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*Analysis of consumer potential as a crucial component  
of endogenous potential of innovative development*

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Analiza popytu konsumpcyjnego jako endogennego czynnika rozwoju  
potencjału innowacyjnego gospodarki

**Key words:** innovation development, endogenous potential of innovative development, consumer potential, financial stability of enterprises, material well-being of households, economic development of the country

**Słowa kluczowe:** rozwój innowacji, wewnętrznego potencjału innowacyjnego rozwoju, konsument potencjał, stabilność finansowa przedsiębiorstw, tworzywo dobrobytu gospodarstw domowych, rozwój gospodarczy kraju

## Introduction

The formation of market economic conditions in Ukraine with the aggravation of international competition objectively requires radical changes in the approaches to the factors of economic growth of domestic economy, which is impossible without the implementation of an innovative model of development. An integral part of innovative development is the creation of legal, economic, social and institutional framework for sustainable use of the states internal potential and opportunities of foreign origin.

Nowadays many programs, slogans and resolutions as to the state choice of innovative vector of economic development have been declared; however, the activity does not change. Industry is provided with obsolete equipment; shadow economy gets gangster character; standard of living increases according to official statistics, while real income decreases considering inflation; scientists leave for abroad, and those who remain in the country, work mainly in research institutions outside the

factory sector. The innovative landmark of economic policy should be the efficient use and increase of internal state potential, the search of unused sources and untapped resources of growth through the implementation of national innovative projects. Therefore, the research of the effective implementation of endogenous potential of innovative development leading Ukraine to a new qualitative level of socio-economic development is extremely urgent.

Many Ukrainian and foreign researchers have investigated the problem of innovative development; Amosha O., Antoniuk L., Veremeichyk O., Grishnova O., Il-liashenko S., Karliuk D., Kolot A., Libanova E., Lisogor L., Novikova O., Novikov V., Onikienko V., Petrova I., Roshko M., Sadova U., Semiv L., Semykina M., Fedulova A., Shaulska L. and others are among them. Despite the importance of scientific results, the scientists consider the problem of endogenous potential to be investigated insufficiently; the destructive tendencies in its implementation have not been overcome; crisis phenomena have not been stopped. The problems of structure, content and implementation of endogenous potential of innovative development have been insufficiently investigated in scientific sources.

The goal of the article is to highlight the elements of endogenous potential, to analyze consumer component of endogenous potential being the most essential one that will help to understand to what extent the market is ready to consume innovative products and services, to what extent subjects of innovation market are financially ready to buy innovative products; to identify problems and to consider the possible ways of their solution.

## **1. The main part**

Considering the innovative development as a chosen vector of economic policy carried through the most complete realization of the national economy potential, its endogenous and exogenous orientation is pointed out. Exogenous orientation involves the use of resource set potential, opportunities and target results from the outside, i.e. of foreign origin. These include foreign financing sources, foreign research, foreign orders for the development of innovative products and services, technology transfer, including import direction.

Endogenous potential means the set of interrelated resources and ability for their implementation that determine its ability (intellectual, technological, informational, research, economic, etc.) to bring internal capabilities into compliance with external requirements within a state and national resources.

Endogenous potential is a complex of interrelated elements. In our opinion, these elements are: consumer potential; natural resource potential; employment potential; scientific, technical and innovative potential; organizational and management potential; financial potential; productive potential.

Each component in the structure system of the endogenous potential of innovative development is indispensable and makes its valuable contribution to the efficiency of innovatively active subjects; however, we focus on the consumer potential. This market potential, reflecting the correspondence degree of innovative developments (available and perspective) to the needs and demands of consumers. To make the analysis easier, we divide the consumer potential into subcomponents: enterprise consumer potential, household consumer potential and consumer potential of a state as an economic institution.

Consumer potential of enterprises depends on the multitude of factors, including the financial condition of an enterprise, innovative culture, i.e. understanding the implementation importance of innovation, strategy and enterprise mission and others. Financial condition is the most influential factor of consumer potential, so the analysis will be conducted in the context of the financial condition of customers and potential customers at innovation market.

During 2006–2011, financial situation of Ukraine enterprises was unsatisfactory in general according to obtained data; it was reflected in the low level of financial stability and the low efficiency of utilization of financial resources according to the indexes of profitability and business activity. The poor dynamics of profitability indexes caused the reduction of enterprise investment opportunities concerning the maintenance of proper quality of property, the necessary level of liquidity and solvency [10, 17].

This situation demonstrates a violation of the “golden rule of economy” concerning the chain growth of economic potential of an enterprise, the expansion of activities, the growth of the financial independence of an enterprise, the relative decrease in expenses, including the cost of funds as the main part of costs that can be seen in Table 1.

Table 1. Indicators of chain rate violations of assets, equity, net income and net profits of Ukraine in 2008–2010

Indicators	Total for the year, thousand UAH			Growth rate, %	
	2008	2009	2010	2009 to 2008	2010 to 2009
Net profit	–41 025.1	–37 131.1	13 906.1	–9.5	+137.5
Net revenue from the sale	3 087 051.9	2 692 720.9	3 290 885.2	–12.8	+22.2
Average cost of equity	1 099 871.1	1219752.2	1 348 124.7	+10.9	+10.5
The average value of assets	2 805 393.7	3 422 915.2	3 886 563.8	+22.0	+13.5

Source: *The financial standing of Ukraine: Statistical Analysis Review*. I. Shkolnik, S. Leonov, I. Boyarko. State Higher Educational Institution “Ukrainian Academy of Banking National Bank of Ukraine”. Sumy: DVNZ “UABS NBU”, 2012, 69 p. [11]

In general, consolidated balance of Ukrainian enterprises can be estimated as liquid and balance structure corresponds to the branch orientation according to the

types of economic activity. On average about 93.7% of the equity is used to finance fixed assets, having a negative impact on the current and perspective solvency of the entities of the national economy, concerning consolidated balance sheet of Ukrainian enterprises during 2006–2011. Own entrepreneurial and long-term funding sources are insufficient to form fixed assets in such economic activities as health care, social assistance, providing individual and municipal services, culture and sport activity [11, 55].

In respect of economic activity types, the worst situation with the level of losses is in the fields of construction, real estate, transport and communications, where the proportion of profitable enterprises is 54.6% and 56% respectively. The largest number of profitable enterprises is found in agriculture (over 70.2%), moreover, this share has been growing even during the crisis [11, 58].

We analyze the profitability of enterprises according to the types of economic activity with the aim of more qualitative analysis of the profitability of economics branches. Thus, the general level of economic entity profitability for analyzed period decreased by 7.3% on average annually and was only 4.1% at the end of 2011. Moreover, the enterprises of agriculture, transport and communication branches worked the most effectively in terms of generating profits per unit of income. Thus, agriculture entities got 15.4 kopecks of profit per 1 hryvnia of income; entities of transport and communications – 9 kopecks of profit [11, 59].

As for the innovation activity of enterprises, i.e. the implementation of new technologies in production, it should be noted that the proportion of enterprises engaged in innovation tends to increase (Table 2). However, the fact is that in most cases companies reducing production costs, invest funds not in the development and promotion of innovative processes, products or services, but only buy foreign licenses for patents that have fallen in value because of their long use in the country of origin. Capital flight abroad to be directed to new innovations development and research of another country is traced.

Table 2. Innovation activity of enterprises in Ukraine

	2006	2007	2008	2009	2010	2011	Deviation 2011/2006,%
The share of enterprises engaged in innovation,%	11.2	14.2	13	12.8	13.8	16.2	+45
Total cost, mln UAH	6160	10 850.9	11 994.2	7 949.9	8 045.5	14 333.9	+133
Number of organizations performing research and development	1 452	1 404	1 378	1 340	1 303	1 255	–13
The number of scientists, people	100 245	9 682	94 138	92 403	89 534	82 032	–18.2
Proportion of completed scientific and technical activities in GDP, %	0.98	0.93	0.9	0.95	0.9	0.79	–19

Source: Compiled by the author by source: Innovation and Science. Statistical Bulletin. Kyiv: State Statistics Service of Ukraine, 2011. 10 p., p. 27 [10]

During the analyzed period from 2006 to 2011, the proportion of enterprises engaged in innovation has increased by 45%, spending on research and innovation nominally increased by 133%, however, considering the rate of inflation (prices increased by 112% from 2006 to 2011) in this period, the actual research costs increased by 21%. The number of organizations involved in research and development, decreased by 13%, only 6% of which is of factory sector. This tendency does not correspond to the practice of developed countries, where the majority of scientific organizations belong to factory sector (company sector), and therefore, they are closely connected with the final stages of development and production, including innovation. The number of researchers has decreased by 18%; the proportion of completed scientific and technical work volume in GDP decreased by 19% for five years [10].

The attraction of borrowing sources by national enterprises is insufficient and leads to multiplicative loss of own capital profit in subsequent periods in the conditions of declining profitability and low profitability level of Ukrainian enterprises for ensuring a positive effect of financial leverage. Besides, there is gradual distancing of scientific developments from an enterprise, primarily because of financial reasons inside the enterprise. Scientific developments to be transformed into innovations, require large expenditures of resources with high potential income and risks at the same time. Thus, Ukrainian companies are not able to consume innovations on a large scale because of the lack of available funds.

Consumer potential of households as a part of the endogenous potential of innovative development depends on the population living standard, that is the opportunities of a society to ensure life, activity and overall development. It reflects a set of social relations and conditions that characterize life, work, intellectual and cultural development of people, their freedom and legal protection. The standard of living of the population is one of the most important social categories, which is influenced by the interaction of all the subjects of economic relations. Its increasing (social progress) should be a priority of state social-economic strategy, particularly aimed at the realization of the principles of social market economy. There is a system of indicators of living standards which includes: welfare, employment, health care, education, housing conditions, social security [6, 19].

Each of these parameters has a place for innovation, both in health care, working conditions in manufacturing, services and public administration; however, in the article we use the most important indicator, which is material well-being of households having a direct impact on consumer demand of innovations in Ukraine. Material well-being of households is known to be defined by the following parameters: average total cost, the share of cash expenditures, the share of unreported income in cash expenditures, the share of the minimum consumer basket in average total cost, the share of expenditure on food in total expenditure, the level of poverty.

Average household expenditures for the month increased by 140% from 2006 to 2011; however, real costs increased by 28% considering inflation rates. The following indicators presented below do not show improvement in households' financial sup-

port. Table 3 shows the parameters that determine the material well-being of households [7].

Table 3. Indicators determining the material welfare of households

	2006	2007	2008	2009	2010	2011	Deviation 2011/2006,%
Total costs in an average month per household, UAH	1 442.8	1 722	2 590.4	2 754.1	3 072.7	3 456	+140
Total resources in an average month per household, UAH	1 611.7	2 012.1	2 892.8	3 015.3	3 469.1	3 841.7	+138
The share of total cash costs, %:	89.5	85.5	89.5	91.3	88.5	89.9	+0.4
Share of the minimum consumer basket in average total cost, %	90.5	90	86.2	87.8	90	90.2	-1
The share of nutrition in total expenditure, %	53.2	51.4	48.9	50	51.6	51.3	-3.5

Source: Compiled by the author by source: Income and Costs of Household. Statistical Bulletin. Kyiv: State Statistics Service of Ukraine, 2011, 35 p., p. 50, ukrstat.gov.ua [7]

As the table shows, the total resources of households grew by 138% while real incomes increased by 26%, and the proportion of minimum consumer basket in total expenditures decreased. It means that financial state did not improve and even became worse with an increase of income by 26% and costs by 28%.

Thus, households spent on essential goods 90% of their income on average; there are no resources for innovation. We consider the reason for it to be the low financial support of the population, and secondly, the absence of innovative products that can be attributed to essential commodities on market, low innovation culture of citizens, such as unwillingness to spend revenues on innovation.

The state is an economic entity, as well as a potential buyer of innovations (not only in the form of material goods, but, in particular, innovative processes, solutions and services at all levels of state apparatus functioning). State orders of research and developments depend on the economic development level of a country and its participation in the global economy [9].

The World Bank classifies countries into four income groups. They are determined annually from July, 1 [12]. The economies of countries from 2011 were divided according to GNI *per capita* using the following ranges of income:

- High income countries with GNI over USD 12.476.
- Upper middle income countries with GNI from USD 4.036 to USD 12.476.
- Lower middle income countries with GNI from USD 1.026 to USD 4.036 *per capita*.
- Low income countries with GNI of USD 1.026 or less *per capita*.

- Ukraine belongs to the second group of “low middle income” according to calculations (Table 4).

Table 4. GNI *per capita*, USD

	2006	2007	2008	2009	2010	2011	Deviation 2011/2006,%	Deviation 2011/2006, % according to inflation 112%
Indicator	1 453.75	1 937	2 561.875	2 479	2 950	3 561	+145	+33%

Source: Compiled by the author by source: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua)

An interesting analysis is one of budget expenditures on innovation made according to economic classification in 2011 (Table 5), which shows that exactly one third of the total budget for research and development was spent for direct research and development, and two-thirds – for some measures to implement state (regional) programs that were not classified as development measures and some development measures concerning state (region) program implementation including the organization of international summits, visits, round tables and conferences. Unfortunately, we cannot determine it as an efficient use of funds for innovation.

Table 5. Expenditures of budget for innovation made in 2011, UAH

Classification of budget expenditures	2011	
	(bln UAH)	%
Research and development expenditures of the state (regional)	37.023	100
Research and development of specific measures to implement the state (regional) programs	11.466	31
Specific measures to implement the state (regional) programs not included in measures of	25.556	69

Source: Compiled by the author by source: State Treasury Service of Ukraine. Budget Execution 2011. [www.treasury.gov.ua](http://www.treasury.gov.ua) [9]

Thus, having considered the content and structure of the endogenous potential of innovative development, which combines consumer potential, potential of natural resources, labour, science and technology, innovative capacity and managerial, organizational, financial and production capacity, we have focused on the nature of potential consumer, as an essential component of the endogenous potential. Consumer potential is not only a market potential that reflects the extent of innovation correspondence to consumers’ needs and demands, but the purchasing power of the market subjects. As the calculations shows, potential consumers are ready to purchase innovative products and to invest innovation only by 0.79% (which is the proportion

of completed R & D work in the GDP in 2011). Purchasing power of both enterprises and households and the state as an entity is at a very low level. This is due to many factors, but in our opinion, the main factor is government policy to encourage and support innovation, because innovation activity is a very risky and expensive process, which not everyone is ready for.

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## Analiza popytu konsumpcyjnego jako endogennego czynnika rozwoju potencjału innowacyjnego gospodarki

Artykuł wskazuje na potencjał rozwoju innowacyjnej gospodarki narodowej jako zbioru wzajemnie powiązanych zasobów i możliwości ich wdrożenia oraz realizacji interesów indywidualnych, zbiorowych i publicznych. W artykule zbadano kategorię rozwoju innowacji w zakresie potencjału endogenicznego Ukrainy. Składowe potencjału endogenicznego są analizowane głównie z perspektywy takich elementów jak popyt konsumpcyjny. Krajowy popyt konsumpcyjny analizowany jest z uwzględnieniem głównych sektorów instytucjonalnych: przedsiębiorstw, gospodarstw domowych i sektora rządowego.



**Analysis of consumer potential as a crucial component  
of the innovation development of endogenous potential**

Article deals with the content of innovation development potential of the national economy as a set of interrelated resources and capacity for their implementation and achievement of individual, collective and public interests. This paper analyzes the essence of “innovation development” category in terms of endogenous potential of Ukraine. Content of endogenous potential is considered mainly from the perspective of such a constituent component as consumer potential. State consumer potential is analyzed according to major consumer subjects: businesses, households and government.