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DIFFERENT MANAGEMENT FUNCTIONS IN HOUSING OPERATION PRACTICE: UKRAINIAN CASE STUDY

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Abstract

The analytical part of the article describes the situation after 1990s, when the residential housing stock in most Central and Eastern European countries was privatized, in poor condition, and required costly major repairs at the expense of new owners, which was impossible in terms of finance. In this situation the building maintenance and operation functions are transferred to private or municipal management companies, or remain executed directly by owners' organizations.

The article examines existing services proposed to customers as residents, not taking account the functions of residents as building co-owners. The authors studied the relevant theories and legislation, comparing the current building maintenance and facility management functions to strategic functions of asset and property management. It was shown that the different interests of consumers and owners should be covered by different functions of professional managers.

The obstacle is that the structure of residential housing management companies mixes them in a dual customer and owner body. This creates contradictions between the aim to minimize customer's expenses and the need to preserve assets and property.

A conclusion was reached to separate the ownership and property management of houses.

Key words: *housing, privatisation, owner, solvency, management, resident*.

JEL Classification: *L85, O18, R00*.

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1. Introduction

The government housing policy in most post-socialist countries has always prescribed strong participation of the state in providing housing to their citizens. Today, for instance in Ukraine, the right to housing and the role of the state are determined by the Constitution, creating conditions that allow every citizen to build, purchase, or rent housing. Socially vulnerable groups shall be provided with housing by the state and local governments free of charge or at a price affordable to them in accordance with the law.

The policy for the extension of private ownership for housing contains inconsistencies between short-term attractive goals and long-term negative consequences. While providing housing during early stages of privatization, it was provided almost free of charge, so the privatization was regarded as a sort of gift from the state to residents, while the prospects to maintain and purchase a new dwelling at one's own expense and pay full utility costs are now regarded as a crushing burden for many households in Bulgaria (The World Bank, 2017), Romania (Alpopi et al., 2014) and post-Soviet republics (Chernyshov et al., 2015; Kovalev, 2018; Shalbolova et al., 2018) - especially Ukraine after multiple increases of utility tariffs (Nikolaiev & Kucherenko, 2019; Azarova, 2017; Siniak et al., 2019).

In Ukrainian scientific literature, the Government policy and strategy in the field of housing were studied in monographs and doctoral theses of various areas of scientific research, such as economics (Kravchenko et al., 2007), finance (Palivoda, 2010), governance of the national economy (Levchinsky, 2012), regional economy (Mantsevich, 2009), enterprise management (Nikolaeva, 2013) and public administration (Nepomnyashchy, 2013; Oliynyk, 2011).

Despite the authors offering useful improvements of funding models, housing price reduction mechanisms and assistance to certain categories of the population, the fundamental issue of satisfying the housing needs of all citizens was never articulated properly and remains unsolved.

In the era of smart sustainable development and PropTech (European Commission, 2010, Territorial Agenda 2020; UNIDO, 2016; Kauko, 2015), companies are interested in solutions that allow their processes, machines, employees, and even the products and services themselves, to be integrated, and this problem in the residential housing sector has various solutions depending on the level of communization and the of housing to be provided to the citizens. Therefore, the experience of countries where the majority of population are capable of self-provision with private housing of relatively high standards, such as the USA and EU countries, cannot serve as an example for the poorest countries, such as Ukraine and others, where even a much lower level of housing provision is unachievable for the majority of households, possibly necessitating the significant communization of housing possession and redistribution of costs for its upkeep.

The manifestations of the new approach to the problem solving can be found in the latest articles and dissertations of P. Panteleiev (2018), A. Shcherbyna (2019), T. Nikolaieva (2019) and A. Kucherenko (2019a), who, unlike other authors (Pompe & Temeljotov, 2014; Newell, 2016; and others), point out its relation with the ownership of housing and the necessity to concentrate residential real estate in the hands of effective proprietors.

Their research has formed a systematic point of view concerning the foreign experience and Ukrainian specificity. It consists of a study of numerous related matters. P. Panteleiev, for example, analyzed the pure condition of houses; A. Shcherbyna studied the full price of effective house ownership and the solvency of residents; T. Nikolaieva developed a methodology which combines different management fields, such as Project Management, Building Management, Facility Management, Assets Management, Surveying and Property management; V. Nikolaiev and A. Kucherenko (2019) put emphasis on the reformation of the Government policy.

This article aims to expand on research on the role of housing management companies. At the same time, the Government regulation should help them and take into account the fact that homeowners who are unable to maintain their properly will lose their apartments faster, due to the destruction of dwellings. This will make it necessary to provide such families with social housing. Accordingly, mass privatization of housing could trigger the necessity of mass social housing, which would be in conflict with its original goal.

Therefore, the role of management companies is particularly interesting in this process, which, in the interest of owners, should ensure the long-term preservation and maintenance of homes in accordance with the principles of sustainable development.

2. Housing stock, quality and maintenance cost

2.1. Housing stock

According to current statistics, the housing stock in the case of Ukraine constituted 984.8 mln sqm. Almost all of it (98.4%) was located in apartments and individual residential houses, with the remaining 1.6% comprising hostels.

The scope of residential construction was determined not so much by the state's social policy as by the demographic processes, urbanization and purchasing power of citizens with limited imperfect financial and loan mechanisms. In annual housing construction costs, the share of the public and local budgets is decreasing, and is currently less than 1% (Figure 1).

When we compare figures of housing commissioned per 1000 persons for Ukraine and other post-soviet republics, our lag is obvious (Figure 2).

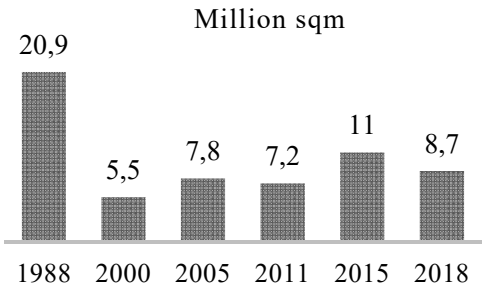


Fig. 1. New construction in Ukraine

Source: own study.

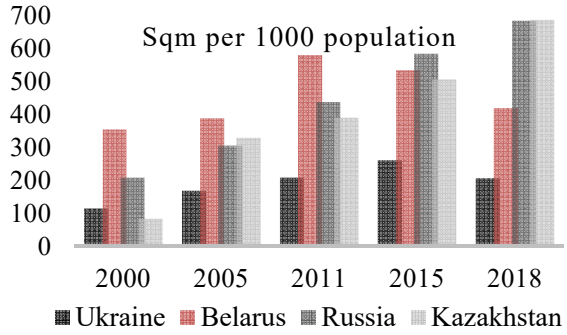


Fig. 2. New construction in post-soviet countries

Source: own study.

Despite a significant slowdown in housing construction, the average availability of housing was still continuing to increase due to a decrease in the population. There are currently 0.4 apartments per person.

On the other hand, the housing stock structure (number of residential houses) is very unfavorable in terms of age and quality where their upkeep by the owners and residents is concerned (Table 1).

The general housing stock is aged; a large portion of it has reached its life limit, or major repair and critical time for reconstruction. Thus, buildings competed before the early1980s (81.8%) have reached the age of standard major repairs, which, however, in view of the regular financial problems in Ukraine, were not carried out. It is observed that at least 80% of the houses need renovation of some kind. Moreover, the percentage of households that suffer from the excessive deterioration of their houses is 64.9%.

The downfall in residential construction, the critical age of the majority of available housing stock and the low quality of dwellings have, therefore, created a serious problem of sustainable housing provision for citizens.

Table 1

Breakdown of households by the occupied houses for different years of construction

Years	All households	Cities and towns
Before 1950	7.3	6.2
In the 1950s	11.4	8.9
In the 1960s	21.7	19.8
In the 1970s	24.5	26.0
In the 1980s	24.5	27.5
In the 1990's	8.7	9.1
After 2000	2.3	2.4

Source: The State Statistics Service of Ukraine.

The minimum overdue capital repair estimated by Nikolaiev and Kucherenko (2019a) in current costs is approximately 20-25 billion USD, or 1500 USD per household. It must be mentioned that, in 2018, the income of an average household was about 3800 USD per year.

2.2. Housing quality

The housing concept covers two levels of facility quality: structures (residential buildings, estates, cottages, country houses) and apartments designed for long-term service and intended for living. Consequently, the legislators' and scientist's approach to estimating housing sufficiency based on the simple aspect of its availability "on average," without an analysis of actual use in individual cases, is, in our opinion, insufficient to assess the level of housing provision to citizens.

Scientifically substantiated qualitative criteria and standards for dwellings featured in regulatory documents have changed over the course of time, towards technical improvement (safety, power consumption, sustainability) and comfort (availability of utilities). Besides, housing should be considered not only as premises suitable for permanent or temporary residence, completely constructed and meeting the sanitary and technical norms, but also as real estate prescribed by the law, that is lawfully owned or used by a certain person. Therefore, we believe all of the above-listed attributes shall be in place or all of the above-listed criteria shall be met to allow us to refer to the concept.

Consequently, the following dwellings may not be deemed as housing:

- those built and maintained not in compliance with the technical norms,
- those not complying with the sanitary norms and located in a dangerous or harmful environment,
- that have apartments where housing provision standards for its residents are not observed,
- non-commissioned and abandoned dwellings.

Therefore, the state (local authorities) should standardize mandatory monitoring and control over condition of residential buildings and premises for compliance with the set of criteria to attribute them to the housing, and take measures to ensure such compliance. The idea behind the quality of construction of a facility includes its compliance with certain statutory requirements at the moment of its commissioning as well as maintaining this (or another regulatory) compliance for its entire service life as a real estate facility.

It follows from the above that dwellings of the majority of the population were built before the introduction of current regulations, and do not comply with the current quality requirements, thus requiring major repairs, modernization or reconstruction (Table 2).

In addition, observance of hygiene and sanitary regulations that cover a variety of requirements concerning solar radiation, natural lighting, ventilation, the ionization and micro climate of the premises in residential houses, noise protection - prescribed by sanitary and technical requirements, national standards, urban planning and development rules, is also necessary.

Table 2

Dwelling installations

Years	Relative share of the total area with installations				
	water supply	sewerage system	central heating	gas supply	hot water supply
1995	50.5	47.3	47.9	79.9	35.0
2005	56.2	53.8	56.2	82.6	40.0
2015	60.8	58.8	68.7	83.3	47.0

Source: The State Statistics Service of Ukraine.

It is hard to assess how much money is needed to satisfy these standard requirements. We can only estimate the energy modernization program, which itself costs about 100 billion USD.

The different documents, however, do not regulate occupation conditions for apartments of various types of ownership, where even a high-quality dwelling in a high-quality building and environment loses its quality, due to overpopulation. The settlement of citizens in dwellings is highly diverse (Table 3).

At the same time, there is a housing waiting list compiled in 2014 on 657.2 families which actually did not move and, starting from 2015, information on it is no longer available.

Table 3

Unbalanced settlement of citizens in dwellings

Residential area per 1 person, sqm	Across the country	In urban area
Less than 7.5	9.1	11.1
7.5 - 9.0	5.0	5.4
9.01 - 13.65	24.7	26.4
More than 13.65	61.2	57.1

Source: The State Statistics Service of Ukraine.

As seen from the table, 38.8% of persons do not even possess the appropriate standard residential area of 13.65 sqm. Therefore, monitoring and control of housing provision to citizens based on the area shall take into account certain criteria and limits related to the quality of housing, including such main groups as: environment, building, apartment and occupation density. Considering non-compliance with the standards, high-quality housing stock and housing provision of citizens will have lower quantitative characteristics of the area.

Remembering that this task has been transferred to the residents-owners it makes additional pressure on their budget. In time, experience has shown that the upkeep and maintenance of own and privatized housing, even with the current low standards, had become financially unaffordable for most households, which resulted in benefits and subsidies being used.

2.3. Housing expenses and subsidies

Over the last years, housing operation cost has greatly increased and keeps growing due to growing prices for energy carriers and increased related tariffs (Table 4).

The subsidies introduced by the Government were intended to cover housing maintenance costs (current maintenance), and, regardless of the form of ownership, to cover utility, liquefied gas, solid and liquid furnace domestic fuel costs (where centralized services are not available).

The utility relief grant scheme has been repeatedly modified; however, every time it was said that subsidy is non-returnable and, if granted, does not relate nor entail the change in the form of ownership of the dwelling. Using subsidies does not relate and does not entail a change in the form of ownership of a dwelling; moreover, it also does not involve the owner's obligations towards the maintenance of the proper technical condition of a dwelling, in particular, granting major repairs. It links the citizens' expenses to their real estate. As a result, the share of expenses for utility purposes in the state budget between 2015 and 2018 increased from 3.31% to 7.43%, whereas the total social expenses - only from 10.58% to 13.47%. This made the government look for ways to reduce housing subsidy-related spending.

Table 4

Utility costs in 2014 vs. 2018

Utilities	2014-2017 Increasing, times	2018-2019 Increasing, %
Central heating, metered/normed	5,3/10,1	11,5
Hot water	4,8	11,5
Electricity (depending on consumption)	1,3 - 4,0	50
Gas	6,3 (5,7)	23
Water and sanitation (locally)	10-20%	
Housing operation and maintenance	Almost stable. No capital repair.	

Source: author's calculation.

Complex analysis shows the lack of further prospects of the housing subsidy mechanism to cover utility costs with consideration of beneficiaries' real estate, as well as in the long-term perspective to finance major repairs by owners.

The published Overview of means testing (2013) has thoroughly studied the problem of the provision of public support to the vulnerable population, in particular, in the housing sector with due control of possessions. In most countries, targeted subsidies are provided, following the applicants' means testing.

It should also be taken into account that public social assistance is provided on two levels:

1) general benefits in the form of cash or services, available for all or majority of citizens, for example, the primary education, pension - without selectivity requirements and without targeting less prosperous households only,
2) selective benefits in the form of cash or services, that apply to individuals or households with limited resources.

Housing subsidies or subsidies covering, in particular, housing services, may be one of the selective social benefits obtained by households by means of testing basis. Testing is aimed at labour incomes and other incomes, in particular, from the real estate of an individual applicant or the entire family.

Thus, in our opinion, the property owners could not be subsidized.

3. Management challenges

In 2019, among 180 thousand existing residential buildings, 32 thousand are reorganized in the owner's association with their internal management. In 53 thousand buildings, the management functions have been outsourced to private companies. The rest of buildings continue to use the old municipal management system, where land and building ownership is not completely identified.

Let's look at the methodological bases for solving the existing problems of homeownership using the management companies' possibilities.

The modern foreign theory and practice of real estate management distinguish BM - Building Maintenance, FM - Facility Management as well as AM and PM - Assets Management and Property Management, with their specific functions, compared to BM and FM, as it has been explained by T. Nikolaieva (2019).

The Building Owners and Managers Association defines different subject-orientated management functions for the consumers (FM and partially BM) and for the owners (AM, PM and partially BM). On the other hand, the Facility Management Association of Australia focuses on the management of apartment buildings itself and states that the management of facilities, in the sense of FM, involves the management of operations for the maintenance of buildings, land and infrastructure on behalf of the residents-owners.

THE SEA - Service Engineering Approach, based on the products for residents and owners in the interest of operating companies' revenue is presented by German authors Wohlfart, Bilan, and Schimpf (2010). The definition of management services used by them is in line with the broad definition of FM provided by the IFMA - International Facility Management Association (2020), which describes it as a profession that spans many disciplines to ensure the functionality of the built environment through the integration of people, place, processes and technologies.

Thus we can see that manager's services are provided during the building use phase and include two main functions: a) related to the buildings and its owners, b) related to the residents as users of services. Both functions are also to aimed bring profit to the management company.

In our opinion, in case of Ukraine it would be better to involve to the building maintenance the capital or investments and assets of management companies.

In the context of applied theories of housing management, let us consider the contradictions of the structural model of a specific business organization in the housing sphere "owner - manager - consumer" (figure 3).

The proposed model is a modification of the basic corporate-type organization structure, in which we consider the institutional environment, owners, their assets as residential real estate, management, and his industrial relations with other enterprises and also residents, who, however, unlike the usual enterprise model, are internal bodies, and act simultaneously as consumers of housing and communal services and as owners of housing assets. This defines both the dualism of the residents' interests and the two directions of the services which must be proposed by management.

Thus, we can define the role of the management in balancing the interests of the residents and the owners.

Hence, it has been concluded that normal self-sufficiency of own housing, its maintenance in accordance with technical, architectural and sanitary requirements, should be much more expensive in Ukraine. Otherwise, the houses will be rapidly destroyed, which is not economically profitable for neither the owners nor the state, but inevitably without changing the current system of private home ownership and housing management as providing residents with services only for the current maintenance of the homes, without regard to property management.

Further generalizations of the possibility of increasing the solvency of residents through the management and financial instruments of the use of their real estate, including the implementation of major repairs and reconstruction of houses with the transfer of ownership rights to the investor or the community (formation of segments according to income and social housing); conclusions were made about improving the system and functions of home management in this area.

Figure 3 demonstrates the combining of building maintenance functions proposed to the owners as PM and AM, and to the consumers as current BM. Regarding the financial problems of owners to maintain the property, we propose to transfer the building structure ownership to a management company.

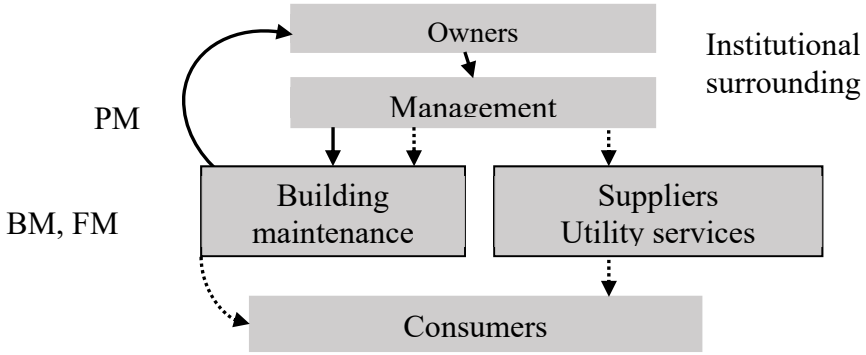


Fig. 3. Existing building ownership and management. *Source*: own study.

In the scientific literature on firm theory and corporate governance, especially in the housing sector (UNECE Guidelines on the management, 2019; Lujanen, 2010), we cannot find a situation where owners hire management to organize services to themselves, which are based on their own assets and being, at the same time, unable to hold those assets. Accordingly, services cannot be guaranteed in a strategic perspective. Management can also not be effective and efficient. In this case, no function of BM, FM, AM and RM can be realized.

We propose a model of service management integration in companies acting for both residents, i.e. apartment and building space owners, and customers. This model could be realized in buildings which are still not organized into associations.

To transform the ownership of a building component to the management companies in modern-day associations, we propose financial instruments like Reverse Mortgage.

The model shows how a resident, as an insolvent consumer of housing and utility services, can increase his solvency through the implementation of new balancing functions of real estate management companies at the expense of the management company as an investor.

The model could be introduced by the new legislation in buildings which are not still organized as owners' associations because their apartment owners are not effective when it comes to their building assets maintenance.

The application of the described model by the management companies and residents is able to balance the needs for major repairs of houses with investments of future effective owners. The return on investments could be obtained through building maintenance, partly in tariff.

This will naturally lead to the emergence of private management companies-owners (co-owners) of residential buildings on the market, in contrast to the current situation.

4. Conclusion

1. Unlike European countries, where efficient home ownership is exercised and all services are paid by consumers at full cost, which covers the purchase and renovation of homes by owners, the housing and utilities market in some post-socialist countries has the following differences: residents are the households that received property in apartment buildings mainly through free privatization, and, therefore, there is no balance between the size and quality of their dwelling and their solvency; multifamily residential buildings, which are mainly related to the 50s - 80s, are in poor condition and require expensive capital repairs and modernization, for which there are no sources of financing; Professional home management is only emerging and focused on the ongoing maintenance of homes and adjoining land areas.

2. The legislation provides a number of obligations for homeowners to maintain and repair facilities, and to be able to contract these functions to managers. As a result of the lack of currently relevant managerial functions, the companies are experiencing, in practice, an unmanaged imbalance of interests and solvency of residents as service consumers and homeowners, with a significant shift in focus to current functions and neglect of strategic property preservation functions.

3. This requires the transfer to the professional managers of the complex functions of managing homes as a real property. In this case, a special type of owner-manager-consumer business will be formed, where the functions of the managers will be closer in meaning to the functions of AM and PM, like in foreign companies. Such management companies may offer other services to residents on a contractual basis, exploring their needs.

4. An important area of activity of management companies should be to assist consumers in increasing their solvency and owners - in increasing the value and efficiency of the use of real property. Such companies, in the case of investing their own funds in major repairs, modernization and reconstruction of buildings, may, in the long term, acquire into the properties under their management, which will form the basic type of the firm.

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