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INNOVATION IN URBAN REVITALIZATION PROGRAMS IN THE REGION OF WARMIA AND MAZURY¹

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Key words: innovation, urban revitalization, urban development.

Abstract

The objective of this study was to describe the level of innovation in urban revitalization projects in the Region of Warmia and Mazury and to determine whether urban renewal projects foster a supportive climate for business innovation in the region. Most revitalization programs rely on the following innovative solutions: new sources of financing, creativity of the operator supervising the revitalization process, novel methods for soliciting the local community's support for urban renewal projects, and the establishment of technology parks that foster business innovation. Revitalization projects stimulate innovation among local entrepreneurs and residents, they promote urban development based on a local innovation system, knowledge and social capital, and encourage the implementation of the smart city model where innovations are diffused from a revitalized area to other parts of the city.

INNOWACYJNOŚĆ PROCESÓW REWITALIZACJI OBSZARÓW MIEJSKICH W WOJEWÓDZTWIE WARMIŃSKO-MAZURSKIM

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Słowa kluczowe: innowacyjność, rewitalizacja obszarów miejskich, rozwój miast.

Abstrakt

Celem badań było określenie poziomu innowacyjności programów rewitalizacji realizowanych w miastach województwa warmińsko-mazurskiego oraz próba odpowiedzi na pytanie: czy podejmowane działania rewitalizacyjne przyczyniają się do kształtowania odpowiedniego klimatu dla

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rozwoju innowacyjności podmiotów działających w miastach regionu? Do najczęściej stosowanych podczas realizacji programów rewitalizacji innowacyjnych rozwiązań zaliczono: wykorzystanie nowych źródeł finansowania, kreatywność operatora nadzorującego proces rewitalizacji, nowatorskie techniki organizacji partycypacji społecznej procesu rewitalizacji, a także utworzenie parku technologicznego sprzyjającego rozwojowi innowacyjności przedsiębiorstw. Głównymi efektami proinnowacyjnej rewitalizacji są: kreowanie innowacyjnej przedsiębiorczości lokalnej, pobudzenie innowacyjności mieszkańców miasta, oparcie rozwoju miasta na lokalnym systemie innowacji, zasobach wiedzy i kapitale społecznym, a tym samym dążenie do realizacji modelu miasta kreatywnego lub miasta inteligentnego (tzw. smart city), w którym można obserwować efekt dyfuzji innowacji z obszaru rewitalizowanego na pozostałe części miasta.

Introduction

Contemporary cities are constantly faced with the dilemma of choosing the most appropriate instruments and measures that will guarantee the achievement of social and economic growth. The variations in global, domestic and regional prerequisites for development as well as endogenous urban resources, including limited funding, further contribute to the complexity of the problem. What measures and tools are needed to build competitive cities that continue to improve local standard of living and business opportunities? What instruments should be deployed to stimulate development in cities plagued by mounting social and economic problems as well as degradation of urban space? Revitalization is one of the solutions for reviving problematic urban areas that have been deprived of their former functions.

Revitalization is a comprehensive, coordinated and multi-year process of spatial, technical, social and economic transformations in a degraded urban area. It is initiated by the local authorities to terminate a crisis, in particular by introducing a new functional quality and fostering a supportive environment for urban development based on specific endogenous factors (Regulation of the Minister of Regional Development of 9 June 2010).

In a broader approach, urban revitalization involves planned measures that are initiated by the local authorities based on comprehensive analyses and assessments of the existing resources (social, cultural, economic, financial, spatial and environmental) as well as business needs and opportunities associated with specific local, regional, domestic and global conditions. Such measures are implemented to stimulate the existing functions or introduce new functions in crisis areas to promote the development of problem areas and the entire city (FARELNIK 2011, p. 96).

Multi-year revitalization programs address economic, social and infrastructure problems with the aim of terminating a crisis in a degraded urban area and creating favorable conditions for growth. The relevant measures are carried out by various entities, based on different sources of financing, and in line with a schedule that is developed, adopted and coordinated by municipal authorities (Regulation of the Minister of Regional Development of 9 June 2010).

In contemporary cities, revitalization projects often promote the development of new types of local growth centers, creative cities (FLORIDA 2010, LANDRY 2008), innovative cities and smart cities, therefore, the introduction of innovative solutions in urban planning and renewal strategies seems to be the most desirable course of action (MAKIEŁA 2013, p. 212, BACH GŁOWIŃSKA 2014, p. 217).

Innovation is a distinctive feature of people and organizations capable of and willing to undertake challenges that lead to change. The concept of innovation has been explored by numerous authors over the years and explained by various theories of regional development, including the theory of the learning region, New Economic Geography, creative milieu, cluster theory and regional development theories based on endogenous resources, such as models that rely on product and process innovation (cf. KORENIK, ZAKRZEWSKA-PÓŁTORAK 2011, pp. 49-79).

For the needs of our discussion, innovation will be defined as a new process, procedure or product, even if it results from imitation or adaptation, that constitutes a novelty for the local community or the local authorities (*Innowacje w zarządzaniu miastami...* 2014, p. 225). Such innovations include:

- institutional and organizational innovations such as public management, governance, networking, regional innovation systems, learning cities and regions, urban marketing, innovative city managers and all solutions that actively involve members of the local community in the decision-making process;
- product innovations such as new multifunctional space, new infrastructure, innovative urban transport systems, industrial zones for entrepreneurs, business incubators and technology parks;
- technological innovations (electronics, information technology) that support the growth of smart cities (cf. Bach Głowińska 2014);
- innovative financial management, such as public-private partnership in revitalization projects, repayable assistance and EU funds for urban regeneration projects.

Urban revitalization projects significantly contribute to economic, social and spatial (in particularly infrastructural) development, and the higher the level of innovation of the undertaken urban renewal program, the greater the chance that the project will generate long-lasting effects (cf. Jadach-Sepioło, Rachoń 2014, pp.111–156).

This paper attempts to answer the following questions: are high levels of innovation observed in cities whose authorities rely on revitalization programs

as a tool for stimulating urban growth? Do revitalization projects foster a supportive environment for the introduction of innovative solutions in business, the local community, public organizations and agencies?

The objective of this study was to identify the level of innovation in urban revitalization projects initiated in the Region of Warmia and Mazury. Attempts were made to describe the most popular innovations in urban renewal programs and the outcomes of such schemes which promote innovative attitudes and solutions in the analyzed region.

Materials and Methods

In 2014, urban revitalization projects were evaluated in selected towns and cities of the Region of Warmia and Mazury during a survey addressed to the operators and coordinators of renewal programs implemented in the analyzed areas. In most cases, program operators and coordinators were civil servants, including city mayors, city presidents or employees representing various departments of local offices, such as the department of planning and development.

In recent years, the number of urban revitalization projects launched in the Region of Warmia and Mazury increased steadily from 32 in 2007 to 40 in 2008 and 54 in 2009. In 2010, only six towns had no previous experience with urban renewal (Biała Piska, Miłomłyn, Młynary, Ruciane-Nida, Sępopol, Zalewo). By 2014, the majority of towns and cities in the region (40) had conducted at least one revitalization project in the 2007–2013 planning framework and had planned successive programs until even 2020.

Ten out of 49 towns and cities in the Region of Warmia and Mazury participated in the survey. In a group of three towns (Bisztynek, Kisielice, Ruciane-Nida), one participant did not report any problem areas that would require revitalization. In another town, an urban revival scheme was being developed at the time of the survey. In the third town, revitalization measures had not been undertaken due to a shortage of funding, and selected investments were scheduled to commence in 2014 with the financial assistance the Regional Operational Program for the Region of Warmia and Mazury for 2014–2020 and the Ministry of Culture and National Heritage. The remaining 7 respondents supplied comprehensive information for evaluating the level of innovation in urban revitalization programs. This group included 3 small towns (with a population of up to 20,000) of Mikołajki, Morąg and Orneta, 3 medium-sized cities of Działdowo, Ełk and Kętrzyn, and 1 large city (with a population higher than 100,000) of Elbląg.

All types of problem areas that typically undergo revitalization were represented in the analyzed towns and cities: former industrial, military, railway and port sites, historical city centers (old towns), fallow and degraded land, residential areas (highrise neighborhoods), green areas and parks.

The planned renewal programs had long-term goals, some of which extended to 2020, and they incorporated a broad range of activities. Selected revitalization projects covered up to 60% of city area.

Innovation in urban revitalization programs

The respondents listed the following factors that determine the success of urban revitalization projects and their innovative character:

- a) availability of funds, including EU financial instruments (19% of respondents),
 - b) legal status of property in revitalized areas (11%),
 - c) number of entities participating in a revitalization project (8%),
 - d) involvement of local leaders in a revitalization project (8%),
 - e) cooperation between public and private sectors (8%),
 - f) complexity of the revitalization process (8%),
- g) social participation and local community's attitudes to urban revitalization (8%),
- h) local authorities' leading role in initiating and performing revitalization measures (6%),
 - i) support from external investors (6%),
- j) social problems in revitalized areas (poverty, alcoholism, social exclusion, high crime rates) (6%),
 - k) high unemployment (3%),
 - 1) creativity of operators/coordinators or revitalization projects (3%),
- m) support from organizations that stimulate local development (such as the Revitalization Forum) (3%),
 - n) use of advanced technology (3%).

According to the respondents, the following factors play a minor role in urban revitalization: duration of the renewal program relative to the local authorities' term in office, transparent housing policy, cohesive urban policy at national level, legal regulations (such as the absence of a revitalization act), a project's local or regional uniqueness.

In none of the evaluated towns and cities, the level of innovation in the adopted revitalization methods, projects and measures was evaluated as very high. It was regarded as quite high by 12.5% of the surveyed subjects, whereas 50% of the respondents were of the opinion that the implemented programs

were moderately innovative. According to 25% of the participants, renewal projects were characterized by a low level of innovation, and according to 12.5% – by a very low level of innovation. None of the projects were evaluated as completely non-innovative.

The respondents expressed similar opinions about the various stages of the revitalization process (planning, organization, performance, evaluation). The level of innovation characterizing solutions adopted at the stage of goal planning was regarded as low by 12.5%, as average – by 75%, and as high – by 12.5% of the respondents. The remaining three stages (organization, performance and evaluation) were assessed identically, i.e. 25% of respondents declared low levels, and 75% of subjects – average levels of innovation.

In the respondents' opinion, revitalization projects implemented by the local authorities, associations and unions of territorial self-governments (60%), housing communities (23%) and cooperatives (14%) were characterized by the greatest originality and creativity. In the remaining cases (3%), innovative ideas were contributed by entrepreneurs, local residents, non-governmental organizations and associations, universities, churches and religious organizations. According to the participants, cooperative skills significantly contribute to the innovative character of urban revitalization projects that are initiated by public and private sector organizations.

The following innovative solutions in urban revitalization projects in the Region of Warmia and Mazury were most frequently cited by the respondents:

- a) novel sources of financing (28%),
- b) advanced technologies and environmentally-friendly solutions (22%),
- c) revitalization programs as innovative tools (nearly 17%),
- d) creativity of operators supervising urban renewal programs (11%),
- e) establishment of technology parks in a revitalized area (11%),
- f) novel methods of soliciting social participation in a revitalization program (6%),
- g) novel approach to managing the revitalization process (governance, public-private partnership, etc.) (5%).

The surveyed subjects did not list innovative solutions such as modern systems for monitoring revitalization projects, good practices and collaboration with twin towns and sister cities, partnership in the Cittaslow network, modern transport and road solutions, use of modern IT solutions during the modernization and conversion of urban facilities.

The respondents listed the following long-term positive outcomes of revitalization projects:

- a) promoting innovation in the local community (26%),
- b) pursuing the model of a creative city or a smart city (16%),
- c) promoting innovation in the local business arena (11%),

- d) technology parks the majority of respondents who gave this answer represented big cities (11%),
- e) basing urban development on a local system of innovation, knowledge, social capital, network communication and communication between organizations (11%),
- f) ability to raise funds for innovative solutions from external sources (such as the EU) (10%),
- g) potential for attracting innovative businesses (regional, domestic, international) (5%),
- h) collaboration between local actors for the benefit of high innovation projects (5%),
- i) diffusion of innovations from a revitalized area to other parts of the city or region (5%).

The respondents did not choose any of the following outcomes of urban revitalization that were proposed in the questionnaire: creation of a local innovation system, fostering the development of an innovative environment for business operations, establishment of innovation clusters, development of innovation-driven governance systems. The above can be attributed to the fact that most respondents were representatives of small towns and medium-sized cities where highly complex, innovation-driven systems and environments are not implemented.

Innovative urban revitalization projects in the Region of Warmia and Mazury

The Elblag Technology Park and the Science and Technology Park in Elk are undoubtedly the most prominent outcomes of revitalization projects that catalyze innovation in the local business arena and local communities in the Region of Warmia and Mazury.

The Elblag Technology Park (ETP) was created as part of the Local Revitalization Program for the City of Elblag for 2007–2020 which covers former military grounds (Modrzewina Południe), including a military training center, and an industrial landfill with combined area of 189 ha (*Local Revitalization Program for the City of Elblag*, pp. 44-47). The ETP was founded in 2010 as the first technology park in Warmia and Mazury.

The ETP was established with the aim of improving business conditions and opportunities by promoting and popularizing innovative undertakings, enhancing the region's potential in the area of innovation, and fostering cooperation between research and development centers and businesses. The ETP hosts the Business, Development and Innovation Center as well as

 ${\bf Table~1}$ Examples of innovative urban revitalization projects in the Region of Warmia and Mazury

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Project organizer	Description	Goals and expected outcomes
City of Elblag, Roman Catholic parish	Renovation of a spire in Elblag's Old Town Cathedral, opening the spire to the public as the tallest structure in the region; reconstruction of the ca- thedral square; introduction of a city game, construction of an interactive information board and a fountain.	Partial revitalization of the Old Town in Elblag; estimated 5000 visitors to the cathedral spire
City of Ełk	Comprehensive land development project for the needs of the Ełk Technology Park in the Municipal Development Zone (construction of internal roads with access to the existing transport network, utility networks). Expansion of the Ełk Technology Park (construction of a three-story office building, conference rooms, educational and laboratory facilities, production facilities).	Encouraging the search for innovative technological solutions, development of innovative businesses and ideas based on advanced technologies. The developed infrastructure will be used by the Logistics and Service Center, Technology Incubator, Business Incubator, Research, Development and Education Center and Laboratory, Young Einstein Science Center.
Morag municipality	Comprehensive reconstruction of the 14th century Town Hall building in Morag and revitalization of the surrounding area.	The reconstructed Town Hall building will host non-governmental organizations, an art gallery and the Morag Memorial Chamber.
Orneta municipality	Revitalization of the historical center in Orneta, restoration of historical buildings, construction of parking lots, playgrounds, street furniture, management of abandoned space, improvement of environmental standards, etc.	Preservation of historical architecture, management of abandoned space, im- provement of safety standards, devel- opment of high-quality urban space.
Mikołajki municipality, Municipal Welfare Center, Kłobuk Community Center, Mikołajki Society for Local Innovation	Preventing Social Exclusion – a Community Revitalization Program covering downtown areas and the Łabędzia estate in Mikołajki (information and promotional campaign for combating social exclusion, employment promotion, civic and legal consulting, social and cultural animation, training services, alternative recreational options for children and adolescents, leisure activities for 55+ residents).	Alleviating problems associated with social exclusion or threat of social exclusion through preventive measures, improving the competencies and quality of services offered by institutions in revitalized areas, active integration of the local community, assisting at last 142 local residents in the social rehabilitation process.
Kętrzyn urban municipality	Conversion of the area on Kajki Street into outdoor event space (con- struction of an amphitheater for 1474 spectators, a playground and green space for children).	Developing human potential by expanding the range of recreational and cultural attractions in the town and creating a community gathering place.

Source: own elaboration based on the results of the survey.

research and development centers, including the Center for Metal Science, Environmental Quality (Occupational Health and Emissions Laboratory and the Advanced Environmental Laboratory) and IT Transfer, and the Center for Wood Technology and Furniture. The ETP has 23 commercial tenants, and the ETP business incubator has 3 tenants (*Lokatorzy ETP* 2014).

The Science and Technology Park in Elblag (STP) occupies a post-industrial site. Planning work was initiated in 2000, and the park was opened in 2012. The STP aims to increase the region's competitive advantage, stimulate the local economy, attract investors, promote employment in the local community, support environmentally-friendly investments, the development and transfer of advanced technologies to the SME sector, support innovation, integrate scientific institutions with businesses and providers of business support services. The STP integrates business support processes with a broad range of innovation processes. It brings together innovative companies that implement advanced technological solutions and promote technological progress. The STP aims to increase Ełk's economic potential and competitive advantage by fostering a supportive environment for the transfer and commercialization of new technologies, promoting the development of small innovative enterprises and the most promising sectors of regional economy.

The STP hosts a business incubator and a technology incubator whose tenants are innovative enterprises that represent all industries, implement advanced technologies, collaborate with universities and scientific institutions, supply unique products and services which are protected by patents and licenses. The STP has 35 commercial tenants (Park Naukowo-Technologiczny w Ełku. On line).

Other facilities which were developed as part of urban revitalization projects and which, in the respondents' opinion, are characterized by high levels of innovation are presented in Table 1.

Conclusions

The urban revitalization projects implemented in the Region of Warmia and Mazury are characterized by varied levels of innovation. In smaller towns, innovative solutions were generally incorporated into individual projects that were carried out by the local authorities, entrepreneurs and housing cooperatives (revitalization of highrise neighborhoods). The highest levels of innovation were noted in urban renewal projects launched by the largest cities in the region where complex projects, such as science and technology parks, were initiated to foster a supportive environment for innovative business development and knowledge-based innovation.

The success of urban revitalization projects and their innovative character are determined by numerous factors, including the complexity of renewal programs, availability of funds, the local authorities' leading role in initiating and performing revitalization projects, the number of entities participating in renewal measures, involvement of local leaders, cooperation between public and private sectors, and support from external investors.

According to the surveyed respondents, the revitalization methods, projects and measures deployed by the towns and cities in the Region of Warmia and Mazury are characterized by average levels of innovation at the stage of project planning, organization, performance and evaluation.

Many respondents observed that the very presence of revitalization programs in local planning strategies testifies to the innovative character of local projects. In the opinion of the surveyed subjects, the following innovative solutions are most often deployed in urban revitalization projects: novel sources of financing, creativity of operators supervising urban renewal programs, novel methods of soliciting social participation in the revitalization program, establishment of technology parks in revitalized areas, and the use of advanced technologies and environmentally-friendly solutions in urban renewal projects.

The respondents listed the following long-term outcomes of revitalization projects that foster positive attitudes towards innovation among local residents and entrepreneurs: promoting innovation in the local business arena by creating technology parks (this answer was given by the representatives of the largest cities in the region), stimulating innovation in the local community, basing urban development on a local system of innovation, knowledge, social capital, network communication and communication between organizations, pursuing the a creative city or smart city model, and promoting the spread of innovations from a revitalized area to other parts of the city or region. Revitalization projects that aim to introduce modern solutions and stimulate innovation also promote collaboration between local actors for the benefit of high innovation projects and the ability to raise funds from external sources, such as the European Union.

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