



Impact of Digital Economy on the Transformation of Models of Business Activity Organization within Corporations

Impacto de la economía digital en la transformación de modelos de organización de la actividad empresarial dentro de las corporaciones

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Content

- [1. Introduction](#)
- [2. Forms of business activity organization](#)
- [3. Impact of information technologies on choosing the form of business organization](#)
- [4. Conclusion](#)

[Acknowledgements](#)

[Notes](#)

[References](#)

ABSTRACT:

This paper aims to investigate the impact of information and communication technologies on methods of organization of business interaction. The research methodology is based on the -new institutional theory. Contrary to the common perception that the market and major companies give way to network interaction forms, we maintain that methods of organization of business interaction are growing in variety, particularly in terms of enlargement of federated structures based on possessory control. Our analysis of the available models of business activity organization showed that attenuated information asymmetry makes the management of large corporations apply tougher methods to control their divisions. The present article highlights three types of principal-agent problems in intercorporate relations: blatant opportunism, mild

RESUMEN:

Este trabajo pretende investigar el impacto de las tecnologías de la información y la comunicación en los métodos de organización de la interacción empresarial. La metodología de investigación se basa en la nueva teoría institucional. Contrariamente a la percepción común de que el mercado y las grandes empresas dan paso a formas de interacción de red, sostenemos que los métodos de organización de la interacción empresarial están creciendo en variedad, particularmente en términos de ampliación de estructuras federadas basado en el control de desposesión. Nuestro análisis de los modelos disponibles de organización de actividad empresarial mostró que la asimetría de la información atenuada hace que la gestión de las grandes corporaciones aplique métodos más estrictos para controlar sus

opportunism and inefficient performance. We point out that lifting information access barriers will counteract predominantly the first two of the above-mentioned types, resulting from the fact that low performance is based not only on information asymmetry, but also on the weakening of incentives, which is typical of collective forms of business activity organization. We argue that centralization, bureaucratization and total control inherent in tough management methods undermine even more the motivation of employees and, consequently, exacerbate the issue of missed opportunities.

Key words: corporations, corporate control, information and communication technologies, digital economy, information asymmetry, incentives, opportunistic behavior, disruptive selection.

divisiones. El presente artículo pone de relieve tres tipos de problemas de los agentes principales en las relaciones interempresariales: oportunismo descarado, oportunismo moderado y rendimiento ineficiente. Señalamos que la elevación de las barreras de acceso a la información contrarrestará predominantemente los dos primeros de los tipos mencionados, resultando del hecho de que el bajo rendimiento se basa no sólo en la asimetría de la información, sino también en el debilitamiento de los incentivos, que es típico de las formas colectivas de organización de la actividad empresarial. Argumentamos que la centralización, la burocracia y el control total inherentes a los métodos de gestión difíciles socavan aún más la motivación de los empleados y, consecuentemente, agravan el problema de las oportunidades perdidas.

Palabras clave: corporaciones, control corporativo, tecnologías de la información y la comunicación, economía digital, asimetría de la información, incentivos, comportamiento oportunista, selección disruptiva.

1. Introduction

Rapid development of digital technologies, including information and communication ones, characterizes the world today. This is not solely a matter of growing automation of data collection, storage and treatment as well as decision-making processes; it is a question of Internet diffusion, which provides geographically dispersed participants with opportunities for group interaction, of transferring significant number of transactions to the digital environment and of lifting traditional information access barriers (Parinov, 2002). Implementation of information and communication technologies (ICTs) in all spheres of life creates appropriate conditions for changes in communication methods, in labor division pattern, in employment structure and in price proportions.

There is a wide diversity of views on the content and consequences of this process (Bard, Soederqvist, 2002; Schwab, 2017). Despite these different assumptions about the consequences of spreading ICTs, most researchers, however, agree that everything points to the upcoming revolution, which will bring about drastic changes in the nature of relationships between people, companies and the state, as well as the very lifestyle of society, including the prevailing method of organization of social production (Castells, 2010).

According to one view, modern means of communication significantly modify the organizational methods of business interaction. More specifically, the market and companies, - the extreme ends of the continuum, - gradually give place to network structures and, in particular, to value chains. The latter, on the one hand, enable implementation of all the advantages of market-based division of labor and, on the other hand, contribute to the implementation of scale, synergy and complementarity effects peculiar to the shift of interaction within the borders of the company.

The use of network forms of interaction becomes more widespread. In our view, talking about networks' replacing large corporate structures is, however, a little premature. Practice has shown that the current situation is exactly the opposite: forms of business interaction organization are growing in diversity and the scale of corporate structures is increasing. Implementation of ICTs into managerial practices makes the latter possible.

The aim of the present article is, precisely, to analyze the influence of ICTs on the performance of large corporations.

2. Forms of business activity organization

The basic form of business activity organization is an independent firm or, according to the

terminology that Oliver Williamson uses, the unitary structure (Williamson, 1985) based on the direct or indirect (by means of the management's intermediate levels) subordination of all company services and employees to superior authorities.

The following are the defining features of the unitary structure: clear limits of the company; market-based interaction with other economic agents; presence of the organizational center monopolizing the right to the distribution of internal coordination functions; partial delegation of economic powers to subordinate managers while preserving the cross-cutting nature of subordination.

In Williamson's view, the main drawbacks of this structure are the following:

- Impossibility to give an accurate assessment of the contribution of various divisions to the company's overall benefit;
- Bargaining of division managers for the company's common resources;
- Division managers' aspiration to maximize their share of corporate investments.

As the company grows in size, its performance within the unitary structure decreases owing to an increase in internal transaction costs, mostly due to information asymmetry (Kapelyushnikov, 1991), and to a decrease in adaptability to changes in the external environment. A shift to corporate or more specifically federated structures becomes the most natural reaction to this state of affairs.

The term 'corporation' refers to two overlapping but divergent phenomena in research literature. From a legal standpoint (Art. 65.1 of the Civil Code), corporation is a legal body, the shareholders and/or participants of which have corporate rights, including the right to take part in management, to shape the supreme authority, to obtain information, to be complainants in a court of law and other rights.

We will use this notion drawing on its economic interpretation. From an economic perspective, corporation is a heteronomous business organization uniting several semi-autonomous units under general direction (Ustyuzhanina et al., 2013). The impact of the corporate center (the headquarters) on the activities of company divisions may vary considerably depending on objective conditions for their activity and on the corporate center's subjective assessments and challenges. For the purpose of this paper, we will call such organizations federated structures.

A federated structure is an model of business activity organization based on the provision of business autonomy to all divisions of the corporation and the use of internal economic indicators for coordination of their activities.

The vassalage lies at the core of the federated structure performance. Its main difference from the pyramid of authorities typical of the unitary structure is the absence of the cross-cutting subordination and a clear division of competences ("my vassal's vassal is not my vassal"). In other words, the question is about the division of competences between the headquarters and the division management and about setting up a mutual responsibility system or the inner legal framework. The advantages of the federated structure are listed below:

- Increased adaptability due to delegation of authority relating to business decision-making to a lower management level having direct knowledge of the market and the division resources;
- Ability to measure business performance of organizational units, i.e. divisions.

The shortcomings of the federated structure include the increase in management costs as a result of duplication of management functions, the risk of violating internal cooperation and the risk of opportunistic behavior among the division management.

Speaking in terms of divisions' independence, the federated structure has three major forms of business organization differing in the level of power concentration in the central headquarters designated as H, M and Z (Ustyuzhanina, 2015).

Holding (also known as H-structure) is a combination of several independent businesses under common possessory control, while corporation divisions are distinguished on the market basis and provided with financial and economic independence.

The term 'H-structure' comes from the English word 'holding' meaning a group of companies, one of them owning the shares of subsidiary companies. This allows the parent company to influence activity of subsidiaries. Our analysis, however, focuses on the examination of the organizational configuration of federated organizations, rather than the legal one. This distinction is important, since the H-structure may well exist within one company, and a group of companies existing *de jure* as a holding structure may be *de facto* a unitary organization. (Note 1). Besides, if the H-structure exists as a group of legal bodies united by possessory control, not only the holding company having the shares of subsidiary companies, but also a specially created management company may perform functions of headquarters (Mogilevsky and Samoylov, 2007).

The main functions of the H-structure management unit (headquarters) include formulating the company's overall development strategy; selecting the corporation's business portfolio; determining the ownership structure and the amount of borrowings; laying down the rules concerning the corporation's organizational structure composition, including the boundaries of business units as well as the extent of their autonomy and, finally, establishing basic rules relating to intracorporate interaction (Dementyev, 2015).

Such a form of organization is typical of most large Western corporations with first-level divisionalization. Divisions are the investment centers that are operational in their markets or market segments, and their management has the right to take decision concerning both market strategies and business investments without moving beyond common corporate limitations.

As far as Boeing is concerned, there are two divisions: the civil one, Boeing Commercial Airplanes, and the military one, Boeing Defense, Space and Security. There are three divisions for Airbus: Airbus (civil aircraft industry), Airbus Defense and Space, and Airbus Helicopters. General Electric is divided in four business zones: GE Technology Infrastructure (medical equipment, locomotives and airplane engines); GE Capital (finance), GE Consumer & Industrial (low-voltage and lighting equipment, uninterruptible power supply systems); GE Energy (oil and gas equipment, water preparation).

The emergence of holding structures in the late 19th and early 20th centuries was due to production and capital concentration and centralization processes, including business diversification and internationalization. Holdings provided for financial and industrial hubs an effective means of control over business activities of their subsidiaries. In the 1920s, serious changes occurred in the organizational structure of corporations - there began a gradual transformation of the H-structure into the multidivisional M-structure.

Multidivisional organizational structure (also known as M-structure) refers to a federated structure with a major center, which exercises significant influence on semi-autonomous units (or divisions). It may exist as a single legal body or as a group of companies. Divisions are distinguished according to type of goods or geographical location.

P. S. Dupont and Alfred P. Sloan are considered to have come up with the idea of the M-structure, and Dupont and General Motors Companies were the first M-structure firms. In Russia, ALROSA is a typical multidivisional company featuring, as part of the same legal body, several mining and processing enterprises, construction and mounting organizations, common marketing facilities and an air company.

The main difference of the M-structure from the H-structure lies in the restriction of the divisions' autonomy, best exemplified by assigning a mandatory intracorporate task for divisions and by regulating intracorporate (transfer) prices. In addition, the headquarters have all powers to make decisions concerning the implementation of investment programs.

Various factors may account for the restriction of the divisions' autonomy:

- Significant internal cooperation (as far as vertically integrated structures are concerned);
- Presence of common primary functions (production, distribution, marketing, R&D and many more);
- Exploitation of economies of scale when setting up common infrastructure and auxiliary

subdivisions; and

- Demands for authority on the part of the management.

Many researchers believe that the M-structure emerges, as a rule, from the combination of independent companies operating in various markets with some of their management powers transmitted to the headquarters rather than from the federalization of the unitary structure operational in several markets (Chandler, 1962; Mintzberg, 1992). This is how the best-known federalization, - restructuring of General Motors by Alfred Sloan in the 1920s, - occurred. According to Chandler, William Durant established GM as a holding company but never managed to amalgamate it into one body. Alfred Sloan succeeded in this task by building a central control system and by limiting the division managers' authority.

As is well known, Oliver Williamson considered three main organizational structures based on possessory control: the U-, H- and M-structures. In our opinion, there exists one more structure, where divisions are delegated only with functions of current business activity management, namely: management of production and sales processes, preservation of assets and efficient use of resources.

Quasi-federated form of organization (or Z-structure) refers to relative business independence of the divisions with the headquarters making both strategic and some operational decisions. The restriction of the divisions' autonomy is reflected in a set of targets for them as well in limited budget spending.

If the Z-structure is implemented within a group of firms, the following categories of firms are usually denoted as independent legal bodies: *operational* firms, including the service ones; *safe* firms, whose balance sheet is responsible for the corporation's more or less valuable property leased to other divisions; *deposit* firms that accumulate the shares of the corporation's member companies; *management* firms that limit the competences of executing bodies of the corporation's other enterprises; *mediation* firms, including the commercial ones, which are in charge of supplying resources and marketing the goods produced by operational companies; *financial* firms, including the leasing ones, which redistribute funds within the corporation; venture-capital firms responsible for the development of new products and projects; *transfer* firms, which perform various auxiliary functions, above all, that of minimizing the corporation's general tax burden.

This kind of organization turns operational firms in production units, such as plants and workshops, which carry out production plans approved by the management. They pay safe firms for renting fixed assets, purchase materials and supplies from intermediaries (optionally, they obtain raw materials in accordance with the tolling agreement), sell their products to intermediary institutions and, in case of insufficient funds, borrow them from financial structures that are part of the corporation.

Viewed from the perspective of the corporate structure of business organization based on possessory control, there is a continuum, with, on the one end, the U-structure with a dominant influence of the center (or the headquarters) and, at the other, the H-structure with a minimum influence of the center. Consequently, the Z-structure is closer to the unitary structure, and the M-structure - to the holding one.

The main difference between the Z-structure and the unitary structure is that the divisions' management has the right to make operational business decisions within allocated budgets and that the nature of subordination is not cross-cutting. In other words, the headquarters have limited rights in terms of managing the division's employees. The main difference between the Z-structure and the M-structure is that freedom of market behavior is limited, and it is the prerogative of the center to decide what to produce, what to sell, to whom and at what prices. (Note 2).

The differences between the three forms of federated structure organization can be illustrated by network trade - a group of commercial businesses that have the same brand name, sell similar products and are under the general control and direction of a center.

Under the H-structure, the headquarters establish procurement policies (major suppliers, the line of goods and pricing policy), and trade points are free to organize their commercial activities and are responsible for an operational management of the available resources.

Under the M-structure, the predominantly centralized procurement system is combined with granting rights to manage flows and stocks, such as inventories, orders and reassessment, to trade points.

Under the Z-structure, hawker trade takes place, implying the concentration of all management functions at the headquarters, a centralized system of procurement and stock management. Shops turn into territorially distinct venues that sell products.

Both Z- and M- structures may sometimes be present in the same corporation, where the M-structure is intended for divisions operating in the external market, and the Z-structure, for servicing units and divisions charged with intracorporate orders (suppliers of semi-finished products and parts). The H, M and Z structures often go together at different divisionalisation levels of the same corporation.

Table 1 compares the characteristics of the H, M and Z structures.

Table 1. Comparative characteristics of forms of business activity organization within federated structures

Structure	Area of application	Basic rights	Controls
1. Z-structure	<ol style="list-style-type: none"> 1. Vertical integration 2. Centralized distribution of products 3. Ability to provide a precise definition of the divisions' business activity outcomes 4. Ability to maintain centralized control of stocks and flows 	<ol style="list-style-type: none"> 1. Right to manage resources promptly 2. Right to replace resources within allocated budgets 	<ol style="list-style-type: none"> 1. Intracorporate policy planning, compulsory goal setting 2. Flexible budget 3. Transfer prices 4. Charges for use of resources
2. M-structure	<ol style="list-style-type: none"> 1. Divisions operate on various segments of the market 2. Single piece production 	<ol style="list-style-type: none"> 1. Right to choose suppliers 2. Right to choose consumers 3. Right to manage income while paying money to the center 4. Right to obtain credit to finance working capital 	<ol style="list-style-type: none"> 1. Indicative intra-corporate planning 2. General pricing policy in the external market 3. Transfer prices 4. Charges for use of resources
3. H-structure	<ol style="list-style-type: none"> 1. Divisions operate on various markets 2. Divisions do business based on their own market strategy 	<ol style="list-style-type: none"> 1. Right to choose counterparties 2. Right to manage income while paying money to the headquarters 3. Right to manage assets and to encourage new investment in the form of loans 	<ol style="list-style-type: none"> 1. Strategic planning 2. Charges for use of resources 3. Limited independent investments

3. Impact of information technologies on choosing the form of business organization

The implementation of a specific form of organization within federated structures depends on the following factors:

- the nature of integration: vertical integration and common core functions, such as production, procurement, marketing and testing, incites the headquarters to restrict the autonomy of divisions using M or Z-structures
- diversity of markets: the more the markets or market segments (both commercial and territorial), where the corporation's divisions operate, differ from each other, the more rights it will be appropriate to give them;
- potential of information asymmetry attenuation.

Information asymmetry (Arrow 1973), along with high control costs and low incentives typical of team activity (Alchian, Demsetz, 1973), (Note 3) raises the multi-layered problem of the principal-agent (Fama, Jensen, 1983). At different levels, both participants of the legal body and subordinates ranging from middle managers to operators can act as principals (the less informed party) in relation to their superiors acting as agents (the more informed party).

This problem may be reflected in three types of agent behavior:

- blatant opportunism through embezzlement (dissipation of assets, partial appropriation of profits, kickbacks, theft, etc.) or through implementation of discretionary projects aimed at increasing one's own significance and power;
- mild opportunism related to withholding or distorting information (understatement of productivity rates, overstatement of resource expenditure rate, concealment of available reserves, inappropriate information about stocks, etc.). Unlike the preceding type, it is the desire to protect oneself (or one's subdivision) from excessive exploitation on the part of the management (the principal) that underlines mild opportunism;
- low performance and goofing off. These include missed opportunities that may be related either to the incompetence of specific employees, or to their lack of incentives to full commitment. Due to information asymmetry it is hard to assess an agent's performance in terms of both the importance of his or her contribution to the company's general outcomes and the identification of how much profit the company has lost because of him or her.

Modern ICTs deal successfully with the lack of information and information asymmetry, in relation to both what is happening outside and inside the corporation.

Take the case of a major commercial network. The available program solutions allow the company to monitor the following parameters of the internal environment present at each trade point: current stock levels of every type of commodity, sales of every type of commodity over a specific period of time, defect and return rates, and many more. Based on the stock management models, the necessary stock level, the optimal size of the shipment and shipment frequency are determined for every item in the catalogue. As a result, the headquarters no longer need to authorize trade points to carry out functions involving inventories, orders and reassessment. On the other hand, custom-made robots search the Internet for eventual changes in the company's exterior environment: market size; current activities of the existing competitors and appearance of the new ones, their market strategies and sales volumes; emergence of substitute products; new technologies; changes in customer demands, and so on.

Speaking of manufacturing companies, the amount of information that needs to be tracked expands and includes capacity and loading level of every type of equipment; duration of and causes for downtimes of each type of resource; production and non-production losses, etc. In other words, in addition to the task of gathering information to manage working capital, there are also the tasks of managing capital assets and, in particular, of revealing the limiting

resource and of tackling the issue of the optimal combination of the use of resources. This being said, the task of data gathering, storing and processing along with that of producing timely solutions, which meet the requirements for economic efficiency, may be assigned to the headquarters, from a technical standpoint. The only exception today is the use of the management's implicit knowledge about the abilities and limitations of individual employees and about the compatibility of specific individuals to respond to various tasks in efficient interaction patterns.

It is true that many existing enterprise resource planning (ERP) systems are far from perfect and cost a lot, but, first, they are improving and getting cheaper over time and, second, neither issue is crucial for large corporations. The economies of scale justify the amounts of investments, and market power provides an opportunity to make software developers improve their products in order to satisfy the consumers ([Note 4](#)).

In other words, the opportunities provided by the ICTs not only provide the necessary conditions for the corporations' growth in size, but also incite the headquarters to make a shift to tougher forms of business activity organization within federated structures, that is, to spread the Z-structure. The growing power of the center may well lead to the loss of competitive advantages.

The problem is that the transfer of business decision-making rights to a lower level of control not only ensures a better information management of the decision-making process, it also strengthens business motivation among employees. As is known, the administrative form of coordination peculiar to intrafirm relations weakens the incentives to effective action (Laffont, 2002). The tougher the employee's working conditions are and the less autonomy he has, the less active he becomes and the less focused he is on achieving personal fulfillment in his professional life and on working in the interest of the company (Handy, 1978; Argyris, 1993).

However, there are two sides to the coin. Delegation of authority in the context of information asymmetry not only strengthens the agents' business motivation, but also increases risks of their opportunistic behavior both in the blatant and mild forms. Technical ICTs means, however, may tackle this problem by monitoring and assessing in real time the activity of divisions and their managers.

Excessive centralization and bureaucratization of management results in the increased routine, reduced incentives for good performance, growth in additional monitoring units (Adizes, 2004) and loss of ability to notice "the violation of sequences" (Mintzberg, 1992). The expenses for control and administration grow, while mobility and ability to react to changes decrease.

The main issue is that the best software and the most efficient robots may find, process, measure and assess explicit information, while the entrepreneurial vision, which makes it possible to notice "the violation of sequences", is based on implicit knowledge (Polanyi, 1958) and intuition (Schumpeter, 1950), among other things. A related problem has to do with the appropriateness of information assessment criteria underlying the programs and, in particular, with the ability to foresee the consequences of certain changes. Assessing the threats posed by disruptive innovations provides the most prominent examples of such issues. Christensen (1997) points out that disruptive innovations, such as discount stores or personal computers, are initially perceived as niche products and, consequently, are not taken into consideration by market leaders.

Another consequence of the automation of data collection and processing and of decision-making is the impoverishment of the nature of work of most operators. Disruptive selection takes place within the corporation, which means that there is no longer any need in highly qualified middle-level specialists, including workers, accountants, programmers and linear and functional managers. The vast majority of employees starts to carry out only routine operations ([Note 5](#)).

4. Conclusion

1. The development of ICTs modifies business interaction methods and forms of business organization. The creation of conditions for improving the efficiency of activities of large federated structures is now taking place, along with the spread of network forms of business relationship building (value chains).
2. Federated structures differ in the extent to which the central agent (headquarters) influences the activities of their member divisions. This influence may be limited by the development of a common corporation development strategy, including the portfolio of its businesses and the boundaries of organizational units (H-structure). It may also be based on the restriction of the divisions' market freedom while providing them with operational business management functions (Z-structure). Located between the two extremes is the case of limited market autonomy (M-structure), within which divisions determine their suppliers and consumers of their products but are considerably limited in managing capital assets, including making decisions on the implementation of investment projects and investment promotion.
3. Choosing the specific form of business activity organization within a federated structure depends on such factors as the nature of integration, common core functions, peculiarities of markets in which divisions operate and the center's ability to make timely and well-substantiated business decisions.
4. One of the reasons limiting the size of a corporation is the combination of information asymmetry with low incentives typical of collective activity, which gives rise to the following three consequences: blatant opportunism (discretionary projects and embezzlement within the company); mild opportunism (concealment and distortion of information) and low performance among managers and operators due to the difficulty in assessing the contribution of each employee and to their low motivation).
5. The development of ICTs and attenuation of information asymmetry promotes not only the corporations' growth in size and territorial expansion, but also a shift to tough forms of organization of their activity. ICTs provide an opportunity for directive planning, centralized management of the divisions' fixed and working capital, ongoing monitoring of their activity, etc.
6. Tough management forms (centralization in terms of making most business decisions and bureaucratization) weaken the motivation of both managers and operators and turn them into corporate cogs showing little initiative. This situation hinders detecting new challenges and issues and narrows down the development potential of the company.
7. Disruptive selection starts to modify the system of business interaction within corporations when staff is divided into two unequal parts: the decision makers and operators charged with routine operations, including production, supply and marketing technologies along with management and monitoring ones.
8. The processes that are now taking place in corporations/federated structures on the basis of ICTs mean a return to directive planning, tighter control of business activity (including that of territorially remote divisions), concentration and automation of decision-making processes, impoverishment of work content for most employees and disruptive selection. These processes are prototypes of the processes that will apparently occur in the information society in the future.

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Notes

Note 1. We are talking about using the "lizard effect" when one centralized company exists as a business group for timely and painless elimination of subdivisions, against which contractors

or the state may complain.

Note 2. In this respect, the Z-structure is close in meaning to the centralized control of enterprises under a planned economy.

Note 3. From the point of view of Alchian and Demsetz, all these factors result from the same problem, that of the impossibility to carry out an adequate assessment of contribution and reward when working in team.

Note 4. However, many of the companies working today in Russia not only cannot repay their investments into ERP systems, but also have to spend resources and time in a very unproductive way in order to overcome the consequences of using ICTs, including the inefficient allocation of resources, loss of resources and information, low quality data processing, etc. As a rule, this situation takes place in case there has been no junction between the organization's operational system (in terms of tasks, work organization principles and routine work) and the reflection of this system in the digital world. However, these difficulties attest to the low competence of customers and realizers of relevant projects rather than to the ineffective use of ICTs in management.

Note 5. The issue relating to the impoverished nature of work also occurred when factory labor had replaced craftwork.

References

- Adizes, I., 2004. *Managing Corporate Lifecycles*. Santa Barbara: Published by Adizes Institute, pp. 460.
- Alchian, A.A and Demsetz, H., 1972. Production, Information Costs, and Economic Organization. *American Economic Review* 62 (3): 777–795.
- Argyris, C., 1993. *On Organizational Learning*. Cambridge, Mass.: Blackwell, pp. 464.
- Arrow, Kenneth J., 1973. *Information and Economic Behavior*. Harvard University Press. Harvard, pp. 30.
- Bard, A., Soederqvist, J., 2002. *Netocracy. The New Power Elite and Life After Capitalism*. London: Pearson Education, pp. 269
- Castells, M., 2010. *The Information Age: Economy, Society and Culture Volume 1: The Rise of the Network Society*. 2nd ed. Oxford: Wiley Blackwell, pp. 597.
- Chandler, A., 1962. *Strategy and Structure: Chapters in the History of the Industrial Enterprise*. MIT Press: Cambridge, MA, pp. 490.
- Christensen, C. M., 1997. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, MA: Harvard Business School Press, pp. 252.
- Dementyev, V. E. 2015. Usloviya koordinatsii ekonomicheskoy deyatelnosti kak faktor formirovaniya organizatsionnykh struktur [Conditions for Coordination of Business Activity as a Factor in Shaping Organizational Structures]. *Vestnik Rossiyskogo ekonomicheskogo universiteta im. G. V. Plekhanova*, (2): 55–63.
- Fama, E. and Jensen, M., 1983. Agency Problems and Residual Claims. *Journal of Law and Economics*, 26 (2): 327-349
- Handy, Ch., 1978. *The Gods of Management*. Penguin Books: N.Y. P., pp. 268.
- Kapelyushnikov, R. I. 1991. Ekonomicheskaya teoriya prav sobstvennosti (metodologiya, osnovnye ponyatiya, krug problem) [Economic Theory on Property Rights: Methodology, Basic Notions, Range of Problems]. Moscow: INFRA-M, pp. 90.
- Laffont, J-J., 2002. *Incentives and Political Economy*. Oxford University Press. Oxford, pp. 257.
- Mintzberg, H., 1992. *Structure in fives: Designing effective organizations*. Upper Saddle River, NJ: Prentice Hall, pp. 312.

- Mogilevsky, S. D. and Samoylov, S. A., 2007. Korporatsii v Rossii: pravovoy statusi osnovy deyatel'nosti [Corporations in Russia: Their Legal Status and Activity Base]. Moscow: Delo, pp. 480
- Parinov, S. I. 2002. K teorii setevoy ekonomiki [On the Network Business Theory]. Novosibirsk, IEEOPP SO RAN, pp. 168
- Polanyi, M., 1958. Personal Knowledge: Towards a Post-Critical Philosophy. Chicago: University of Chicago Press, pp. 493.
- Schumpeter, J.A., 1950. Capitalism, Socialism and Democracy. Harper & Row. New York, pp. 431.
- Schwab, K., 2017. The Fourth Industrial Revolution. Crown Business. New York, pp. 192.
- Ustyuzhanina, E. V., Yevsyukov, S. G., Petrov A. G. 2013. Organizatsionnoye stroyeniye krupnykh korporatsiy kak faktor stimulirovaniya (sderzhivaniya) ikh innovatsionnogo rosta [Organizational Structure of Large Corporations as a Factor in Encouraging/Restraining Their Innovative Development]. Natsionalne interesy: priority i bezopasnost (32): 10-32.
- Ustyuzhanina, E. V., 2015. Formy integratsii biznesa: vzglyad s pozitsiy institutsionalnoy teorii [Forms of Business Integration: Perspectives from the Institutional Theory]. Vestnik Rossiyskogo ekonomicheskogo universiteta im. G. V. Plekhanova, (2): 34–45.
- Williamson, O.E., 1985. The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting. New York: The Free Press, pp. 450.
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[Index]

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