an upward trend during the period of time. In particular, the volume of innovation products manufactured (goods and services) by 70523,0 bln. UZS and amounted to 293,9%, while the expenses grew by 2229,5 bln. UZS (824,4%). As a result, revenues from innovation products increased by 244,1 in 2016 compared to 2012.

These indicators will be further increased in the current year according to the tasks set by the Ministry of Innovation development of the Republic of Uzbekistan (*Collection of statistical materials of the Republic of Uzbekistan, 2016*).

The process of transforming the objects of intellectual property created on the basis of innovation ideas into products or commodities of the enterprise is a very important task and its efficiency gives absolute right to receive it as a real income or profit. This process can be illustrated in the following way:

Innovation income = liquid assets (creating intellectual property objects + their registration + legal protection + assessment + demand at the market)

This equation shows that not only money or investment but also intellectual property objects are recognized and evaluated as one of the liquid assets in the balance of enterprises.

Currently the demand for high-tech industries in the process of using the rights of intellectual property objects is constantly increasing.

The right of ownership of intellectual property objects is the right of intellectual activity, and the proprietary rights of the proprietor of intellectual property may, in any form and manner, be legally used. These objects are legally protected by the Intellectual Property Agency of the Republic of Uzbekistan via patents and certificates. For instance, the Intellectual Property Agency accepted over 6000 applications to register intellectual property objects created in 2017. This tendency shows a 20,5 percent increase in relation to 2016 (4979 in 2016). In the total number of accepted applications the share of intellectual property objects, namely, trademarks amounted to 4599 (or 76,6%), computer programs 644 (or 10,7%), inventions 431 (or 7,2%), industry samples 180 (or 3,0%), utility models 120 (or 2,0%), selection achievements 17 (or 0,3), databases 8 (or 0,13%).

In 2017 6222 applications for intellectual property objects have been registered (patents and certificates have been given), so we can witness an increase of 6,5% compared to 2016 (6071 intellectual property objects were registered in 2016). The largest share in the structure of intellectual property objects is represented by trademarks - 4927 (or 79,1%), computer programs - 633 (or 10,1%) and inventions - 348 (or 5,6%), industrial samples - 158 (or 2,5%), utility models - 123 (1,9%), selection achievements - 22 (or 0,3%), databases - 11 (or 0,17%) (*Intellectual Property Agency, 2017*).

Table 3

Information on the protection documents issued by the Intellectual Property Agency of the Republic of Uzbekistan to the intellectual property objects

№	Indicators	Years					Change in 2016 in relation to 2012	
		2012	2013	2014	2015	2016	Amount	%
1.	Inventions	175	184	179	153	166	-9	94,8
2.	Utility models	94	83	111	76	103	+9	109,5

3.	Industrial samples	110	147	89	138	91	-19	82,7
4.	Trademarks	1353	1859	1695	1762	1942	+589	143,5
5.	Software	285	95	175	509	673	+388	236,1
6.	Database	19	4	2	10	17	-2	89,4
7.	Selection achievements	12	10	2	2	10	-2	83,3
	Total	2048	2382	2253	2650	3002	+954	146,5

As it is clear from the data, the Agency has increased the overall dynamics of the issue of protection of intellectual property objects by 954 (or 146,5%). On the structure of intellectual property objects, computer programs (236,1%), trademarks (143,5%) and utility models (109,5%) are considered the objects achieved the highest growth (*Intellectual Property Agency, 2017*).

While the volume of intellectual property objects in our country has a tendency to grow from year to year, it is relatively smaller than the total assets of business entities operating in our Republic. The main reason for this is that there may be deficiencies in the formulation of the value of the objects of intellectual property and their reflection in the financial statements.

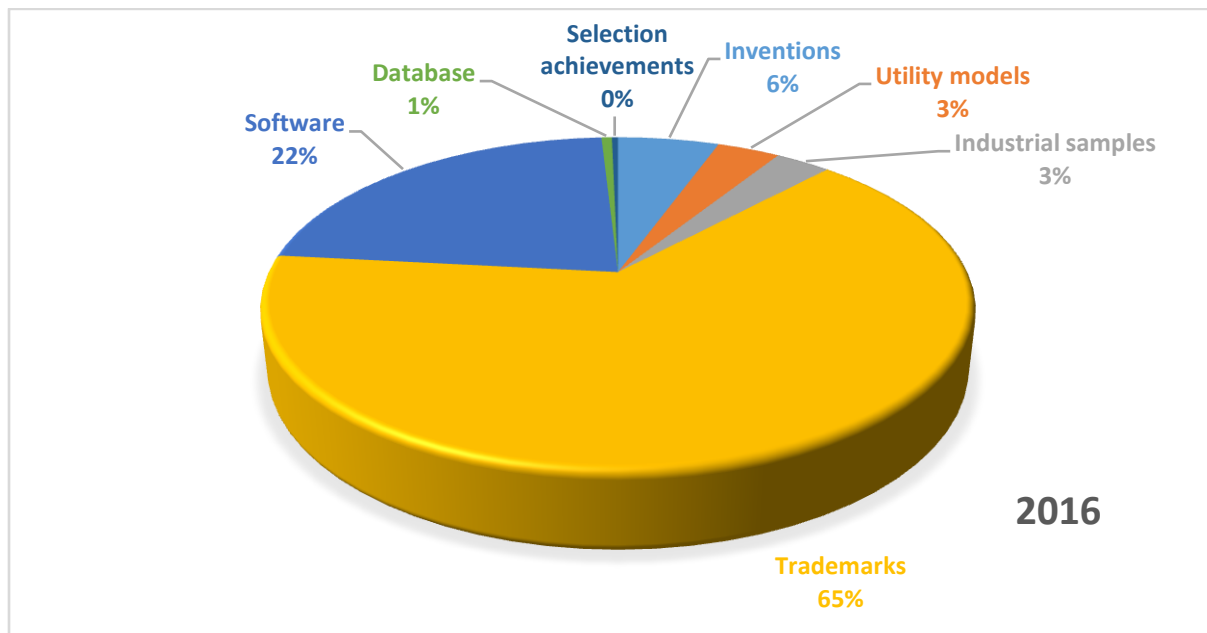


Figure-2. Objects of intellectual property of the Republic of Uzbekistan

Thus, it should be noted that there are problems with valuation of intellectual property objects, their accounting and reflection in financial reports. In order to solve these problems, it is necessary to develop a clear technique of valuation of the objects of intellectual property (value formation). As it has been noted above, the quantity of intellectual property objects is increasing, and if the real estimate of their real value is determined, these objects can constitute a significant share in the composition of companies' assets.

Another important issue is the recognition of intellectual property objects in the accounting. This process is of a great concern in the practice of developed countries. Currently there are various approaches to the following aspects of intellectual property objects: inventory for identification of intellectual property objects, assessment of their value, writing off their expenses, revealing intellectual property objects in the balance, definition of terms of service (usage), conducting inventory with the aim of supervision, as well as reflecting intellectual property objects in financial statements. Intellectual property objects are recognized as non-monetary assets that have no material value in the accounting. The balance sheet reflects the initial (real self-cost) value.

In the International Financial Reporting Standards the procedure for accounting of intellectual property objects is determined by the Standard №38 "Intangible assets". International practice admits intellectual property objects as intangible assets and requires their compliance with the set of criteria, evaluation of its balance value as well as disclosing certain inherent information (*IAS 38*). This issue in various countries regulated with different statutory acts. For example, in the UK, the costs of creating intellectual property objects and reflecting them in accounting records are regulated by such standards as "Accounting for Research and Development" and "Goodwill and Intangible" (*SSAP 13, FRS 10*), in India – by the accounting standard "Intangible assets" (*IND AS 38*), in Russian Federation – by the Regulation on Accounting (Regulation on Accounting 14/2007).

Table 4

Formation of the initial cost of intangible assets

<i>IAS -38</i>	<i>NAS-7</i>
An intangible asset should initially be assessed at self-cost.	The initial cost of all types of intangible assets must be:

<p>In general, the initial cost of intangible assets includes the following costs:</p> <ul style="list-style-type: none"> - purchase price; - legal fees - other costs associated with bringing the object to the state in which it is suitable for use. 	<ul style="list-style-type: none"> - amounts paid to the legal owner; - registration fees, state and patent fees; - customs duties and charges; - taxes payable; - sums paid for information and consulting services; - intermediary fees.
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In Uzbekistan, the procedure of valuation, recognition, classification, introduction, depreciation and writing-off of intellectual property objects is determined by the provisions of the national accounting standard (*Intangible assets, №7, NAS*). In international practice entering intellectual property objects into the balance is directly carried out, but in our country after they are recognized as asset, they are entered in the balance using capital investments account.

Example 1. The company acquired a patent worth 2,000,000 USD for the production of innovation technology. We compare international and national standards for entering intellectual property objects as receipts in the following table.

Table 5a

Accounting of the intellectual property object (patent) as receipt

<i>IFRS-38</i>				<i>NAS-7</i>
Indicators	I/B*	debit	credit	
Intangible assets (patent)	AB	2 mln. USD		1) <i>Debit:</i> 0830-«Purchase of intangible assets» (patent)- 2 mln. USD <i>Credit:</i> 6010- «Deliverers of goods»- 2 mln. USD <i>Debit:</i> 0410 “Patent” - 2 mln. USD <i>Credit:</i> 0830-«Purchase of intangible assets» (patent) 2 mln. USD <i>Debit:</i> 6010- ««Deliverers of goods»- 2 mln. USD <i>Credit:</i> 5110-«Accounting»(patent)- 2 mln. USD
Cash	AB		2 mln. USD	
<i>Acquiring the patent</i>				
*I-Income Statement				
B-Balance Sheet				

As can be seen from this table, unlike the international standard, the national standard takes into account specific features of the country and provided accounting entries represent more analytical (detailed) character.

Example 2. The company acquired the patent (for 2 mln. USD) and has a right of ownership for a five-year period (*straight-line depreciation* method) in accordance with the “Accounting Policy”. The amortization expense for each period is calculated by dividing the amortized value by the number of reported items in the reporting period.

$$D=Ac / Y, \text{ (every year – 400 000 USD (2000000/5)).}$$

Here, Ac – initial cost, Y-useful service term. From the formula above it is obvious that the final value of patent is always equal to zero.

Table 56

Calculating amortization to the intellectual property object (patent)

<i>IFRS-38</i>				<i>NAS-7</i>
Indicators	I/B*	debit	credit	
Expenses on amortization	IS	400 thousand USD		<i>Debit:</i> «Accounts accounting expenses (production and administrative expenses - 2010, 2310, 2510, 9420) -400 thousand USD <i>Credit:</i> 0510 -«Patent amortization»400 thousand USD.
Amortization	AB		400 thousand USD	
<i>Amortization for a year</i>				
*I-Income Statement, B-BalanceSheet				

According to the rules of the NAS calculated for the patent leads to expenses. In international practice it leads to the formation of accurate financial results. In our opinion, the correct distribution of amortization costs on the objects enables to precisely calculate the self-cost of the products manufactured on a patentable basis.

Conclusion:

As a result of the increasing and legitimate protection of intellectual property objects created on the basis of innovation ideas:

first, the development and prosperity of humanity in the future will mainly depend on the new objects of intellectual property based on innovation ideas;

second, intellectual property objects will facilitate attraction of additional resources that will lead to the further development of innovative activity in the country;

third, as a result of the development and protection of intellectual property objects will result in the the rapid growth of the country's economy, formation of a new industrial system, and, most importantly, creation of new jobs and in the long-term perspective enhancing living standards of the population.

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