

Modification of Ownership Forms under Digital Economy Conditions

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Abstract

This article examines the processes of modifying forms of ownership under the influence of technological and institutional factors in the digital economy. Ownership forms are analyzed using the methodology of institutional theory and radical institutionalism. The study identifies factors influencing ownership development, including the institutional environment, transaction cost reduction, property rights specification, and new digital economy technologies.

Keywords: forms of ownership, property rights theory, institutionalism, radical institutionalism, digital economy, Internet business

1. Introduction

Institutional and neo-institutional theory traditionally identifies four basic forms of ownership, which in modern conditions are being modified and acquiring new content. In the neo-institutional paradigm, the study of ownership forms occurs within property rights theory, firm theory, and contract theory. Notable contributors include R. Coase, A. Alchian, H. Demsetz, D. North, O. Williamson, R. Posner, E. Furubotn, S. Pejovich, K. Menard, P. Milgrom, and D. Roberts.

Issues concerning the state and public ownership have been studied in institutional theory of the state, public choice theory, and constitutional economics, with contributions from J. Buchanan, G. Tullock, M. Olson, D. Mueller, R. Tollison, W. Niskanen, V. Vanberg, E. de Soto, J.-E. Lane, P. Kozlowski, E. Kruger, B. Basinger, R. Eklund, S. Medema, T. Anderson, and P. Hill. Russian economists, such as R. Kapelyushnikov, R. Nureev, A. Shastitko, A. Auzan, A. Oleinik, V. Polterovich, Y. Kuzminov, V. Volchik, M. Odintsova, M. Yudkevich, V. Tambovtsev, A. Nesterenko, M. Tsirik, and A. Zaoztrovsev, have also contributed.

2. Four Basic Forms of Ownership

2.1 Open-access (Common) Ownership

This form is characterized by the absence of exclusive ownership rights to a limited resource. Any economic agent can use the resource freely, without coordination or permission, which often leads to **overuse**. Examples include global ocean waters, subsoil resources, and the noosphere.

Challenges include:

- Industrial overfishing, including illegal catches (~ 500,000 tons/year)
- Ocean pollution from oil, petroleum, and plastic (~ 20 million tons/year)
- Agricultural and industrial wastewater
- Disposal of radioactive waste
- Thermal pollution from power plants
- Military activities affecting ecosystems

International regulation exists through the UN Convention on the Law of the Sea (170 signatories), though overuse and legal issues persist. Similar challenges exist for outer space and the noosphere, including:

- Harm from rocket fuel combustion
- Ozone layer depletion
- Space debris
- Need for exclusion zones for falling rocket parts

2.2 Communal (Collective) Ownership

This form grants exclusive rights to a group of economic agents. Within the group, resources are held in common; outside, exclusivity applies.

Challenges:

- **Underutilization** and free-rider problems, especially in large groups
- Allocation based on effort may lead to overuse
- Group inefficiency in external markets

Advantages:

- Lower costs of property rights protection compared to private ownership
- Viable in small, homogeneous groups where members identify with the collective

Elinor Ostrom (Nobel Prize, 2009) demonstrated that communal ownership can successfully provide public and mixed goods, serving as a counterbalance to private ownership [3].

2.3 Private Ownership

Private ownership centralizes all rights to one economic agent. Key features:

- Entrepreneurial behavior and incentives for rational resource use
- Motivation to seek alternative uses for resources

Challenges:

- High costs of specifying and protecting property rights
- Dependence on societal norms and ideological context

Digital technologies have expanded private ownership into small, medium, and large enterprises. A major concern is cultivating effective private owners who also perform social and communicative functions. Radical institutionalists, including W. Dugger, W. Waller, E. Miller, J. Stanford, R. Phillips, D. Champlin, J. Peterson, C. Walen, D. Brown, R. Tilman, L. Junker, and H. Sherman, critique large private ownership, continuing the tradition of American institutionalism initiated by Thorstein Veblen and J.K. Galbraith [5].

2.4 State Ownership

State ownership regulates access to limited resources for insiders and outsiders, formalized through rules. Mechanisms partially mitigating opportunism include:

- “Voting with hands” or “voting with feet”
- Competition from other states
- Ideological controls
- Internal oversight by public organizations

Pioneers in public sector theory include P. Samuelson [6], A. Pigou, E. Lindahl, R. Musgrave, J. Stiglitz, V. Smith, Ch. Wolf, Ch. Tiebout, R.J. Aronson, E.B. Atkinson, E.S. Savas, D. Johnson, J. Stevens, R. Holcomb, P. Gunning, P. McNatta, and A. Dreizen. Russian contributions include R.M. Nureev, L.I. Jakobson, Y. Kuzminov, M. Levina, V. Mau, V. Polterovich, V. Radaev, L.S. Tarasevich, P.I. Grebennikov, A.I. Leussky, A.V. Dyachkova, L.A. Efimova, and P.S. Zvyagintsev [2].

3. Modification under Digital Economy Conditions

Modern modification involves hybrid forms of entrepreneurship, such as **public-private partnerships (PPP)**. Institutional factors, including a favorable environment and reduced transaction costs, facilitate the development of small and medium enterprises (SMEs). In Russia, SMEs contribute only 22% of GDP, partly due to historical state and public ownership. Growth requires cultivating institutions that promote entrepreneurship among new generations.

References

- Bell, D. (1999). *The coming of post-industrial society*. Moscow: Academia.
- Zvyagintsev, P. S. (2019). Management of state property as a factor influencing the innovative development of Russia's economy. *Economic Sciences*, 9(178), 76–81. <https://doi.org/10.14451/1.178.76>
- Ostrom, E. (2011). *Governing the commons: The evolution of institutions for collective action*. Moscow: Mysl, IRISEN.
- Shastitko, A. E. (2010). *New institutional economic theory* (4th ed.). Moscow: TEIS.
- Dugger, W. (1988). Radical institutionalism: Basic concepts. *Review of Radical Political Economics*, 20(1), 1–20; Dugger, W. (1989). *Radical institutionalism: Contemporary voices*. Westport, CT: Greenwood Press.
- Samuelson, P. (1954). The pure theory of public expenditure. *Journal of Political Economy*.