

“GREEN” CONSTRUCTION AS A PROMISING DIRECTION FOR THE DEVELOPMENT OF SMALL ENTREPRENEURSHIP IN UKRAINE

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Introduction. Small entrepreneurship is an important sector of the national economy, contributing to the saturation of the market with goods and services, the creation of new jobs, a decrease in unemployment and, ultimately, an increase in the well-being of the population. Its development is an effective means of alleviating social tension and weakening inequality of wealth in society.

The activities of small enterprises, aimed primarily at the realization of their own economic interests, cover the production, commercial, financial, and insurance spheres. The successful functioning of small entrepreneurship has a positive impact on the formation of a competitive environment, determining its role as a powerful engine of economic development.

Effective activity of small enterprises is a source of replenishment of budgets of all levels and creation of GDP. The dynamism and efficiency of development of small enterprises are the basis for replacing the strategy of survival common in small businesses with a strategy for ensuring financial balance in the long term.

Review of recent sources of research and publications. Dykan E.V. [1], Krysak A. [2], Miroshnyk R., Prokopieva U. [3], Kushnir O.K. [4], Omelianenko T. and Korotkova K. [5], Prychepa I.V. [6], Lozovskyi O.M. and Yaremko A.O. [7], Gobyry I. and Melnyk M. [8] and others.

The modern environment for the functioning of domestic enterprises is characterized by uncertainty and frequent changes. It is in such conditions that the activities of the enterprise should be aimed not only at survival, but also the process of continuous development. In the absence of development, the enterprise is doomed to cease operations.

The activities of small enterprises in the construction sector deserve special attention. "Green" construction is a modern direction of ecological construction, which can become one of the ways of development of a small enterprise.

Foreign and domestic experts studied the problems of "green" construction, namely, Samer M. [9], Bibik N. [10], Conlon E. and Glavas A. [11], Vinnik I. and Garasim L. [12], other. Given the current state of the development of green construction in Ukraine, we can assert the need for further research in this area.

Setting objectives. The purpose of the article is to develop promising ways of development of LLC "CK "Zhytlo-Bud" as a small entrepreneurship entity.

Main material and results. Today, small and medium entrepreneurship in Ukraine face a number of problems that hinder their development [13]. Small and medium-sized businesses are a powerful socio-economic force that provides jobs for most employees in the country and produces more than half of total output.

LLC "CK "Zhytlo-Bud" is a small entrepreneurship entity in the field of construction of residential and non-residential houses. The main task of the company is to meet the demand of buyers in quality construction

products at a fair price. In the future, LLC "CK "Zhytlo-Bud" seeks to earn a reputation as a reliable partner for its customers and win long-term commitment to a wide range of consumers. One of the ways to develop an enterprise is to invest.

The basis of investment activity of most enterprises is real investment, so for the development of LLC "CK "Zhytlo-Bud" it is proposed to choose one of the forms of real investment, namely investing in a new activity. For successful functioning and development the economic activity of the construction company is obliged to correspond to modern tendencies. One such trend is “green” business.

Analysis of the economic development of enterprise indicates the need to develop new promising areas of its activities. The company is recommended to choose an intensive path of development, namely, to start a new type of activity – "green" construction.

Thus, in addition to the main activity of LLC "CK "Zhytlo-Bud" (construction of residential and non-residential buildings, most often multi-storey ones), the enterprise will have another additional type of activity – the construction of low-rise ecological buildings. This type of activity will provide new opportunities for the development of the enterprise.

Ecological construction is a modern trend in the field of housing construction [14]. The first houses built with sustainable materials appeared in the 1970s in North America. Thus, the effectiveness and benefits of such houses have been demonstrated. To popularize this phenomenon, British BREEAM and American LEED developed the first green building standards in the 1990s [15].

The World Green Building Council was established in 2002 [16; 17], with the aim of influencing the international real estate market and implementing green building valuation systems, as well as developing special educational programs and promoting green construction ideas throughout world [15].

Ecological construction is carried out on the basis of at least one of the following principles (Fig. 1) [16].

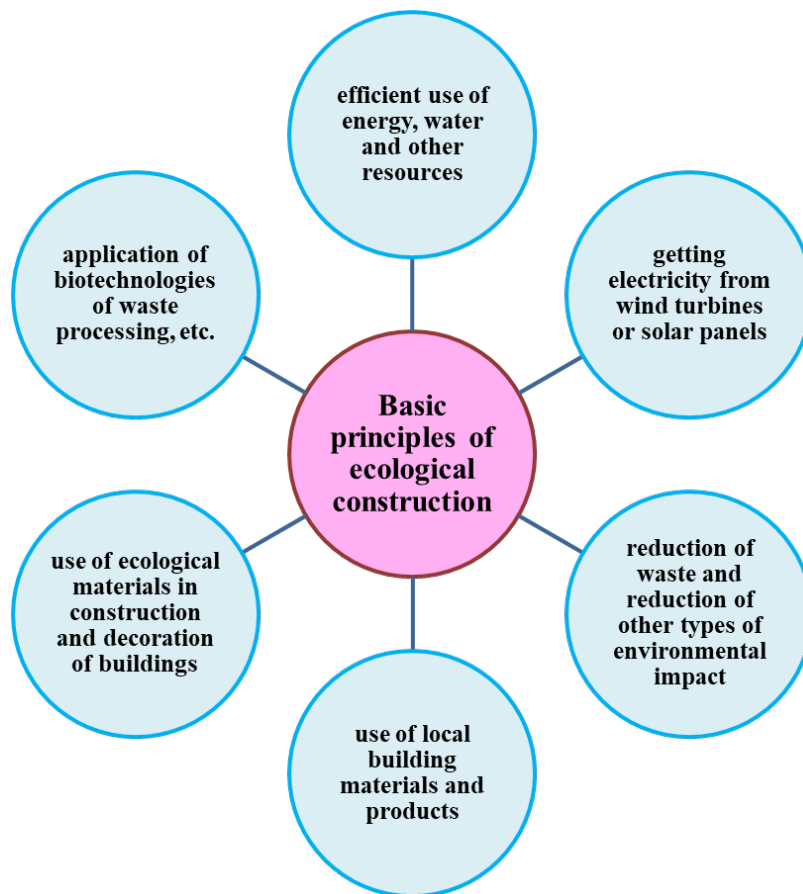


Fig. 1. Basic principles of ecological construction

The popularity of ecological construction can be evidenced by the experience of some construction companies in Ukraine. The companies "ECODOM", "Eco House", which build housing from energy-efficient and

natural materials, as well as the company "Ecostroy", which produces ready-made blocks for construction from straw and reeds, are successfully working in this direction [14].

The Eco House company is engaged in the construction of houses in Kiev and the Kiev region using both classical and new technology, while using ecological materials. They offer houses made of bricks, aerated concrete, foam blocks, ceramic blocks, adobe and straw and wood.

The company "ECODOM" has existed since 2010 and has its branches in 10 regions of Ukraine. She is engaged in the construction of houses from ceramic blocks, aerated blocks, bricks and straw. In particular, 48 houses were built from straw during the entire existence of the company.

"Green" business is created to meet the needs of society for products and services that have less impact on the environment and improve its condition [18]. The emergence of "green" business is associated with the emergence of people's awareness of the importance of the impact of economic activities on the environment.

Now it is difficult to assess the volume of "green" business in Ukraine due to the lack of sources for the accumulation of statistical information and the classification of economic activities. Despite this, Ukraine has great potential for the development of "green" business. Its role is constantly growing in the current economic situation, which requires constant saving of resources and energy. Energy saving technologies have the largest share.

Ideas for the development of "green" business are based on public awareness of the importance of ecological issues, which in turn creates a demand for ecological products and services. Given that the level of awareness of the importance of ecological issues grows over time, the demand for ecological products and services is also growing along with opportunities for the development of entrepreneurship [15].

Over time, the demand for ecological products and services will grow, which will replace older and less ecological friendly ones. If the company wants to develop, then it needs to listen to the desires and expectations of consumers.

Ecological, or "green" construction is based on the principles of energy conservation and environmental friendliness. To save resources, it is recommended to increase the energy efficiency of buildings, reduce energy consumption, and use wind and solar energy [15]. It is also recommended to use ecological building materials and technologies, in particular, energy saving strategies in the construction industry [18].

The goal of "green" construction is to provide a comfortable and safe living. With ecological construction, the negative impact on the environment is reduced and the operating costs for maintaining the house are further reduced, as well as comfortable living conditions are provided. Over the past 10-15 years, "green" construction has become quite popular and is developing.

The development of "green" construction directly depends on the technological level of the country and on society's awareness of environmental principles [19].

Ukraine has favorable prospects for the development of ecological construction. This is due to a number of reasons, the main ones of which are:

- course towards integration into the European space, reorientation to EU standards in construction and architecture;
- energy security;
- growing interest in "green" construction on the part of both professionals and consumers.

As a result of the spread of the idea of "green" construction in Ukraine, more and more professionals, experts and businessmen are interested in applying these principles in their projects.

But today the direction of "green" construction in Ukraine is only at the initial stage of development. Few implemented projects and companies that actively use the principles of "green" construction [19].

Therefore, for the development of LLC "CK "Zhytlo-Bud" ne of the new directions, it is advisable to choose "green" construction. The company has developed and proposed for implementation a business plan, the essence of which is the construction of low-rise wooden houses. The project is planned to be implemented in the Poltava United Territorial Community. Market analysis, its segmentation assumes the distribution of the market into consumer groups by age (Fig. 2).

Let's estimate tendencies of development of "green" construction taking into account possible demand on age of consumers (Fig. 3).

The age group of potential consumers who will be able to create the main demand for the products of "green" construction of LLC "CK "Zhytlo-Bud" is 88%.

Ecological construction involves the construction of houses from ecological materials. Currently, the most popular ecological building materials in Ukraine are wood and straw, which have both advantages and disadvantages.

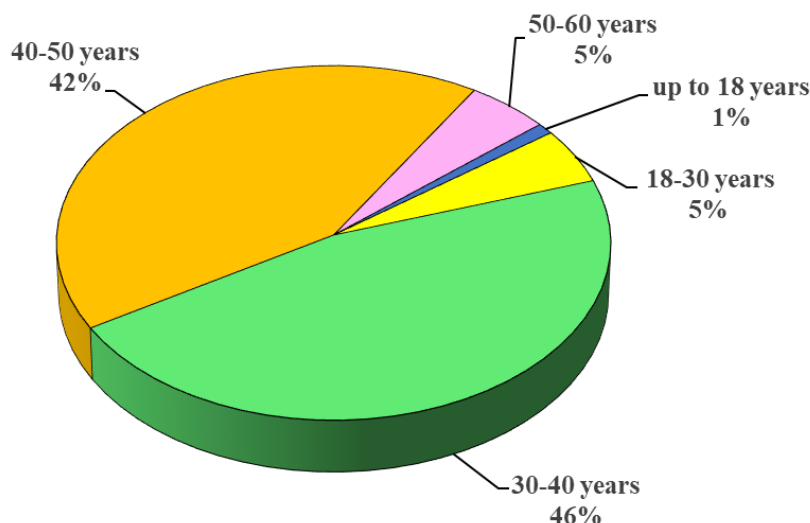


Fig. 2. Market segmentation by age

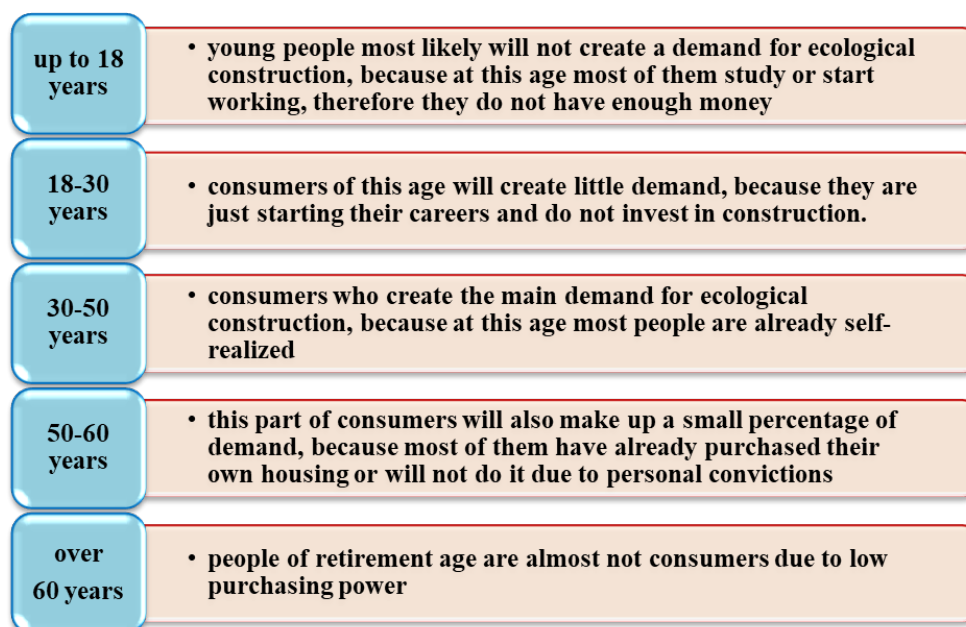


Fig. 3. Characteristics of consumer groups to create demand for "green" construction products

Wooden house – more popular than straw. Let's compare wood with other most common building materials (Table 1).

Table 1

The main indicators of houses from different building materials

| Characteristic | Wood house | Brick house | Aerated concrete house | Straw house |
|---|------------|-------------|------------------------|-------------|
| Environmental friendliness, % | 83-87 | 63 | 75 | 98 |
| Thermal conductivity, (W/m* K) | 0,09-0,12 | 0,78 | 0,25 | 0,055 |
| Strength, kg/m ² | 38-44 | 100-200 | 25-45 | 18-45 |
| Vapor permeability, mg/m ² *g*Pa | 0,06-0,08 | 0,11 | 0,3 | 0,27 |
| Durability, years | 60-125 | 50-150 | 50-110 | 50-100 |
| The need for insulation | no | yes | yes | no |

So, really, wood is an ecological building material that perfectly retains heat, which will save on heating. Such a house does not need insulation, but its strength and durability is low compared to other building materials.

Now the most popular building materials are brick and aerated concrete, because they are the most accessible to people and outperform environmental materials in almost all respects. This means that, despite the fact that the issue of ecological becomes more relevant over the years, the percentage of people who realize this is growing, but less environmentally friendly building materials will still be used in construction for a long time.

Taking this into account, for LLC "CK "Zhytlo-Bud" ecological construction can only be an additional type of activity due to the low demand for ecological products.

LLC "CK "Zhytlo-Bud" has two main competitors – LLC "Intera-stroy" and LLC "Servus". Their strengths and weaknesses are shown in Fig. 4.

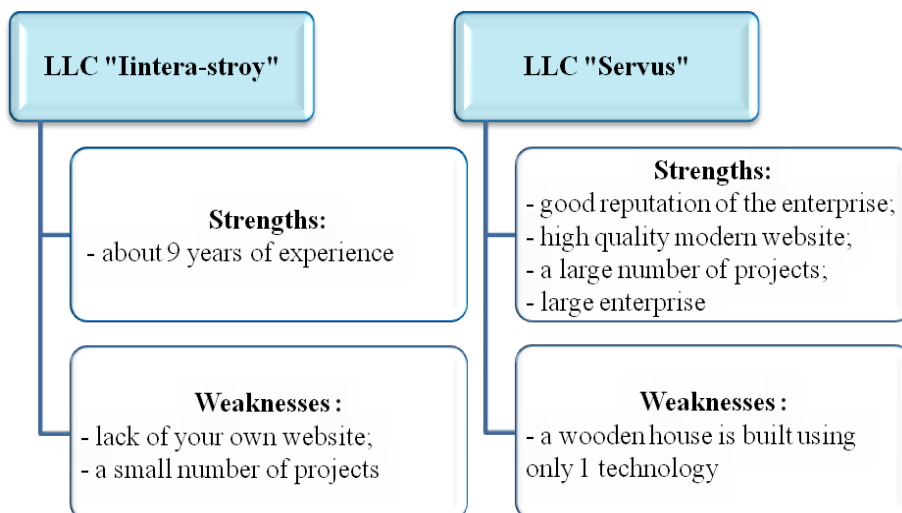


Fig. 4. Strengths and weaknesses of the main competitors of LLC "CK "Zhytlo-Bud"

The enterprise LLC "CK "Zhytlo-Bud" is proposed to use Canadian technology for the implementation of the business plan. "Canadian House", assembled on the basis of a reliable wooden frame made of high-quality timber, is pre-treated with environmentally friendly antibacterial and fire-fighting agents, and is able to withstand the pressure of any natural elements. Internal surfaces can be insulated at the request of the client. One of the advantages of this technology is the construction time (approximately 1-3 months for the construction of a medium-sized house). The foundation of such a house, due to its lower weight, and hence the load, will cost much less than the foundation of a stone or brick house. Although wood as a building material is more expensive, the transportation costs for the construction of 1 m² of wall will be 30 times less than for the construction of a brick house. Another advantage of such houses is, of course, savings in heating costs, which in our time is a rather urgent problem. On average, the heat transfer coefficient of a frame wall is almost 20 times less than a brick one. It has been proven in practice that with a constant increase in energy prices, a frame building will fully pay for itself in up to 10 years. Due to the absence of "cold bridges", frame houses are much warmer than brick and stone ones.

The popularity of eco-friendly houses is evidenced by their increasing number, especially outside the city of Poltava. So, in the village of Verholy, Poltava city community, there is Verholy Relax Park – an authentic spa hotel in the middle of the forest. Its concept is to protect the environment, preserve the forest and grow organic vegetables. Most of their cottages are built of wood. Verholy Relax Park is a very popular place not only among Poltava residents, but even among people from other cities precisely because of their concept of environmental friendliness.

An important aspect of economic activity is the marketing component. So, for the successful implementation of the business plan of LLC "CK "Zhytlo-Bud" it is proposed to pay attention to the marketing policy. Creation of your own website will attract more customers and promote the promotion of products on the market. In addition to information about the company itself, a potential consumer can find many other additional interesting information about its products. For example, the advantages and disadvantages of a particular building material, reviews, examples of projects, portfolios, etc. In addition, advertising on television, radio, social networks will also help expand the client base.

The development and implementation of standards for "green" construction in Ukraine will stimulate the development of business, innovative technologies and the economy, improve the quality of life of people and the state of the environment [20].

Developed countries have been effectively implementing "green" construction technologies for many years. The main incentive for this is the awareness by all stakeholders of the ecological, economic and social benefits of "green" construction.

Conclusion. There are two important perspectives for companies choosing an ecological direction for themselves. First, the introduction of ecological business principles is one of the manifestations of corporate social responsibility, and a corporate culture focused on caring for the environment allows you to attract new customers and improve your competitiveness in the market. Secondly, an enterprise with the right corporate values attracts the most progressive part of the labor market participants, because highly qualified workers are interested not only in material benefits, but also in the opportunity to develop in an innovative, dynamic, responsible company. "Green" construction, in addition to a positive impact on the natural environment, also has an impact on human health and the economy of the country as a whole.

LLC "CK "Zhytlo-Bud" plans in the future to expand its capabilities and apply the latest and most effective technologies for the construction of eco-friendly houses. A small business taken separately has a small impact on the environment, but their cumulative impact is significant, so it is quite important to develop a "green" business and translate it into the economic activities of small businesses. The introduction of "green" construction in Ukraine will maximize economic and environmental performance, as well as provide a number of social benefits.

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JEL O14, L74, M21

Viktoriia Vasiuta, Ph.D (Technical), Associate Professor. **Daryna Kryvoshei**, National University "Yuri Kondratyuk Poltava Polytechnic". **Oleksandr Tovstun**, Entrepreneur, Deputy Director of the Proton Small Enterprise. **"Green" construction as a promising direction for the development of small entrepreneurship in Ukraine.**

The article is devoted to the topical issue of introduction of "green" construction technology, which can become one of the ways to develop small business in Ukraine. It is noted that small business is an important sector of the national economy. The activity of small enterprises in the field of construction deserves special attention. Ecological construction is a modern direction in the field of housing construction.

The authors present the basic principles on the basis of which ecological construction is carried out. The experience of some construction companies in Ukraine is analyzed. The article emphasizes that the development of "green" construction directly depends on the technological level of the country and public awareness of the importance of environmental issues. Given that the level of awareness is growing over time, the demand for environmentally friendly products and services is also growing along with opportunities for business development. This confirms the experience of countries that have already achieved the greatest success in the development of "green" construction. Ecological, or "green", construction is based on the principles of energy saving and environmental friendliness, which are currently relevant issues. The purpose of ecological construction is to ensure comfortable and safe living. Ecological construction reduces the negative impact on the environment and further operating costs for the maintenance of the house, as well as provides comfortable living conditions. Ukraine has favorable prospects for the development of ecological construction. The authors note that so far the direction of "green" construction in Ukraine is at an early stage of development. There are not many implemented projects, and the number of companies that actively use the approaches of "green" construction is also insignificant. Therefore, it is expedient to choose "green" construction as one of the new directions of development of the small business entity LLC "BC ZHYTLO-BUD". The company was offered to implement a business plan, the essence of which is the construction of low-rise buildings made of wood. A comparative analysis of the characteristics of wood with other most common building materials. It is recommended that BC ZHYTLO-BUD consider ecological construction as an additional activity due to low demand for ecological products in Ukraine.

Key words: entrepreneurship, small enterprise, "green" construction, ecological construction, development.

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Стаття присвячена актуальному питанню впровадження технології «зеленого» будівництва, що може стати одним із шляхів розвитку малого підприємництва в Україні. Зазначено, що мале підприємництво є важливим сектором національної економіки. Особливої уваги заслуговує діяльність малих підприємств у сфері будівництва.

Екологічне будівництво виступає сучасним напрямком в сфері житлового будівництва. Авторами наведено основні принципи, на основі яких здійснюється екологічне будівництво. Проаналізовано досвід деяких будівельних компаній в Україні. У статті наголошено, що розвиток «зеленого» будівництва безпосередньо залежить від технологічного рівня країни та від усвідомлення суспільством важливості екологічних питань.

Враховуючи, що рівень усвідомлення із часом зростає, то попит на екологічно чисту продукцію та послуги також зростає разом із можливостями для розвитку підприємництва. Це підтверджує досвід країн, які вже досягли найбільшого успіху у розвитку «зеленого» будівництва. Екологічне, або «зелене», будівництво засноване на принципах енергозбереження та екологічності, що наразі є актуальними питаннями. Мета екологічного будівництва полягає у забезпеченні комфортного та безпечного проживання. Під час екологічного будівництва зменшується негативний вплив на довкілля та у подальшому експлуатаційні витрати на утримання будинку, а також забезпечуються комфортні умови проживання. Україна має сприятливі перспективи для розвитку екологічного будівництва. Автори зазначають, що поки що напрям «зеленого» будівництва в Україні знаходиться на початковій стадії розвитку. Реалізованих проєктів не так багато, та й кількість компаній, що активно використовують підходи «зеленого» будівництва, також незначна. Тому одним з нових напрямків розвитку суб'єкта малого підприємництва ТОВ «БК «ЖИТЛО-БУД» доцільно обрати «зелене» будівництво. Товариству запропоновано до реалізації бізнес-план, сутність якого є зведення малоповерхових будинків з дерева. Проведено порівняльний аналіз характеристик деревини з іншими найбільш розповсюдженими будівельними матеріалами. Рекомендовано ТОВ «БК «ЖИТЛО-БУД» розглянути екологічне будівництво як додатковий вид діяльності через невисокий попит на екологічну продукцію в Україні.

Ключові слова: підприємництво, мале підприємство, «зелене» будівництво, екологічне будівництво, розвиток.