



INNOVATIONAL SERVICES IMPORTANCE IN THE AREA OF HOUSING MODERNIZATION

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Abstract. Due to the complicated situation in the housing market and considering lack of observations the article analyses the importance of innovational services in the area of housing modernization. Main idea is to present possible solutions to the problem of housing modernization after an analysis of the housing market and innovation opportunities performed by a literature review and summary of statistical data and other sources of data collection, systemization, analysis and evaluation. The main conclusion identifies key issues of housing market and possible solutions of modernization. Moreover, conclusions are suitable widely without being tied to a specific country or region.

Keywords: housing, housing market, innovation, business innovation, housing modernization, housing improvement.

1. Introduction

Housing modernization issues are becoming more and more relevant in these days when maintenance charge exceeds all expectation. Innovations in technology and production processes have resulted in significant changes in cities over history (Hall 2009).

Most of planners are interested in promoting innovations that make housing more sustainable, durable, and affordable. To achieve these goals, they will have to influence the firms that build our houses, particularly homebuilders.

This article purpose - present possible solutions to the problem of housing modernization after an analysis of the housing market and innovation opportunities.

In order to successfully influence the homebuilding industry to become more innovative, planners must understand the individual, firm, and industry characteristics that influence these companies to adopt new practices.

For this reason, we have to observe several important in scientific literature investigated items – innovations, housing market, housing improvement and modernization.

Research methods: a literature review and summary of statistical accounting and other sources of data

collection, systemization, analysis and evaluation. Analytical methods - comparison, classification, statistical analysis, graphical data analysis and representation of their relationship.

2. Definition of innovation diversity

A wide variety of innovation meanings were found in scientific literature. Dictionary (2012) says that it is “the process of translating an idea or invention into a good or service that creates value or for which customers will pay”. “Innovation: A change in a product offering, service, business model or operations which meaningfully improves the experience of a large number of stakeholders” - says Hutch Carpenter (2010). Another a little bit different from others opinion has author Tim Kastelle (2010). He says “I define innovation as: executing new ideas to create value”. Summarizing authors’ opinion first innovation is a process, secondly this process brings value.

There some intrusting classifications of innovation by nature found in literature – administrative, market, technology, incremental, radical and value innovations. Taking wider about administrative innovations, which are focuses on the management and structure of an organization instead of the product, and process, which,

according to Ozorhon et al. (2009) makes significant changes to the organizational structures through applications of new management methods and corporate strategic orientations. “Administrative innovation is the adaptation of a new administrative system for the business practices, workplace or to the external relations to improve the performance of an organization” (Oslo Manual 2005). Market innovation consists of exploring new business opportunities and the best way of serving it, is to focus more on customers’ satisfaction and market segmentation than on the product or process itself (Johnes 1999). Technology innovation is the application of idea related to applied sciences and it makes changes to the production process (Grulke, Silber 2002). It focuses in technology-led changes and improvement which also resulting in technology-led outcomes (Ozorhon, *et al.* 2009). Incremental innovation is about making continuous changes to product or services (Mishra & Srinivasan 2005) which the outcome is seen in the improvement to the existing product or services (Herrmann 1999). In contrast, radical innovation is a completely novel change, which is new to the organization, industry and market (*ibid*) and results in a massive disruptive combination, which transforms the economics of a business (Leifer *et al.* 2000). Finally, value innovation is changes that improve the value of the buyers and firms, thus creating a new and uncontested market space, which is also called as a blue ocean strategy (Kim & Mauborgne 2005).

One of classification found in literature summarizes the rest of them – innovation in business. “Innovation in business is the development of new customer value through solutions that meet new needs, inarticulate needs, or current needs in new ways.” (Brands 2012). This definition shares three common elements of all innovation classifications, which are mostly relevant to the topic. These elements are - a process for implementing an idea, which creates something new (e.g., a product or service), which provides value for end users (e.g., customers or clients). In another part we examine

the area of innovations, are current situation and main problems.

3. Housing market delicacy

Reviewing area of housing or housing market, we have to set limits that are relevant to the theme. Whereas the Lithuanian market is low, in addition to Lithuania is part of the European Union, it is important to clarify housing market conditions in Europe-wide.

The housing market in Europe continues to receive significant attention and remains a key component of sustainability of the economic recovery. One positive trend in the housing market has been the dramatic increase in acquisitions by investors seeking to take advantage of below replacement-cost housing.

Countries may benefit from the economic and social advantages of growing rental-housing sectors, if they establish friendly framework conditions (Amman 2012). In some cases, investors have been driven by the lure of market timing, hoping to exercise the option to sell at significantly higher prices once the market has recovered. In other cases, investors are looking for an income play, acquiring houses to rent out and generate a stable stream of income (Braun 2012). Despite some improvement in the market for existing homes, new-home construction remains on a dimpled road to recovery.

When talking about Europe’s real estate market, it is important to note that there is not one single European experience of housing market development. There are both common experiences and very divergent ones (Fig. 1). However, claims about a convergence of the performance of Europe’s housing markets have been proven wrong – the years since the beginning of the crisis have thoroughly disproved this shaky thesis. Substantial country differences prevail (Weinrich 2012). This authors opinion supports ant below shown chart, annual charge amplitude shoes differences in countries it is more than 20% between Ireland and Iceland.

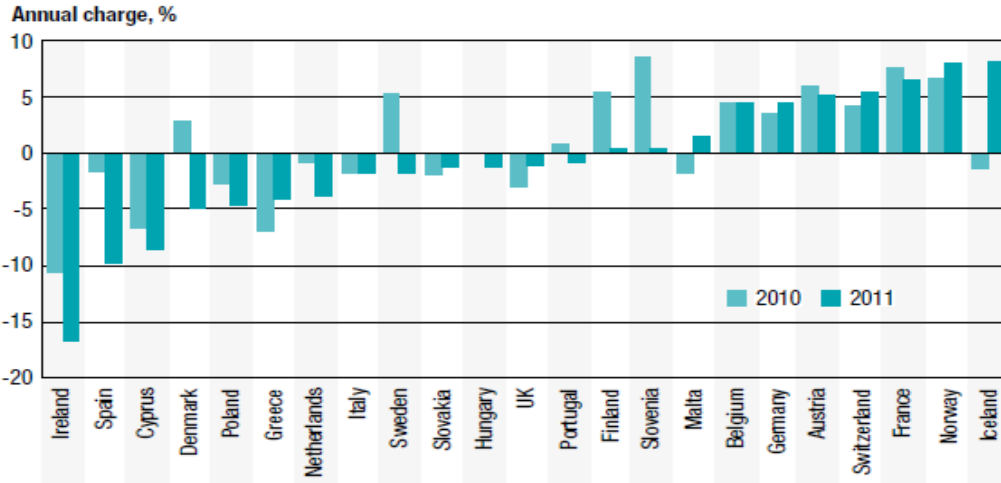


Fig. 1. Annual Maintenance Fee European Union countries, changes in 2010-2011 years (European housing review 2012)

Housing market situation is not in the best position taking further about Lithuania as European Union part (Fig. 2). One of the key elements in assessing the quality

of housing conditions is the volume of space available to people living in the accommodation (Housing Europe review 2012).

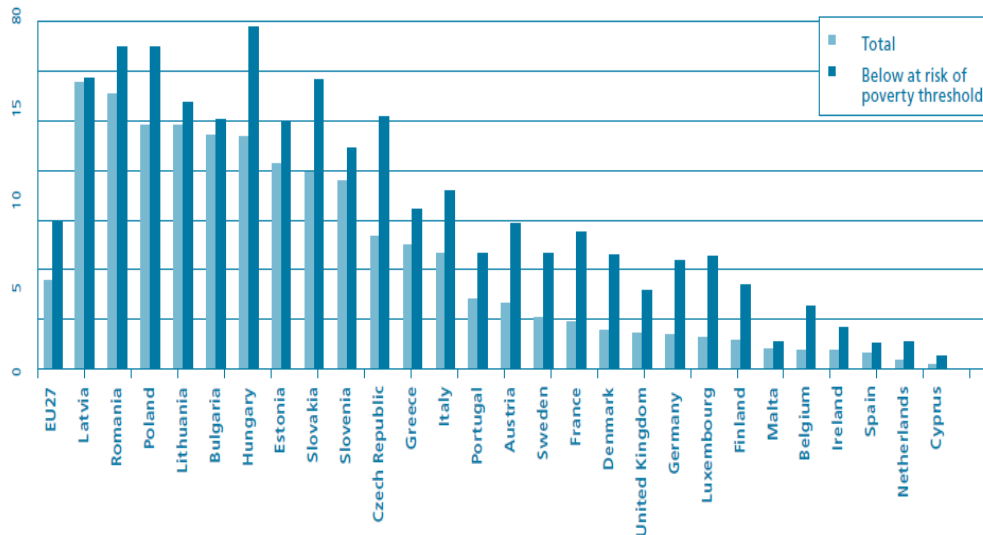


Fig. 2. Housing overcrowding in European Union countries 2009 (European housing review 2012)

On average, the 17.8% of European population lived in overcrowded dwellings in 2009 (Housing Europe review 2012). In most Eastern countries the share of the population suffering lack of space represents more than one fifth of population. As clearly showed by figure 2, population at risk of poverty is more likely to live in overcrowded condition, with an average 30% overcrowding rate, that is almost double than the rate for the overall population in year 2009. Lithuania's housing quality is in poorest group of countries with Latvia, Romania and Poland. An unfortunate difference between the present day and three years ago is that public policy is

now far less capable of being able to stimulate housing markets when the need arises (Ball 2012). Poor quality of housing in Lithuania affects the high cost associated with housing units and housing maintenance fees. Figure 3 shows the weights of Customers price index classification of individual consumption by purpose in Lithuania in year 2011. Consumer price index (CPI) - an indicator of consumer goods and services purchased, paid for and used by households to satisfy their needs, the average change in price level over a period. Consumer price index excludes goods and services for the production of profit-making and capital formation.

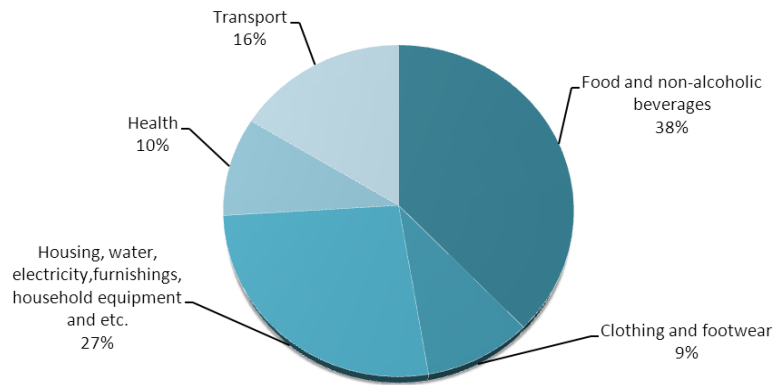


Fig. 3. Weights of Customers price index (CPI) classification of individual consumption by purpose in 2011 (Statgov 2012)

As we can see biggest part of individual consumption by purpose takes food and non-alcoholic beverages 38%, second part is housing and housing maintenance fees about 27%, than 16% transportation, 10% health care and least 9% clothing and footwear. Summarizing we can say that in 2011 year 1/3 part of all

individual consumption consisted from housing, water, electricity, furnishings, household equipment and etc. To sum up all arguments mentioned above, were made conclusion that a lot of money there spent on housing but housing quality is one of the lowest in Europe.

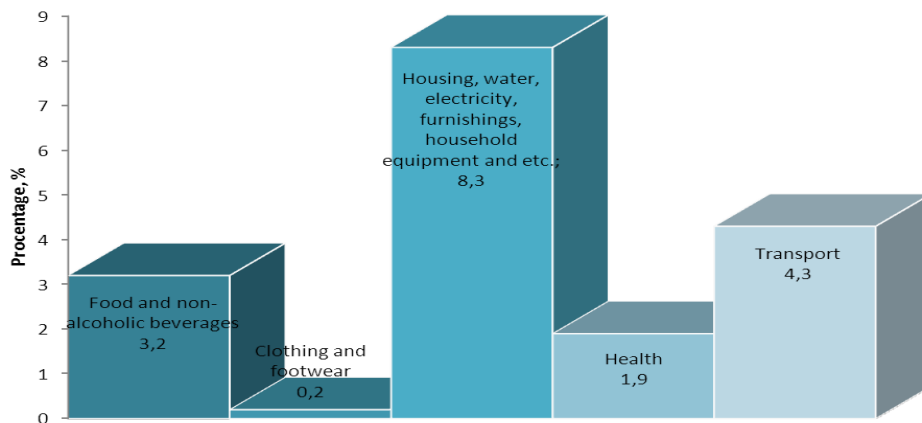


Fig. 4. Average annual change in prices of customers goods and services by classification of individual consumption by purpose, 2012 November (Statgov, 2012)

Increases in real rents also added to higher spending on housing (Andrews, Johanson 2011). Reviewing the most recent statistics about average annual changes in prices was observed that housing, water, electricity, furnishings, household equipment charges changed mostly (chart 3). As chart above shows charges related to housing in one year increased by 8,3%, charges for transport increased by 4,3%, charges for food and non-alcoholic beverages increased by 3,2%. Least increased charges for clothes and footwear, it was all most stable 0,2%. Facing such a large expenditures on housing, reveals the question: How much we will pay tomorrow or after one year? How much times the prices will go up? What level must reach the cost of housing so that

customers can no longer keep their homes? Recently this problem is the most important.

For instance housing consumption (including housing, water, electricity, and gas) as share of total consumption has increased dramatically since the 1980s in most countries (DoI, Haffner 2010). Great changes, innovation and modernization should be conducted in the housing sector not only in Lithuania but also in Europe and all around the world. It is very important now when people are still able to maintain their homes, but it is becoming even more important for future generations.

4. Housing modernization prospects

The housing sector is a priority area that aims to improve energy efficiency in the Europe Union region (UNECE 2012). The world is struggling to cope with the impacts of climate change and there is a clear need for us all to look at modernization and improvement. Housing market is an area, which will have a significant impact on the resources and energy used for our housing, since dwellings are one of the largest contributors to carbon emissions and consumers of energy and water. Unfit housing also puts at risk our health and safety. Most important benefits of modernization were highlighted below (Green house 2012):

1. Environmental benefits. Better energy efficiency reduces the pressure of energy use on climate change. Furthermore, improving the energy efficiency of housing constitutes a climate change adaptation measure by better shielding homes from adverse weather conditions. There are also opportunities related to carbon trade possibilities due to reduced carbon dioxide (CO₂) emissions.
2. Energy availability and energy security. Improving energy efficiency in housing permits more energy for alternative uses or for growing structural energy demands in the housing sector itself. It also alleviates the risks of political instability, which may arise due to energy shortages or energy price inflation for households.
3. Economic benefits. Better efficiency offers savings with respect to operational costs for tenants, and service providers benefit from the more efficient transportation of energy services. The development of the sector also has positive influences for research and innovation, business development, employment and investment. It therefore offers an effective tool to stimulate economic growth and to boost national economic competitiveness.
4. Regeneration of the built environment. Retrofitting homes and using proper technologies for housing construction considerably improve indoor thermal, moisture and noise isolation, and imply higher levels of comfort of living and longer cycles of property repair. Comprehensive programmers can also improve the aesthetics of buildings.
5. Social and health effects. Energy efficiency interventions in housing improve living conditions and the state of public health, address the problems of energy affordability and energy poverty and consequently mitigate social exclusion and inequality.

It is clear that these environmental, energy, economic, regeneration, social and health benefits are important for all sides, not only for Lithuania or Europe countries. Must be made international strategy plan of housing modernization for future generations. Governments with the private sector together have to act as a mechanism, a system whose main purpose would be housing modernization.

5. Conclusions

Innovation definition shares three common elements of all innovation classifications, which are mostly relevant to the topic. These elements are - a process for implementing an idea, which creates something new, which provides value for end users.

Despite some improvement in the market for existing homes, new-home construction remains on a dimpled road to recovery. When talking about Europe's real estate market, it is important to note that there is not one single European experience of housing market development.

Going into 2012, the commercial real estate market in Europe was at a surprisingly good place given the fact it was expected to lag the overall economic recovery. This situation was largely attributable to strong investor interest that fueled increases in value that attracted even more capital. The result was the ability of the real estate market to outperform other asset classes as reflected in private market returns in the low double digits. It remains uncertain whether Eurozone mortgage markets will bounce back as strongly in 2012 as they did in 2009.

Poor quality of housing in Lithuania affects the high cost associated with housing units and housing maintenance fees. Were made conclusion that a lot of money there spent on housing but housing quality is one of the lowest in Europe. The biggest problem is strongly raising taxes in housing market. In recent years, maintenance fees increased 8.3% for each household.

The housing sector is a priority area that aims to improve energy efficiency in the Europe Union region. Housing market is an area, which will have a significant impact on the resources and energy used for our housing, since dwellings are one of the largest contributors to carbon emissions and consumers of energy and water. It is clear that these environmental, energy, economic, regeneration, social and health benefits are important for all sides, not only for Lithuania or Europe countries. Must be made international strategy plan of housing modernization for future generations.

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INOVACINIŲ PASLAUGŲ SVARBA BŪSTO MODERNIZACIJOS SEKTORIUJE

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Santrauka

Dėl sudėtingos situacijos būsto sektoriuje bei atsižvelgiant į atliktų tyrimų trūkumą, šis straipsnis nagrinėja inovacinių paslaugų svarbą būsto modernizavimo sektoriuje. Pagrindinis tikslas yra pristatyti galimus sprendimus būsto sektoriaus problemoms spręsti, atlikus su būstu susijusios rinkos tyrimą bei inovacines galimybes šiame sektoriuje. Šiam tikslui pasiekti atliekama literatūros analizė, statistinių bei kitų duomenų apžvalga, sisteminimas, analizė bei vertinimas. Pagrindinė išvada apibendrina svarbiausias būsto sektoriaus problemas ir galimus jų sprendimo būdus. Be to, išvados yra tinkamos temos nagrinėjimui plačiąją prasme, neprisiriant prie konkrečios šalies ar regiono.

Reikšminiai žodžiai: būstas, būsto sektorius, būsto rinka, verslo inovacijos, būsto modernizacija, būsto gerinimas.