

# Transformation of market economy in information society

RASIM ALGULIYEV

RASIM MAHMUDOV

Azerbaijan National Academy of Sciences

Institute of Information Technology

AZ1141, Azerbaijan Republic, Baku c., B.Vahabzade str., 9.

AZERBAIJAN

[secretary@iit.ab.az](mailto:secretary@iit.ab.az), [icp@iit.ab.az](mailto:icp@iit.ab.az)

*Abstract:* - This scientific work researches the transformation issues of market economy under information society conditions and comments upon relevant scientific approaches. Factors and tendencies affecting market economy transformation are analyzed. Transformation of information, mediation and price formation functions of the market are analyzed. Negative effects of information asymmetry in the market and role of Internet in their elimination are demonstrated. Formation of virtual market and its superiority over the traditional market is characterized. Characteristics contradicting the traditional principals of knowledge economy, the Third sector, social networks, as well as transition from mass manufacturing to individualized manufacturing are discussed.

*Key-Words:* - transformation of market economy, information asymmetry, virtual market, knowledge economy, social networks.

## 1 Introduction

Dynamic development and extensive application of ICT result in fundamental changes in the economic sphere, as in all activity fields. Structure, form and methods of the economic activity, its impact directs are subject to significant transformations. Occurring transformation processes reflect globalization, virtualization, convergence and diversification of the economy. Transformation processes in the economic sphere are observed on both macro and micro levels.

The leading direction of the ICT - the Internet phenomenon plays an important role in formation and development of a strong information sector in the economy; and its strong influence on all operation spheres. All characteristics of ICT as information and communication environment distinctly demonstrate themselves in all spheres of the economy. Transformation processes occurring in the economy, mainly happened due to the impact of the Internet.

Internet plays an important role in the activities of separate participants of economic processes, as well as operations of the economic system. Due to Internet technologies, transnational companies transit to the rapid development stage, traditional companies are integrated into virtual environment, e-commerce is developing with an increasing speed, new operation fields related to information industry and services are emerging.

The most significant change occurring due to the impact of the ICT is the significant transformation faced by the market economy – an economic system dominating the modern world. Transformation of competition objects and types, new types of establishment and new mutual relations strategies among them, as well as new elements of property and emergence of appropriation forms stipulates the transformation of structure of the economic system. Dynamically developing information technologies, transformation of information and knowledge into the main strategic resources, establishment of communicative connections among market subjects, formation of knowledge economy, emergence and development of social network in Internet environment, elimination of information asymmetry undermines the basis of the imperfect and monopolist market.

Factors and tendencies laying at the foundation of transformation processes occurring in the structure, form and functions of market economy are analyzed in this research work.

## 3 Formation of virtual market

One of the tendencies characterizing transformation of market economy is replacement of traditional relations with virtual relations and formation of the virtual market. Due to the capabilities created by Internet, both vertical

(separate enterprises, financial-industrial groups, corporations and unions and whole markets), and horizontal (commodity and services market, labor market) economic structures are subject to significant changes. A new economic area - virtual market is formed as a result of these processes.

Virtual markets attract industrial and trade establishments and financial-bank structures to their sphere of influence. The main characteristics of virtual market are the high level of information concentration due to Internet and data bases. Virtual markets are an easily analyzable environment, here information is equally accessible for all participants. Internet, acting as the main infrastructure of virtual market, simultaneously creates suitable conditions for solution of following problems [1]:

- Communicative (e-mail, forums, social networks etc.);
- Informative (obtaining any necessary information);
- Representative (providing information to different addresses using broad advertising capabilities and different forms of delivery of information about a company and its production).

Main superiorities of the Internet as the new activity environment of an establishment is provided using following capabilities:

- Precise coverage of the target audience – by location, time of entrance, thematic sites etc.;
- Analysis of behaviors of the users on web-site, improvement of the web-site, products, pre-sale and post-sale service based on obtained results;
- Intraday accessibility and flexibility;
- Interactivity: the consumer obtains the capability of being in a mutual connection with the vendor and the product;
- Placement of a large amount of information about the product (as well as graphic, audio, video, animation etc.);
- Placement of a large amount of information about the commodity (as well as graphic, audio, video, animation etc.);
- Efficiency of spreading and obtaining information;
- Establishment of virtual societies related to interests and professional operations.

Virtual markets operating in real time (on-line) mode enable to uninterruptedly conduct business operations around the world, 24 hours a day. As a result, ideas connecting the market to time and place are eliminated, virtual market environment is formed.

During late XX century, a remarkable representative of information society theory, American scientist D. Bell noted that the existing market would be replaced with an organized exchange based on computer networks [2].

#### **4 Transformation of the information function of the market or the decline of the monopolist market**

*Information function* plays an important role among the traditional functions of the market. This function provides information the quantity, types and quality of commodity and services to the participants. Real and potential market participants obtain and analyze the information provided by the market in order to make decisions (buy, sell or wait). Nowadays, by rating organization and analytical agencies collect, generalize, systemize, analyze the information provided by the market and transform it into a product. This product is sold to the market subjects. Information about the market conditions is necessary for market relations subjects as any other commodity. Such information includes analytical reviews and forecasts statistic bulletins, ratings of financial institutes, high-capacity commercial agreements, company mergers, auction winning bids etc.

Behavior of market agents in fundamental economic researches is analyzed from the standpoint of possession complete information for making decisions. Competition market can be sited as an example for complete and symmetric information about commodity and services, price-quality correlation, objectives and real capabilities of counteragents. Here, market prices that are formed based on supply and demand relations provide detailed information to existing alternatives to the agents. In fully competitive ideal market gives the vendors and the buyers unlimited and free of charge access to necessary information [3].

But imperfect markets possess incomplete information and it is unevenly distributed among the participants of economic relations. Information asymmetry occurs for this reason. In this case, information about obtaining commodities and services, investments, information necessary for concluding business agreements is at disposal of a small group of market participants interested in confidentiality of this information.

Impact of incomplete information on economic processes is inevitable. Thus, it especially affects the conditions of the market, creates additional expenses for economic agencies. Asymmetric

information creates suitable conditions for information contract participants to misuse each other and leads to reducing social welfare.

There are two types of information asymmetry [4]:

1. *Hidden characteristic* - In this case, one of the parties of market relations possesses more substantial information than the other.
2. *Hidden activities* – in this case, market participant with more substantial information can conduct activities that the other party is not capable of performing.

Reflection forms of effect of information asymmetry on the market are different. First, in several cases, information asymmetry leads to formation of market dominance of the vendors. Because, obtaining information is connected with additional expenses for the consumers, i.e. information is only important, in cases if the expected benefit surpasses the expenses spent on information search. If the buyers are not informed about the information search expenses and its benefit, vendor will benefit from it by setting high prices for commodity and services. In other words, such cases often occur in monopolist competition and oligopolistic (imperfect competition) markets and vendors sell commodities and services for prices that exceed manufacturing expenses (prime cost) in manifold.

Second, information asymmetry is the source of value discrimination. Often buyers are not able to determine the quality indicators of purchased goods and their conformity to their price. This allows the vendors to set prices for the goods by imitation, not in accordance with their quality. For example, same goods can be sold in the market under different names and prices.

Third, commodity and service producers also suffer from information asymmetry. Due to hidden characteristics of the consumers, market dominating companies are unable to make profits. For example, monopolist airline can obtain maximum profit by determining the characteristics and capabilities of the consumers.

Fourth, hidden capabilities create significant problems for entrepreneurs using labor force. If the employer cannot determine professional qualities of hired workers, this can lead to reduced profits and weakening position in the market.

Incomplete information and information asymmetry is distinctly expressed in modern social-economical systems.

Let's note that, social-economic development of the civilization is divided in several stages. First stage is traditional economy. On this stage, patriarchal families owned closed domestic

household and without exception worked for the needs of their families. Accidental excess goods could be exchanged for others. Unsuccessful exchanges did not damage the family state.

As the society developed, excess goods gradually became production objects. From this point, the second stage of development – development of market relations commenced. The market can only exist by means of excess goods. Regular excessiveness of the goods leads to their exchange. Thus, the second stage of the development of civilization is characterized by order-based works of craftsmen and manufacturing of a part of goods for market exchange.

Following stage of economic development – the modern stage is characterized by activities of multiple independent manufacturers in different markets.

The main difference among the noted stages is the increasingly lengthening period of delivery of commodities from manufacturer to the consumer. In first stage this period was nearly non-existent. Thus, the manufacturers were also the consumers.

A certain distance was created in the second stage. Goods were delivered from the manufacturer to the consumer through local markets. In that stage, all trade operations were carried out by the personally acquainted people. Traditional public institutions were the main warrants of consciousness, honesty, and discipline of business partners in market relations.

Currently, majority of goods and services is manufactured in unknown markets. The distance between the consumer and the producer is rather large. Market trade is conducted among unfamiliar people. Frequent change of business partners, producers, vendors and buyers brings anonymity and individualism to the character of modern economic relations. Cases of misuse in markets exceed in manifolds under such conditions.

Thus, information asymmetry significantly affects market operation mechanisms and behavior of the participants. Information asymmetry results in non-optimal distribution of the resources and imbalance in the market. Market is communicative system. For this reason the effectiveness of market operation depends on the quantity, quality and distribution speed of information. Different characteristics of information impact the formation of market mechanism and its effective operation.

Perfection of market competition strongly depends on the characteristics of information circulating in it. Two conditions must be met for pure competition: first, sufficient vendors and buyers; second uniform and standardized goods.

Additional conditions, such as complete information and absence of previous bargaining are required for a perfect competition. Bargaining stands for joint use information combined from several market agents in order to earn profit. Thus, perfect competition also includes complete and free of charge perfect information for all participants of the market.

The role of information in improvement of the market has been stated by the classics of the economic theory. According to A. Smith, necessary knowledge on market capabilities must be acquired in order to implement the competition conditions [5]. According to English economist and scientist N. Senior, market regulators – production expenses – ideally carry out their functions, under one conditions that, each manufacturer has complete information about the profits [6]. Another English economist W. Jevons characterizes the market in his competition concept in a theoretically ideal form: “Traders have complete knowledge about demand and supply conditions, as well as exchange relations created here” [6].

Thus, the first information condition for successful operations of the market – is the free and unhindered access to the information by all its participants. Second condition is – distribution of information among sufficiently large market participants. No market participant must keep the significant part of demand and supply for goods and commodity under his control.

Information distribution – is a condition for the effectiveness of market mechanism. Information owned by each market participant results in transformation of the market in a single, communicative system.

In cases of insufficiency of information, prices weakly react to the change of demand and supply, they are not flexible. Under weak information exchange conditions, a commodity has not one, but several prices on the market. Formation of single prices is possible only in a completely informatized market.

Wide application of ICT on all fields of activity has a devastating effect on information asymmetry based monopolist market environment. Coordination capabilities of business processes are broadening due to development of ICT. Different business types integrated through Internet are starting to operate more effectively within the framework of new market-network infrastructure, i.e. market network infrastructure broadens the magnitude of business, lowers the asymmetry level of information, allows rapid spreading of economic

innovations. These events occur due to the capabilities created by the Internet [7]:

*Obtaining desired information.* Internet creates opportunities for marketing researches that other information sources are not capable of. Physical and legal persons can instantly and easily collect a large amount of information about enterprises, their products, competitors, partners etc. Marketing specialists are always capable of conducting passive researches, studying the target segment of the market, analyze the behaviors of the users on website by conducting target-oriented surveys etc. Internet is an unparalleled tool for monitoring and formation of public opinion for marketing specialists.

*Lowering the consumers' impact level.* The consumer does not come under the influence of rational and emotional factors of his/her family, relatives and friends, as well as vendors. Confidentiality of trade and obtaining information is protected.

*Flexible adaptation in market conditions.* Providers can operatively make additions to trade proposals, regulate the prices and characteristics of the goods. Internet allows to following growing demand tendencies and impacts their formation.

*Comfort for the consumers.* Firstly, it is expressed the rapid use of information without leaving the house, and ordering of goods and services any time of the day. It is possible to write necessary information about the commodity without limitations, post its picture, create an audio-video accompaniment mode. An important result of internet operations and its dynamic development is the ability to create instant mutual connections about the producers and the consumers.

*Payable and socially active audience.* Ownership of computer and connection to Internet are indicators of high purchasing power, i.e. network is more interesting for enterprises and audiences. Besides, Internet users are people that actively express their superiorities and experiences, demands and hesitations. the impact of forums, blogs and virtual society increases, as the confidence in traditional advertisement is reducing, which has its own justifications as all information is an idea of a person with a certain reputation and is regarded as trustworthy.

*Lowering expenses of enterprises.* Internet-marketing allows to reduce expenses of storing and guarding of goods, creation and support of catalogues, formation and operation of internal document circulation, business trips, establishing contacts with consumers, providers, partners.

*Establishing partnership contacts of enterprises and consumers.* Internet is a matchless tool for establishing closer connections in real time mode, organization of forums, teleconferences and conduction of dialogues, promptly expressing stances on inquiries of consumers and requirements of the partners.

*Interactivity.* It is possible to establishment direct connections with the consumer online: it is possible to demonstrate superiorities of goods during live discussions and learn consumers opinions.

*Broadening competition.* Absence of borders and the ability to enter global virtual market significantly increases the number of producers and consumers. As in traditional business, competition is mainly related to proposed prices and types of the goods. Besides, accessibility of content on the website of the enterprise is the weak point of the competitors. Unlike traditional economy, it is more difficult to achieve and hold on to superiority over competitors in Internet.

*Lowering potential entrance barriers' level.* In real world, many companies cannot enter new markets due to existence of barriers such as dimension effect, absence of distribution systems, presence of strong trademarks and insufficient information at the disposal of consumers. Such barriers are non-existent in the virtual world.

*Convergence of the fields.* Convergence tendencies are strengthening in many fields under the impact of digital technologies. For example, information companies need new technologies and networks that are present in computer and communication firms. The latters are obliged to supply their networks with necessary information in order to attract buyers. As a result new market opportunities emerge for merger, acquisition and partnership.

*Increasing value for the consumer.* Internet-marketing is profitable for the buyer, as it offers lower price, larger selection, additional comfort and individual approach in comparison with traditional trade objects. New companies with such superiorities rapidly surpass their competitors that are based on traditional forms of business organization.

*Ability to enter world market.* Borders and distances are eliminated due to the Internet. Consumers can pay more attention to quality and disregard distances while selecting goods online. Thus, any company acquires an International status thanks to the Internet.

## 5 Transformation of mediation function of the market

One of the most important functions of the market – mediation function is losing its essentiality as a result of emergence and wide application of ICT. The essence of mediating function consists of uniting the market provider with the customer, vendor and buyers, provide opportunities for conducting discussions on the price, demand, supply, trade and find a common denominator. In modern environment, Internet undertakes the mediation function. Professional mediation activities (broker, dealer) are no longer needed. Deformation of such important function that is inherent to market economy creates new a situation for the economy. Under such conditions, simplification of the trade process, elimination of relevant hindrances, and reducing prices are observed.

Former U.S. Secretary of Commerce, W. Daley states that, Internet creates direction connection between the vendor and the buyer, and helps create “conflict-free capitalism” by providing more information about each other [8]. According to him, Internet lowers transaction expenses; mediators are eliminated and begin to increase the value of commodity. According to the former minister, only certain organizations will be able to succeed due to the lowest prices, for this reason other companies are obliged to select the strategy based on increasing the quality level of rendered services to the customer: “If you want to render services, arm your employees with intelligence”.

American historian-scientist J. Berk notes in his work titled “Mutual relations” that, as the majority of the bargains are carried out directly by the trade subjects through electronic transactions due to the Internet; traditional mediators either will be rendering additional services in order to add value to their counter-agents, or will simply disappear. To his opinion, customer service will become the key function of the business. J. Berk is confident that demand for business that are more individualized for the customer will urge the companies to transfer their internal activities to electronic processes.

## 6 Transformation of price-formation function of the market

The price-formation function is another important function of the market. This function creates a connection that is swiftly reacting to changes occurring between production,

consumption and competition, and demand and supply relations in the market, as well as value and price due to the existing money supply.

Information economy based on the capabilities of Internet violates the traditional principals of price-formation, i.e. unlike traditional market increase of demand does not lead to the increasing price of a commodity or service. Internet connection can be cited as an example for that, such as a bigger number of connected Internet users do not lead to increasing of rates. Because the final limit of Internet connection expenses of additional users equals to zero.

Consumers are accustomed that in the traditional market a small improvement certainly leads to increasing prices. But creation of microprocessors completely changes the price-changing objective laws. In information economy, a slight growth price can significantly change the quality. Since their invention in 1971, microprocessors have demonstrated counter-reality to the traditional price system. Telecommunications are now following the analogic path: the prices are reduced in half; their power increases in two-fold every year and a half (as in computers). Reducing price of micro schemes is based on the Moore Law [9] network price reduction is based on Gilder Law (named after George Gilder forecasting that the volume of the communication will grow in three-fold in the future – in 20 years) [10].

Combination of the increasing power of telecommunications with the small size of chips and reducing prices has led G. Gilder to form an idea that the network would be independent [10]. The value of transmitted bit asymptotically approaches zero, but never reaches it. Other sets of quantities in information economy act analogically. While the quality increases, the value of a calculation, information and document copies is reduced. For comparison, let's note that the price of an automobile (car) continuously reduces from the first day of its exploitation.

The price of telephone conversation also becomes cheaper in the same manner. It might be questioned that, how do telephone companies keep operating under such conditions? How do they earn profit in order to develop the system, conduct researches, support the system, and additionally make an income? The answer is simple: by broadening the functions of the telephone. If the value of any service approaches zero, the list of the services must be enlarged so that as the result of multiplication of the quantity to the price, the income would surpass the expenses. Profitability can only be provided due to growing number of

subscribers and prolongation of service use period by them thanks to innovator activities and realization of the creative mentality.

Price of goods in information economy depends on many factors. In internet network, emergence of additional objects is of great importance for all users. This feature of information economy forms a contradiction with two most fundamental axioms of industrial economy: 1) value is related to rarely found items; 2) excessiveness of the goods leads to reducing of the prices.

In information economy, participation value grows exponentially in relation to the growth of number of participants (users). Any exponential growth has a "breaking point". After reaching this point, reverse events, a backwards rolling occurs in the development process of the business, production or the network itself. Constant low expenses, lack of insignificant final expenses and rapid distribution of the goods inherent to information economy reduce the time interval.

The main law of information economy is known as "coefficient of efficiency" (output). Growing coefficient of efficiency in industrial economy is possible due to the strong efforts of separate companies and subsequently they gain profit from it. In information economy, coefficient of efficiency is created by all network participants and as a result, gained profit is divided among everyone. Agents, users, competitors jointly create the value in the network, but as the result of growth of coefficient of efficiency can be evenly distributed among them [11].

## **7 Knowledge economy against the existing market principals**

According to the classic ideas, market economy is established based on three foundations: private property, law of value, mutual relations principal of demand and supply. In information society knowledge and ideas strongly impact these foundations. For example, a person or a company may have an idea but refrain from telling it to anyone. That idea might be kept secret or used as personal "know-how" [12]. Such secret possession is not a form of property. Property and possession are two different categories. Property is a social relation and a legal category. Thus, it is and openly owned and used legitimate relation recognized by the society, i.e. in order to transform a relation to an idea, one must inform the society about this relation.

Socialization of a personal idea transforms it into a collective property. If knowledge is approached as

a capital, then this capital belongs to all people. In general, collective property is more suitable to the nature of intellectual property. K. Marx referred to intellectual labor as “general labor” [13]. According to him, any thinking process uses the knowledge passed down to us by the previous generations. Even if a person is engaged in solitary actions, his labor is considered as public labor. Collective property cannot be identified with government property. Government property is another form of private property. Government property is only similar to collective property due to its non-personal characteristics

Law of value requires that, goods are exchanged in accordance with the quantity of labor, i.e. proportionally to the time spent for their production. But it is impossible to evaluate ideas in relation to time. Ideas emerge and exist independently from time and location. For this reason, law of value cannot regulate exchange of ideas.

Demand and supply conformity principals do not prove to be correct in relation to the knowledge. Because knowledge as a supply surpasses the demand manifold and this proportion is increasingly growing. It is true that, nowadays in relation to “know-how” and patents, there is a balance between supply and demand. But within the general knowledge their specific weight is not very high.

As seen, market is not a suitable economic system for knowledge production and exchange. As the knowledge enters market, it destroys its structure that has been forming for many years.

In information society money is not able to handle its function as the main regulator of economic relations. Thus, money in its essence is a measurement of value. Knowledge has no value (or it is impossible to measure its value). From this point of view, it can be considered that, economic relations in information society will be regulated through knowledge, i.e. economic relations will be planned and directed through the human will.

According to remarkable American economist P. Draker, who supported this idea, the administration and control of information society will gradually pass from owners of the capital to the owners of information and knowledge, and subsequently to the owners of technologies that efficiently use them. According to him, at this stage of civilization possession of necessary knowledge will provide for easy acquisition of traditional production resources (land, labor force, capital) [14].

Knowledge is similar to money in a way that people can easily change their material status using it by preserving their qualities. The idea that has no

value is transformed into money, or money is invested in order to obtain knowledge. As a confirmation of this idea, remarkable American scientist A. Toffler, a member of information society ideology thinks that electronic information will become the main tool of exchange instead of traditional money [15].

## 10 Social networks as a market alternative

Information services that occupy an important place in modern world economy displace the traditional commodity-money relations and have become one of the main factors that change the architecture of world economy. This relates to advertisement market, security market, investment market, software market and Internet services market. Economic relations evolve in direction of development of collective expert forms of self-management. Realization of such self-management at a full capacity and honest collectivism can be established only in developed information society where communication environment makes all information accessible for every person.

Let's mention that, since its emergence, commodity exchange considered evaluation of necessity of products by the consumers. Exchange parties acted as experts determining the necessity of and demand for commodities. Although each commodity exchange had special characteristics that were considered important solely for the exchange parties, each commodity exchange was a public event, a collective assessment of demand for commodities and services. Accuracy of an expert assessment grows due to the multiple single-type transactions and their increase by time. All these factors allow the application of model commodity – money. High accuracy of labor assessment creates demand for commodity-money exchange [16].

As the commodity-money relations develop, larger classes of the society are engaged in expertise and management activity. Modern information-communication environment changes the characteristics of commodity-money relations. Upon analyzing the purchasing process of complicated household appliances, it can be seen that the customer cannot assess the consumption characteristics of commodity himself; he needs the help of experts and relies on his friends, acquaintances, relatives, consultants. In modern world, in information society such expert functions are fulfilled by social networks.

A person cannot act as an expert during all purchasing processes anymore. In such situation, a person must act as an expert for other people, as well as use the expert capabilities of other people. Under conditions of communication environment development based on internet capabilities, the entire society becomes an expert both for providers and consumers.

Independent communication environment and disinterested information exchange among people shaping in internet network becomes a formation environment of new consumer value. Information society creates a suitable network environment for obtaining expert information in one or another form. Expert assessment is a necessary definition for comprehension of modern economy. This definition diverges from classic market relations more and more.

Thanks to all these opportunities, the share of market relations in economy is getting smaller. Development of communication environment allows the socialization of the society by undertaking the non-market functions (social support and protection of environment, fight against corruption, etc.). Moreover, market mechanism of consumer value formation is displaced from the private sector due to business globalization and expansion. Competing companies shape new partnership relations by finding common owners and creating more effective strategies than primitive market behaviors. In time of global communication, transnational corporations use different tactics – with total advertising and partnership networks, they shape an additional image for customer by increasing the consumption value of their commodities and services in imagination of customers.

Collective expertise is not only an important part of information economy, but also it becomes an effective controlling tool of the society. Currently, the government takes the opinion of society into consideration only before elections. However, perspicacious politicians have started to consider the assessments of their activity on social networks. The government recognizing the development tendencies of information society must entirely support the formation of professional social networks and introduce its decisions and projects to their expertise. Commodity-money relations are gradually replaced with network relations. A new system of society governance must develop alongside with development of communication environment including new economy, creation of free access to information of all citizens of the world [17].

Commodity-money relations are gradually replaced with network relations. Development of a new social administration system, as well as improvement of communication environment including new economy, creation of free access to information of all citizens of the world is necessary. At present, introduction of brands, trademarks and products via social network and growth of their rating is observed. The firms representing different sectors of economy prefer to deal with their customers via social networks. Social networks allow enterprises to communicate with interested customers, create long-term relations with them, manage the reputation of enterprise, increase sales volume and solve other business issues on a high level [18].

According to statistical data, 95% of Internet users enter social networks on a daily basis and converse about products, services, enterprises, share their opinions and impressions. As a result, positive or negative opinion of each user can thoroughly affect the reputation of an enterprise with multi-million turnover. According to the results of conducted surveys, 87% of social network participants trust the opinions of users more than the information given from official sources [19].

For example, there are functioning popular tourism related web-sites with many users. The users that travelled to different places of the world share impressions on this web-site. Through such user opinions, the impression is formed about every country, its touristic center, and the hotels. The user planning to travel to a particular country or a tourism location is informed through these forums and social networks.

Healthcare service sector can be considered as an alternative example. At present, there are several forums about different medical centers, as well as doctors of different sections of a particular medical center. In these forums, former patients that used the services of a particular doctor share their impressions and form an opinion regarding the hospital and the doctor. The patients planning to apply to the dentist, gynecologist, or the heart surgeon become familiar with these opinions written about every doctor through these forums and select a doctor based on them.

These examples show that the impact of information manipulations and advertisement is minimized under such circumstances. Consumer opinion becomes a more effective tool. In this situation, the only successful way to succeed and attract more consumers emerges, which is to produce higher quality product, render services,

conduct balanced price policy and refer to the consumers.

The “collective brain” idea once introduced by prominent Russian scientist N. Moiseev coheres with collective expertise approach [20]. By mentioning the “collective brain”, N. Moiseev considered the system connecting people with information relations. According to him, collective brain – is a special information system which allows collective decision-making, not only it collects and transmits, but also analyses the information and makes conclusions, comprises individual intellects in particular manner. N. Moiseev thought that collective brain will implement the collective regulating functions of forecasting the approaching crisis threats and suggest alternative development methods. “The humanity will step into the information society when the collective intellect will be able to fulfil such functions”.

## 11 Conclusion

The prominent changes in structure, functions and elements of the economic system dominating the world –market economy as a result of the impact of ICT assume great importance from the standpoint of the future of humanity.

In modern economy the conversion of knowledge and information to the main production factor and resource creates a non-characteristic situation for traditional economy. Repetitious use and replication possibility of consumed knowledge and information stimulates fast innovative development of this economic sector. It seems to be inevitable that the society will meet the new economic objective laws of the humanity in information society where inconsistent dynamic development of this sector with market principles is observed.

The transition of traditional economic relations from real world to virtual world is also inevitable. But under circumstances of global and virtual characteristics, openness and informative value of Internet, the adaptation process of traditional market structures, functions and elements to this environment and the type of the new relations to be formed arise several questions.

The issues such as regulation of an economic system and methods of provision of social orientation in Internet environment remain unsolved. Since, the solution of regulation issue of Internet as universal information-communication infrastructure and environment has not been found. Regulation of economic relations is of great importance as a more complicated issue in a global

and virtual environment under dominance of uncertainty from legislative point of view.

Establishment of direct contact between the producer and the consumer, individualization of production, development of the third sector through domestic employment, creation of unparalleled, new economic activity environment by social networks lead to the development and improvement of extra-market economic relations. It is not definite whether parallel or mixed economic systems will exist or different economic systems considering new economic nuances will be established in this newly emerged situation.

These transformation processes occurring in the economic sphere were forecasted by prominent representatives of information society theory at the end of the previous century. Intensive researches are currently carried out; different ideas of introduced and different points of view are put out in this field. However, despite all these ideas and tendencies, there are no clear scientific notions and suggestions regarding by the economic system that will replace the market economy.

In general, it is necessary to conduct a systematic, purposeful, successive scientific investigation of occurring transformation processes occurring the economic sphere due to the impact of ICT and forecast the results to be caused by these processes. Only by constructing an economic model based on scientific principles, it is possible to regulate and develop economic relations in legal context.

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