

on Influence Factors of Wuhan Housing Industry Based on the AHP

Qiankun Wang^{a,*}, Shi Pan^{b *}

a,bDept. of Civil Engineering and Architecture, Wuhan University of Technology

Wuhan,430070,China

Abstract

After investigating the present situation of housing industrialization in Wuhan, we sum up the main influent factors of Wuhan city housing industrialization. And applies the analytic hierarchy process (AHP) to establish mathematical model. The model objectively judges various factor of each level through certain quantity of housing industrialization workers, gives the relative importance of every factor in quantitative representation, then calculates the target weights of all factors and finally analyze the results which can be used to provide suggestions for housing industrialization development in Wuhan city.

© 2011 Published by Elsevier Ltd. Selection and peer-review under responsibility of Desheng Dash Wu.

Keywords: Housing industrialization development; Influence factor; AHP

1. Introduction

The concept of housing industrialization was first presented in MITI (Ministry of International Trade and Industry) in 1968, which means using industrialized production ways to construct residences in order to improve labor productivity and reduce cost of residential construction^[1]. With China's national economy sustained, stable and healthy development, the housing industry development has gradually become a pillar industry of the national economy. However, Because China's housing industrialization development starts so late and does not have a high level of industrialization, so that it cannot adapt to the needs of the development of national economy in current^[2]. Compared with the developed countries, the low degree of housing industrialization and using the traditional ways to construct houses bring about lower overall efficiency in housing construction. Compared with other Chinese cities, Wuhan housing industrialization development has obviously lagged, and the reasons are various, such as management, technology and market which are needed to be solved immediately. This article uses AHP to study influence factors of Wuhan housing industrialization development. Through the analysis, we conclude the most important factor to control and improve the housing industrialization development in Wuhan.

2. Present situation of Wuhan city housing industrialization development

* Corresponding author. Tel.: +1-387-122-0122.

E-mail address: panshi0122@163.com.

2.1. Authentication conditions of component

Currently, Wuhan has not had relevant department of housing industrialization of product certification system. According to relevant state policies and standard, the relative department should make the regulatory documents to put on records of component.

2.2. The development of housing industrialization

Company named Sai Bosi has developed kinds of steel structure housing industrialization projects, such as ‘Sai Bo Yuan’ garden steel structure residential building in Wuhan, ‘golden port’ economy applicable room project, ‘Zi Run Ming Yuan’ steel structure residential building project, and its steel structure housing industrial production base is national housing industrialization demonstration base, and this demonstration base has been able to product and process various steel parts and had made some breakthrough in the research and development of the composite wallboard at present. While ‘Wuhan century garden’ project which is largest steel structure housing demonstration project also has built constructed by Hangxiao construction company.

2.3. Potential industrialization residential market

Wuhan government has built 14 million square meters in 2010. When the buildings are reused to build, housing industrialization promotion is viable. And in recent years, the house prices keep rising so that Wuhan city construction output is from 25.152 billion yuan in 2002 up to 124.602 billion yuan in 2007 at a very fast rate^[3]. The good situation of estate industry testifies that has wide development space of construction market, therefore the market development of housing industrialization is demanded.

2.4. Existing problems

Thought investigating Wuhan builds market and housing industrialization of other cities; we found that although the present situation of Wuhan city housing industrialization started, the speed of development is low and the process of Wuhan city housing industrialization still has some questions:

- Industrialized housing haven't attract consumers enough interest;
- Technologies of the housing industry are still in the lower level;
- Residential industrialization production system has not been formed;
- Core enterprise in industry chain is stunted.

3. Influence factors of Wuhan city housing industrialization development

Based on a large number of literature review and investigation, the influence factors of Wuhan housing industrialization development can be divided into four major categories which are government, enterprise, consumer and market.

• Government

Government leads housing industrialization development in many countries. It can decide the whole building empty where to go through the macro adjustment, therefore the government is a factor cannot be ignored in the process of housing industrialization development. Government plays an important role which will reflect the trend of Wuhan housing industrialization development.

• Enterprise

Enterprise which is principal part includes development enterprise, the construction enterprise, fittings manufacture enterprise, enterprise and so on. Although every company is indispensable in the supply chain of housing industry, Residential development enterprise holds the land resources, directly faces the market, also most likely lead the market, and is the link to connect demand and supply. Thus housing development enterprise is the core enterprise of the entire supply chain. Therefore the altitude which enterprise takes with the housing industry is the key to the housing industrialization development.

• Consumer

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات